United States
Department of
Agriculture

Soil
Conservation
Service

In cooperation with
Maine Agricultural
Experiment Station and
Maine Soil and Water
Conservation Commission

Soil Survey of Oxford County Area, Maine

How To Use This Soil Survey

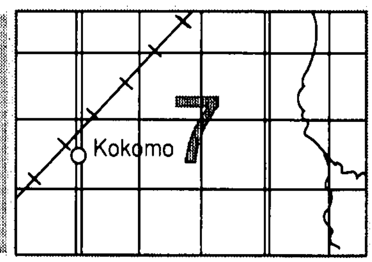
General Soil Map

The general soil map, which is the color map preceding the detailed soil maps, 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.

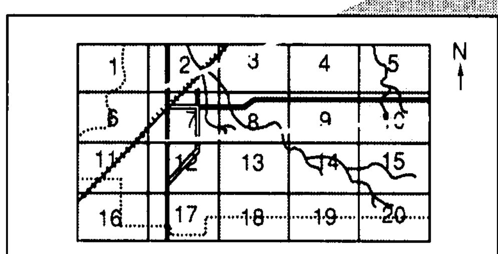
Detailed Soil Maps

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



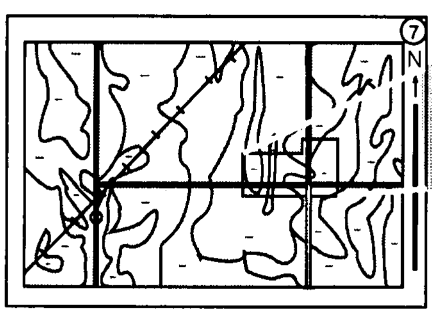
MAP SHEET

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

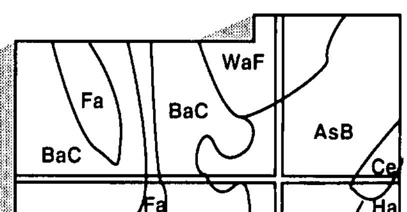


INDEX TO MAP SHEETS

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Index to Map Units** (see 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 **Summary of Tables** shows which table has data on a specific land use for each detailed soil map unit. See **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 Soil Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1986. Soil names and descriptions were approved in 1987. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1986. This survey was made cooperatively by the Soil Conservation Service, the Maine Agricultural Experiment Station, and the Maine Soil and Water Conservation Commission. It is part of the technical assistance furnished to the Oxford County Soil and Water Conservation District.

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

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Cover: Hayland in an area of Marlow fine sandy loam, 3 to 8 percent slopes, and Dixfield fine sandy loam, 3 to 8 percent slopes. A cultivated area of Marlow fine sandy loam, 8 to 15 percent slopes, is on a drumlin in the background. Above this area, on the crest of the hill, is an area of Lyman-Tunbridge complex, 8 to 15 percent slopes, very stony.

Contents

Index to map units ... iv
Summary of tables ... vii
Foreword ... ix
General nature of the survey area ... 2
How this survey was made ... 3
Map unit composition ... 4
General soil map units ... 5
Detailed soil map units ... 13
Soil descriptions ... 14
Prime farmland ... 91
Use and management of the soils ... 93
Crops and pasture ... 93
Woodland management and productivity ... 95
Recreation ... 97
Wildlife habitat ... 98
Engineering ... 99
Soil properties ... 105
Engineering index properties ... 105
Physical and chemical properties ... 106
Soil and water features ... 107
Classification of the soils ... 109
Soil series and their morphology ... 109
Abram series ... 110
Adams series ... 110
Becket series ... 111
Brayton series ... 111
Charles series ... 112
Colonel series ... 113
Colton series ... 113
Cornish series ... 114
Croghan series ... 115
Dixfield series ... 116
Fryeburg series ... 117
Hermon series ... 117
Lovewell series ... 118
Lyman series ... 118
Marlow series ... 119
Medomak series ... 120
Monadnock series ... 120
Naumburg series ... 121
Nicholville series ... 122
Ondawa series ... 122
Peacham series ... 123
Podunk series ... 123
Ricker series ... 124
Roundabout series ... 124
Rumney series ... 125
Saddleback series ... 125
Searsport series ... 126
Skerry series ... 126
Sunday series ... 127
Tunbridge series ... 128
Vassalboro series ... 128
Wonsqueak series ... 129
Formation of the soils ... 131
Processes of soil formation ... 131
Factors of soil formation ... 131
Physiography and geology ... 133
Soil survey procedures ... 135
References ... 137
Glossary ... 139
Tables ... 149

Issued March 1995

Index to Map Units

AbE—Abram-Rock outcrop complex, 15 to 80 percent slopes ... 14
ACC—Abram-Rock outcrop-Lyman complex, rolling ... 14
ACE—Abram-Rock outcrop-Lyman complex, very hilly ... 15
AdA—Adams loamy sand, 0 to 3 percent slopes ... 16
AdB—Adams loamy sand, 3 to 8 percent slopes ... 16
AdC—Adams loamy sand, 8 to 15 percent slopes ... 17
AdD—Adams loamy sand, 15 to 25 percent slopes ... 17
AED—Adams loamy sand, moderately steep ... 18
AGC—Adams-Croghan association, strongly sloping ... 18
AHC—Adams-Hermon association, strongly sloping ... 19
AHD—Adams-Hermon association, moderately steep ... 19
BeB—Becket fine sandy loam, 3 to 8 percent slopes ... 20
BeC—Becket fine sandy loam, 8 to 15 percent slopes ... 21
BeD—Becket fine sandy loam, 15 to 25 percent slopes ... 21
BkB—Becket fine sandy loam, 3 to 8 percent slopes, very stony ... 22
BkC—Becket fine sandy loam, 8 to 15 percent slopes, very stony ... 22
BkD—Becket fine sandy loam, 15 to 35 percent slopes, very stony ... 23
Bp—Brayton-Peacham complex, very stony ... 24
BRB—Brayton-Peacham complex, gently sloping, very stony ... 24
Ca—Charles silt loam, occasionally flooded ... 25
Cb—Charles silt loam, frequently flooded ... 25
CeB—Colonel fine sandy loam, 3 to 8 percent slopes ... 26
CeC—Colonel fine sandy loam, 8 to 15 percent slopes ... 26
CfB—Colonel fine sandy loam, 3 to 8 percent slopes, very stony ... 27
CfC—Colonel fine sandy loam, 8 to 15 percent slopes, very stony ... 27
CgB—Colton gravelly loamy sand, 3 to 8 percent slopes ... 28
CgC—Colton gravelly loamy sand, 8 to 15 percent slopes ... 29
CgD—Colton gravelly loamy sand, 15 to 25 percent slopes ... 29
CHC—Colton-Adams association, strongly sloping ... 30
CHD—Colton-Adams association, moderately steep ... 30
Co—Cornish very fine sandy loam, occasionally flooded ... 31
Cp—Cornish very fine sandy loam, frequently flooded ... 31
CrA—Croghan loamy fine sand, 0 to 3 percent slopes ... 32
CrB—Croghan loamy fine sand, 3 to 8 percent slopes ... 33
DfB—Dixfield fine sandy loam, 3 to 8 percent slopes ... 34
DfC—Dixfield fine sandy loam, 8 to 15 percent slopes ... 34
DsB—Dixfield fine sandy loam, 3 to 8 percent slopes, very stony ... 35
DsC—Dixfield fine sandy loam, 8 to 20 percent slopes, very stony ... 35
DTC—Dixfield-Colonel association, strongly sloping ... 36
DUC—Dixfield-Colonel association, strongly sloping, very stony ... 36
DUD—Dixfield-Colonel association, moderately steep, very stony ... 37
DWC—Dixfield-Marlow association, strongly sloping ... 38
DXC—Dixfield-Marlow association, strongly sloping, very stony ... 39

DXD—Dixfield-Marlow association, moderately steep, very stony ... 39
Fr—Fryeburg very fine sandy loam ... 40
HeB—Hermon sandy loam, 3 to 8 percent slopes ... 41
HeC—Hermon sandy loam, 8 to 15 percent slopes ... 41
HeD—Hermon sandy loam, 15 to 25 percent slopes ... 42
HmB—Hermon sandy loam, 3 to 8 percent slopes, very stony ... 42
HmC—Hermon sandy loam, 8 to 15 percent slopes, very stony ... 43
HmD—Hermon sandy loam, 15 to 35 percent slopes, very stony ... 43
HsC—Hermon sandy loam, 0 to 15 percent slopes, extremely stony ... 44
HsD—Hermon sandy loam, 15 to 35 percent slopes, extremely stony ... 44
HTD—Hermon and Monadnock soils, moderately steep, very stony ... 45
HTE—Hermon and Monadnock soils, steep, very stony ... 45
HVC—Hermon-Skerry association, strongly sloping, very stony ... 46
Lo—Lovewell very fine sandy loam ... 47
LtB—Lyman-Tunbridge complex, 3 to 8 percent slopes, very stony ... 47
LtC—Lyman-Tunbridge complex, 8 to 15 percent slopes, very stony ... 48
LtD—Lyman-Tunbridge complex, 15 to 35 percent slopes, very stony ... 48
LUD—Lyman-Tunbridge-Becket complex, hilly, very stony ... 49
LUE—Lyman-Tunbridge-Becket complex, very hilly, very stony ... 50
LWC—Lyman-Tunbridge-Monadnock complex, rolling, very stony ... 51
LWD—Lyman-Tunbridge-Monadnock complex, hilly, very stony ... 52
LWE—Lyman-Tunbridge-Monadnock complex, very hilly, very stony ... 52
LXC—Lyman-Tunbridge-Skerry complex, rolling, very stony ... 53
MaB—Marlow fine sandy loam, 3 to 8 percent slopes ... 54
MaC—Marlow fine sandy loam, 8 to 15 percent slopes ... 55
MaD—Marlow fine sandy loam, 15 to 25 percent slopes ... 55
MeC—Marlow fine sandy loam, 3 to 15 percent slopes, very stony ... 56
MeD—Marlow fine sandy loam, 15 to 35 percent slopes, very stony ... 56
Mk—Medomak silt loam ... 57
ML—Medomak and Wonsqueak soils, frequently flooded ... 57
MnB—Monadnock fine sandy loam, 3 to 8 percent slopes ... 58
MnC—Monadnock fine sandy loam, 8 to 15 percent slopes ... 58
MnD—Monadnock fine sandy loam, 15 to 25 percent slopes ... 59
MvC—Monadnock fine sandy loam, 3 to 15 percent slopes, very stony ... 59
MvD—Monadnock fine sandy loam, 15 to 35 percent slopes, very stony ... 60
MWC—Monadnock-Hermon-Skerry association, strongly sloping ... 60
MXC—Monadnock-Skerry association, strongly sloping, very stony ... 61
Nb—Naumburg loamy sand ... 62
NCB—Naumburg-Croghan association, gently sloping ... 63
NvB—Nicholville very fine sandy loam, 3 to 8 percent slopes ... 64
Od—Ondawa fine sandy loam, occasionally flooded ... 64
On—Ondawa fine sandy loam, frequently flooded ... 65

Pg—Pits, gravel ... 66
Ps—Pits, sand ... 66
Pt—Podunk fine sandy loam, occasionally flooded ... 66
Pw—Podunk fine sandy loam, frequently flooded ... 67
RCE—Ricker-Saddleback-Rock outcrop complex, very hilly ... 67
Rm—Riverwash ... 68
RNE—Rock outcrop-Ricker complex, very hilly ... 68
Ro—Roundabout silt loam ... 69
Ru—Rumney fine sandy loam, occasionally flooded ... 69
Ry—Rumney fine sandy loam, frequently flooded ... 70
RZ—Rumney-Podunk association, frequently flooded ... 70
SAD—Saddleback-Ricker complex, moderately steep ... 71
SAE—Saddleback-Ricker complex, steep ... 72
Se—Searsport muck ... 72
SkB—Skerry fine sandy loam, 3 to 8 percent slopes ... 73
SkC—Skerry fine sandy loam, 8 to 15 percent slopes ... 73
SnB—Skerry fine sandy loam, 3 to 8 percent slopes, very stony ... 74
SnC—Skerry fine sandy loam, 8 to 15 percent slopes, very stony ... 75
SnD—Skerry fine sandy loam, 15 to 25 percent slopes, very stony ... 75
SOC—Skerry-Becket association, strongly sloping ... 76
SOD—Skerry-Becket association, moderately steep ... 77
SRC—Skerry-Becket association, strongly sloping, very stony ... 78
SRD—Skerry-Becket association, moderately steep, very stony ... 78
SSC—Skerry-Colonel association, strongly sloping ... 79
STC—Skerry-Colonel association, strongly sloping, very stony ... 80
STD—Skerry-Colonel association, moderately steep, very stony ... 80
Su—Sunday loamy fine sand, occasionally flooded ... 82
Sy—Sunday loamy fine sand, frequently flooded ... 82
TyB—Tunbridge-Lyman complex, 3 to 8 percent slopes ... 83
TyC—Tunbridge-Lyman complex, 8 to 15 percent slopes ... 84
TyD—Tunbridge-Lyman complex, 15 to 35 percent slopes ... 84
UaC—Urban land-Adams complex, 0 to 15 percent slopes ... 85
UhC—Urban land-Hermon complex, 0 to 20 percent slopes ... 86
Va—Vassalboro mucky peat ... 86
Vb—Vassalboro mucky peat, ponded ... 87
VW—Vassalboro-Wonsqueak association ... 87
Wk—Wonsqueak mucky peat ... 88
WS—Wonsqueak and Searsport soils ... 89

Summary of Tables

Temperature and precipitation (table 1) 150

Freeze dates in spring and fall (table 2).................................. 151

Growing season (table 3)... 151

Acreage and proportionate extent of the soils (table 4) 152

Prime farmland (table 5)... 155

Land capability and yields per acre of crops and pasture (table 6) 156

Woodland management and productivity (table 7)......................... 161

Recreational development (table 8)...................................... 185

Wildlife habitat (table 9) 198

Building site development (table 10) 207

Sanitary facilities (table 11) 220

Construction materials (table 12) 233

Water management (table 13)... 244

Engineering index properties (table 14) 257

Physical and chemical properties of the soils (table 15).................... 280

Soil and water features (table 16) 288

Classification of the soils (table 17)...................................... 294

Relationship of the soil series in the survey area to landscape position,
parent material, and drainage (table 18)............................. 295

Foreword

This soil survey contains information that can be used in land-planning programs in the survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

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

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow over bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to 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 Soil Conservation Service or the Cooperative Extension Service.

David L. Mussulman
State Conservationist
Soil Conservation Service

Soil Survey of
Oxford County Area, Maine

By David E. Wilkinson, Soil Conservation Service

Fieldwork by Robert Baldwin, David J. Belz, David A. Dearstyne, Paul A. Hughes, Jr., Norman R. Kalloch, Jr., Robert H. Lisante, Jonathan W. Miller, David J. Popp, Patrick J. Savage, James D. Slabaugh, and David E. Wilkinson, Soil Conservation Service

United States Department of Agriculture, Soil Conservation Service, in cooperation with Maine Agricultural Experiment Station and Maine Soil and Water Conservation Commission

This survey area is in the western part of Maine (fig. 1). It has a total land area of 907,505 acres, or about 1,418 square miles, and has 27,368 acres, or 43 square miles, of inland water, including lakes, ponds, and rivers. The population of Oxford County is about 50,000. South Paris, the county seat, has a population of about 4,500.

This survey area is in the foothills of the White Mountains in the south and east and in the White Mountains in the north and west. It is in the hill and mountain region of the New England glaciated uplands. Elevation ranges from about 280 feet above sea level in an area along the Saco River where Oxford, York, and Cumberland Counties join to 3,376 feet above sea level on top of Sunday River Whitecap, in the town of Newry.

The main economic enterprise in the survey area is the manufacture of forest products. Pulp and papermaking, clothespins, and recreation products account for the bulk of the wood-related production in the area. Another prime economic source is the tourist and recreation industry. The survey area provides opportunities for winter sports, hunting, fishing, boating, swimming, and hiking. The main agricultural pursuits are dairying and growing small fruits.

Because of an abundance of minerals and gems, the survey area is of prime interest to geologists. Panning for gold is a popular pastime in many of the rivers and streams.

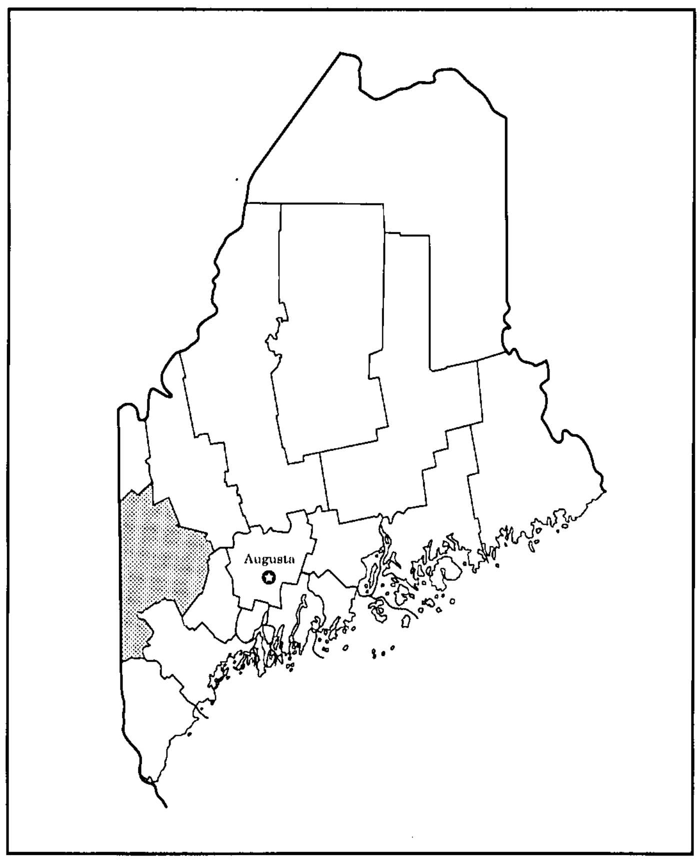


Figure 1.—Location of Oxford County Area in Maine.

General Nature of the Survey Area

This section provides general information about the survey area. It describes history and development, climate, and drainage.

History and Development

By Beverly Shaw and Ben Conant, South Paris, Maine.

Oxford County was incorporated on March 4, 1805, as the seventh county in the District of Maine. It was formed from the northern part of York and Cumberland Counties. South Paris became its county seat. Maine became a State in 1820. Oxford County originally encompassed a larger area. Its size was reduced in 1838, when Franklin County was formed from a large part of Oxford County. The towns of Livermore and Turner were annexed to Androscoggin County in 1854.

The early settlers, many coming from Massachusetts and New Hampshire, were granted tracts of land as compensation for their service in the French and Indian War and the American Revolution. The first incorporated town in the county was Fryeburg, which was incorporated in 1777. It had been settled in 1763 and was a flourishing farming area by the time of the Revolution. Many towns that were incorporated in the late 1700's and early 1800's have remained the most notable communities in the county. Some of the early towns have repealed their original charters and have reverted to unorganized townships.

During the mid to late 1700's, the survey area was noted for its hunting, trapping, and fishing. Most of the farmland was along the rivers. Farmers grew grain, fruit, and produce and raised livestock and poultry. Lumbering and the manufacture of wood products were among the earliest business ventures and are still a major source of income. Mining of commercially valuable gem stones and minerals, such as tourmaline, was common in the 19th century.

The Oxford Canal, which originated in Portland, was a means of exporting farm goods and lumber to coastal ports in the early 1800's. By 1850, the Atlantic and St. Lawrence Railroad, later called the Grand Trunk Railroad, ran a line from Portland north to Canada. The line continues to serve towns in the county. Other railroad lines have been extended to outlying areas.

The major sources of revenue for the inhabitants of the county currently are manufacturing, agriculture, forestry, fishing, mining, and tourism.

Climate

In this survey area, winters are cold and summers are moderately warm and have occasional hot spells. The mountains are markedly cooler than the main agricultural areas in the lowlands. Precipitation is well distributed throughout the year and is nearly always adequate for all crops. Winter snowfall occurs frequently, occasionally as blizzards, and snow covers the ground much of the time.

Table 1 gives data on temperature and precipitation for the survey area, as recorded at Rumford, Maine, for the period 1951 to 1981. 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 19 degrees F and the average daily minimum temperature is 9 degrees. The lowest temperature on record, which occurred at Rumford on January 14, 1957, is -34 degrees. In summer, the average temperature is 65 degrees and the average daily maximum temperature is 77 degrees. The highest recorded temperature, which occurred on August 2, 1975, is 100 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.

Of the total annual precipitation, more than 22 inches, or about 50 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 19 inches. The heaviest 1-day rainfall during the period of record was 4.27 inches at Rumford on September 12, 1969. Thunderstorms occur on about 18 days each year.

Average seasonal snowfall is about 92 inches. The greatest snow depth at any one time during the period of record was 70 inches. On the average, 78 days 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 55 percent in winter. The prevailing wind is from the south. Average windspeed is highest, 10 miles per hour, in spring.

Drainage

The southwestern part of the survey area is drained mostly by streams and rivers that flow into the Saco River. The central and eastern parts are drained by streams and rivers that flow into the Androscoggin River. Several major rivers are in the survey area. The

Bear, Ellis, Sunday, Swift, and Webb Rivers are in the northern part of the survey area. The Little Androscoggin and Crooked Rivers are in the south-central part, and the Nezinscot River is in the east-central part.

The rivers and streams generally are postglacial, and at some point almost all flow into or out of glacially formed lakes. The watercourses and lakes, along with the connecting bogs and flood plains, formed the general drainage pattern during the recession of the last glacier. This drainage pattern is generally northwest to southeast on the watershed of the Androscoggin River and northwest to southeast or northeast to southwest on the watershed of the Saco River. The larger lakes and ponds range from 1 to 7 square miles in size. They are Pennesseewassee, Keoka, Kezar, Thompson, and Anasagunticook Lakes and Bryant, Ellis, Hancock, Lovewell, and Moose Ponds.

The larger bogs and swamps are generally along the rivers, streams, lakes, or ponds or are closed basins within the glacial till ridges in the uplands. The enclosed basin swamps and bogs may not be characterized by a pronounced drainage pattern. Streams cross most of the bogs and swamps.

How This Survey Was Made

This survey was made to provide information about the soils in the survey area. The information includes a description of the soils and their location and a discussion of the suitability, limitations, and management of the soils for specified uses. Soil scientists observed the steepness, length, and shape of slopes; the general pattern of drainage; the kinds of crops and native plants growing on the soils; 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 has few or no roots or other living organisms and has been changed very little by other biological activity.

The soils in the survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil is associated with a particular kind of landscape or with a segment of the landscape. By observing the soils in the survey area and relating their position to specific segments of the landscape, a soil scientist develops a concept, or model, of how the soils were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil 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-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, 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. 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 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 assure 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.

Map Unit Composition

A map unit delineation on a soil map represents an area dominated by one major kind of soil or an area dominated by two or three kinds of soil. A map unit is identified and named according to the taxonomic classification of the dominant soil or soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural objects. In common with other natural objects, they have a characteristic variability in their properties. 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 soils of other taxonomic classes. Consequently, every map unit is made up of the soil or soils for which it is named and some soils that belong to other taxonomic classes. These latter soils are called inclusions or included soils.

Most inclusions have properties and behavioral patterns 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 (similar) inclusions. They are described but are not identified by name in the map unit descriptions. Other inclusions, however, have properties and behavior divergent enough to affect use or require different management. These are contrasting (dissimilar) inclusions. They generally occupy small areas and cannot be shown separately on the soil maps because of the scale used in mapping. The inclusions of contrasting soils are identified by name in the map unit descriptions. A few inclusions may not have been observed and consequently are not mentioned in the descriptions, especially where the soil pattern was so complex that it was impractical to make enough observations to identify all of the kinds of soil on the landscape.

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

General Soil Map Units

The general soil map at the back of this publication shows 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 and some minor soils. It is named for the major soils. The soils making up one 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

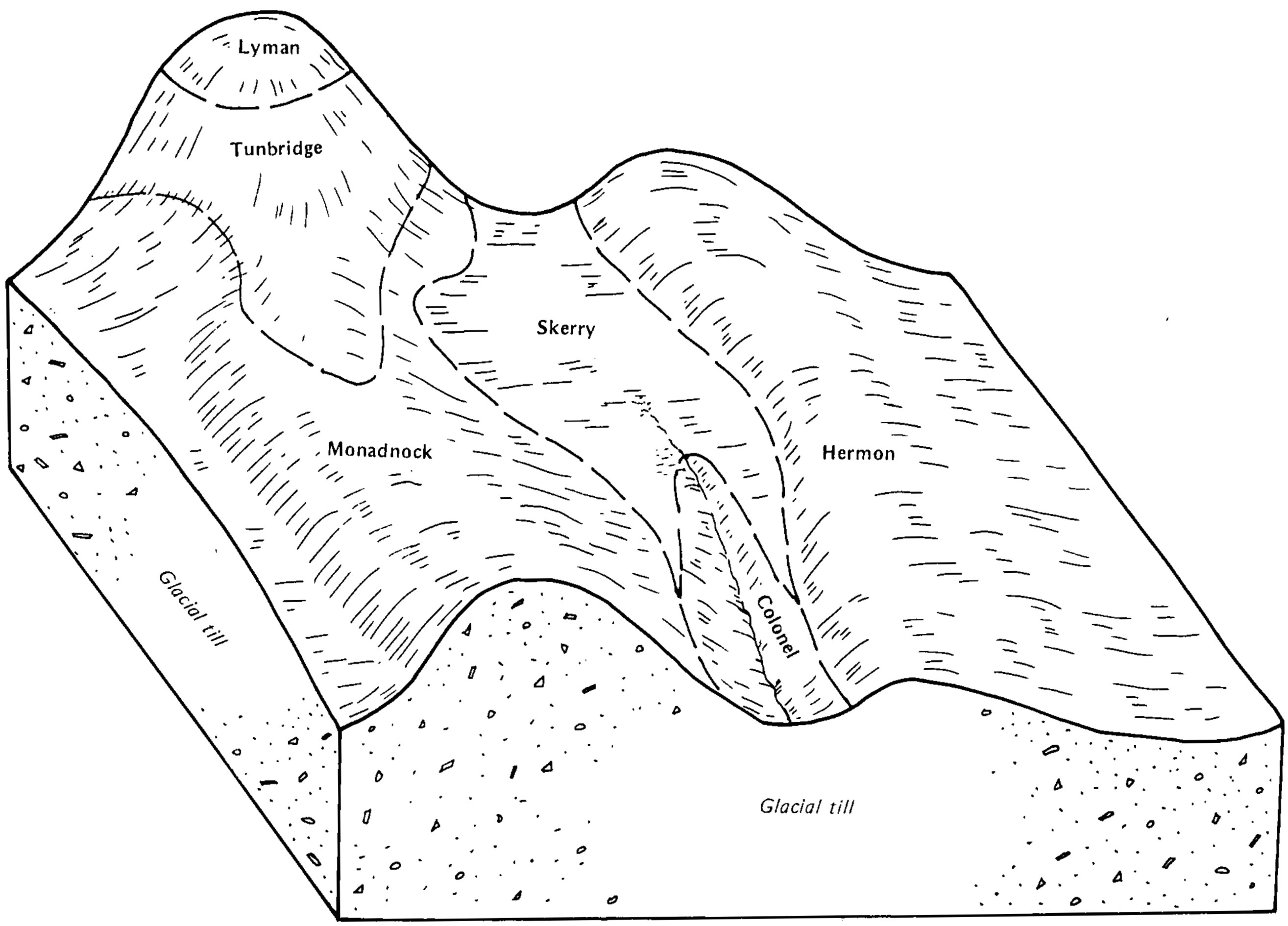


Figure 2.—Typical pattern of the soils and underlying material in the Hermon-Monadnock-Skerry general soil map unit.

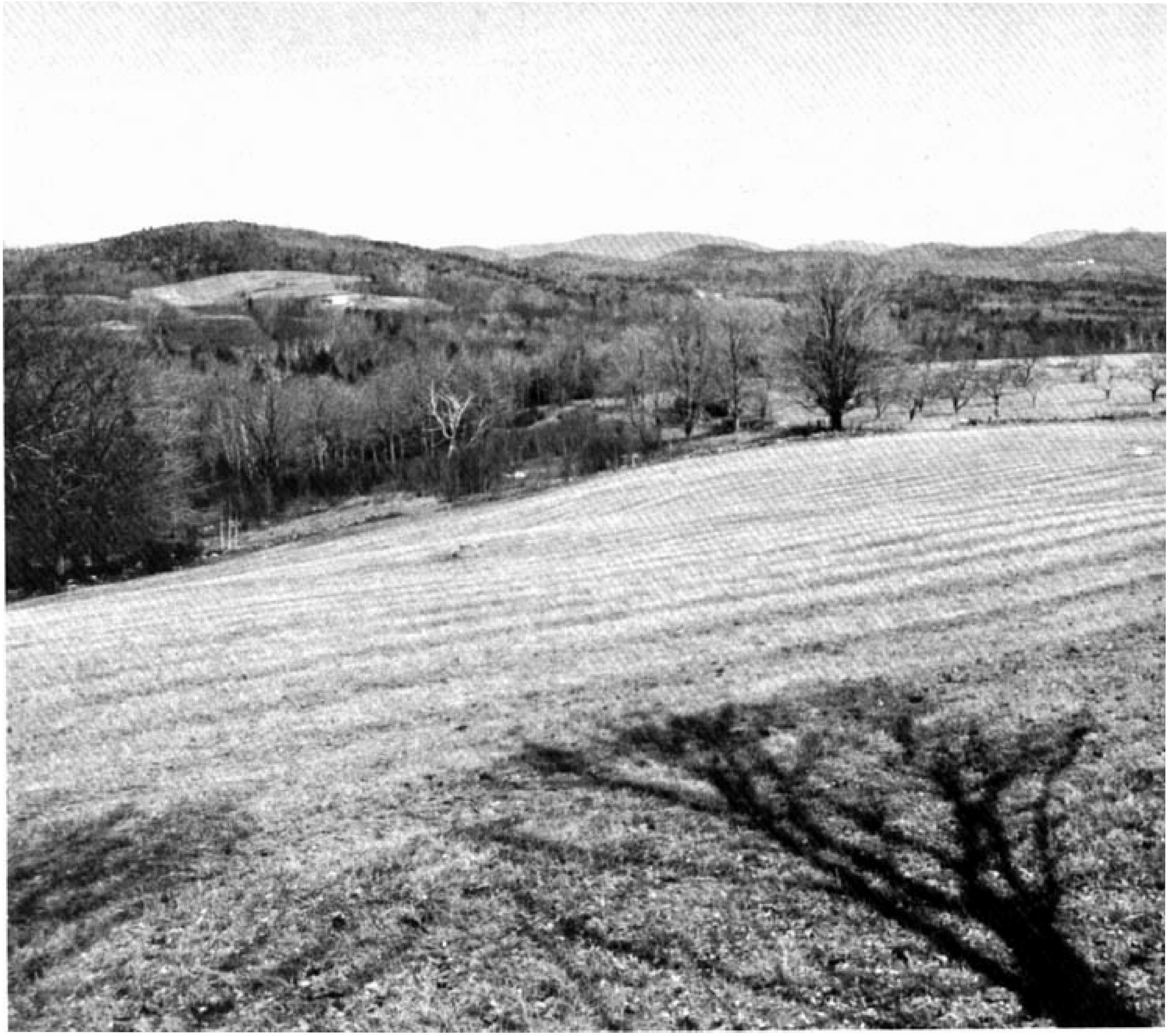


Figure 3.—An area of the Skerry-Dixfield-Becket general soil map unit.

in slope, depth, drainage, and other characteristics that affect management.

The names and delineations of the soils on the general soil map of this survey area do not in all instances agree with those of the soils on published maps of the surveys of adjacent counties. Differences are the result of changes in soil classification and mapping procedures.

1. Hermon-Monadnock-Skerry

Very deep, nearly level to steep, somewhat excessively drained to moderately well drained soils; formed in glacial till

This map unit is in scattered areas throughout the survey area. The soils are mainly on the southeast-facing side slopes of till ridges in the uplands and on the lower side slopes adjacent to areas of sandy outwash.

This map unit makes up about 27 percent of the survey area. It is about 35 percent Hermon soils, 30 percent Monadnock soils, 10 percent Skerry soils, and 25 percent soils of minor extent (fig. 2).

Hermon soils are nearly level to steep and are somewhat excessively drained. The surface layer is sandy loam. The subsoil is sandy loam to extremely gravelly loamy sand. The substratum is loose very gravelly coarse sand.

Monadnock soils are gently sloping to steep and are well drained. The surface layer and subsoil are fine sandy loam. The substratum is friable gravelly loamy fine sand.

Skerry soils are nearly level to moderately steep and are moderately well drained. The surface layer is fine sandy loam. The subsoil is fine sandy loam and sandy loam. The substratum is dominantly compact gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

The minor soils in this map unit are mainly the very

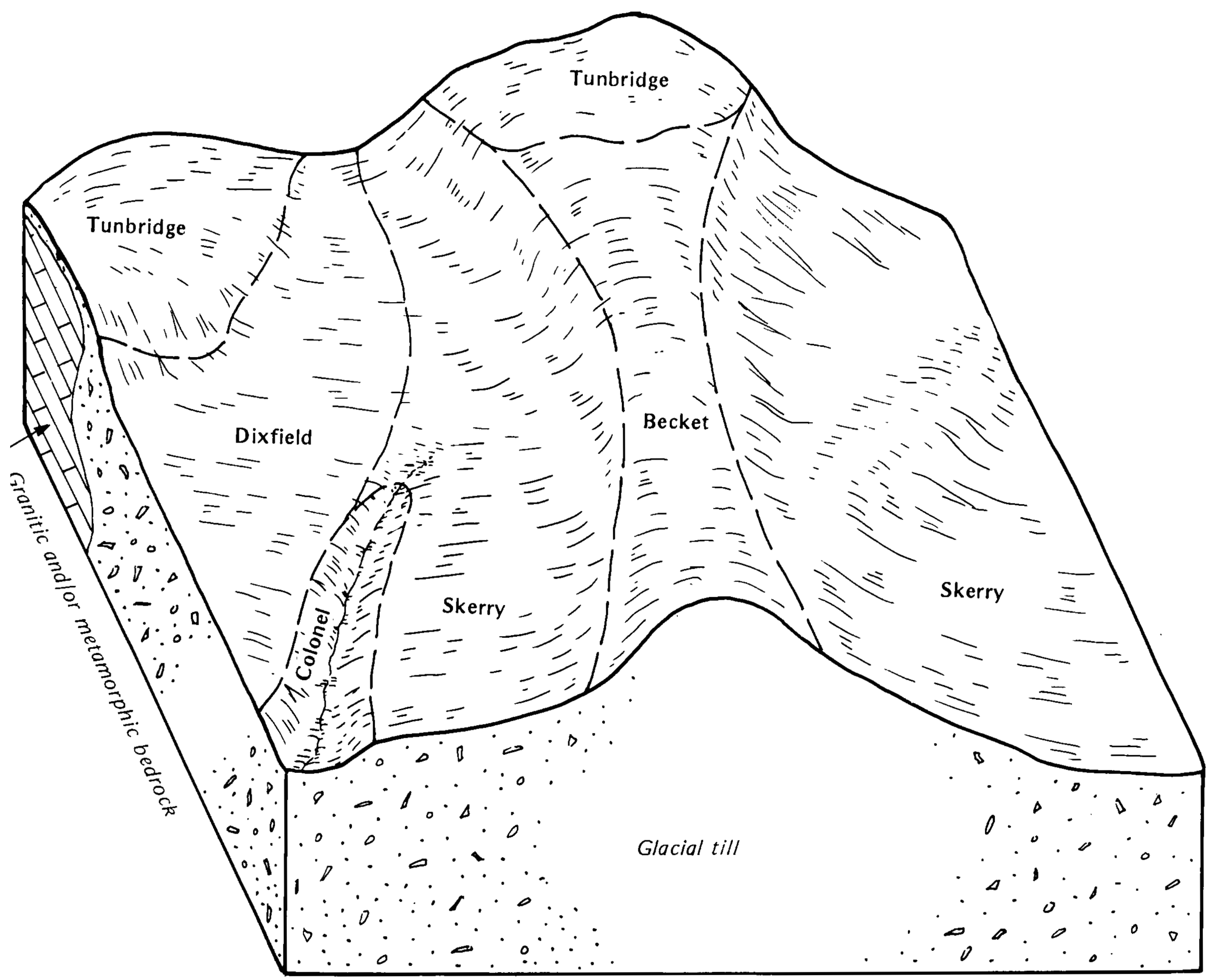


Figure 4.—Typical pattern of the soils and underlying material in the Skerry-Dixfield-Becket general soil map unit.

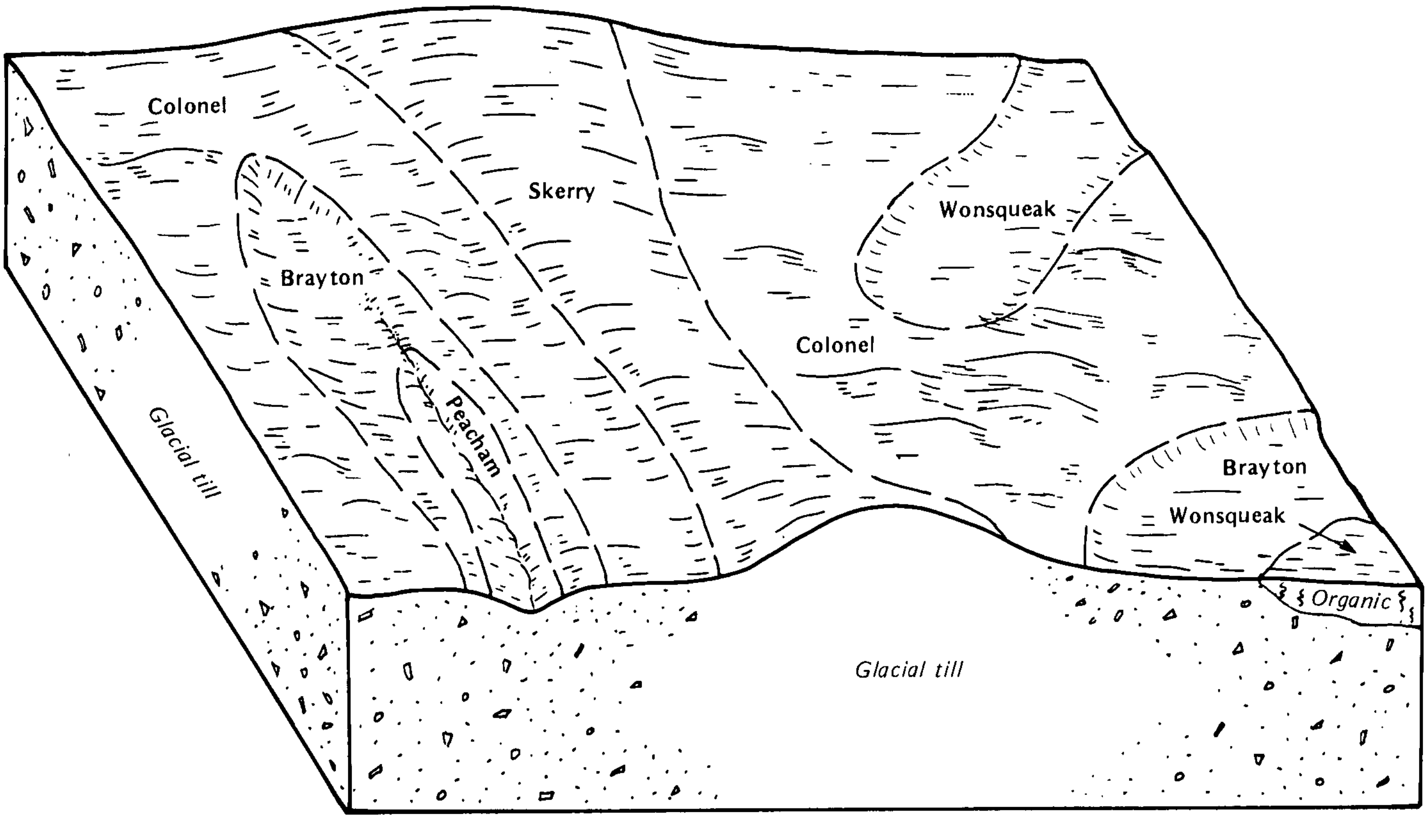


Figure 5.—Typical pattern of the soils and underlying material in the Colonel-Brayton-Skerry general soil map unit.

deep, somewhat poorly drained Colonel soils; the moderately deep, well drained Tunbridge soils; the shallow, somewhat excessively drained Lyman soils; and the very deep, moderately well drained Dixfield soils. Lyman and Tunbridge soils are mainly on ridgetops. Colonel soils are in depressions. Dixfield soils are in landscape positions similar to those of the Skerry soils.

This map unit is used mainly as woodland. Some cleared areas are used as pasture, hayland, or cropland. The main limitations in areas of the Hermon and Monadnock soils are surface stones and boulders and the slope. The main limitations in areas of the Skerry soils are a seasonal high water table and the compact substratum.

2. Skerry-Dixfield-Becket

Very deep, nearly level to steep, moderately well drained and well drained soils; formed in compact glacial till

This map unit is in scattered areas throughout the survey area. The soils are mainly on the northwest-facing side slopes of till ridges in the uplands (fig. 3).

This map unit makes up about 26 percent of the survey area. It is about 46 percent Skerry soils, 11 percent Dixfield soils, 10 percent Becket soils, and 33 percent soils of minor extent (fig. 4).

Skerry soils are nearly level to moderately steep and are moderately well drained. The surface layer is fine sandy loam. The subsoil is fine sandy loam and sandy loam. The substratum is dominantly compact and moderately coarse textured. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Dixfield soils are nearly level to moderately steep and are moderately well drained. They are moderately coarse textured throughout and have a compact substratum.

Becket soils are gently sloping to steep and are well drained. They are moderately coarse textured throughout and have a compact substratum.

The minor soils in this map unit are mainly the very deep, somewhat poorly drained Colonel soils; the shallow, somewhat excessively drained Lyman soils; the moderately deep, well drained Tunbridge soils; and the very deep, well drained Marlow soils. Lyman and Tunbridge soils are mainly on ridgetops. Colonel soils are in depressions. Marlow soils are in higher positions on the northwest-facing slopes.

This map unit is used mainly as woodland. Some cleared areas are used as pasture, hayland, or cropland. The main limitations are surface stones, the compact substratum, a seasonal high water table, and the slope.

3. Colonel-Brayton-Skerry

Very deep, nearly level to moderately steep, moderately well drained to poorly drained soils; formed in compact glacial till

This map unit is in scattered areas throughout the survey area. The soils are mainly on the lower side slopes and in depressions and drainageways on upland glacial till ridges and in valleys.

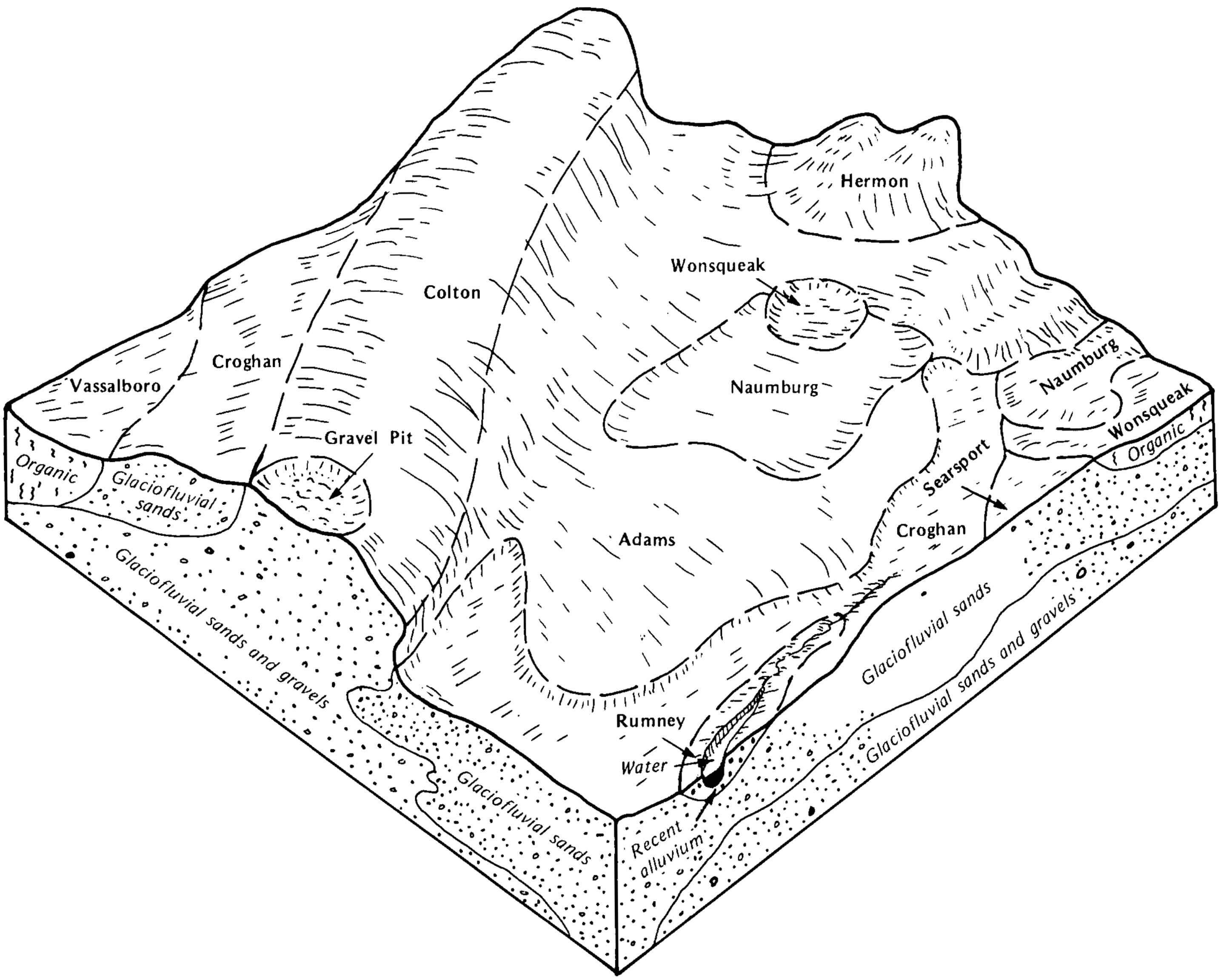


Figure 6.—Typical pattern of the soils and underlying material in the Adams-Croghan-Colton general soil map unit.

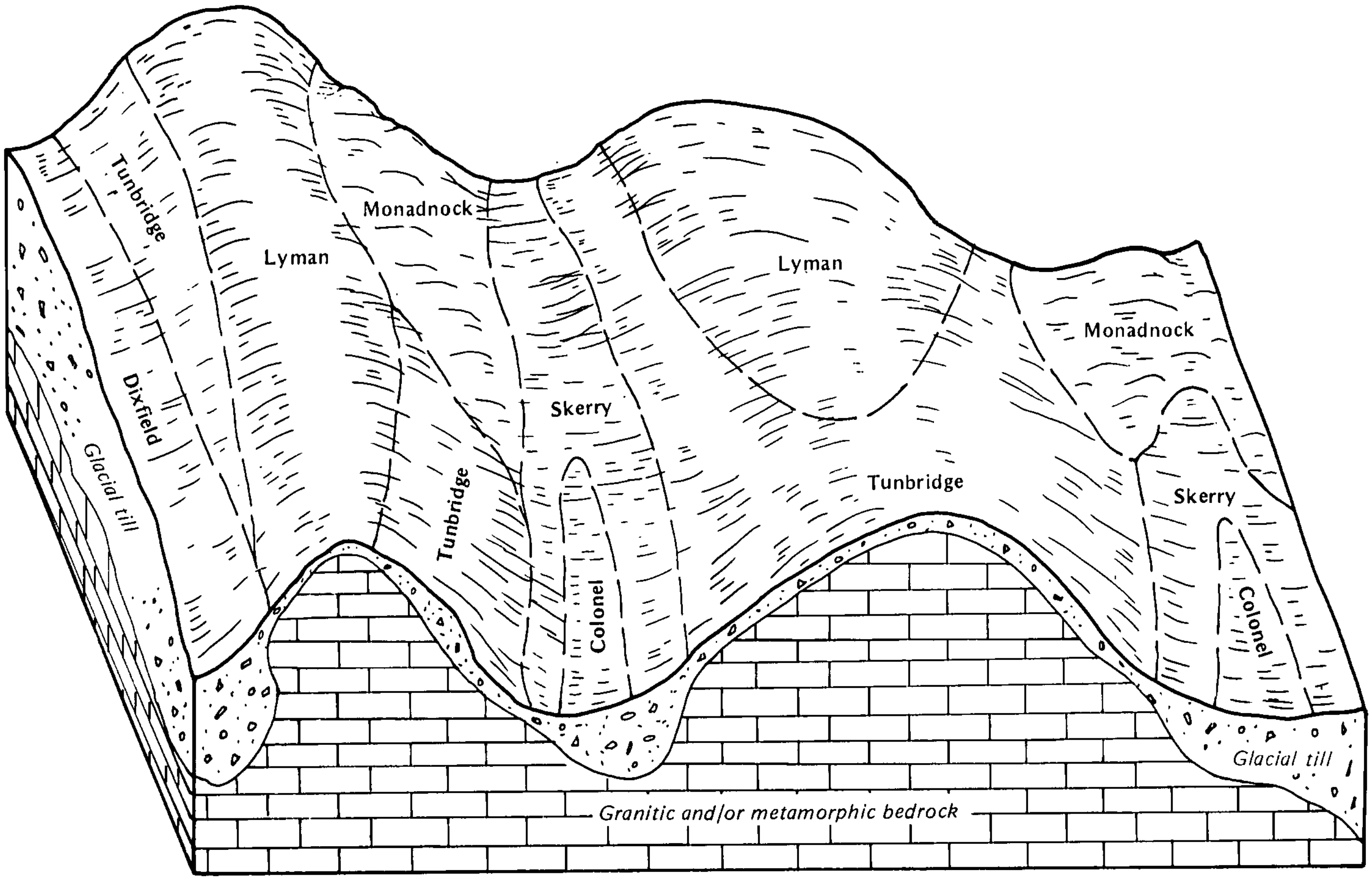


Figure 7.—Typical pattern of the soils and underlying material in the Lyman-Tunbridge-Monadnock general soil map unit.

This map unit makes up about 15 percent of the survey area. It is about 45 percent Colonel soils, 12 percent Brayton soils, 10 percent Skerry soils, and 33 percent soils of minor extent (fig. 5).

Colonel soils are nearly level to moderately steep and are somewhat poorly drained. Brayton soils are nearly level and are poorly drained. Skerry soils are nearly level to moderately steep and are moderately well drained. All three soils have a compact substratum and are moderately coarse textured throughout. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum in the Skerry soils.

The minor soils in this map unit are mainly the very deep, very poorly drained Peacham and Wonsqueak soils; the shallow, somewhat excessively drained Lyman soils; and the moderately deep, well drained Tunbridge soils. Peacham and Wonsqueak soils are in depressions. Peacham soils formed in glacial till, and Wonsqueak soils formed in organic material over mineral material. Lyman and Tunbridge soils are in scattered areas on bedrock-controlled knobs and ridges.

This map unit is used mainly as woodland. Some areas of the Skerry and Colonel soils have been cleared and are used as pasture or hayland. The main limitations are a seasonal high water table, surface stones, and the compact substratum.

4. Adams-Croghan-Colton

Very deep, nearly level to steep, excessively drained to moderately well drained soils; formed in glaciofluvial sand and gravel

This map unit is on deltas, terraces, eskers, and outwash plains. It makes up about 14 percent of the survey area. It is about 35 percent Adams soils, 13 percent Croghan soils, 10 percent Colton soils, and 42 percent soils of minor extent (fig. 6).

Adams soils are nearly level to steep and are somewhat excessively drained. The surface layer and subsoil are loamy sand. The substratum is sand.

Croghan soils are nearly level and gently sloping and are moderately well drained. The surface layer is loamy fine sand. The subsoil is loamy fine sand and loamy sand. The substratum is sand.

Colton soils are gently sloping to moderately steep and are excessively drained. The surface layer is gravelly loamy sand. The subsoil is gravelly and very gravelly loamy sand. The substratum is extremely gravelly sand.

The minor soils in this map unit are mainly the very deep, poorly drained and somewhat poorly drained Naumburg soils, the very poorly drained Searsport soils, the poorly drained Rumney soils, and the somewhat excessively drained Hermon soils. Naumburg and Searsport soils are in depressions. Rumney soils are adjacent to drainageways. Hermon soils are in scattered areas on small glacial till knolls. Also of minor extent are scattered areas of the very deep, very poorly drained Wonsqueak and Vassalboro soils, which formed in organic material in depressions and drainageways, and scattered areas of gravel and sand pits.

This map unit is used mainly as woodland. Some cleared areas are used as hayland, pasture, or cropland. The main limitations are droughtiness and the slope. Rapid permeability in the subsoil and substratum is a major limitation affecting onsite waste disposal.

5. Lyman-Tunbridge-Monadnock

Shallow to very deep, nearly level to steep, somewhat excessively drained and well drained soils; formed in glacial till

This map unit is in scattered areas throughout the survey area. The soils generally are on large glaciated ridgetops, hills, and mountains.

This map unit makes up about 13 percent of the survey area. It is about 37 percent Lyman soils, 33 percent Tunbridge soils, 10 percent Monadnock soils, and 20 percent soils of minor extent (fig. 7).

Lyman soils are shallow, gently sloping to steep, and somewhat excessively drained. The surface layer and subsoil are fine sandy loam. The subsoil is underlain by hard, unweathered bedrock.

Tunbridge soils are moderately deep, nearly level to steep, and well drained. The surface layer is fine sandy

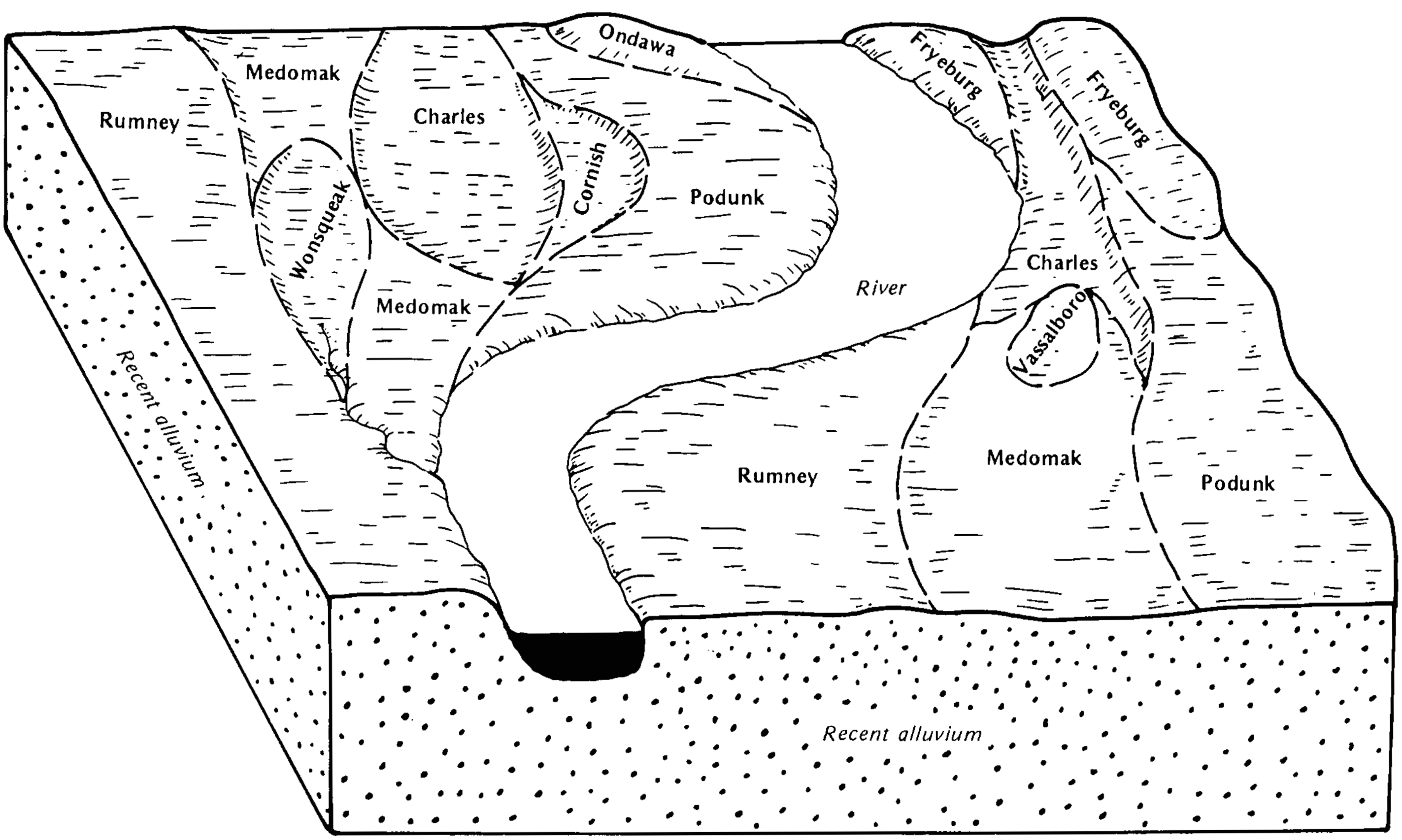


Figure 8.—Typical pattern of the soils and underlying material in the Rumney-Podunk-Medomak general soil map unit.

loam. The subsoil and substratum are gravelly fine sandy loam. The substratum is underlain by hard, unweathered bedrock.

Monadnock soils are very deep, gently sloping to steep, and well drained. The surface layer and subsoil are fine sandy loam. The substratum is gravelly loamy fine sand.

The minor soils in this map unit are the very deep, somewhat excessively drained Hermon soils; the very deep, well drained Becket and Marlow soils; the very deep, moderately well drained Skerry and Dixfield soils; and the very deep, somewhat poorly drained Colonel soils. Also of minor extent are areas of Rock outcrop and areas of shallow or very shallow soils that are at elevations of more than 2,500 feet and that have a colder temperature regime than the major soils.

This map unit is used mainly as woodland. Some areas are used for pasture or hay or for urban or recreational development. The main limitations are the slope, the depth to bedrock, rock outcrops, and surface stones.

6. Rumney-Podunk-Medomak

Very deep, nearly level, moderately well drained, poorly drained, and very poorly drained soils; formed in recent alluvium

This map unit is mainly on the flood plains along the Saco and Androscoggin Rivers or along the smaller rivers and streams. The soils are in the lowest positions in the valleys of the rivers and streams.

This map unit makes up about 5 percent of the survey area. It is about 33 percent Rumney soils, 17 percent Podunk soils, 15 percent Medomak soils, and 35 percent soils of minor extent (fig. 8).

Rumney soils are poorly drained. The surface layer is fine sandy loam. The subsoil is fine sandy loam and sandy loam. The substratum is loamy sand.

Podunk soils are moderately well drained and are in the slightly higher positions on the flood plains. The surface layer and subsoil are fine sandy loam. The substratum is loamy fine sand.

Medomak soils are very poorly drained and are in the lowest positions on the flood plains. The surface layer is silt loam. The part of the substratum within a depth of 40 inches is silt loam, very fine sandy loam, or sand. The part below a depth of 40 inches ranges from silt loam to fine gravel.

The minor soils in this map unit are the very deep, well drained Ondawa and Fryeburg soils, the somewhat poorly drained Cornish soils, the poorly drained Charles soils, and the organic, very poorly drained Wonsqueak and Vassalboro soils.

This map unit is used mainly as cropland, hayland, or pasture. Most areas have been cleared, but the wettest areas generally are wooded. The main management concerns are flooding and a seasonal high water table.

Detailed Soil Map Units

The map units on the detailed soil maps at the back of this survey represent the soils in the survey area. The map unit descriptions in this section, along with the soil maps, can be used to determine the suitability and potential of a soil for specific uses. They also can be used to plan the management needed for those uses. More information on each map unit, or soil, is given under the heading "Use and Management of the Soils."

Each map unit on the detailed soil maps represents an area on the landscape and consists of one or more soils for which the unit is named.

A symbol identifying the soil precedes the map unit name in the soil descriptions. Each description includes general facts about the soil 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 or of the substratum, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer or of the substratum. They also can differ in slope, stoniness, wetness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases.* 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, Dixfield fine sandy loam, 3 to 8 percent slopes, very stony, is a phase of the Dixfield series.

Some map units are made up of two or more major soils. These map units are called soil complexes, soil associations, or undifferentiated groups.

A *soil complex* consists of two or more soils, or one or more soils and a miscellaneous area, in such an intricate pattern or in such small areas that they cannot be shown separately on the soil maps. The pattern and proportion of the soils are somewhat similar in all areas. Lyman-Tunbridge complex, 3 to 8 percent slopes, very stony, is an example.

A *soil association* is made up of two or more geographically associated soils that are shown as one unit on the maps. Because of present or anticipated soil uses in the survey area, it was not considered practical or necessary to map the soils separately. The pattern and relative proportion of the soils are somewhat similar. Skerry-Colonel association, strongly sloping, very stony, is an example.

An *undifferentiated group* is made up of two or more soils 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 in the mapped areas are not uniform. An area can be made up of only one of the major soils, or it can be made up of all of them. Hermon and Monadnock soils, steep, very stony, is an undifferentiated group in this survey area.

Most map units include small scattered areas of soils other than those for which the map unit is named. Some of these included soils have properties that differ substantially from those of the major soil or soils. Such differences could significantly affect use and management of the soils in the map unit. The included soils are identified in each map unit description. Some small areas of strongly contrasting soils are identified by a special symbol on the soil maps.

This survey includes *miscellaneous areas.* Such areas have little or no soil material and support little or no vegetation. Riverwash is an example. Miscellaneous areas are shown on the soil maps. Some that are too small to be shown are identified by a special symbol on the soil maps.

Two intensities of mapping have been used in this survey area. Open areas and areas adjacent to rivers, lakes, and major roads were narrowly defined. In these areas soil interpretations are needed for yields of specific crops, important farmlands, sanitary facilities, urban development, and intensive recreational uses. Most of the map units are phases of soil series. A few map units are complexes. The minimum-size delineation on the maps is about 3 acres.

Extensively forested areas were broadly defined. In these areas soil interpretations are needed for woodland management and productivity, watershed management, and extensive outdoor recreational areas. The map units are soil associations, complexes, and some undifferentiated groups. The minimum-size delineation on the maps is about 10 acres.

Table 4 gives the acreage and proportionate extent of each map unit. Other tables (see "Summary of 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.

Soil Descriptions

AbE—Abram-Rock outcrop complex, 15 to 80 percent slopes. This unit consists of moderately steep to very steep areas on mountaintops and foothills. Most areas are oval or irregularly shaped and are 15 to 150 acres in size. The unit is about 50 percent a very shallow, excessively drained Abram soil; 35 percent Rock outcrop; and 15 percent included soils. The Abram soil has slopes of 15 to 60 percent, and the Rock outcrop has slopes of 15 to 80 percent. The Abram soil and Rock outcrop occur in an intricate pattern and cannot be mapped separately.

Typically, the Abram soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is sandy loam about 3 inches thick. It is very dusky red in the upper part and brown in the lower part. Hard bedrock is at a depth of about 5 inches.

Typically, the Rock outcrop is covered with a thin layer of mosses and lichens or is bare.

Included in this unit in mapping are small areas of Becket, Lyman, Skerry, and Tunbridge soils. The very deep Becket and Skerry soils are on side slopes, in saddles, and in the slightly lower positions on the landscape. Lyman soils are shallow, and Tunbridge soils are moderately deep. Also included are soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained, areas that are very stony, and areas that have slopes of less than 15 percent or more than 80 percent.

Permeability is moderately rapid in the Abram soil. The available water capacity is very low. Surface runoff ranges from medium to very rapid, depending on the slope.

The Rock outcrop is not permeable and holds very little water. Most of the water runs off the surface immediately.

This unit is used for woodland or recreational purposes or is idle.

This unit is generally not used for cropland, hay and pasture, or urban development. The main limitations are the slope, a severe hazard of erosion, the depth to bedrock, the bedrock exposures, rockiness, surface stones, and droughtiness.

The potential productivity for most of the commonly grown native trees is very low. Because this unit is at high elevations, many trees are slow growing and stunted. The main limitations are the slope, the depth to bedrock, and the severe hazard of erosion. The use of equipment is severely limited by the slope. The hazard of windthrow is severe because of a very shallow rooting depth. Properly designing logging roads and skid trails helps to prevent excessive erosion. Because of the areas of Rock outcrop, constructing the roads is difficult.

This unit commonly provides scenic vistas. Some areas can be used for ski and hiking trails.

The capability subclass is VIIs.

ACC—Abram-Rock outcrop-Lyman complex, rolling. This unit consists of rolling areas on glaciated, bedrock-controlled hills. Most areas are oval or elongated and are 25 to 150 acres in size. Slopes are generally complex but may be smooth and convex. The Abram soil and Rock outcrop have slopes of 0 to 15 percent, and the Lyman soil has slopes of 3 to 15 percent. The unit is about 40 percent a very shallow, excessively drained Abram soil; 25 percent Rock outcrop; 15 percent a shallow, somewhat excessively drained Lyman soil; and 20 percent included soils. The Rock outcrop is typically on the higher parts of the landscape, and the Abram and Lyman soils are on the lower parts. The two soils and Rock outcrop occur in an intricate pattern and cannot be mapped separately.

Typically, the Abram soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is sandy loam about 3 inches thick. It is very dusky red in the upper part and brown in the lower part. Hard bedrock is at a depth of about 5 inches.

Typically, the Rock outcrop is hard bedrock that has a very thin layer of mosses and lichens or is bare.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Included in this unit in mapping are small areas of Becket, Hermon, Skerry, and Tunbridge soils and areas that have pockets of somewhat poorly drained and poorly drained, shallow and very shallow soils. The

Figure 9.—An area of Abram-Rock outcrop-Lyman complex, very hilly.

somewhat excessively drained Hermon soils, the well drained Becket soils, the well drained, moderately deep Tunbridge soils, and the moderately well drained Skerry soils are on knolls on the upper side slopes. Becket, Hermon, and Skerry soils are very deep. The somewhat poorly drained and poorly drained, shallow and very shallow soils are in depressional areas. Also included are areas where slopes are more than 15 percent and areas where scattered stones and boulders are on the surface.

Permeability is moderately rapid in the Abram soil. Surface runoff is slow. The available water capacity is very low. The rooting depth is limited by the bedrock.

Permeability is moderately rapid in the Lyman soil. Surface runoff is slow or medium. The available water capacity is low. The rooting depth is limited by the bedrock.

Most areas are used as woodland.

This unit is very poorly suited to cultivated crops and to hay and pasture. The main limitations are the Rock outcrop, the depth to bedrock, and droughtiness. Removal of the organic surface layer increases the hazard of erosion.

The potential productivity for eastern white pine is very low on the Abram soil and medium on the Lyman soil. The main limitation is the restricted rooting depth, which causes a severe hazard of windthrow. Because of the Rock outcrop, constructing logging roads is difficult.

No capability subclass is assigned.

ACE—Abram-Rock outcrop-Lyman complex, very hilly. This unit consists of very hilly areas on glaciated, bedrock-controlled mountains, hillsides, and ridges (fig. 9). Areas are generally oval or elongated and are 50 to 400 acres in size. Slopes commonly are complex and convex. They range from 15 to 60 percent. The unit is about 35 percent a very shallow, excessively drained Abram soil; 20 percent Rock outcrop; 20 percent a shallow, somewhat excessively drained Lyman soil; and 25 percent other soils. The Rock outcrop and Abram soil are in the higher, steeper areas. The Lyman soil is in the lower, concave areas. The two soils and Rock outcrop occur in an intricate pattern and cannot be mapped separately.

Typically, the Abram soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is sandy loam about 3 inches thick. It is very dusky red in the upper part and brown in the lower part. Hard bedrock is at a depth of about 5 inches.

Typically, the Rock outcrop is hard bedrock that has a very thin layer of mosses and lichens or is bare.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Included in this unit in mapping are small areas of Becket, Hermon, Skerry, and Tunbridge soils. The very deep, somewhat excessively drained Hermon soils, the very deep, well drained Becket soils, and the moderately deep, well drained Tunbridge soils are on knolls. The moderately well drained, very deep Skerry soils are in pockets on the upper side slopes. Also included are somewhat poorly drained and poorly drained, shallow and very shallow soils in depressions; on very steep slopes, small areas that are covered with boulders and stones as a result of rockslides; and areas where slopes are less than 15 percent or more than 60 percent.

Permeability is moderately rapid in the Abram soil. Surface runoff is rapid or very rapid, depending on the slope. The available water capacity is very low. The rooting depth is limited by the bedrock.

Permeability is moderately rapid in the Lyman soil. The available water capacity is low. Surface runoff is medium or rapid, depending on the slope. The rooting depth is limited by the bedrock.

Most areas are used as woodland. A few areas are used for recreational purposes.

This unit is very poorly suited to cultivated crops and to hay and pasture. The main limitations are the Rock outcrop, the depth to bedrock, droughtiness, and the slope. Removal of the organic surface layer increases the hazard of erosion.

The potential productivity for eastern white pine is very low on the Abram soil and medium on the Lyman soil. The main limitations are the slope, the depth to bedrock, and the hazard of erosion. The use of equipment is severely limited by the slope. The restricted rooting depth causes a severe hazard of windthrow. Properly designing logging roads and skid trails helps to prevent excessive erosion. Because of the Rock outcrop, constructing the roads is difficult.

No capability subclass is assigned.

AdA—Adams loamy sand, 0 to 3 percent slopes. This nearly level, somewhat excessively drained, very deep soil is on outwash plains and terraces. Areas are irregular in shape and range from about 4 to 250 acres in size. They are most commonly 15 to 100 acres in size. Slopes are smooth and slightly convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are the very deep Colton and Croghan soils and areas of soils that are fine sandy loam or very fine sandy loam to a depth of 20 inches. The excessively drained Colton soils are gravelly throughout. They are intermingled with many areas of the Adams soil. The moderately well drained Croghan soils are in slight depressions. Also included, adjacent to valley walls, are areas where the Adams soil is intermingled with areas of Hermon soils or has stones on the surface. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. A small acreage is used for hay or pasture. Some areas are used as sites for houses, particularly in the town of Oxford.

Because of droughtiness, this soil is poorly suited to cultivated crops and to hay and pasture. Irrigation is needed. Measures that increase the content of organic matter and applications of lime and fertilizer are the major management needs. If irrigated and properly managed, the soil is suited to early season truck crops.

If this soil is used for sewage disposal, the effluent can contaminate ground water because of a poor filtering capacity in the substratum. Sloughing is a hazard in shallow excavations. The soil is a good source of poorly graded sand. It dries out quickly after rains and is suitable as a site for athletic fields and playgrounds.

The potential productivity is high for eastern white pine and moderate for most of the other commonly grown native trees. The main limitation is droughtiness, which causes high seedling mortality. Eastern white pine, red pine, and northern red oak respond well to weeding and thinning.

The capability subclass is IIIs.

AdB—Adams loamy sand, 3 to 8 percent slopes. This gently sloping, somewhat excessively drained, very deep soil is on outwash plains and terraces. Areas are irregular in shape and range from about 4 to 200 acres in size. They are most commonly 10 to 80 acres in size. Slopes are smooth and slightly convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are small areas of the very deep Colton and Croghan soils. The excessively drained Colton soils are gravelly throughout. They are intermingled with many areas of the Adams soil. The moderately well drained Croghan soils are in small, nearly level depressions. Also included are areas near Buckfield and along the Nezinscot River where the upper 20 inches of the Adams soil is fine sandy loam. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. Some areas are used as sites for houses, particularly in the town of Oxford.

Because of droughtiness, this soil is poorly suited to cultivated crops and to hay and pasture. Irrigation is needed. If the soil is cultivated, erosion is a hazard because of the slope. Such measures as stripcropping and no-till planting help to control erosion. Measures that increase the content of organic matter and applications of lime and fertilizer are the major management needs.

If this soil is used for sewage disposal, the effluent can contaminate ground water because of a poor filtering capacity in the substratum. Sloughing is a hazard in excavations. The soil is a good source of poorly graded sand.

The potential productivity is high for eastern white pine and moderate for most of the other commonly grown native trees. The main limitation is droughtiness, which causes high seedling mortality. Eastern white pine, red pine, and northern red oak respond well to weeding and thinning.

The capability subclass is IIIs.

AdC—Adams loamy sand, 8 to 15 percent slopes. This strongly sloping, somewhat excessively drained, very deep soil is on outwash plains and terraces. Areas generally are irregular in shape but are elongated on side slopes. They range from about 5 to more than 200 acres in size. They are most commonly 15 to 50 acres in size. Slopes are smooth and convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are small areas of the very deep Colton and Croghan soils. The excessively drained Colton soils are gravelly throughout. They are intermingled with many areas of the Adams soil. The moderately well drained Croghan soils are in small, nearly level depressions. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is slow or medium. The available water capacity is very low.

Most areas are used as woodland. Some areas are used as sites for houses.

Because of droughtiness, this soil is poorly suited to cultivated crops and to hay and pasture. Irrigation is needed. If the soil is cultivated, erosion is a hazard. Such measures as stripcropping and no-till planting can help to control erosion. Measures that increase the content of organic matter and applications of lime are the major management needs.

If this soil is used for sewage disposal, the effluent can contaminate ground water because of a poor filtering capacity in the substratum. The slope is a limitation on sites for houses. Sloughing is a hazard in shallow excavations. The soil is a good source of poorly graded sand.

The potential productivity is high for eastern white pine and moderate for most of the other commonly grown native trees. Droughtiness and the slope are the major limitations. Seedling mortality is high because of the droughtiness. Eastern white pine, red pine, and northern red oak respond well to weeding and thinning.

The capability subclass is IVe.

AdD—Adams loamy sand, 15 to 25 percent slopes. This moderately steep, somewhat excessively drained, very deep soil is on the sides of outwash plains and terraces. Areas generally are elongated and are less than 60 acres in size. They are most commonly about 20 acres in size. Slopes are smooth and slightly convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick.

It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are small areas of the very deep Colton and Hermon soils. The excessively drained Colton soils are gravelly throughout. They are intermingled with many areas of the Adams soil. The somewhat excessively drained Hermon soils formed in glacial till. They are in areas that are transitional to glacial till. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is medium. The available water capacity is very low.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops because of the slope and droughtiness. If the soil is cultivated, erosion is a hazard because of the slope. Such measures as stripcropping and no-till planting can help to control erosion.

This soil is poorly suited to pasture and hay because of the very low available water capacity. Overgrazing can cause erosion.

If this soil is used for urban development, the main limitation is the slope. Erosion-control measures are needed because of surface runoff on the moderately steep slopes. As little vegetation as possible should be removed, and a temporary plant cover should be established as soon as possible. If the soil is used for sewage disposal, the main limitations are the slope and a poor filtering capacity in the substratum. The poor filtering capacity can result in the contamination of ground water. The soil is a good source of poorly graded sand.

The potential productivity is high for eastern white pine and moderate for most of the other commonly grown native trees. Droughtiness and the slope are the main limitations. Seedling mortality is high because of the droughtiness. Operating equipment is difficult in many areas because of the slope. Building logging roads and skid trails on the contour helps to control erosion. Eastern white pine, red pine, and northern red oak respond well to weeding and thinning.

The capability subclass is VIe.

AED—Adams loamy sand, moderately steep. This moderately steep, very deep soil is adjacent to streams and on the side slopes of glacial outwash terraces. Most areas are elongated or oval and are 15 to 100 acres in size. Slopes are mostly convex but are concave in a few areas. They range from 15 to 35 percent. The unit is about 70 percent a somewhat excessively drained Adams soil and 30 percent other soils. The Adams soil is the major component and typically is on all parts of the landscape.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are small areas of the moderately well drained, very deep Croghan soils and the excessively drained, very deep, gravelly Colton soils. These soils are intermingled with areas of the Adams soil. Also included are the moderately well drained Skerry and somewhat excessively drained Hermon soils. These very deep soils formed in glacial till on isolated rises or in areas that are transitional to upland till.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is medium or rapid. The available water capacity is very low.

Most areas are used as woodland.

This soil is poorly suited to cultivated crops, hay, and pasture. The main limitations are the slope and droughtiness.

If this soil is used for urban development, the main limitations are the slope and a poor filtering capacity in the substratum. Because of the poor filtering capacity, the effluent from sewage disposal systems can contaminate ground water.

The potential productivity for eastern white pine is high. The major limitation is the sandy texture, which causes droughtiness. Seedling mortality is high because of the droughtiness. The slope moderately limits the use of equipment.

No capability subclass is assigned.

AGC—Adams-Croghan association, strongly sloping. This unit consists of strongly sloping, very deep soils on outwash terraces throughout the survey area. Most areas are irregular in shape and are 40 to 300 acres in size. Slopes are concave or convex. They range from 0 to 15 percent. Most areas of the Croghan soil have slopes of 8 percent or less. The unit is about 50 percent a somewhat excessively drained Adams soil, 30 percent a moderately well drained Croghan soil, and 20 percent other soils. The Adams soil is in the highest positions on the landscape, and the Croghan soil is in the lower, concave areas.

Typically, the Adams soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Typically, the Croghan soil has a layer of forest litter over a surface layer of grayish brown loamy fine sand about 2 inches thick. The subsoil is about 33 inches thick. The upper part is dark brown, strong brown, and yellowish brown loamy fine sand, and the lower part is yellowish brown and light olive brown, mottled loamy sand. The substratum to a depth of 60 inches or more is light olive brown, mottled sand.

Included with these soils in mapping are small areas of Colonel, Hermon, Naumburg, Searsport, and Skerry soils. All of these included soils are very deep. The somewhat poorly drained and poorly drained Naumburg soils and the very poorly drained Searsport soils are in depressional areas. The somewhat poorly drained Colonel soils are in depressional areas that are transitional to glacial till. The moderately well drained Skerry soils and the somewhat excessively drained Hermon soils are on isolated rises and in areas that are transitional to upland till. Also included are a few areas that have stones on the surface, have rock outcrops, and are transitional to upland till; a few areas that have slopes of more than 15 percent; and areas of Croghan soils that have a surface layer and subsoil of fine sandy loam.

Permeability is rapid or very rapid in the Adams and Croghan soils. Surface runoff is slow. The available water capacity is very low. The Croghan soil has a seasonal high water table at a depth of about 1.5 to 2.0 feet during winter and spring.

Most areas are used as woodland.

Because of droughtiness, these soils are poorly suited to cultivated crops and to hay and pasture. Irrigation is needed.

If this unit is used for urban development, ground-water contamination by the effluent from sewage disposal systems is a hazard and the seasonal high water table in the Croghan soil is a major limitation.

The potential productivity for eastern white pine is high on the Adams soil and very high on the Croghan soil. The major limitation is the sandy texture, which causes droughtiness. Seedling mortality is high because of the droughtiness.

No capability subclass is assigned.

AHC—Adams-Hermon association, strongly sloping. This unit consists of strongly sloping, very deep soils in transitional areas between outwash plains and terraces and glacial till ridges. Stones and boulders cover 0.1 to 3 percent of the surface in areas of the Hermon soil. Areas of this unit are irregular in shape and are generally 30 to 150 acres in size. Slopes range from 0 to 15 percent, are convex, and are commonly dissected by drainageways. The unit is about 50 percent a somewhat excessively drained Adams soil, 30 percent a somewhat excessively drained Hermon soil, and 20 percent other soils. The Adams soil is commonly on the lower slopes adjacent to drainageways and is intermingled with areas of the Hermon soil. The Hermon soil is typically in the higher areas that are transitional to glacial till ridges and hills.

Typically, the Adams soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Typically, the Hermon soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with these soils in mapping are small areas of Croghan and Skerry soils and rock outcrops. Croghan and Skerry soils are very deep and moderately well drained and are in depressions. The rock outcrops are on the crests of small ridges or knobs. Also included are areas that have slopes of more than 15 percent.

Permeability is moderately rapid or very rapid in the Adams and Hermon soils. Surface runoff is slow. The available water capacity is very low or low.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. The main limitations are droughtiness and the surface stones.

The potential productivity for eastern white pine is high on the Adams soil and medium on the Hermon soil. The major limitation is the sandy texture, which causes droughtiness. Seedling mortality is high on the Adams soil and moderate on the Hermon soil because of the droughtiness. Reforestation is difficult because of the surface stones on the Hermon soil.

No capability subclass is assigned.

AHD—Adams-Hermon association, moderately steep. This unit consists of moderately steep, very deep soils on foot slopes adjacent to outwash plains and terraces and to glacial till ridges. Stones and boulders cover 0.1 to 3 percent of the surface in areas of the Hermon soil. Areas of this unit are irregular in shape and generally are 30 to 100 acres in size. Slopes range from 15 to 35 percent, are convex, and commonly are dissected by drainageways. The unit is about 50 percent a somewhat excessively drained Adams soil, 30 percent a somewhat excessively drained Hermon soil, and 20 percent other soils. The Adams soil commonly is on the lower slopes, and the Hermon soil is on the higher slopes. The two soils are commonly intermingled in a complex pattern.

Typically, the Adams soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Typically, the Hermon soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with these soils in mapping are small areas of Croghan and Skerry soils and rock outcrops. The moderately well drained, very deep Croghan and Skerry soils are in depressions. The rock outcrops are on the crests of small ridges or knobs. Also included are areas that have slopes of less than 15 percent or more than 35 percent.

Permeability is moderately rapid or very rapid in the Adams and Hermon soils. Surface runoff is medium. The available water capacity is very low or low.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. The major limitations are the slope and the surface stones.

If this unit is used for urban development, the major limitation is a poor filtering capacity in the substratum of the Adams soil. Because of the poor filtering capacity, the effluent from sewage disposal systems can contaminate ground water.

The potential productivity for eastern white pine is high on the Adams soil and medium on the Hermon soil. The major limitations are the sandy texture, which causes droughtiness, and the slope. Seedling mortality is high on the Adams soil and moderate on the Hermon soil because of the droughtiness. The slope moderately limits the use of equipment and causes a moderate hazard of erosion on both soils. Because of the surface stones on the Hermon soil, reforestation is difficult.

No capability subclass is assigned.

BeB—Becket fine sandy loam, 3 to 8 percent slopes. This gently sloping, well drained, very deep soil is on the crests of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and are 5 to 25 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 17 inches thick. It is dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of Lyman, Skerry, and Tunbridge soils, a few rock outcrops, and small areas of soils that have a substratum of fine sandy loam or loam. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are on knolls, on ridgetops, and in areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower slopes and in shallow depressions. Also included are a few small areas of soils that are similar to the Becket soil but are more than 40 inches deep to a compact substratum or have slopes of less than 3 percent or more than 8 percent and a few scattered areas where stones cover as much as 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used for hay, orchards, or cropland. Some areas have reverted to woodland.

This soil is fairly well suited to cultivated crops and orchards. If cultivated crops are grown on long slopes, erosion-control measures, such as diversions and stripcropping, are needed. Applications of lime and fertilizer are the major management needs. Returning crop residue and green manure to the soil adds organic matter and thus conserves moisture and improves tilth. In some areas removal of a few stones is needed after the soil is plowed.

This soil is fairly well suited to pasture and hay. Droughtiness may be a limitation during dry years.

Applications of lime and fertilizer increase productivity.

If this soil is used for urban development, the moderately slow or slow permeability in the compact substratum is a limitation affecting sewage disposal. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. Wooded areas of this soil are generally on abandoned farmland. A few abandoned fields have been planted to trees. The compact substratum restricts the root development of trees with taproots, such as red pine. Such trees as eastern white pine and northern red oak respond well to thinning and pruning.

The capability subclass is IIe.

BeC—Becket fine sandy loam, 8 to 15 percent slopes. This strongly sloping, well drained, very deep soil is on the upper side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and are 5 to 25 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 17 inches thick. It is dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of the Lyman, Skerry, and Tunbridge soils, a few rock outcrops, and small areas of soils that have a substratum of fine sandy loam or loam. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are on knolls and ridgetops and in areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower slopes and in shallow depressions. Also included are a few small areas of soils that are similar to the Becket soil but are more than 40 inches deep to a compact substratum or have slopes of less than 8 percent or more than 15 percent and a few scattered areas where stones cover as much as 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the substratum. Surface runoff is medium or rapid. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used for hay, orchards, or pasture. Some areas have reverted to woodland.

This soil is fairly well suited to most cultivated crops and orchards. The slope and the hazard of erosion are the main limitations if cultivated crops are grown. Diversions, winter cover crops, and stripcropping help to control erosion. In some areas removal of a few stones is needed after the soil is plowed.

This soil is fairly well suited to pasture and hay. During dry years it is somewhat droughty. Applications of lime and fertilizer are the major management needs.

If this soil is used for urban development, the slope and the moderately slow or slow permeability in the compact substratum are limitations affecting sewage disposal. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. Wooded areas of this soil are generally on abandoned farmland. A few abandoned fields are planted to trees. The compact substratum restricts the root development of trees with taproots, such as red pine. Such trees as eastern white pine and northern red oak respond well to thinning and pruning.

The capability subclass is IIIe.

BeD—Becket fine sandy loam, 15 to 25 percent slopes. This moderately steep, well drained, very deep soil is on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and are 5 to 90 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 17 inches thick. It is dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of Lyman, Skerry, and Tunbridge soils, a few rock outcrops, and small areas of soils that have a substratum of fine sandy loam or loam. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are on knolls and ridgetops and in areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower slopes and along steep, narrow drainageways. Also included are small areas that have slopes of less than 15 percent or more than 25 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the substratum. Surface runoff is rapid. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used for hay or pasture. Some areas have reverted to woodland.

This soil is poorly suited to cultivated crops. The slope increases the hazard of erosion and makes operating equipment difficult. Such measures as diversions and grassed waterways cannot be easily established and maintained.

This soil is poorly suited to pasture and hay. Operating farm equipment is hazardous because of the slope. Applications of lime and fertilizer increase productivity. Controlled grazing helps to control erosion in pastured areas.

If this soil is used for urban development, the main limitations are the slope and the moderately slow or slow permeability in the compact substratum. Sewage disposal systems and building foundations require extensive filling and grading. Where cuts are made or vegetation is removed, erosion is a serious hazard. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. Wooded areas of this soil are generally on abandoned farmland. The hazard of erosion and the equipment limitation are management concerns because of the slope. The hazard of windthrow is moderate because of the restricted rooting depth. Laying out logging roads and skid trails on the contour helps to control erosion. Such trees as eastern white pine and northern red oak respond well to pruning and thinning.

The capability subclass is IVe.

BkB—Becket fine sandy loam, 3 to 8 percent slopes, very stony. This gently sloping, well drained, very deep soil is on the crests of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or circular and are generally 5 to 80 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of Lyman, Skerry, Tunbridge, and Marlow soils and a few rock outcrops. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are in scattered areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower side slopes and in shallow depressions. The well drained Marlow soils are at the higher elevations. Also included are small areas that have slopes of less than 3 percent or more than 8 percent and a few small areas of soils that are more than 40 inches deep to a compact substratum. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used as woodland. Some areas are used as unimproved pasture. Some areas are used as homesites.

This soil is very poorly suited to cultivated crops and hay. The surface stones interfere with tillage implements.

If this unit is used for urban development, the moderately slow or slow permeability in the compact substratum is a limitation affecting sewage disposal. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The surface stones generally do not hinder timber harvesting. The compact substratum restricts the root development of trees with taproots, such as red pine. Consequently, the hazard of windthrow is moderate. Such trees as eastern white pine and northern red oak respond well to pruning or thinning.

The capability subclass is VIs.

BkC—Becket fine sandy loam, 8 to 15 percent slopes, very stony. This strongly sloping, well drained, very deep soil is on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and are 5 to 100 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of Lyman, Skerry, Tunbridge, and Marlow soils and a few rock outcrops. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are in scattered areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower slopes and in shallow depressions. The well drained Marlow soils are at the higher elevations. Also included are small areas of soils that are similar to the Becket soil but are more than 40 inches deep to a compact substratum and small areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used as woodland. Some areas are used as unimproved pasture. A few areas are used as sites for houses.

This soil is very poorly suited to cultivated crops and hay. The surface stones interfere with tillage implements.

If this soil is used for urban development, the main limitations are the slope and the moderately slow or slow permeability in the compact substratum. Grading and filling commonly ensure that sewage disposal systems function adequately. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The hazard of erosion is moderate because of the slope. Generally, the surface stones do not seriously hinder timber harvesting. Thoroughly planned roads and water-control measures help to prevent excessive erosion. Such trees as eastern white pine and northern red oak respond well to pruning and thinning.

The capability subclass is VIs.

BkD—Becket fine sandy loam, 15 to 35 percent slopes, very stony. This moderately steep and steep, well drained, very deep soil is on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and generally are 5 to 150 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with this soil in mapping are small areas of Lyman, Skerry, and Tunbridge soils, a few rock outcrops, and small areas of the well drained Marlow soils at the higher elevations. The shallow Lyman soils, the moderately deep Tunbridge soils, and the rock outcrops are in scattered areas where bedrock is at or near the surface. The moderately well drained Skerry soils are on the lower slopes and in seepage areas. Also included are a few small areas of soils that are similar to the Becket soil but are more than 40 inches deep to a compact substratum and small areas that have slopes of less than 15 percent or more than 35 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the compact substratum. Surface runoff is rapid. The available water capacity is moderate. A seasonal high water table is at a depth of about 2.0 to 3.5 feet for brief periods during winter and spring and after heavy rains. The rooting depth extends to the firm substratum.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops, pasture, and hay. The main limitations are the slope and the surface stones.

If this soil is used for urban development, the main limitations are the slope and the moderately slow or slow permeability in the compact substratum. Frost action is a limitation on sites for roads and foundations. Substantial cutting and filling are required when gentle grades are needed. The soil is easily eroded if bare and unprotected, and erosion-control measures are needed during construction.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The hazard of erosion and the equipment limitation are management concerns because of the slope. The hazard of windthrow is moderate because of the restricted rooting depth. Carefully laying out skid trails, logging roads, and landing areas helps to control erosion. Such trees as eastern white pine and northern red oak respond well to pruning and thinning.

The capability subclass is VIIs.

Bp—Brayton-Peacham complex, very stony. This unit consists of nearly level and gently sloping, very deep soils in depressions and along drainageways on glacial till uplands. The Brayton soil is poorly drained. The Peacham soil is very poorly drained. The Brayton soil makes up about 60 percent of the unit and the Peacham soil about 25 percent. Areas are oval or elongated and are 10 to 80 acres in size. The Brayton soil has slopes of 0 to 4 percent, and the Peacham soil has slopes of 0 to 2 percent. The slopes are smooth and concave. Stones cover 0.1 to 3 percent of the surface.

Typically, the Brayton soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of very dark grayish brown, mottled fine sandy loam about 4 inches thick. The subsoil is mottled fine sandy loam about 19 inches thick. It is grayish brown in the upper part and olive gray in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled fine sandy loam.

Typically, the Peacham soil has a layer of forest litter over a surface layer of highly decomposed organic material about 8 inches thick. The subsoil is olive gray, mottled sandy loam about 5 inches thick. The substratum to a depth of 60 inches or more is firm, gray, mottled fine sandy loam.

Included with these soils in mapping are small areas of the very deep Colonel, Dixfield, Skerry, and Wonsqueak soils. The very poorly drained Wonsqueak soils are organic and are on the lowest parts of the landscape. The somewhat poorly drained Colonel soils are mineral and are on the slightly higher rises. The moderately well drained Skerry and Dixfield soils are on small knolls. Also included, along the major streams and drainageways, are some areas where the surface layer of the Brayton and Peacham soils consists of alluvial material as much as 18 inches thick. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Brayton soil and moderately slow or slow in the compact substratum. It is moderately slow to moderately rapid in the surface layer of the Peacham soil, moderately slow in the subsoil, and slow or very slow in the compact substratum. Surface runoff is slow to ponded on both soils. The available water capacity is moderate. A seasonal high water table is about 1.0 foot above to 1.0 foot below the surface in fall, winter, and spring.

This unit is used as woodland and as wildlife habitat. It is near areas of wetlands.

This unit is very poorly suited to cultivated crops, pasture, and hay and to commercial and residential uses. The main limitations are the seasonal high water table and the surface stones.

The potential productivity is high for eastern white pine on the Brayton soil and moderate for red maple on the Peacham soil. The seasonal high water table is a limitation affecting logging activities. The growth of trees is slow. Water-tolerant tree species can be grown.

The capability subclass is VIIs.

BRB—Brayton-Peacham complex, gently sloping, very stony. This unit consists of gently sloping, very deep soils in depressions on glacial till plains and hills throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Areas are mainly irregular in shape and are 30 to 300 acres in size. The Brayton soil has slopes of 0 to 4 percent, and the Peacham soil has slopes of 0 to 2 percent. The slopes are generally concave. The unit is about 60 percent a poorly drained Brayton soil, 20 percent a very poorly drained Peacham soil, and 20 percent other soils. The Brayton soil is in the slightly higher areas, and the Peacham soil is in the lower, broad basins and depressions. The two soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Brayton soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of very dark grayish brown, mottled fine sandy loam about 4 inches thick. The subsoil is mottled fine sandy loam about 19 inches thick. It is grayish brown in the upper part and olive gray in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled fine sandy loam.

Typically, the Peacham soil has a layer of forest litter over a surface layer of highly decomposed organic material about 8 inches thick. The subsoil is olive gray, mottled sandy loam about 5 inches thick. The substratum to a depth of 60 inches or more is firm, gray, mottled fine sandy loam.

Included with these soils in mapping are small areas of the very deep Colonel, Wonsqueak, Dixfield, and Skerry soils. The somewhat poorly drained Colonel soils are on slight rises. The very poorly drained Wonsqueak soils are in the lowest pockets and depressions on the landscape. The moderately well drained Dixfield and Skerry soils are on the highest knobs and rises. Also included are areas of soils along streams where as much as 18 inches of alluvial material is on the surface and areas of soils that have a substratum of silt loam.

Permeability is moderate in the surface layer and subsoil of the Brayton soil and moderately slow or slow in the compact substratum. It is moderately slow to moderately rapid in the surface layer of the Peacham soil, moderately slow in the subsoil, and slow or very slow in the compact substratum. Water moves laterally along the top of the compact substratum and through sandy layers, if they occur, within the substratum. Surface runoff is slow to ponded on both soils. The available water capacity is moderate. In fall, winter, and spring, the Brayton soil has a seasonal high water table within a depth of about 1 foot and the Peacham soil has one about 1 foot above to about 6 inches below the surface.

Most areas are used as woodland and as habitat for wildlife. The unit is near areas of wetlands.

This unit is poorly suited to cultivated crops, hay, pasture, and residential and commercial development. The main limitations are the seasonal high water table and the surface stones.

The potential productivity is high for eastern white pine on the Brayton soil and moderate for red maple on the Peacham soil. The major limitations are the seasonal high water table and the seasonal ponding. Excessive wetness severely limits the use of equipment, restricts the rooting depth, and causes a severe hazard of windthrow. Because of the surface stones, reforestation is difficult.

No capability subclass is assigned.

Ca—Charles silt loam, occasionally flooded. This nearly level, poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated or oval and are about 3 to 30 acres in size. Slopes are generally smooth and concave and are 0 to 2 percent.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown, mottled silt loam about 7 inches thick. The upper part of the substratum grades from grayish brown, mottled silt loam to olive gray, mottled very fine sandy loam. The lower part to a depth of 60 inches or more is olive gray, mottled loamy very fine sand.

Included with this soil in mapping are small areas of the very deep Fryeburg, Lovewell, Medomak, Ondawa, and Rumney soils. The well drained Fryeburg and Ondawa soils are on rises. The moderately well drained Lovewell soils are in the slightly higher positions on the landscape. The poorly drained Rumney soils are in depressions and along drainageways. The very poorly drained Medomak soils are in the deeper depressions and along drainageways. Also included are seasonally ponded areas as much as 5 acres each in size. Included soils make up as much as 20 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Charles soil and moderate to very rapid in the strata of silt loam to fine gravel, if they occur. Surface runoff is slow. The available water capacity is high or very high. A seasonal high water table is commonly within a depth of about 1.5 feet in fall, winter, and spring. The soil is subject to occasional, brief periods of flooding from March through October. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used as woodland. Some areas are used for hay or pasture. This soil is near areas of wetlands.

This soil is poorly suited to cultivated crops, hay, and pasture. The flooding, the slow runoff, and the seasonal high water table are the major limitations. Wetness and frost action limit the suitability for legumes. A drainage system can lower the water table. Applications of lime and fertilizer are the major management needs.

If this soil is used for urban development, the main limitations are the flooding, the wetness, the slow runoff, and frost action.

The potential productivity for eastern white pine is moderate. The major limitations are the flooding and the seasonal high water table. The major management concerns are a moderate hazard of windthrow, a severe equipment limitation, and severe plant competition.

Some areas are suitable as habitat for woodland, openland, and wetland wildlife.

The capability subclass is IVw.

Cb—Charles silt loam, frequently flooded. This nearly level, poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated or oval and are about 3 to 40 acres in size. Slopes are generally smooth and concave and are 0 to 2 percent.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown, mottled silt loam about 7 inches thick. The upper part of the substratum grades from grayish brown, mottled silt loam to olive gray, mottled very fine sandy loam. The lower part to a depth of 60 inches or more is olive gray, mottled loamy very fine sand.

Included with this soil in mapping are small areas of the very deep Fryeburg, Lovewell, Medomak, Ondawa, and Rumney soils. The well drained Fryeburg and Ondawa soils are on rises. The moderately well drained Lovewell soils are in the slightly higher positions on the landscape. The poorly drained Rumney soils are in depressions and along drainageways. The very poorly drained Medomak soils are in the deeper depressions and along drainageways. Also included are seasonally ponded areas as much as 5 acres each in size.

Included soils make up as much as 20 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Charles soil and moderate to very rapid in the strata of silt loam to fine gravel, if they occur. Surface runoff is slow. The available water capacity is high or very high. A seasonal high water table is commonly within a depth of about 1.5 feet in fall, winter, and spring. The soil is subject to frequent, brief periods of flooding from March through October.

Most areas are used as woodland. Some areas are used for hay or pasture. This soil is near areas of wetlands.

This soil is poorly suited to cultivated crops, hay, and pasture. The flooding, the slow runoff, and the seasonal high water table are the major limitations. The seasonal high water table and frost action limit the suitability for legumes. A drainage system can lower the water table. Flood-control structures and applications of lime and fertilizer are the major management needs.

If this soil is used for urban development, the main limitations are the flooding, the seasonal high water table, the slow runoff, and frost action.

The potential productivity for eastern white pine is moderate. The major limitations are the flooding and the seasonal high water table. The major management concerns are a moderate hazard of windthrow, a severe equipment limitation, and severe plant competition.

Some areas are suitable as habitat for woodland, openland, and wetland wildlife.

The capability subclass is IVw.

CeB—Colonel fine sandy loam, 3 to 8 percent slopes. This gently sloping, somewhat poorly drained, very deep soil is in shallow depressions and on the foot slopes of drumlin-shaped glacial till hills and ridges. Areas are irregular in shape and generally are 4 to 30 acres in size. Slopes are smooth, slightly convex, or concave.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 10 inches thick. It is dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Brayton, Dixfield, and Skerry soils. The moderately well drained, very deep Skerry and Dixfield soils are on small knolls or slight rises. The very deep, poorly drained Brayton soils are in the deeper depressions. Also included are some areas of soils that are shallow or moderately deep over bedrock and small areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Colonel soil and moderately slow or slow in the compact substratum. Surface runoff is slow. The available water capacity is moderate. A seasonal high water table is at a depth of about 1 to 2 feet in fall, winter, and spring and lasts until the first part of the growing season.

Most areas are used for pasture or hay. A few areas are used for cultivated crops. Some areas have reverted to woodland.

This soil is poorly suited to cultivated crops, pasture, and hay. The seasonal high water table and the compact substratum are the major limitations. The soil responds well to tile drainage. Drained areas are suitable for many cultivated crops.

Severe limitations affect residential and commercial development. The seasonal high water table is a limitation affecting sewage disposal. It is a potential problem in basements during winter and spring. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine and moderate for balsam fir and red spruce. The seasonal high water table is the major limitation. A severe hazard of windthrow and severe plant competition are the major management concerns. Such trees as eastern white pine, eastern hemlock, and red maple respond well to pruning and weeding.

The capability subclass is IIIw.

CeC—Colonel fine sandy loam, 8 to 15 percent slopes. This strongly sloping, somewhat poorly drained, very deep soil is in shallow depressions on the foot slopes of drumlin-shaped glacial till hills and ridges. Areas are irregular in shape and are about 4 to 10 acres in size. Slopes are slightly concave.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 10 inches thick. It is dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Brayton, Dixfield, and Skerry soils and some areas of soils that are shallow or moderately deep over bedrock. The moderately well drained, very deep Dixfield and Skerry soils are on the tops of knolls. The poorly drained, very deep Brayton soils are in the deeper depressions. Also included are small areas that have slopes of less than 8 percent or more than 15 percent.

Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the solum of the Colonel soil and moderately slow or slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is at a depth of about 1 to 2 feet in fall, winter, and spring and lasts until the first part of the growing season.

Most areas are used for pasture or hay. A few areas are used for cultivated crops. Some areas have reverted to woodland.

This soil is poorly suited to cultivated crops, pasture, and hay. The seasonal high water table and the compact substratum are the major limitations. Because of the slope, erosion is a hazard where a plant cover does not protect the surface.

Severe limitations affect residential and commercial development. The seasonal high water table is a limitation affecting sewage disposal. Wetness is a potential problem in basements during winter and spring. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine and moderate for balsam fir and red spruce. The seasonal high water table is the major limitation. A severe hazard of windthrow, a severe hazard of erosion in disturbed areas, and severe plant competition are the major management concerns. Such trees as eastern white pine, eastern hemlock, and red maple respond well to pruning and weeding.

The capability subclass is IIIe.

CfB—Colonel fine sandy loam, 3 to 8 percent slopes, very stony. This gently sloping, somewhat poorly drained, very deep soil is in shallow depressions and on the convex, lower slopes of drumlin-shaped glacial till hills and ridges. Areas are irregular in shape and are about 5 to 150 acres in size. They are most commonly 5 to 50 acres in size. Slopes are smooth and slightly convex or are concave. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of the very deep Brayton, Dixfield, and Skerry soils. The poorly drained Brayton soils are in the deeper depressions or on wide flats where no drainage outlets are available. The moderately well drained Dixfield and Skerry soils are on small knolls and ridges. Also included are small areas of soils that are shallow or moderately deep over bedrock, areas of soils that are similar to the Colonel soil but have a texture of silt loam, and areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Colonel soil and moderately slow or slow in the compact substratum. Surface runoff is slow. The available water capacity is moderate. A seasonal high water table is at a depth of about 1 to 2 feet in fall, winter, and spring and lasts until the first part of the growing season.

Most areas are used as woodland. Some areas are used as unimproved pasture.

This soil is very poorly suited to cultivated crops, pasture, and hay. The seasonal high water table and the surface stones are the major limitations.

Severe limitations affect residential and commercial development. The seasonal high water table is a limitation affecting sewage disposal. Wetness is a potential problem in basements in winter and spring. Frost action is a limitation on sites for roads and foundations. Removal of the surface stones may be needed.

The potential productivity is high for eastern white pine and moderate for balsam fir and red spruce. The seasonal high water table is the major limitation. A severe hazard of windthrow and severe plant competition are the major management concerns. Such trees as eastern white pine, eastern hemlock, and red maple respond well to pruning and weeding.

The capability subclass is VIs.

CfC—Colonel fine sandy loam, 8 to 15 percent slopes, very stony. This strongly sloping, somewhat poorly drained, very deep soil is in shallow depressions on the foot slopes of drumlin-shaped glacial till hills and ridges. Areas are irregular in shape and are about 5 to 25 acres in size. Slopes are slightly concave. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of the very deep Brayton, Dixfield, and Skerry soils. The poorly drained Brayton soils are in the deeper depressions or on wide flats where no drainage outlets are available. The moderately well drained Dixfield and Skerry soils are on small knolls and ridges. Also included are small areas of soils that are shallow or moderately deep over bedrock, areas of soils that are similar to the Colonel soil but have a texture of silt loam, and areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Colonel soil and moderately slow or slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is at a depth of about 1 to 2 feet in fall, winter, and spring and lasts until the beginning of the growing season.

Most areas are used as woodland. Some areas are used as pasture.

This soil is very poorly suited to cultivated crops, pasture, and hay. The seasonal high water table and the surface stones are the major limitations. Erosion-control measures are needed if cultivated crops are grown.

Severe limitations affect residential and commercial development. The slope and the seasonal high water table are limitations affecting sewage disposal. The seasonal high water table is a potential problem in basements in winter and spring. Frost action is a limitation on sites for roads and foundations. Removal of the surface stones may be needed.

The potential productivity is high for eastern white pine and moderate for balsam fir and red spruce. The seasonal high water table is the major limitation. A severe hazard of windthrow, a severe hazard of erosion in disturbed areas, and severe plant competition are the major management concerns. Such trees as eastern white pine, eastern hemlock, and red maple respond well to pruning and weeding.

The capability subclass is VIs.

CgB—Colton gravelly loamy sand, 3 to 8 percent slopes. This gently sloping, excessively drained, very deep soil is on outwash terraces. Most areas are oval or irregularly shaped and range from about 5 to 200 acres in size. Slopes are smooth and convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray gravelly loamy sand about 2 inches thick. The subsoil is about 18 inches thick. It is dark reddish brown gravelly loamy sand in the upper part and strong brown and yellowish brown very gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown extremely gravelly sand.

Included with this soil in mapping are areas of the very deep Adams, Hermon, Naumburg, and Wonsqueak soils and areas of moderately well drained soils that formed in sand and gravel. The somewhat poorly drained and poorly drained Naumburg soils and the very poorly drained Wonsqueak soils are in nearly level areas and in depressions. The somewhat excessively drained Hermon soils are on glacial till knolls. The somewhat excessively drained Adams soils are in positions on the landscape similar to those of the Colton soil. They are commonly intermingled with areas of the Colton soil. They are sandy throughout. Also included are some areas that have slopes of less than 3 percent or more than 8 percent, some areas next to glacial till ridges where stones cover 0.1 to 3 percent of the surface, and some areas of soils that have a surface layer of gravelly loam, fine sandy loam, or sandy loam as much as 12 inches thick. Included soils make up as much as 15 percent of this unit.

Permeability is rapid in the surface layer and subsoil of the Colton soil and very rapid in the substratum. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. A few areas are used as pasture.

This soil is poorly suited to cultivated crops, pasture, and hay. The very low available water capacity, very strong acidity, and the rapid or very rapid permeability are the major limitations. Additions of manure or green manure crops can increase the content of organic matter and thus improve soil structure and increase the available water capacity. Applications of lime and fertilizer and rotational grazing are the major management needs. Irrigation is needed in most years. The soil can be worked very early in the year.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. If shallow excavations are made, the sides are unstable and tend to cave in. The soil is a good source of gravel.

The potential productivity is medium for eastern white pine and high for white spruce. Droughtiness is the major limitation. Seedling mortality is the major management concern. Such trees as eastern white pine, red pine, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is IIIs.

CgC—Colton gravelly loamy sand, 8 to 15 percent slopes. This strongly sloping and rolling, excessively drained, very deep soil is on outwash terraces, kames, and eskers. Most areas are irregular in shape and range from about 3 to 100 acres in size. Slopes are mostly complex, but some are smooth and convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray gravelly loamy sand about 2 inches thick. The subsoil is about 18 inches thick. It is dark reddish brown gravelly loamy sand in the upper part and strong brown and yellowish brown very gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown extremely gravelly sand.

Included with this soil in mapping are areas of the very deep Adams, Hermon, Naumburg, and Wonsqueak soils. The somewhat poorly drained and poorly drained Naumburg soils and the very poorly drained Wonsqueak soils are in small, nearly level areas and in depressions. The somewhat excessively drained Hermon soils are on glacial till knolls. The somewhat excessively drained Adams soils are in positions on the landscape similar to those of the Colton soil. They are commonly intermingled with areas of the Colton soil. They are sandy throughout. Also included are areas of moderately well drained soils that formed in sand and gravel; areas of soils that have a surface layer of gravelly loam, fine sandy loam, or sandy loam as much as 12 inches thick; and areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is rapid in the surface layer and subsoil of the Colton soil and very rapid in the substratum. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. A few areas are used as pasture.

This soil is poorly suited to cultivated crops, pasture, and hay. The slope, the very low available water capacity, very strong acidity, and the rapid or very rapid permeability are the major limitations. Erosion-control measures generally are needed if cultivated crops are grown. Additions of manure or green manure crops can increase the content of organic matter and thus improve soil structure and increase the available water capacity. Applications of lime and fertilizer are the major management needs. Irrigation is needed in most years. The soil can be worked very early in the spring.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. If shallow excavations are made, the sides are unstable and tend to cave in. The soil is a good source of gravel.

The potential productivity is medium for eastern white pine and high for white spruce. Droughtiness is the major limitation. Seedling mortality is the major management concern. Such trees as eastern white pine, red pine, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is IVe.

CgD—Colton gravelly loamy sand, 15 to 25 percent slopes. This moderately steep and hilly, excessively drained, very deep soil is on kames and eskers and to a lesser extent on the sides of outwash terraces. Most areas are irregular in shape and range from about 5 to 200 acres in size. Slopes are mostly complex, but some are smooth and convex.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray gravelly loamy sand about 2 inches thick. The subsoil is about 18 inches thick. It is dark reddish brown gravelly loamy sand in the upper part and strong brown and yellowish brown very gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown extremely gravelly sand.

Included with this soil in mapping are areas of the very deep Adams, Croghan, Hermon, and Monadnock soils. The somewhat excessively drained Adams soils are in positions on the landscape similar to those of the Colton soil. They are commonly intermingled with areas of the Colton soil. They are sandy throughout. The well drained Monadnock soils and the somewhat excessively drained Hermon soils are on glacial till knolls and on the upper side slopes adjacent to till ridges. The moderately well drained Croghan soils are in depressions and along drainageways. Included soils make up as much as 15 percent of this unit.

Permeability is rapid in the surface layer and subsoil of the Colton soil and very rapid in the substratum. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. A few areas are used as pasture.

This soil is very poorly suited to cultivated crops and to pasture and hay. The slope, the very low available water capacity, very strong acidity, and the rapid or very rapid permeability are the major limitations. Yields are low in pastured areas. Managing these areas is difficult. Erosion is a hazard if the soil is used for cultivated crops. Applying erosion-control measures is difficult.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The slope and the rapid or very rapid permeability are the major limitations. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity. If shallow excavations are made, the sides are unstable and tend to cave in. The soil is a good source of gravel, but the slope limits mining for gravel.

The potential productivity is medium for eastern white pine and high for white spruce. Droughtiness and the slope are the major limitations. The slope moderately limits the use of equipment. Seedling mortality is high because of the droughtiness. Laying out logging roads and skid trails on the contour helps to control erosion. Such trees as eastern white pine, red pine, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is VIe.

CHC—Colton-Adams association, strongly sloping. This unit consists of strongly sloping, very deep soils on glacial outwash terraces and eskers throughout the survey area. Areas are mainly elongated or irregularly shaped and are 10 to 50 acres in size. Slopes range from 0 to 15 percent and are smooth and convex. The unit is about 50 percent an excessively drained Colton soil, 30 percent a somewhat excessively drained Adams soil, and 20 percent other soils. On most landforms the Colton and Adams soils are in similar positions. The Colton soil typically makes up the larger part of the areas on eskers.

Typically, the Colton soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray gravelly loamy sand about 2 inches thick. The subsoil is about 18 inches thick. It is dark reddish brown gravelly loamy sand in the upper part and strong brown and yellowish brown very gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown extremely gravelly sand.

Typically, the Adams soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with these soils in mapping are small areas of Croghan, Hermon, and Monadnock soils. The somewhat excessively drained Hermon soils and the well drained Monadnock soils formed in coarse textured glacial till. They are in areas that are transitional to the adjacent upland till ridges. The very deep, moderately well drained Croghan soils are on broad terraces where a seasonal high water table is near the surface. Also included are areas of soils that have a cemented subsoil, areas where a few stones or rock outcrops are on the surface, and a few areas that have slopes of more than 15 percent.

Permeability is rapid or very rapid in the Colton and Adams soils. Surface runoff is slow. The available water capacity is very low.

Most areas are used as woodland. A few areas are used as gravel pits or for residential and commercial development.

This unit is poorly suited to cultivated crops and to hay and pasture. The main limitations are droughtiness in both the Colton and Adams soils and small stones on the surface of the Colton soil.

If this unit is used for residential or commercial development, ground-water contamination by the effluent from sewage disposal systems is a hazard. The Colton soil is a good source of gravel.

The potential productivity for eastern white pine is high on the Adams soil and medium on the Colton soil. The major limitation is the sandy texture, which causes droughtiness and severe seedling mortality.

No capability subclass is assigned.

CHD—Colton-Adams association, moderately steep. This unit consists of moderately steep and steep, very deep soils on the side slopes of river and stream valley terraces, kames, and eskers. Areas generally are irregularly shaped or elongated, are generally parallel to watercourses, and are 10 to 20 acres in size. Slopes are smooth and convex and range from 15 to 35 percent. The unit is about 60 percent an excessively drained Colton soil, 20 percent a somewhat excessively drained Adams soil, and 20 percent other soils. On most landforms the Colton and Adams soils are in similar positions. The Colton soil typically makes up the larger part of the areas on eskers.

Typically, the Colton soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray gravelly loamy sand about 2 inches thick. The subsoil is about 18 inches thick. It is dark reddish brown gravelly loamy sand in the upper part and strong brown and yellowish brown very gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown extremely gravelly sand.

Typically, the Adams soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included with these soils in mapping are small areas of the somewhat excessively drained Hermon and well drained Monadnock soils. These included soils formed in coarse textured glacial till. They are in areas that are transitional to the adjacent upland till ridges. Also included are areas of soils that have a cemented subsoil, areas that have a few stones or rock outcrops on the surface, and a few areas that have slopes of less than 15 percent or more than 35 percent.

Permeability is rapid or very rapid in the Colton and Adams soils. Surface runoff is medium. The available water capacity is very low.

Most areas are used as woodland.

This unit is poorly suited to cultivated crops and to hay and pasture. The slope and droughtiness in areas of both the Colton and Adams soils and small stones on the Colton soil are severe limitations if cultivated crops are grown.

If this unit is used for residential or commercial development, ground-water contamination by the effluent from sewage disposal systems is a hazard and the slope is a severe limitation. The Colton soil is a good source of gravel.

The potential productivity for eastern white pine is high on the Adams soil and medium on the Colton soil. The major limitation is the sandy texture, which causes droughtiness and severe seedling mortality. The slope moderately limits the use of equipment and causes a moderate hazard of erosion.

No capability subclass is assigned.

Co—Cornish very fine sandy loam, occasionally flooded. This nearly level, somewhat poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated or oval and are about 5 to 50 acres in size. Slopes are smooth and slightly concave and are 0 to 2 percent.

Typically, this soil has a surface layer of very dark grayish brown very fine sandy loam about 12 inches thick. The subsoil is mottled very fine sandy loam about 23 inches thick. It is light olive brown in the upper part and olive in the lower part. The substratum to a depth of 60 inches or more is olive gray, mottled very fine sandy loam.

Included with this soil in mapping are the very deep Charles, Fryeburg, Lovewell, Ondawa, and Rumney soils. The poorly drained Charles and Rumney soils are in depressions. The moderately well drained Lovewell soils are on slight rises. The well drained Fryeburg and Ondawa soils are on rises. Ondawa and Rumney soils are coarser textured than the Cornish soil. Also included are areas of somewhat poorly drained soils that have a texture of fine sandy loam throughout and areas of soils that have as much as 18 inches of fine sandy loam over very fine sandy loam. Included soils make up as much as 25 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Cornish soil and moderate to very rapid in the coarser textured strata, if they occur. Surface runoff is slow. The available water capacity is high or very high. A seasonal high water table is commonly at a depth of about 1 to 2 feet in fall, winter, and spring. The soil is subject to occasional, brief periods of flooding from March through October. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used as woodland or for hay or pasture. Some areas near Fryeburg are used for row crops (fig. 10).

This soil is poorly suited to cultivated crops, such as corn and vegetables. Flooding is a hazard during the growing season because the soil is lower on the landscape than most of the other cultivated soils on the flood plains. The slow runoff and the seasonal high water table are additional limitations. Drainage tile can be installed where suitable outlets are available.

This soil is poorly suited to hay and pasture. The flooding, the slow runoff, and the seasonal high water table are the major limitations. The seasonal high water table and frost action restrict the choice of crops to grasses. A surface drainage system, rotational grazing, and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the occasional flooding, the seasonal high water table, the slow runoff, and frost action are severe limitations.

The potential productivity for eastern white pine and balsam fir is high. The flooding and the seasonal high water table are the major limitations.

The capability subclass is IIIw.

Cp—Cornish very fine sandy loam, frequently flooded. This nearly level, somewhat poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated or oval and are about 5 to 40 acres in size. Slopes are generally smooth and concave and are 0 to 2 percent.

Typically, this soil has a surface layer of very dark grayish brown very fine sandy loam about 12 inches thick. The subsoil is mottled very fine sandy loam about 23 inches thick. It is light olive brown in the upper part and olive in the lower part. The substratum to a depth of 60 inches or more is olive gray, mottled very fine sandy loam.

Included with this soil in mapping are the very deep

Figure 10.—A row-cropped area of Cornish very fine sandy loam, occasionally flooded.

Charles, Lovewell, and Rumney soils. The poorly drained Charles and Rumney soils are in depressions. The moderately well drained Lovewell soils are on slight rises. Also included are areas of somewhat poorly drained soils that have a texture of fine sandy loam throughout and areas of soils that have as much as 18 inches of fine sandy loam over very fine sandy loam. Included soils make up as much as 20 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Cornish soil and moderate to very rapid in the coarser textured strata, if they occur. Surface runoff is slow. The available water capacity is high or very high. A seasonal high water table is commonly at a depth of about 1 to 2 feet in fall, winter, and spring. The soil is subject to frequent, brief periods of flooding from March through October.

Most areas are wooded or are used for pasture or hay.

This soil is very poorly suited to cultivated crops, such as corn and vegetables. Flooding is a hazard during the growing season because the soil is lower on the landscape than most of the other cultivated soils on the flood plains. The slow runoff and the seasonal high water table are additional limitations. Drainage tile can be installed where suitable outlets are available.

This soil is poorly suited to pasture and hay. The flooding, the slow runoff, and the seasonal high water table are the major limitations. The seasonal high water table and frost action restrict the choice of crops to grasses. A surface drainage system, rotational grazing, and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the frequent flooding, the seasonal high water table, the slow runoff, and frost action are severe limitations.

The potential productivity for eastern white pine and balsam fir is high. The flooding and the seasonal high water table are the major limitations.

The capability subclass is IIIw.

CrA—Croghan loamy fine sand, 0 to 3 percent slopes. This nearly level, moderately well drained, very deep soil is on outwash plains and terraces. Areas are irregular in shape and range from about 3 to 10 acres in size. Slopes are smooth and slightly concave.

Typically, this soil has a layer of forest litter over a surface layer of grayish brown loamy fine sand about 2 inches thick. The subsoil is about 33 inches thick. The upper part is dark brown, strong brown, and yellowish brown loamy fine sand, and the lower part is yellowish brown and light olive brown, mottled loamy sand. The substratum to a depth of 60 inches or more is light olive brown, mottled sand.

Included with this soil in mapping are small areas of Adams and Naumburg soils. The somewhat excessively drained Adams soils are in the slightly higher positions on the landscape. The very deep, somewhat poorly drained and poorly drained Naumburg soils are in narrow drainageways and depressions. Also included are areas of soils that have strata of very fine sand or silt below a depth of 40 inches, areas of soils that have a surface layer and subsurface layer of fine sandy loam or sandy loam, and some areas where slopes are more than 3 percent. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Croghan soil. Surface runoff is slow. The available water capacity is very low. A seasonal high water table is commonly at a depth of about 1.5 to 2.0 feet in fall, winter, and spring.

Most areas are wooded. Some areas are used for pasture or crops, and a small acreage is used for gardens.

This soil is poorly suited to cultivated crops. The seasonal high water table, the very low available water capacity, and low fertility are the major limitations. Measures that increase the content of organic matter, applications of lime and fertilizer, and irrigation are the major management needs.

This soil is poorly suited to pasture and hay. The main limitation is the very low available water capacity. Applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the seasonal high water table is a severe limitation and the effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. Sloughing of the sides of excavations is a hazard.

The potential productivity is very high for eastern white pine. The main limitation is the very low available water capacity. The use of harvesting equipment is restricted during wet periods. Such trees as eastern white pine, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IIw.

CrB—Croghan loamy fine sand, 3 to 8 percent slopes. This gently sloping, moderately well drained, very deep soil is on outwash plains and terraces. Areas are irregular in shape and are about 3 to 40 acres in size. Slopes are smooth and slightly concave.

Typically, this soil has a layer of forest litter over a surface layer of grayish brown loamy fine sand about 2 inches thick. The subsoil is about 33 inches thick. The upper part is dark brown, strong brown, and yellowish brown loamy fine sand, and the lower part is yellowish brown and light olive brown, mottled loamy sand. The substratum to a depth of 60 inches or more is light olive brown, mottled sand.

Included with this soil in mapping are small areas of Adams and Naumburg soils. The somewhat excessively drained Adams soils are in the slightly higher positions on the landscape. The very deep, somewhat poorly drained and poorly drained Naumburg soils are in narrow drainageways and depressions. Also included are areas, in Buckfield and along the Nezinscot River, where strata of silty material and very fine sand are below a depth of 40 inches; areas of coarse-silty soils; areas of soils that have a subsoil of loamy fine sand and a substratum of loamy very fine sand; and areas where slopes are as much as 12 percent. Included soils make up as much as 15 percent of this unit.

Permeability is rapid or very rapid in the Croghan soil. Surface runoff is slow or medium. The available water capacity is very low. A seasonal high water table is commonly at a depth of about 1.5 to 2.0 feet in fall, winter, and spring.

Most areas are wooded. Some areas are used for pasture or crops, and a small acreage is used for gardens.

This soil is poorly suited to cultivated crops. The seasonal high water table and the very low available water capacity are the major limitations. Measures that increase the content of organic matter and applications of lime and fertilizer are the major management needs.

This soil is poorly suited to pasture and hay. The main limitation is the very low available water capacity. Applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the seasonal high water table is a severe limitation and the effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. Sloughing of the sides of excavations is a hazard.

The potential productivity is very high for eastern white pine. The main limitation is the low available water capacity. The use of harvesting equipment is restricted during wet periods. Such trees as eastern white pine, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IIw.

DfB—Dixfield fine sandy loam, 3 to 8 percent slopes. This gently sloping, moderately well drained, very deep soil is in areas near the top of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are irregular in shape and are about 5 to 60 acres in size. Slopes are smooth and convex or are slightly concave.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 15 inches thick. It is dark yellowish brown fine sandy loam and yellowish brown gravelly fine sandy loam in the upper part and pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel and Skerry soils. The somewhat poorly drained Colonel soils generally are in seep spots or on the lower foot slopes. The very deep, moderately well drained Skerry soils are commonly major inclusions along the lower valley walls. Also included are small areas of Dixfield soils that have slopes of less than 3 percent or more than 8 percent and areas where stones cover as much as 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the solum of the Dixfield soil and moderately slow or slow in the substratum. Surface runoff is medium. The available water capacity is moderate. Water from the higher adjacent areas tends to collect on this soil. A seasonal high water table is commonly at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. The rooting depth is limited by the firm or very firm substratum.

Most areas are used for pasture, hay, or cultivated crops. A few areas have reverted to woodland.

This soil is fairly well suited to cultivated crops. The seasonal high water table and the compact substratum are the major limitations. Tile drainage is commonly used to lower the seasonal high water table. In some areas removal of stones is needed after the soil is plowed.

This soil is fairly well suited to pasture and hay. Grazing when the soil is too wet causes compaction. Applications of lime and fertilizer and selection of the proper forage species are the major management needs.

Severe limitations affect residential and commercial development. The slow permeability in the substratum and the seasonal high water table are limitations affecting sewage disposal. Frost action is a limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine, white spruce, and balsam fir and high for red spruce. The compact substratum restricts root development, especially of trees with taproots, such as red pine. A moderate hazard of windthrow and plant competition are the major management concerns. Such trees as northern red oak, eastern white pine, eastern hemlock, and sugar maple respond well to pruning and thinning.

The capability subclass is IIw.

DfC—Dixfield fine sandy loam, 8 to 15 percent slopes. This strongly sloping, moderately well drained, very deep soil is in areas near the top of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are irregular in shape and are about 5 to 40 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 15 inches thick. It is dark yellowish brown fine sandy loam and yellowish brown gravelly fine sandy loam in the upper part and pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel, Lyman, Marlow, and Skerry soils. The very deep, somewhat poorly drained Colonel soils generally are in seep spots. The shallow, somewhat excessively drained Lyman soils and the very deep, well drained Marlow soils are on small, isolated knolls in areas less than three-quarters of an acre in size. Skerry soils are commonly major inclusions on the lower valley walls. Also included are small areas that have slopes of less than 8 percent or more than 15 percent and some areas where stones cover as much as 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the solum of the Dixfield soil and moderately slow or slow in the substratum. Surface runoff is medium or rapid. The available water capacity is moderate. Water from the higher adjacent drumloidal ridges tends to collect on this soil. A seasonal high water table is commonly at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. The rooting depth is limited by the firm or very firm substratum.

Most areas are used for hay, pasture, or cultivated crops. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. The hazard of erosion, the seasonal high water table, the slowly permeable substratum, and the slope are the major limitations. Installing drainage tile can improve the suitability for cultivated crops and orchards. Stripcropping, diversions, and cover crops help to control erosion.

This soil is fairly well suited to pasture and hay. Grazing when the soil is too wet causes surface compaction. Applications of lime and fertilizer and selection of the proper forage species are the major management needs.

If this soil is used for residential or commercial development, the slow permeability in the substratum, the seasonal high water table, and the slope are severe limitations affecting sewage disposal. Frost action is a severe limitation on sites for roads and foundations.

The potential productivity is very high for eastern white pine, white spruce, and balsam fir and high for red spruce. The compact substratum restricts root development, especially of trees with taproots, such as red pine. A moderate hazard of windthrow and plant competition are the major management concerns. Such trees as northern red oak, eastern white pine, eastern hemlock, and sugar maple respond well to pruning and thinning.

The capability subclass is IIIe.

DsB—Dixfield fine sandy loam, 3 to 8 percent slopes, very stony. This gently sloping, moderately well drained, very deep soil is on the sides of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are irregular in shape and are about 5 to 25 acres in size. Slopes are smooth and convex or are slightly concave. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel and Marlow soils. The somewhat poorly drained Colonel soils generally are in seep spots or on the lower slopes. The well drained Marlow soils are on convex slopes at the higher elevations. Also included are small areas that have slopes of less than 3 percent or more than 8 percent and areas where stones cover more than 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the solum of the Dixfield soil and moderately slow or slow in the substratum. Surface runoff is medium. The available water capacity is moderate. Water from the higher adjacent areas tends to collect on this soil. A seasonal high water table is commonly at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. The rooting depth is limited by the firm or very firm substratum.

Most areas are used as woodland. A few areas have been cleared and are used as pasture.

This soil is very poorly suited to cultivated crops. The main limitations are the seasonal high water table, the slowly permeable substratum, and the surface stones.

This soil is poorly suited to pasture and hay. The surface stones limit the use of farm equipment. The soil can be used as unimproved pasture if some of the stones are removed.

If this soil is used for septic sewage disposal systems, sewage lagoons, houses with basements, or sanitary landfills, the main limitations are the seasonal high water table and the slowly permeable substratum. Frost action limits the soil as a source of roadfill.

The potential productivity is very high for eastern white pine, white spruce, and balsam fir and high for red spruce. The compact substratum restricts root development, especially of trees with taproots, such as red pine. A moderate hazard of windthrow and plant competition are the major management concerns. Such trees as northern red oak, eastern white pine, eastern hemlock, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

DsC—Dixfield fine sandy loam, 8 to 20 percent slopes, very stony. This strongly sloping and moderately steep, moderately well drained, very deep soil is on the sides of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are irregular in shape and are about 5 to 25 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel and Marlow soils. The somewhat poorly drained Colonel soils generally are in seep spots. The well drained Marlow soils are on rises. Also included are small areas that have slopes of less than 8 percent or more than 20 percent and areas where stones cover more than 3 percent of the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the solum of the Dixfield soil and moderately slow or slow in the substratum. Surface runoff is medium or rapid. The available water capacity is moderate. Water from the higher adjacent areas tends to collect on this soil. A seasonal high water table is commonly at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. The rooting depth is limited by the firm or very firm substratum.

Most areas are used as woodland. A few areas have been cleared and are used as pasture.

This soil is very poorly suited to cultivated crops. The major limitations are the seasonal high water table, the hazard of erosion, the slope, the slowly permeable substratum, and the surface stones.

This soil is poorly suited to pasture and hay. The surface stones and the slope limit the use of farm equipment. The soil can be used as unimproved pasture if some of the stones are removed.

If this soil is used for septic sewage disposal systems, sewage lagoons, houses with basements, or sanitary landfills, the main limitations are the slowly permeable substratum and the slope. Frost action limits the soil as a source of roadfill.

The potential productivity is very high for eastern white pine, white spruce, and balsam fir and high for red pine. The compact substratum restricts root development, especially of trees with taproots, such as red pine. A moderate hazard of windthrow and plant competition are the major management concerns. Such trees as northern red oak, eastern white pine, eastern hemlock, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

DTC—Dixfield-Colonel association, strongly sloping. This unit consists of strongly sloping, very deep soils on glacial till ridges. Most surface stones have been removed. Areas are generally rectangular, are 25 to 100 acres in size, and commonly have stone walls as their boundaries. The Dixfield soil has slopes of 3 to 15 percent, and the Colonel soil has slopes of 0 to 15 percent. The slopes are smooth or concave. Some areas are dissected by depressions or drainageways. The unit is about 60 percent a moderately well drained Dixfield soil, 30 percent a somewhat poorly drained Colonel soil, and 10 percent other soils. The Dixfield soil is on smooth slopes in the higher areas. The Colonel soil is on the lower slopes or in shallow depressions and drainageways.

Typically, the Dixfield soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 15 inches thick. It is dark yellowish brown fine sandy loam and yellowish brown gravelly fine sandy loam in the upper part and pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Typically, the Colonel soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 10 inches thick. It is dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of Lyman, Marlow, Brayton, and Tunbridge soils. The well drained, very deep Marlow soils are on crests, knolls, and the upper slopes. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are on knolls and in areas where bedrock is at or near the surface. The poorly drained, very deep Brayton soils are in shallow depressions and drainageways. Also included are a few areas that have slopes of less than 3 percent or more than 15 percent and some areas where stones cover as much as 3 percent of the surface.

Permeability is moderate in the solum of the Dixfield and Colonel soils and slow or moderately slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is commonly at a depth of about 1.5 to 2.5 feet in the Dixfield soil and about 1.0 to 2.0 feet in the Colonel soil in fall, winter, and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

This unit is fairly well suited to cultivated crops and to pasture and hay. The main limitations are the seasonal high water table and the compact substratum. Seepage areas in depressions and on the lower slopes limit the use of farm equipment.

If this unit is used for urban development, the main limitations are the seasonal high water table, the compact substratum, and frost action.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Colonel soil. The major limitations are the slowly permeable, compact substratum in both soils and the seasonal high water table in the Colonel soil. The water table limits the use of logging equipment. The slowly permeable, compact substratum causes a severe hazard of windthrow on the Colonel soil and a moderate hazard of windthrow on the Dixfield soil.

No capability subclass is assigned.

DUC—Dixfield-Colonel association, strongly sloping, very stony. This unit consists of strongly sloping, very deep soils on the northwest side slopes of glaciated drumlins and ridges in the central and northern parts of the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are irregular in shape and are 40 to 250 acres in size. The Dixfield soil has slopes of 3 to 15 percent, and the Colonel soil has slopes of 0 to 15 percent. The slopes are slightly concave and smooth. The unit is about 50 percent a moderately well drained Dixfield soil, 30 percent a somewhat poorly drained Colonel soil, and 20 percent other soils. The Dixfield soil is on the upper side slopes, and the Colonel soil is on the lower side slopes in nearly level areas or in shallow depressions.

Typically, the Dixfield soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Typically, the Colonel soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of Brayton, Marlow, and Tunbridge soils. The very deep, poorly drained Brayton soils are in depressions and drainageways. The well drained, moderately deep Tunbridge soils are on knobby ridges and in other areas where bedrock is near the surface. The very deep, well drained Marlow soils are on isolated knobs. Also included are small isolated areas of soils that have a substratum of loose fine sandy loam or sandy loam; areas that have slopes of more than 15 percent; and areas where stones cover more than 3 percent of the surface.

Permeability is moderate in the solum of the Dixfield and Colonel soils and slow or moderately slow in the compact substratum. Surface runoff is slow or medium. The available water capacity is moderate. A seasonal high water table is commonly at a depth of about 1.5 to 2.0 feet in the Dixfield soil and about 1.0 to 2.0 feet in the Colonel soil in fall, winter, and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops, to hay and pasture, and to residential and commercial development. The major limitations are the surface stones, the compact substratum, and the seasonal high water table.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Colonel soil. The seasonal high water table in the Colonel soil moderately limits the use of logging equipment. The slowly permeable, compact substratum in both the Dixfield and Colonel soils causes a seasonal high water table, which limits the rooting depth. The shallow rooting depth and the seasonal high water table cause a moderate hazard of windthrow on the Dixfield soil and a severe hazard of windthrow on the Colonel soil. Because of the surface stones on both soils, reforestation is difficult.

No capability subclass is assigned.

DUD—Dixfield-Colonel association, moderately steep, very stony. This unit consists of strongly sloping to steep, very deep soils on the northwest side slopes of glacial till ridges and hills in the central and northern parts of the survey area. Stones cover 0.1 to 3 percent of the surface. Areas are irregular in shape and generally are 50 to 300 acres in size. The Dixfield soil has slopes of 15 to 35 percent, and the Colonel soil has slopes of 8 to 15 percent. The slopes are slightly concave or convex, are smooth, and normally are dissected by drainageways. The unit is about 55 percent a moderately well drained Dixfield soil, 25 percent a somewhat poorly drained Colonel soil, and 20 percent other soils. The Dixfield soil is on the upper side slopes, and the Colonel soil is on the lower slopes in shallow depressions or along drainageways.

Typically, the Dixfield soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Typically, the Colonel soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of Marlow, Lyman, and Tunbridge soils and a few rock outcrops. The well drained Marlow soils are on knolls and in the higher areas. The somewhat excessively drained, shallow Lyman soils, the well drained, moderately deep Tunbridge soils, and the rock outcrops are in areas where bedrock is at or near the surface. Also included are areas where slopes are less than 8 percent or more than 35 percent and areas where stones cover more than 3 percent of the surface.

Permeability is moderate in the solum of the Dixfield and Colonel soils and moderately slow or slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is moderate. A seasonal high water table is commonly at a depth of about 1.5 to 2.0 feet in the Dixfield soil and about 1.0 to 2.0 feet in the Colonel soil in fall, winter, and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops, to hay and pasture, and to residential and commercial development. The main limitations are the surface stones, the compact substratum, the seasonal high water table, and the slope.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Colonel soil. The major limitations are the seasonal high water table and the slope. The seasonal high water table and the slope are moderate limitations affecting the use of logging equipment. Erosion is a moderate hazard on the Dixfield soil. The slowly permeable, compact substratum in both the Dixfield and Colonel soils causes a seasonal high water table, which restricts the rooting depth. The shallow rooting depth and the seasonal high water table cause a severe hazard of windthrow on the Colonel soil and a moderate hazard of windthrow on the Dixfield soil. Because of the surface stones on both soils, reforestation is difficult.

No capability subclass is assigned.

DWC—Dixfield-Marlow association, strongly sloping. This unit consists of gently sloping to strongly sloping, very deep soils on glacial till ridges in the uplands. Most surface stones have been removed. Areas are generally rectangular, are 25 to 100 acres in size, and commonly have stone walls as their boundaries. Slopes range from 3 to 15 percent and are smooth or concave. Some areas are dissected by depressions or drainageways. The unit is about 50 percent a moderately well drained Dixfield soil, 20 percent a well drained Marlow soil, and 30 percent other soils. The Dixfield soil is on long, smooth slopes in the lower areas or in slight depressions. The Marlow soil is on crests and the upper slopes.

Typically, the Dixfield soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 15 inches thick. It is dark yellowish brown fine sandy loam and yellowish brown gravelly fine sandy loam in the upper part and pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Typically, the surface layer of the Marlow soil is dark brown fine sandy loam about 9 inches thick. The subsoil is about 25 inches thick. It is yellowish brown fine sandy loam in the upper part and grades from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with these soils in mapping are small areas of Colonel, Lyman, and Tunbridge soils. The somewhat poorly drained, very deep Colonel soils are in depressions between the ridges. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are on knobby ridges and in other areas where bedrock is near the surface. Also included are areas that have slopes of less than 3 percent or more than 15 percent and areas where stones cover as much as 3 percent of the surface.

Permeability is moderate in the solum of the Dixfield and Marlow soils and slow or moderately slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is commonly at a depth of about 1.5 to 2.0 feet in the Dixfield soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Marlow soil in winter and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

These soils are fairly well suited to cultivated crops and to pasture and hay. The main limitations are the seasonal high water table in the Dixfield soil and the compact substratum in both the Dixfield and Marlow soils. Seepage areas in depressions limit the use of farm equipment.

If these soils are used for urban development, the main limitations are the seasonal high water table, the compact substratum, and frost action.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Marlow soil. The slowly permeable, compact substratum restricts the rooting depth in both the Dixfield and Marlow soils and causes a seasonal high water table in the Dixfield soil. The restricted rooting depth causes a moderate hazard of windthrow.

No capability subclass is assigned.

DXC—Dixfield-Marlow association, strongly sloping, very stony. This unit consists of strongly sloping, very deep soils in the higher areas on glaciated hills and mountains in the central and northern parts of the survey area. Stones cover 0.1 to 3 percent of the surface. Areas are irregular in shape and generally are 50 to 300 acres in size. Slopes are commonly convex and smooth and range from 3 to 15 percent. The unit is about 50 percent a moderately well drained Dixfield soil, 30 percent a well drained Marlow soil, and 20 percent other soils. The Dixfield soil is on the lower slopes or in nearly level areas. The Marlow soil is on the upper slopes and on ridgetops.

Typically, the Dixfield soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Typically, the Marlow soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 31 inches thick. It grades from dark brown fine sandy loam to yellowish brown fine sandy loam in the upper part and from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with these soils in mapping are small areas of Colonel, Hermon, Lyman, and Tunbridge soils. The somewhat poorly drained, very deep Colonel soils are in depressions and drainageways between the ridges. The somewhat excessively drained, shallow Lyman soils and the well drained, moderately deep Tunbridge soils are on knobby ridges and in other areas where bedrock is near the surface. The somewhat excessively drained, very deep Hermon soils are major inclusions on the lower valley walls. Also included are areas of soils that have a substratum of loose fine sandy loam or sandy loam; a few scattered rock outcrops on ridgetops; areas that have slopes of less than 3 percent or more than 15 percent; and some areas that are extremely stony.

Permeability is moderate in the solum of the Dixfield and Marlow soils and moderately slow or slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. A seasonal high water table is commonly at a depth of 1.5 to 2.5 feet in the Dixfield soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Marlow soil in winter and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops, to hay and pasture, and to residential and commercial development. The main limitations are the surface stones, the slope, the compact substratum, frost action, and the seasonal high water table.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Marlow soil. The slowly permeable, compact substratum limits the rooting depth in both the Dixfield and Marlow soils and causes a seasonal high water table in the Dixfield soil. The restricted rooting depth causes a moderate hazard of windthrow. Because of the surface stones, reforestation is difficult.

No capability subclass is assigned.

DXD—Dixfield-Marlow association, moderately steep, very stony. This unit consists of moderately steep and steep, very deep soils that are commonly on the northern slopes of glaciated mountains and hillsides in the central and northern parts of the survey area. Slopes range from 15 to 35 percent. Stones cover 0.1 to 3 percent of the surface. Areas are irregular in shape and generally are 40 to 250 acres in size. Slopes are short and convex and are commonly dissected by small drainageways. The unit is about 50 percent a moderately well drained Dixfield soil, 40 percent a well drained Marlow soil, and 10 percent other soils. The Dixfield soil is on the lower slopes in depressions and valleys. The Marlow soil is on the upper slopes and on ridgetops.

Typically, the Dixfield soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 19 inches thick. It grades from dark brown and dark yellowish brown fine sandy loam to yellowish brown gravelly fine sandy loam in the upper part and is pale olive, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled gravelly fine sandy loam.

Typically, the Marlow soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 31 inches thick. It grades from dark brown fine sandy loam to yellowish brown fine sandy loam in the upper part and from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with these soils in mapping are small areas of Colonel, Lyman, and Tunbridge soils and scattered areas of rock outcrops. The somewhat poorly drained, very deep Colonel soils are in seepy spots and on nearly level plateaus. The somewhat excessively drained, shallow Lyman soils, the well drained, moderately deep Tunbridge soils, and the rock outcrops are commonly on knobby ridges and in other areas where bedrock is at or near the surface. Also included are isolated areas of soils that have a substratum of loose fine sandy loam or sandy loam; areas that have slopes of less than 15 percent or more than 35 percent; and some areas where stones cover more than 3 percent of the surface.

Permeability is moderate in the solum of the Dixfield and Marlow soils and moderately slow or slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is moderate. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Dixfield soil in fall, winter, and spring and at a depth of about 2.5 to 3.5 feet in the Marlow soil in winter and spring. The rooting depth is limited by the very firm substratum.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops, to hay and pasture, and to residential and commercial development. The main limitations are the compact substratum, the slope, the surface stones, and frost action.

The potential productivity for eastern white pine is very high on the Dixfield soil and high on the Marlow soil. The major limitation is the slope, which causes a moderate hazard of erosion and a moderate equipment limitation. The slowly permeable, compact substratum restricts the rooting depth in both soils and causes a seasonal high water table in the Dixfield soil. The restricted rooting depth causes a moderate hazard of windthrow. Because of the surface stones, reforestation is difficult.

No capability subclass is assigned.

Fr—Fryeburg very fine sandy loam. This nearly level, well drained, very deep soil is on flood plains along rivers and streams. The most extensive area of this soil is in the town of Fryeburg, along the Saco River. Areas are elongated or oval and are about 5 to 90 acres in size. Slopes are generally smooth and convex and are 0 to 3 percent.

Typically, this soil has a surface layer of dark brown very fine sandy loam about 11 inches thick. The subsoil is yellowish brown very fine sandy loam about 11 inches thick. The upper part of the substratum is olive brown very fine sandy loam. The lower part to a depth of 60 inches or more is light yellowish brown sand.

Included with this soil in mapping are small areas of Lovewell and Sunday soils and a few areas of Fryeburg soils that are subject to frequent flooding. The moderately well drained Lovewell soils are in shallow depressions, and the excessively drained Sunday soils are along the margin of fields next to watercourses. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Fryeburg soil and moderate to very rapid in the strata of silt loam to fine gravel, if they occur. Surface runoff is slow or medium. The available water capacity is high or very high. The soil is subject to rare flooding. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used for cultivated crops, especially silage corn, dry beans, and potatoes. Some areas are used for hay, and a few areas are used as woodland or are idle.

This soil is fairly well suited to cultivated crops in areas where flooding is a hazard. In the Fryeburg area, the diversion of the Saco River has greatly reduced the hazard of flooding. In this area the soil is well suited to cultivated crops. Flooding is not likely during the growing season. The soil loss caused by flooding can be minimized if cover crops are grown, if crop residue is left on the soil, and if the soil is plowed after the peak runoff period. Additions of manure, cover crops, and crop residue management can increase the content of organic matter and help to maintain soil structure.

This soil is well suited to pasture and hay. If the soil is flooded, additional alluvial deposits may result in some damage to the grasses and legumes. Fencing dairy animals away from streambanks reduces the hazard of streambank erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

The flooding is a severe hazard affecting residential and commercial uses. Unless adequately protected, permanent structures are subject to damage or destruction by flooding. Special measures are needed to reduce the hazard of streambank erosion. Heavy foot traffic can result in an inadequate plant cover.

The potential productivity for eastern white pine, white spruce, balsam fir, and red spruce is very high.

Because of the flooding, special management is needed to establish new seedlings.

The capability class is I.

HeB—Hermon sandy loam, 3 to 8 percent slopes. This gently sloping, somewhat excessively drained, very deep soil is on the crests and side slopes of till plains, ridges, and hills. Areas are about 3 to 60 acres in size and are oval. Slopes are smooth and convex.

Typically, the surface layer of this soil is dark brown sandy loam about 7 inches thick. The subsoil is about 23 inches thick. It is strong brown very gravelly sandy loam in the upper part and dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Monadnock and Skerry soils. The very deep, moderately well drained Skerry soils are in shallow depressions or on the lower slopes. The very deep, well drained Monadnock soils are in the slightly higher positions on the landscape. Also included are small areas that have slopes of less than 3 percent or more than 8 percent and, commonly near outwash areas in valleys, soils that are similar to the Hermon soil but have a substratum of sandy loam, loamy sand, fine sandy loam, fine sand, or sand and are, by volume, 5 to 25 percent rock fragments. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is slow or medium. The available water capacity is low.

Most areas are used for pasture or hay. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. Droughtiness during the growing season is the major limitation. Generally, removal of a few stones is needed after the soil is plowed.

This soil is poorly suited to pasture and hay. Some species of grasses and legumes are suitable. Droughtiness is the major limitation. Applications of lime and fertilizer are the major management needs.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. If the soil is used as a site for dwellings or for local roads and streets, the major limitation is the large stones. Seepage is a limitation on sites for embankments and dams. The soil is a fair source of roadfill. It is a probable source of sand and gravel.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. Such trees as eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IIs.

HeC—Hermon sandy loam, 8 to 15 percent slopes. This strongly sloping, somewhat excessively drained, very deep soil is on the side slopes of till plains, ridges, hills, and moraines. Areas are about 5 to 30 acres in size and are oval. Slopes are smooth and convex.

Typically, the surface layer of this soil is dark brown sandy loam about 7 inches thick. The subsoil is about 23 inches thick. It is strong brown very gravelly sandy loam in the upper part and dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Monadnock and Skerry soils. The very deep, moderately well drained Skerry soils are in shallow depressions or on the lower side slopes. The very deep, well drained Monadnock soils are in the slightly higher positions on the landscape. Also included are areas that have slopes of less than 8 percent or more than 15 percent and, commonly near outwash areas in valleys, soils that are similar to the Hermon soil but have a substratum of sandy loam, loamy sand, fine sandy loam, fine sand, or sand and are, by volume, 5 to 25 percent rock fragments. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is slow or medium. The available water capacity is low.

Most areas are used for pasture or hay. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. The major limitations are the slope, the hazard of erosion, and droughtiness.

This soil is poorly suited to pasture and hay. Some species of grasses and legumes are suitable. Droughtiness is the major limitation. Applications of lime and fertilizer are the major management needs.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. If the soil is used as a site for dwellings or for local roads and streets, the major limitations are the large stones and the slope. Seepage is a limitation on sites for embankments and dams. The soil is a fair source of roadfill and a probable source of sand and gravel.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. Such trees as eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IIIe.

HeD—Hermon sandy loam, 15 to 25 percent slopes. This moderately steep and hilly, somewhat excessively drained, very deep soil is on the side slopes of glacial till ridges, moraines, and hills. Areas are about 3 to 60 acres in size and are oval. Slopes are generally smooth and convex, and some are dissected by numerous drainageways.

Typically, the surface layer of this soil is dark brown sandy loam about 7 inches thick. The subsoil is about 23 inches thick. It is strong brown very gravelly sandy loam in the upper part and dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Monadnock and Skerry soils. The very deep, moderately well drained Skerry soils are in shallow depressions or on the lower slopes. The very deep, well drained Monadnock soils are in the slightly higher positions on the landscape. Also included are small areas that have slopes of less than 15 percent or more than 25 percent and, commonly near outwash areas in valleys, areas of soils that are similar to the Hermon soil but have a substratum of sandy loam, loamy sand, fine sandy loam, fine sand, or sand and are, by volume, 5 to 25 percent rock fragments. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is rapid. The available water capacity is low.

Most areas are used for pasture or hay. Some areas are wooded.

This soil is poorly suited to cultivated crops. The major limitations are the slope, the hazard of erosion, and droughtiness.

This soil is poorly suited to pasture and hay. The slope and droughtiness are the major limitations.

The slope and the large stones are severe limitations affecting residential and commercial uses. Seepage is a limitation on sites for embankments and dams. The soil is a probable source of sand and gravel, but the slope hinders excavation.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. The slope causes a moderate equipment limitation and a moderate hazard of erosion. Such trees as eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IVe.

HmB—Hermon sandy loam, 3 to 8 percent slopes, very stony. This gently sloping, somewhat excessively drained, very deep soil is on the crests and side slopes of till plains, hills, and ridges. Areas are about 5 to 10 acres in size and are oval. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Adams, Lyman, Monadnock, Skerry, and Tunbridge soils. The very deep, somewhat excessively drained Adams soils are on the lower slopes and are adjacent to outwash terraces. The very deep, moderately well drained Skerry soils are in shallow depressions and on the lower side slopes. The shallow, somewhat excessively drained Lyman soils, the moderately deep, well drained Tunbridge soils, and the very deep, well drained Monadnock soils are on the crests and the upper side slopes of ridges and mountains. Also included are areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is slow. The available water capacity is low.

Most areas are used as woodland. A few areas are used as native pasture or as homesites.

This soil is very poorly suited to cultivated crops and to pasture and hay because of the surface stones.

Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. The soil is a fair source of roadfill and a probable source of sand and gravel.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

HmC—Hermon sandy loam, 8 to 15 percent slopes, very stony. This strongly sloping, somewhat excessively drained, very deep soil is on the side slopes of till plains, hills, ridges, and moraines. Areas are about 5 to 80 acres in size and are oval or irregularly shaped. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Adams, Lyman, Monadnock, Skerry, and Tunbridge soils. The very deep, somewhat excessively drained Adams soils are on the lower slopes and are adjacent to outwash terraces. The very deep, moderately well drained Skerry soils are in shallow depressions and on the lower side slopes. The shallow, somewhat excessively drained Lyman soils, the moderately deep, well drained Tunbridge soils, and the very deep, well drained Monadnock soils are on the crests and the upper side slopes of ridges and mountains. Also included are areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is slow or medium. The available water capacity is low.

Most areas are used as woodland. A few areas are used as native pasture or as homesites.

This soil is very poorly suited to cultivated crops and to pasture and hay because of the surface stones. Droughtiness and the hazard of erosion are the major limitations.

If this soil is used for urban development, the main limitations are the slope and the surface stones. Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. The soil is a fair source of roadfill and a probable source of sand and gravel.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

HmD—Hermon sandy loam, 15 to 35 percent slopes, very stony. This moderately steep, steep, and hilly, somewhat excessively drained, very deep soil is on the side slopes of till plains, hills, ridges, and moraines. Areas are about 10 to 200 acres in size and are oval or irregularly shaped. Slopes are generally smooth and convex, and some are dissected by numerous drainageways. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Adams, Lyman, Monadnock, Skerry, and Tunbridge soils. The very deep, somewhat excessively drained Adams soils are on the lower slopes and are adjacent to outwash terraces. The very deep, moderately well drained Skerry soils are in shallow depressions and on the lower side slopes. The shallow, somewhat excessively drained Lyman soils, the moderately deep, well drained Tunbridge soils, and the very deep, well drained Monadnock soils are on the crests and the upper side slopes of ridges and mountains. Also included are areas that have slopes of less than 15 percent or more than 35 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is medium. The available water capacity is low.

Most areas are used as woodland. A small acreage is used as native pasture.

This soil is very poorly suited to cultivated crops and to pasture and hay because of the slope, the surface stones, and the hazard of erosion.

If this soil is used for urban development, the main limitations are the slope and the surface stones. Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. The soil is a fair source of roadfill and a probable source of sand and gravel. The slope hinders excavation.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. Tree growth is limited by droughtiness. The slope causes a moderate equipment limitation and a moderate hazard of erosion.

Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

HsC—Hermon sandy loam, 0 to 15 percent slopes, extremely stony. This nearly level to strongly sloping or rolling, somewhat excessively drained, very deep soil is on the side slopes of glacial till hills, ridges, and moraines. Areas are about 5 to 120 acres in size and are oval or irregularly shaped. Slopes are smooth and convex and are dissected by many drainageways. Stones cover about 3 to 15 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Colonel, Monadnock, and Skerry soils. The well drained Monadnock soils are on the same landforms as the Hermon soil. The moderately well drained Skerry soils and the somewhat poorly drained Colonel soils are in depressions or along drainageways. They are very deep. Also included are small areas that have slopes of more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is slow or medium. The available water capacity is low.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops and to pasture and hay because of the numerous large stones and boulders on the surface.

If this soil is used for urban development, the main limitations are the slope and the numerous large stones and boulders on the surface. Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. The soil is a poor source of roadfill because of the stones and boulders. It is a probable source of sand and gravel, but excavation is difficult because of the numerous stones and boulders.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. The numerous large stones and boulders on the surface limit the use of equipment. Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIIs.

HsD—Hermon sandy loam, 15 to 35 percent slopes, extremely stony. This moderately steep and steep, somewhat excessively drained, very deep soil is on the side slopes of glacial till hills, ridges, and moraines. Areas are about 15 to 50 acres in size and are oval or irregularly shaped. Slopes are smooth and convex and are generally dissected by many drainageways. Stones cover 3 to 15 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included with this soil in mapping are small areas of Colonel, Monadnock, and Skerry soils. The moderately well drained Skerry soils and the somewhat poorly drained Colonel soils are on the lower slopes and in depressions. The well drained, very deep Monadnock soils are on the same landforms as the Hermon soil. Also included are the shallow Lyman soils, the moderately deep Tunbridge soils, a few areas where stones cover more than 15 percent of the surface, and areas that have slopes of less than 15 percent or more than 35 percent. The somewhat excessively drained Lyman soils and the well drained Tunbridge soils are near the top of slopes and in areas where bedrock is near the surface. Included soils make up as much as 15 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. Surface runoff is medium. The available water capacity is low.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops and to pasture and hay. The main limitations are the numerous large stones and boulders on the surface and the slope.

If this soil is used for urban development, the main limitations are the numerous large stones and boulders on the surface and the slope. Severe limitations affect septic sewage disposal systems, sewage lagoons, and sanitary landfills. The effluent from sewage disposal systems can contaminate ground water because of a poor filtering capacity in the substratum. Because of the surface stones and boulders and the slope, the soil is a poor source of roadfill. It is a probable source of sand and gravel, but excavation is difficult because of the slope and the large stones and boulders.

The potential productivity is medium for eastern white pine, white spruce, and red spruce. The numerous large stones and boulders on the surface and the slope limit the use of equipment. Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIIs.

HTD—Hermon and Monadnock soils, moderately steep, very stony. This unit consists of very deep, moderately steep and steep soils on glaciated hills and mountains throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are oblong or slightly elongated and are about 25 to 200 acres in size. Slopes range from 15 to 35 percent. They are convex or complex. Some areas consist mostly of the somewhat excessively drained Hermon soil, some consist mostly of the well drained Monadnock soil, and some consist of both. The two soils were mapped together because they have no major differences affecting use and management. The unit is about 40 percent Hermon soil, 40 percent Monadnock soil, and 20 percent other soils.

Typically, the Hermon soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with these soils in mapping are small areas of Lyman, Skerry, and Tunbridge soils. The somewhat excessively drained, shallow Lyman soils and the well drained, moderately deep Tunbridge soils are in areas on knobs and rises where bedrock is near the surface. The moderately well drained, very deep Skerry soils formed in very deep glacial till and have a compact substratum. They are in the lower areas and in depressions. Also included are occasional rock outcrops, areas that are not stony, areas that are extremely stony or bouldery, and a few areas that have slopes of less than 15 percent or more than 35 percent.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. It is moderate in the solum of the Monadnock soil and moderately rapid in the substratum. Surface runoff is slow to rapid on both soils. The available water capacity is low or moderate.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the slope, the surface stones and boulders, and droughtiness in the Hermon soil.

The potential productivity for eastern white pine is high on the Monadnock soil and medium on the Hermon soil. The major limitation is the slope, which causes a moderate equipment limitation and a moderate hazard of erosion. Because of the surface stones and boulders, reforestation is difficult.

No capability subclass is assigned.

HTE—Hermon and Monadnock soils, steep, very stony. This unit consists of very deep, steep and very steep soils on glaciated hills and mountains throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are oblong or slightly elongated and are about 25 to 200 acres in size. Slopes range from 35 to 50 percent. They are convex or complex. Some areas consist mostly of the somewhat excessively drained Hermon soil, some consist mostly of the well drained Monadnock soil, and some consist of both. The two soils were mapped together because they have no major differences affecting use and management. The unit is about 40 percent Hermon soil, 40 percent Monadnock soil, and 20 percent other soils.

Typically, the Hermon soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with these soils in mapping are small areas of Lyman, Skerry, and Tunbridge soils. The somewhat excessively drained, shallow Lyman soils and the well drained, moderately deep Tunbridge soils are in areas on knobs and rises where bedrock is near the surface. The moderately well drained, very deep Skerry soils are in the lower areas and in depressions. Skerry soils formed in deep glacial till and have a compact substratum. Also included are scattered rock outcrops; nonstony areas; extremely stony or bouldery areas; in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, soils that are similar to the Skerry soil but have a friable substratum; and a few areas that have slopes of less than 35 percent or more than 60 percent.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. It is moderate in the solum of the Monadnock soil and moderately rapid in the substratum. Surface runoff is medium or rapid. The available water capacity is low in the Hermon soil and moderate in the Monadnock soil.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the slope and the surface stones and boulders.

The potential productivity for eastern white pine is high on the Monadnock soil and medium on the Hermon soil. The major limitation is the slope, which causes a severe equipment limitation and a severe hazard of erosion. Building logging roads on the contour helps to control erosion. Because of the surface stones and boulders, reforestation is difficult.

No capability subclass is assigned.

HVC—Hermon-Skerry association, strongly sloping, very stony. This unit consists of nearly level to strongly sloping, very deep soils on glacial till uplands throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are irregular in shape and are about 20 to 100 acres in size. The Hermon soil has slopes of 3 to 15 percent, and the Skerry soil has slopes of 0 to 15 percent. The slopes are concave or convex. The unit is about 55 percent a somewhat excessively drained Hermon soil, 25 percent a moderately well drained Skerry soil, and 20 percent other soils. The Hermon soil is in the highest positions on the landscape. The Skerry soil is in concave areas and on the lower side slopes.

Typically, the Hermon soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray sandy loam about 1 inch thick. The subsoil is about 29 inches thick. It is dark reddish brown sandy loam in the upper part and grades from strong brown very gravelly sandy loam to dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with these soils in mapping are Becket, Colonel, Lyman, and Tunbridge soils. The somewhat poorly drained, very deep Colonel soils are in depressional areas and in drainageways. The somewhat excessively drained, shallow Lyman soils, the well drained, moderately deep Tunbridge soils, and the well drained, very deep Becket soils are on the upper parts of ridges, hills, and knobs. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that are similar to the Skerry soil but have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; a few areas that have slopes of more than 15 percent; areas where stones and boulders cover more than 3 percent of the surface; and areas of soils that have a surface layer of fine sandy loam as much as 18 inches thick.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. It is moderate in the solum of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. The Skerry soil has a seasonal high water table at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. Surface runoff is medium on both soils. The available water capacity is low.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. The main limitation is droughtiness in the Hermon soil, the seasonal high water table in the Skerry soil, and the surface stones on both soils.

The potential productivity for eastern white pine is very high on the Skerry soil and medium on the Hermon soil. In areas of the Hermon soil, the major limitation is the sandy texture, which causes droughtiness and moderate seedling mortality. The slowly permeable, compact substratum in the Skerry soil causes a seasonal high water table and limits the rooting depth. A restricted rooting depth causes a moderate hazard of windthrow. Because of the surface stones and boulders on both soils, reforestation is difficult.

No capability subclass is assigned.

Lo—Lovewell very fine sandy loam. This nearly level, moderately well drained, very deep soil is along rivers and streams. Areas are elongated and are about 5 to 70 acres in size. Slopes are smooth and slightly convex and are 0 to 3 percent.

Typically, the surface layer of this soil is dark grayish brown very fine sandy loam about 14 inches thick. The subsoil is dark brown very fine sandy loam about 8 inches thick. The substratum to a depth of 60 inches or more is dark brown, mottled very fine sandy loam.

Included with this soil in mapping are the very deep Cornish, Fryeburg, Ondawa, and Lovewell soils. The well drained Ondawa and Fryeburg soils are in the slightly higher positions on the landscape, and the somewhat poorly drained Cornish soils are in shallow depressions. Also included are a few areas of Lovewell soils that are subject to frequent flooding. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the coarse-silty layers of the Lovewell soil and moderate to very rapid in the strata of silt loam to fine gravel, if they occur. Surface runoff is slow. The available water capacity is high. A seasonal high water table is at a depth of about 1.5 to 3.0 feet in fall, winter, and spring. The soil is subject to occasional, brief periods of flooding from March through October. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used for corn silage, potatoes, or dry beans. Some areas are used for hay or pasture.

This soil is fairly well suited to cultivated crops and to pasture and hay. The major limitations are the flooding and the seasonal high water table. In most years, flooding occurs before fields are planted and crops can be successfully grown. Under abnormal conditions, flooding can occur in May, shortly after the crops are planted. Increasing the content of organic matter helps to maintain soil structure. Cover crops help to control erosion during periods of flooding. Tile drainage improves crop yields and ease of management. Fencing animals away from streambanks and establishing grass strips help to protect streambanks from erosion.

The flooding and the seasonal high water table are severe limitations affecting residential and commercial development.

The potential productivity is very high for eastern white pine, white spruce, balsam fir, and red spruce. The management concerns are a moderate hazard of windthrow and plant competition. Eastern white pine, red spruce, and white spruce respond well to pruning and thinning.

The capability subclass is IIw.

LtB—Lyman-Tunbridge complex, 3 to 8 percent slopes, very stony. This unit consists of gently sloping soils on the tops and crests of drumlin-shaped, bedrock-controlled ridges and till plains. The unit is about 50 percent a shallow, somewhat excessively drained Lyman soil; 30 percent a moderately deep, well drained Tunbridge soil; and 20 percent other soils. The Lyman and Tunbridge soils occur in an intricate pattern and cannot be mapped separately. Most areas are about 5 to 50 acres in size and are oval. Slopes are convex. Stones cover 0.1 to 3 percent of the surface.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Included with these soils in mapping are small areas of the very deep Becket, Brayton, Colonel, Dixfield, Marlow, and Skerry soils. The well drained Becket and Marlow soils are in isolated pockets and on the upper slopes. The poorly drained Brayton soils, the somewhat poorly drained Colonel soils, and the moderately well drained Dixfield and Skerry soils are in depressions and on the lower slopes. Also included are soils that are less than 10 inches deep over bedrock, areas where exposures of bedrock commonly occur in an intermingled pattern on the highest points and crests and cover as much as 10 percent of the surface, small areas that have slopes of less than 3 percent or more than 8 percent, and some areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. Surface runoff is slow. The available water capacity is low in the Lyman soil and moderate in the Tunbridge soil. The rooting depth is limited by the bedrock at a depth of 10 to 20 inches in the Lyman soil and 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland.

This unit is very poorly suited to cultivated crops and to pasture and hay. The main limitations are droughtiness, stoniness, the depth to bedrock, and the bedrock exposures.

If this unit is used for residential or commercial development, the surface stones, the depth to bedrock, and the bedrock exposures are severe limitations. Because of the hard bedrock, excavating is extremely difficult.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitation is the restricted rooting depth, which causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. On the Lyman soil, plant competition is moderate.

The capability subclass is VIs.

LtC—Lyman-Tunbridge complex, 8 to 15 percent slopes, very stony. This unit consists of strongly sloping and rolling soils on the sides and tops of bedrock-controlled ridges and till plains. The unit is about 50 percent a shallow, somewhat excessively drained Lyman soil; 30 percent a moderately deep, well drained Tunbridge soil; and 20 percent other soils. The Tunbridge and Lyman soils occur in an intricate pattern and cannot be mapped separately. Slopes are complex or convex. Most areas are about 10 to 80 acres in size and are oval. Stones cover 0.1 to 3 percent of the surface.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Included with these soils in mapping are small areas of the very deep Becket, Brayton, Colonel, Dixfield, Hermon, Marlow, and Skerry soils. The somewhat excessively drained Hermon soils and the well drained Becket and Marlow soils are in isolated pockets and on the upper slopes. The poorly drained Brayton soils, the somewhat poorly drained Colonel soils, and the moderately well drained Dixfield and Skerry soils are in depressions and pockets and on the lower slopes. Also included are soils that are similar to the Lyman soil but are less than 10 inches deep over bedrock, areas where bedrock exposures commonly occur in an intermingled pattern on the highest points and crests of hills and ridges and cover as much as 10 percent of the surface, small areas that have slopes of less than 8 percent or more than 15 percent, and some areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. Surface runoff is medium. The available water capacity is low in the Lyman soil and moderate in the Tunbridge soil. The rooting depth is limited by the bedrock at a depth of 10 to 20 inches in the Lyman soil and 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to pasture and hay. The main limitations are a moderate hazard of erosion, droughtiness, stoniness, the depth to bedrock, and the bedrock exposures.

If this unit is used for residential or commercial development, the depth to bedrock, the bedrock exposures, stoniness, and the slope are severe limitations. Because of the hard bedrock, excavating is extremely difficult.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitation is the restricted rooting depth, which causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. On the Lyman soil, plant competition is moderate.

The capability subclass is VIs.

LtD—Lyman-Tunbridge complex, 15 to 35 percent slopes, very stony. This unit consists of moderately steep and steep soils on the crests of drumlin-shaped, bedrock-controlled ridges and on till plains. The unit is about 50 percent a shallow, somewhat excessively drained Lyman soil; 30 percent a moderately deep, well drained Tunbridge soil; and 20 percent other soils. The Lyman and Tunbridge soils occur in an intricate pattern and cannot be mapped separately. Most areas are about 5 to 50 acres in size and are oval. Slopes are convex. Stones cover 0.1 to 3 percent of the surface.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Included with these soils in mapping are small areas of the very deep Becket, Dixfield, Hermon, Marlow, and Skerry soils. The somewhat excessively drained Hermon soils and the well drained Becket and Marlow soils are on the upper slopes. The moderately well drained Dixfield and Skerry soils are in depressions and on the lower slopes. Also included are soils that are similar to the Lyman soil but are less than 10 inches deep over bedrock, areas where bedrock exposures commonly occur in an intermingled pattern on the highest points and crests of hills and ridges and cover as much as 10 percent of the surface, small areas that have slopes of less than 15 percent or more than 35 percent, and some areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. Surface runoff is rapid. The available water capacity is low in the Lyman soil and moderate in the Tunbridge soil. The rooting depth is limited by the bedrock at a depth of 10 to 20 inches in the Lyman soil and 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to pasture and hay. The main limitations are the slope, a severe hazard of erosion, droughtiness, the bedrock exposures, stoniness, and the depth to bedrock.

If this unit is used for residential or commercial development, the depth to bedrock, the bedrock exposures, stoniness, and the slope are severe limitations. Because of the hard bedrock, excavating is extremely difficult.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitations are the restricted rooting depth and the slope. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. The slope causes a moderate hazard of erosion and a moderate equipment limitation. On the Lyman soil, plant competition is moderate.

The capability subclass is VIIs.

LUD—Lyman-Tunbridge-Becket complex, hilly, very stony. This unit consists of hilly and steep soils on bedrock-controlled mountains, hillsides, and ridges throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are elongated, oval, or irregularly shaped and are 30 to 200 acres in size. Slopes range from 15 to 35 percent and are complex or convex. The unit is about 35 percent a shallow, somewhat excessively drained Lyman soil; 35 percent a moderately deep, well drained Tunbridge soil; 15 percent a very deep, well drained Becket soil; and 15 percent other soils. Typically, the Lyman soil is on the knobs and crests of ridges on the upper slopes. The Tunbridge soil is on the smoother knobs and sides of ridges. The Becket soil is on smooth, convex slopes between ridges and crests. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Becket soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are small areas of the very deep Colonel, Hermon, Marlow, Monadnock, and Skerry soils. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are on knolls and side slopes. The well drained Marlow soils are major inclusions in areas where the substratum of the very deep soils is fine sandy loam.

The moderately well drained Skerry soils are on the lower slopes or between areas of soils that are shallow over bedrock. The somewhat poorly drained Colonel soils are in depressions and drainageways. Also included are intermingled areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained; at the base of some side slopes, areas where stones and boulders cover more than 3 percent of the surface; a few areas that have slopes of less than 15 percent or more than 35 percent; and, on mountaintops, some areas of bedrock exposures and very shallow soils.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the compact substratum. The available water capacity is low in the Lyman soil and moderate in the Tunbridge and Becket soils. Surface runoff is medium or rapid on all three soils. The Becket soil has a seasonal high water table at a depth of about 2.0 to 3.5 feet in winter and spring. The rooting depth is limited by the depth to bedrock or by a compact substratum.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the slope, the surface stones, the depth to bedrock, and rockiness.

The potential productivity for eastern white pine is very high on the Becket soil, high on the Tunbridge soil, and medium on the Lyman soil. The major limitations are the slope of all three soils, the depth to bedrock in the Lyman and Tunbridge soils, and the slowly permeable, compact substratum in the Becket soil. The slope causes a moderate hazard of erosion and moderately limits the use of equipment. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge and Becket soils. Because of the surface stones on all three soils, reforestation is difficult.

No capability subclass is assigned.

LUE—Lyman-Tunbridge-Becket complex, very hilly, very stony. This unit consists of very hilly and very steep soils on bedrock-controlled mountains, hillsides, and ridges throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are elongated, oval, or irregularly shaped and are 25 to 200 acres in size. Slopes range from 35 to 60 percent and are generally complex and convex. The unit is about 35 percent a shallow, somewhat excessively drained Lyman soil; 25 percent a moderately deep, well drained Tunbridge soil; 20 percent a very deep, well drained Becket soil; and 20 percent other soils. The Lyman soil is on the crests of ridges and on the upper side slopes. The Tunbridge soil is in concave areas of till between bedrock knobs and on the upper side slopes. The Becket soil is on smooth northwest side slopes and in the deeper pockets between bedrock knobs. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Becket soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are small areas of the very deep Hermon, Marlow, Monadnock, and Skerry soils. The well drained Monadnock soils and the somewhat excessively drained Hermon soils are on the upper side slopes of irregularly shaped ridges. The moderately well drained Skerry soils are on the lower side slopes and along drainageways. In areas where the substratum of the very deep soils is fine sandy loam, the well drained Marlow soils are major inclusions. Also included are intermingled areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained; a few areas that have slopes of less than 35 percent; at the base of some bedrock escarpments and side slopes, areas where stones and boulders cover more than 3 percent of the surface; and some areas that have scattered bedrock exposures.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Becket soil and moderately slow or slow in the compact substratum. The available water capacity is low in the Lyman soil and moderate in the Tunbridge and Becket soils. Surface runoff is rapid or very rapid on all three soils. The Becket soil has a seasonal high water table at a depth of about 2.0 to 3.5 feet in winter and spring. The rooting depth and water movement are limited by the depth to bedrock or by the compact substratum.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the slope, the depth to bedrock, the surface stones, and rockiness.

The potential productivity for eastern white pine is very high on the Becket soil, high on the Tunbridge soil, and medium on the Lyman soil. The major limitations are the slope of all three soils, the depth to bedrock in the Lyman and Tunbridge soils, and the slowly permeable, compact substratum in the Becket soil. The slope severely limits the use of equipment and causes a severe hazard of erosion. Building logging roads on the contour helps to control erosion. Because of the depth to bedrock in the Lyman and Tunbridge soils, constructing the roads is difficult. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge and Becket soils. Because of the surface stones on all three soils, reforestation is difficult.

No capability subclass is assigned.

LWC—Lyman-Tunbridge-Monadnock complex, rolling, very stony. This unit consists of gently sloping and rolling soils on glaciated, bedrock-controlled hills and ridges throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are oval or elongated and are 25 to 150 acres in size. Slopes range from 3 to 15 percent. They are commonly complex, but some are smooth and convex. The unit is about 35 percent a shallow, somewhat excessively drained Lyman soil; 25 percent a moderately deep, well drained Tunbridge soil; 20 percent a very deep, well drained Monadnock soil; and 20 percent other soils. The Lyman soil is on the crests of ridges and on the upper side slopes. The Tunbridge soil is in concave areas between bedrock knobs and on the lower side slopes. The Monadnock soil is on the upper side slopes and in saddles between ridges. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with these soils in mapping are small areas of the very deep Becket, Hermon, and Skerry soils. The well drained Becket soils and the somewhat excessively drained Hermon soils are on knolls and the upper side slopes. The moderately well drained Skerry soils are on the lower side slopes. Also included are intermingled areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained, extremely stony or bouldery areas at the base of some side slopes, some areas of bedrock exposures and very shallow soils on mountaintops, and a few areas that have slopes of more than 15 percent.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. The available water capacity is low or moderate in all three soils. Surface runoff is slow or medium. The rooting depth is limited by the depth to bedrock.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the depth to bedrock, droughtiness, the surface stones, and rockiness.

The potential productivity for eastern white pine is high on the Tunbridge and Monadnock soils and medium on the Lyman soil. In areas of the Lyman and Tunbridge soils, the major limitation is the depth to bedrock. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. Because of the surface stones on all three soils, reforestation is difficult.

No capability subclass is assigned.

LWD—Lyman-Tunbridge-Monadnock complex, hilly, very stony. This unit consists of hilly and very hilly soils on bedrock-controlled mountains, hillsides, and ridges throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are elongated, oval, or irregularly shaped and are 50 to 300 acres in size. Slopes range from 15 to 35 percent and are generally complex and convex. The unit is about 35 percent a shallow, somewhat excessively drained Lyman soil; 25 percent a moderately deep, well drained Tunbridge soil; 20 percent a very deep, well drained Monadnock soil; and 20 percent other soils. The Lyman soil is on the crests of ridges and on the upper side slopes. The Tunbridge soil is in concave areas and on the lower side slopes between bedrock knobs. The Monadnock soil is on the upper side slopes and in saddles between ridges. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with these soils in mapping are small areas of Becket, Hermon, and Skerry soils. The well drained Becket soils and the somewhat excessively drained Hermon soils are on knolls and the upper side slopes. The very deep, moderately well drained Skerry soils are on the lower slopes or in depressions between the Lyman and Tunbridge soils. Also included are intermingled areas of soils that are moderately deep or shallow over bedrock and are moderately well drained to poorly drained, a few scattered rock outcrops, extremely stony or bouldery areas at the base of side slopes, and a few areas where slopes are less than 15 percent or more than 35 percent.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. The available water capacity is low or moderate in all three soils. Surface runoff is medium or rapid. The rooting depth is limited by the depth to bedrock.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the depth to bedrock, the slope, the surface stones, and rockiness. If the organic mat on the surface is removed, erosion is a severe hazard.

The potential productivity for eastern white pine is high on the Tunbridge and Monadnock soils and medium on the Lyman soil. The major limitations are the slope of all three soils and the depth to bedrock in the Lyman and Tunbridge soils. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. Because of the surface stones on all three soils, reforestation is difficult.

No capability subclass is assigned.

LWE—Lyman-Tunbridge-Monadnock complex, very hilly, very stony. This unit consists of very hilly and very steep soils on bedrock-controlled mountains, hillsides, and ridges throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are elongated, oval, or irregularly shaped and are 25 to 400 acres in size. Slopes range from 35 to 60 percent and are generally complex and convex. The unit is about 40 percent a shallow, somewhat excessively drained Lyman soil; 20 percent a moderately deep, well drained Tunbridge soil; 20 percent a very deep, well drained Monadnock soil; and 20 percent other soils. The Lyman soil is on the crests of ridges and on the upper side slopes. The Tunbridge soil is in concave areas of till between bedrock knobs and on the lower side slopes. The Monadnock soil is on the upper side slopes and in saddles between ridges. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with these soils in mapping are small areas of the very deep Becket, Hermon, and Skerry soils. The well drained Becket soils are on the upper side slopes of ridges. The somewhat excessively drained Hermon soils are on the upper side slopes of irregularly shaped ridges. The moderately well drained Skerry soils are on the lower side slopes. Also included are intermingled areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained; a few areas that have slopes of less than 35 percent or more than 60 percent; at the base of some bedrock escarpments and side slopes, areas where stones and boulders cover more than 3 percent of the surface; and scattered bedrock exposures.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. The available water capacity is low or moderate in all three soils. Surface runoff is rapid or very rapid. The rooting depth and water movement are limited by the depth to bedrock.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. The main limitations are the slope, the depth to bedrock, the surface stones, and rockiness. Removing the organic mat on the surface causes a severe hazard of erosion.

The potential productivity for eastern white pine is high on the Tunbridge and Monadnock soils and medium on the Lyman soil. The major limitations are the slope of all three soils and the depth to bedrock in the Lyman and Tunbridge soils. The slope severely limits the use of equipment and causes a severe hazard of erosion. Building logging roads on the contour helps to control erosion. Constructing the roads is difficult because of the depth to bedrock in the Lyman and Tunbridge soils. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge soil. Reforestation is difficult because of the surface stones on all three soils.

No capability subclass is assigned.

LXC—Lyman-Tunbridge-Skerry complex, rolling, very stony. This unit consists of rolling soils on bedrock-controlled hills throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are oval or elongated and are 30 to 150 acres in size. The Lyman and Tunbridge soils have slopes of 3 to 15 percent, and the Skerry soil has slopes of 0 to 15 percent. The slopes commonly are smooth and complex. The unit is about 30 percent a shallow, somewhat excessively drained Lyman soil; 25 percent a moderately deep, well drained Tunbridge soil; 25 percent a very deep, moderately well drained Skerry soil; and 20 percent other soils. The Lyman soil is on the crests of ridges and on the upper side slopes. The Tunbridge soil is in concave areas between knobs and on the lower side slopes. The Skerry soil is in concave areas on the lower side slopes and in valleys between ridges. The three soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Lyman soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is fine sandy loam about 13 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 15 inches.

Typically, the Tunbridge soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of gray fine sandy loam about 2 inches thick. The subsoil is gravelly fine sandy loam about 23 inches thick. It is dark brown in the upper part and grades from dark yellowish brown to yellowish brown in the lower part. Hard bedrock is at a depth of about 26 inches.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with these soils in mapping are small areas of the very deep Becket, Brayton, Colonel, Hermon, Monadnock, and Peacham soils. The well drained Becket soils, the somewhat excessively drained Hermon soils, and the well drained Monadnock soils are on knolls and side slopes. The somewhat poorly drained Colonel soils are on the lower slopes or between areas of soils that are shallow over bedrock. The poorly drained Brayton soils and the very poorly drained Peacham soils are in depressions and along drainageways. Also included are intermingled areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained; in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough or rolling, soils that are similar to the Skerry soil but have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; at the base of some side slopes, areas where stones and boulders cover more than 3 percent of the surface; a few areas that have slopes of more than 15 percent; and, on mountaintops, extensive areas of bedrock exposures and very shallow soils.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. It is moderate in the surface layer and subsoil of the Skerry soil and moderately slow or slow in the compact substratum. The available water capacity is low in the Lyman and Skerry soils and moderate in the Tunbridge soil. Surface runoff is slow or medium on all three soils. In the Skerry soil, a seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring. The rooting depth is limited by the depth to bedrock or by a compact substratum.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. The main limitations are the depth to bedrock, the surface stones, and rockiness. The seasonal high water table is an additional limitation in the Skerry soil.

The potential productivity for eastern white pine is high on the Tunbridge soil, very high on the Skerry soil, and medium on the Lyman soil. The major limitations are the depth to bedrock in the Lyman and Tunbridge soils and the slowly permeable, compact substratum in the Skerry soil. The restricted rooting depth causes a severe hazard of windthrow on the Lyman soil and a moderate hazard of windthrow on the Tunbridge and Skerry soils. Because of the surface stones on all three soils, reforestation is difficult.

No capability subclass is assigned.

MaB—Marlow fine sandy loam, 3 to 8 percent slopes. This gently sloping, well drained, very deep soil is on the crests of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are elongated or oval and are about 5 to 30 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 9 inches thick. The subsoil is about 25 inches thick. It is yellowish brown fine sandy loam in the upper part and grades from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with this soil in mapping are small areas of Dixfield and Tunbridge soils. The very deep, moderately well drained Dixfield soils are on the lower slopes and in shallow depressions. The moderately deep, well drained Tunbridge soils are on knobs and ridgetops. Also included are areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Marlow soil and moderately slow or slow in the compact substratum. Surface runoff is medium. The available water capacity is moderate. The rooting depth is limited by the firm or very firm substratum. A perched seasonal high water table is at a depth of about 2.0 to 3.5 feet in early spring.

Most areas are used for hay, orchards, or cultivated crops. A few areas have reverted to woodland. A small acreage is used for homesite development.

This soil is fairly well suited to cultivated crops, to pasture and hay, and to apples, silage corn, and potatoes. If the plant cover is removed, erosion is a hazard. In some areas removal of a few stones is needed after the soil is plowed.

If this soil is used for sewage disposal, the main limitation is the slow permeability in the compact substratum. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine, balsam fir, and red pine. The compact substratum restricts the root development of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as eastern white pine, eastern hemlock, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is IIe.

MaC—Marlow fine sandy loam, 8 to 15 percent slopes. This strongly sloping, well drained, very deep soil is near the top and on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval. They are generally 5 to 20 acres in size but range to 50 acres. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 9 inches thick. The subsoil is about 25 inches thick. It is yellowish brown fine sandy loam in the upper part and grades from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with this soil in mapping are small areas of Dixfield and Tunbridge soils. The moderately well drained, very deep Dixfield soils are on the lower slopes and in shallow depressions. The well drained, moderately deep Tunbridge soils are on knolls and ridgetops. Also included are areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Marlow soil and moderately slow or slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is moderate. The rooting depth is limited by the firm or very firm substratum. A seasonal high water table is at a depth of about 2.0 to 3.5 feet in early spring.

Most areas are used for hay, orchards, or cultivated crops. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. The major limitation is the slope. Erosion is a hazard. The soil is fairly well suited to apples. In some areas removal of a few stones is needed after the soil is plowed.

This soil is fairly well suited to pasture and hay. Applications of lime and fertilizer and rotational grazing are the major management needs.

If this soil is used for sewage disposal, the slope and the slow permeability in the compact substratum are the major limitations. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine, balsam fir, and red pine. The compact substratum restricts the root development of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as eastern white pine, eastern hemlock, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is IIIe.

MaD—Marlow fine sandy loam, 15 to 25 percent slopes. This moderately steep, well drained, very deep soil is on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval or elongated and in places are dissected by drainageways. They are generally 8 to 15 acres in size but range to 40 acres. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 9 inches thick. The subsoil is fine sandy loam about 25 inches thick. It is yellowish brown fine sandy loam in the upper part and grades from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with this soil in mapping are small areas of Dixfield, Lyman, and Tunbridge soils. The moderately well drained, very deep Dixfield soils are on the lower side slopes and in shallow depressions. The somewhat excessively drained, shallow Lyman soils and the well drained, moderately deep Tunbridge soils are in areas on knolls and ridgetops where bedrock is close to the surface. Also included are areas that have slopes of less than 15 percent or more than 25 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Marlow soil and moderately slow or slow in the compact substratum. Surface runoff is rapid. The available water capacity is moderate. The rooting depth is limited by the firm or very firm substratum. A seasonal high water table is at a depth of about 2.0 to 3.5 feet in early spring.

Most areas are used for orchards or hay. A few areas have reverted to woodland.

This soil is very poorly suited to cultivated crops and poorly suited to orchards. The major limitation is the slope. Erosion is a severe hazard. Such measures as terraces and contour farming help to control erosion. In some areas removal of a few stones is needed after the soil is plowed.

This soil is poorly suited to pasture and hay. The main limitation is the slope. Applications of lime and fertilizer and rotational grazing are the major management needs.

If this soil is used for sewage disposal, the slope and the slow permeability in the compact substratum are the major limitations. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine, balsam fir, and red pine. The compact substratum restricts the root development of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. Plant competition is moderate. Such trees as eastern white pine, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is IVe.

MeC—Marlow fine sandy loam, 3 to 15 percent slopes, very stony. This gently sloping to strongly sloping, well drained, very deep soil is near the top and on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Areas are oval and are about 5 to 40 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 31 inches thick. It grades from dark brown fine sandy loam to yellowish brown fine sandy loam in the upper part and from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel, Dixfield, Hermon, Lyman, and Tunbridge soils. The very deep, moderately well drained Dixfield soils are on the lower slopes and in shallow depressions. The moderately deep, well drained Tunbridge soils and the shallow, somewhat excessively drained Lyman soils are on knolls and in other areas where bedrock is near the surface. The very deep, somewhat poorly drained Colonel soils are on the lower slopes in depressions and seepage areas. The somewhat excessively drained, very deep Hermon soils are intermingled with areas of the Marlow soil on the lower slopes of valley walls. Also included are areas that have slopes of less than 3 percent or more than 15 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Marlow soil and moderately slow or slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is moderate. The rooting depth is limited by the firm or very firm substratum. A seasonal high water table is at a depth of about 2.0 to 3.5 feet in early spring.

Most areas are used as woodland. A few areas are used as pasture.

This soil is very poorly suited to cultivated crops and to hay and pasture. The main limitation is the surface stones. The soil can be used as unimproved pasture.

If this soil is used for sewage disposal, the slow permeability in the compact substratum and the slope are the major limitations. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine, balsam fir, and red pine. The compact substratum restricts the root development of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as eastern white pine, northern red oak, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is VIs.

MeD—Marlow fine sandy loam, 15 to 35 percent slopes, very stony. This moderately steep and steep, well drained, very deep soil is on the side slopes of drumlin-shaped glacial till ridges that are generally oriented in a northwest-to-southeast direction. Slopes are smooth and convex. Areas are irregular in shape and are generally 5 to 80 acres in size. Some areas are dissected by drainageways. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 3 inches thick. The subsoil is about 31 inches thick. It grades from dark brown fine sandy loam to yellowish brown fine sandy loam in the upper part and from yellowish brown gravelly fine sandy loam to light olive brown gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive gravelly fine sandy loam.

Included with this soil in mapping are small areas of Colonel, Dixfield, Hermon, Lyman, and Tunbridge soils. The very deep, moderately well drained Dixfield soils are on the lower slopes and in shallow depressions. The moderately deep, well drained Tunbridge soils and the shallow, somewhat excessively drained Lyman soils are on knolls and in other areas where bedrock is near the surface. The very deep, somewhat poorly drained Colonel soils are on the lower slopes in depressions and seepage areas. The somewhat excessively drained, very deep Hermon soils are intermingled with areas of the Marlow soil on the lower slopes of valley walls. Also included are areas that have slopes of less than 15 percent or more than 35 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Marlow soil and moderately slow or slow in the compact substratum. Surface runoff is rapid. The available water capacity is moderate. The rooting depth is limited by the firm or very firm substratum. A seasonal high water table is at a depth of about 2.0 to 3.5 feet in early spring.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops and to pasture and hay. The slope and the surface stones are the major limitations.

If this soil is used for sewage disposal, the slope, the slow permeability in the compact substratum, and the surface stones are the major limitations. Frost action is a limitation on sites for roads and foundations.

The potential productivity is high for eastern white pine, balsam fir, and red pine. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. The compact substratum restricts the root development of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as eastern white pine, northern red oak, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is VIs.

Mk—Medomak silt loam. This nearly level, very poorly drained, very deep soil is on flood plains along rivers and streams and in bogs. It generally is on the lowest part of the flood plains. Areas are irregular in shape and range from about 3 to 40 acres in size. Slopes are generally smooth and concave and are 0 to 2 percent.

Typically, this soil has a layer of highly decomposed organic material over a surface layer of very dark grayish brown silt loam about 10 inches thick. The upper part of the substratum grades from dark gray, mottled silt loam to dark gray very fine sandy loam. The lower part to a depth of 60 inches or more is dark gray and dark olive gray sand.

Included with this soil in mapping are small areas of Charles, Lovewell, and Wonsqueak soils. These soils are very deep. The poorly drained Charles soils are in depressions on the higher parts of the landscape. The moderately well drained Lovewell soils are on the slightly higher rises. The very poorly drained Wonsqueak soils are organic and are in the lowest depressions. Also included are areas of poorly drained soils that have a surface layer of fine sandy loam or loamy sand. Included soils make up as much as 20 percent of this unit.

Permeability is moderate in the coarse-silty material in the Medomak soil and rapid or very rapid in the strata of silt loam to fine gravel, if they occur. Surface runoff is very slow or ponded. The available water capacity is high. A seasonal high water table is about 1.0 foot above to 0.5 foot below the surface in fall, winter, and spring. The soil is subject to frequent, long periods of flooding from March through October. Stream overflow occurs most often in early spring and after periods of heavy rainfall.

Most areas are used as woodland and as habitat for woodland wildlife. A few drained areas are used for hay or are idle. Parts of the Brownfield area are subject to year-round flooding and support marsh vegetation.

This soil is in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide habitat for wetland wildlife, and provide opportunities for recreation.

This soil is very poorly suited to cultivated crops and to pasture and hay. The frequent flooding and the seasonal high water table are the major limitations.

If this soil is used for residential or commercial development, the seasonal high water table and the frequent flooding are severe limitations.

The potential productivity is low for eastern white pine and other common native trees. If this soil is used for commercial timber production, the very slow surface runoff and the frequent flooding are the major limitations.

The capability subclass is VIw.

ML—Medomak and Wonsqueak soils, frequently flooded. This unit consists of nearly level, very deep soils along drainageways, streams, and rivers and in depressions adjacent to lakes and ponds. Most areas are elongated or crescent shaped and are 20 to 200 acres in size. The Medomak soil has slopes of 0 to 2 percent, and the Wonsqueak soil has slopes of 0 to 1 percent. The slopes are mostly concave. Some areas consist mostly of the very poorly drained Medomak soil, some consist mostly of the very poorly drained Wonsqueak soil, and some consist of both. The two soils were mapped together because they have no major differences affecting use and management. The unit is about 45 percent Medomak soil, 35 percent Wonsqueak soil, and 20 percent other soils.

Typically, the Medomak soil has a layer of highly decomposed organic material over a surface layer of very dark grayish brown silt loam about 10 inches thick. The upper part of the substratum grades from dark gray, mottled silt loam to dark gray very fine sandy loam. The lower part to a depth of 60 inches or more is dark gray and dark olive gray sand.

Typically, the Wonsqueak soil is very dark gray, very dark grayish brown, and dark reddish brown, highly decomposed organic material to a depth of about 40 inches. The substratum to a depth of 60 inches or more is gray silt loam.

Included with these soils in mapping are small areas of Charles, Lovewell, Podunk, Rumney, and Sunday soils. These included soils are very deep and are in the higher positions on the landscape. Lovewell and Podunk soils are moderately well drained. Charles and

Rumney soils are poorly drained. Sunday soils are excessively drained. Podunk, Rumney, and Sunday soils are coarser textured than the Medomak and Wonsqueak soils.

Permeability is moderate in the coarse-silty material in the Medomak soil and rapid or very rapid in the coarse textured substratum. It is moderately slow to moderately rapid in the organic layers of the Wonsqueak soil and moderate or moderately slow in the underlying mineral substratum. Surface runoff is slow to ponded on both soils. The available water capacity is high. A seasonal high water table is about 1.0 foot above to 0.5 foot below the surface of both soils in fall, winter, and early spring. The soils are subject to frequent, long periods of flooding from March through October.

Most areas are used as habitat for wildlife or as recreational areas.

These soils are in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the frequent flooding, low strength, and the seasonal high water table.

The potential productivity is low for eastern white pine on the Medomak soil and very low for black spruce on the Wonsqueak soil. The major limitation is excessive wetness, which severely limits the use of logging equipment and also limits the rooting depth. The restricted rooting depth causes a severe hazard of windthrow.

Most areas are suited to wetland wildlife habitat and to wetland and shallow water plants. The most common plants are cattails, reeds, sedges, grasses, alders, and wetland shrubs. The major problem in managing the wildlife habitat is controlling the frequent flooding and the depth of the water. The unit is commonly used for hunting and fishing.

No capability subclass is assigned.

MnB—Monadnock fine sandy loam, 3 to 8 percent slopes. This gently sloping, well drained, very deep soil is on the crests and side slopes of glacial till ridges. Areas are about 3 to 60 acres in size and are oval. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 13 inches thick. It is dark yellowish brown and yellowish brown in the upper part and light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with this soil in mapping are Dixfield, Hermon, and Skerry soils. The very deep, somewhat excessively drained Hermon soils are, by volume, more than 35 percent rock fragments in the surface layer and subsoil. They are commonly on the lower parts of the landscape but are intermingled throughout some areas. The very deep, moderately well drained Dixfield and Skerry soils are in shallow depressions or on the lower slopes. Also included are areas of soils that are similar to the Monadnock soil but have a subsoil of sandy loam, loamy sand, fine sand, or sand and in places are mottled in the subsoil and areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. Surface runoff is medium. The available water capacity is moderate.

Most areas are used for pasture or hay. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. Droughtiness during the growing season is the major limitation. Generally, removal of a few small stones is needed after the soil is plowed.

This soil is poorly suited to pasture and hay. Some species of grasses and legumes are suitable. Droughtiness is the major limitation. Applications of lime and fertilizer are the major management needs.

If this soil is used for sewage lagoons or sanitary landfills, the effluent from sewage disposal systems can seep into and contaminate ground water. Seepage is a severe limitation on sites for pond reservoir areas and embankments. The soil is a good source of roadfill material.

The potential productivity is high for eastern white pine and very high for white spruce. Droughtiness is a limitation. Such trees as eastern white pine, red pine, and white spruce respond well to pruning and thinning.

The capability subclass is IIe.

MnC—Monadnock fine sandy loam, 8 to 15 percent slopes. This strongly sloping, well drained, very deep soil is on the side slopes of glacial till ridges. Areas are about 5 to 30 acres in size and are oval. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 13 inches thick. It is dark yellowish brown and yellowish brown in the upper part and light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with this soil in mapping are Dixfield, Hermon, and Skerry soils. The very deep, somewhat excessively drained Hermon soils are, by volume, more than 35 percent rock fragments in the surface layer and subsoil. They commonly are on the lower parts of the landscape but are intermingled throughout some areas. The very deep, moderately well drained Dixfield and Skerry soils are in shallow depressions or on the lower slopes. Also included are soils that are similar to the Monadnock soil but have a subsoil of sandy loam, loamy sand, fine sand, or sand and in places are mottled in the subsoil and areas that have slopes of less than 8 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. Surface runoff is medium or rapid. The available water capacity is moderate.

Most areas are used for pasture or hay. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. Droughtiness during the growing season is the major limitation. Careful management and contour planting help to control erosion. Removal of a few small stones generally is needed after the soil is plowed.

This soil is poorly suited to pasture and hay. Some species of grasses and legumes are suitable. Droughtiness is the major limitation. Applications of lime and fertilizer are the major management needs.

If this soil is used for urban development, the slope is a moderate limitation. If the soil is used for sewage lagoons or sanitary landfills, the slope is a severe limitation and the effluent from sewage disposal systems can seep into and contaminate ground water. Seepage is a severe limitation on sites for pond reservoir areas and embankments. The soil is a good source of roadfill material.

The potential productivity is high for eastern white pine and very high for white spruce. Droughtiness is a limitation. Such trees as eastern white pine, northern red oak, red pine, sugar maple, and white spruce respond well to pruning and thinning.

The capability subclass is IIIe.

MnD—Monadnock fine sandy loam, 15 to 25 percent slopes. This moderately steep and hilly, well drained, very deep soil is on the side slopes of glacial till ridges and moraines. Areas are about 4 to 20 acres in size and are elongated. Slopes are generally smooth and convex and are dissected by numerous drainageways.

Typically, this soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 13 inches thick. It is dark yellowish brown and yellowish brown in the upper part and light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with this soil in mapping are Dixfield, Hermon, and Skerry soils. The very deep, somewhat excessively drained Hermon soils are, by volume, more than 35 percent coarse fragments in the surface layer and subsoil. They commonly are on the lower parts of the landscape but are intermingled throughout some areas. The very deep, moderately well drained Dixfield and Skerry soils are in shallow depressions or on the lower slopes. Also included are soils that are similar to the Monadnock soil but have a subsoil of sandy loam, loamy sand, fine sand, or sand and in places are mottled in the subsoil and areas that have slopes of less than 15 percent or more than 25 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. Surface runoff is rapid. The available water capacity is moderate.

Most areas are used as pasture. A few areas are wooded.

This soil is poorly suited to cultivated crops. The main limitations are the slope and a severe hazard of erosion.

This soil is poorly suited to pasture and hay. The major limitations are the slope and droughtiness. Applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the slope is a severe limitation. Seepage and the slope are severe limitations on sites for embankments and dams. The soil is a good source of roadfill material.

The potential productivity is high for eastern white pine and very high for white spruce. Droughtiness is a limitation. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. Plant competition is moderate. Laying out skid trails and logging roads on the contour can reduce the hazard of erosion. Such trees as eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is IVe.

MvC—Monadnock fine sandy loam, 3 to 15 percent slopes, very stony. This gently sloping to strongly sloping, well drained, very deep soil is on the side slopes of till plains, hills, ridges, and moraines. Areas commonly are 12 to 60 acres in size and are irregular in shape. Slopes are generally smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with this soil in mapping are small areas of Hermon, Lyman, Tunbridge, and Skerry soils. The very deep, somewhat excessively drained Hermon soils have more than 35 percent rock fragments throughout. The shallow, somewhat excessively drained Lyman soils and the moderately deep, well drained Tunbridge soils are on the tops of knolls and ridges and in other areas where bedrock is near the surface. The very deep, moderately well drained Skerry soils are in depressions and in saddles between ridges. Also included are some areas that have slopes of less than 3 percent or more than 15 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. Surface runoff is medium or rapid. The available water capacity is moderate.

Most areas are used as woodland. A small acreage is used as native pasture or for homesite development.

This soil is very poorly suited to cultivated crops and to pasture and hay because of the surface stones and boulders.

If this soil is used for residential or commercial development, the surface stones and the slope are moderate limitations. The slope is a moderate limitation affecting sewage disposal. Seepage is a severe limitation on sites for landfills and sewage lagoons. The soil is a good source of roadfill material.

The potential productivity is high for eastern white pine and very high for white spruce. Droughtiness is a limitation. Such trees as American beech, eastern white pine, northern red oak, red pine, and sugar maple respond well to pruning and thinning.

The capability subclass is VIs.

MvD—Monadnock fine sandy loam, 15 to 35 percent slopes, very stony. This moderately steep, steep, and hilly, well drained, very deep soil is on the side slopes of till plains, hills, ridges, and moraines. Areas are about 10 to 100 acres in size and are irregular in shape. Slopes are generally smooth and convex and are dissected by numerous drainageways. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Included with this soil in mapping are areas of Hermon, Lyman, Skerry, and Tunbridge soils. The very deep, somewhat excessively drained Hermon soils are, by volume, more than 35 percent rock fragments throughout. The shallow, somewhat excessively drained Lyman soils and the moderately deep, well drained Tunbridge soils are on the tops of knolls and ridges and in other areas where bedrock is near the surface. The very deep, moderately well drained Skerry soils are in depressions and in saddles between ridges. Also included are some areas that have slopes of less than 15 percent or more than 35 percent. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Monadnock soil and moderately rapid in the substratum. Surface runoff is rapid. The available water capacity is moderate.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops and to hay and pasture. The major limitations are the slope and the surface stones.

If this soil is used for residential or commercial development, the slope is a severe limitation.

The potential productivity is high for eastern white pine and very high for white spruce. Droughtiness is a limitation. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. Plant competition is moderate. Laying out skid trails and logging roads on the contour can reduce the hazard of erosion. American beech, eastern white pine, northern red oak, and sugar maple respond well to pruning and thinning.

The capability subclass is VIIs.

MWC—Monadnock-Hermon-Skerry association, strongly sloping. This unit consists of strongly sloping, very deep soils on glaciated plains and hills in the northern and central parts of the survey area. Most surface stones have been removed. Areas are generally rectangular and commonly have stone walls as their boundaries. The Monadnock and Hermon soils have slopes of 3 to 15 percent, and the Skerry soil has slopes of 0 to 15 percent. The slopes are smooth and are convex or concave. They generally are dissected by a few depressions or drainageways. Most areas are 15 to 50 acres in size. The unit is about 30 percent a well drained Monadnock soil, 30 percent a somewhat excessively drained Hermon soil, 20 percent a moderately well drained Skerry soil, and 20 percent other soils. The Monadnock and Hermon soils are on the upper slopes and in the higher positions on the landscape. The Skerry soil is on the lower side slopes and in concave areas.

Typically, the surface layer of the Monadnock soil is dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 13 inches thick. It is dark yellowish brown and yellowish brown in the upper part and light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Typically, the surface layer of the Hermon soil is dark brown sandy loam about 7 inches thick. The subsoil is about 23 inches thick. It is strong brown very gravelly sandy loam in the upper part and dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Typically, the surface layer of the Skerry soil is dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with these soils in mapping are areas of Colonel, Lyman, Marlow, and Tunbridge soils. The somewhat excessively drained, shallow Lyman soils, the well drained, moderately deep Tunbridge soils, and the well drained, very deep Marlow soils are on the upper slopes of ridges, hills, and knobs. The somewhat poorly drained, very deep Colonel soils are in depressions and drainageways. Also included are a few areas that have slopes of more than 15 percent and, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough or rolling, soils that are similar to the Skerry soil but have a friable substratum of loamy sand or sandy loam and have weak platy structure or are massive.

Permeability is moderate in the surface layer and subsoil of the Monadnock and Skerry soils. It is moderately rapid in the substratum of the Monadnock soil and slow or moderately slow in the compact substratum of the Skerry soil. It is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. The available water capacity is moderate in the Monadnock soil and low in the Skerry and Hermon soils. Surface runoff is medium on all three soils. The Skerry soil has a seasonal high water table at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used as woodland.

These soils are fairly well suited to cultivated crops and to hay and pasture. Droughtiness in the Hermon soil and the seasonal high water table and the slowly permeable substratum in the Skerry soil are limitations. On all three soils, the hazard of erosion is increased where slopes are more than 8 percent.

If this unit is used for residential or commercial development, the major limitations are the slope of all three soils and the seasonal high water table in the Skerry soil.

The potential productivity for eastern white pine is high on the Monadnock soil, medium on the Hermon soil, and very high on the Skerry soil. The major limitations are the sandy texture of the Hermon soil and the slowly permeable, compact substratum in the Skerry soil. The sandy texture of the Hermon soil causes droughtiness and moderate seedling mortality. A restricted rooting depth in the Skerry soil causes a moderate hazard of windthrow.

No capability subclass is assigned.

MXC—Monadnock-Skerry association, strongly sloping, very stony. This unit consists of strongly sloping, very deep soils on glacial till uplands in the northern and central parts of the survey area. Stones cover 0.1 to 3 percent of the surface. Most areas are irregular in shape and are 20 to 100 acres in size. The Monadnock soil has slopes of 3 to 15 percent, and the Skerry soil has slopes of 0 to 15 percent. The slopes are concave or convex. The unit is about 60 percent a well drained Monadnock soil, 20 percent a moderately well drained Skerry soil, and 20 percent other soils. The Monadnock soil is on the upper side slopes and in convex areas. The Skerry soil is in concave areas and on the lower side slopes.

Typically, the Monadnock soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of dark brown fine sandy loam about 2 inches thick. The subsurface layer is light brownish gray fine sandy loam about 2 inches thick. The subsoil is fine sandy loam about 16 inches thick. It grades from dark brown to dark yellowish brown in the upper part and from yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is pale olive gravelly loamy fine sand.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with these soils in mapping are small areas of Colonel, Hermon, Lyman, Marlow, and Tunbridge soils. The somewhat poorly drained Colonel soils are in depressions and drainageways. The somewhat excessively drained, shallow Lyman soils, the well drained, moderately deep Tunbridge soils, the somewhat excessively drained Hermon soils, and the well drained Marlow soils are on the upper parts of ridges, hills, and knobs. Colonel, Hermon, and Marlow soils are very deep. Also included are a few areas that have slopes of less than 3 percent or more than 15 percent and, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, soils that are similar to the Skerry soil but have a friable substratum of loamy sand or sandy loam and have weak platy structure or are massive.

Permeability is moderate in the solum of the Monadnock soil and moderately rapid in the substratum. It is moderate in the solum of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium on both soils. The available water capacity is moderate in the Monadnock soil and low in the Skerry soil. The Skerry soil has a seasonal high water table at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture.

If this unit is used for residential or commercial development, the surface stones and the seasonal high water table are severe limitations.

The potential productivity for eastern white pine is high on the Monadnock soil and very high on the Skerry soil. The major limitation is the slowly permeable, compact substratum in the Skerry soil. A restricted rooting depth causes a moderate hazard of windthrow on the Skerry soil. On both the Monadnock and Skerry soils, reforestation is difficult because of the surface stones.

No capability subclass is assigned.

Nb—Naumburg loamy sand. This nearly level, poorly drained and somewhat poorly drained, very deep soil is in basins or depressions on outwash plains and terraces (fig. 11). Areas are about 5 to 60 acres in size and are irregular in shape. Slopes are 0 to 3 percent and are smooth and concave.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown loamy sand about 2 inches thick. The subsurface layer is brown, mottled loamy sand about 3 inches thick. The subsoil is about 31 inches thick. It is dark reddish brown and dark brown, mottled loamy sand in the upper part and grades from brown, mottled sand to light olive brown, mottled sand in the lower part. The substratum to a depth of 60 inches or more is olive, mottled coarse sand.

Included with this soil in mapping are areas of Searsport and Croghan soils and areas of very deep, somewhat poorly drained soils that have a cemented subsoil. The very deep, moderately well drained Croghan soils are in the slightly higher positions on the landscape. The very deep, very poorly drained Searsport soils are in deep depressions and in the lower positions on the landscape. Also included are some areas that have slopes of more than 3 percent and, in the Welchville area of the town of Oxford, some areas of soils that have a substratum of silt loam, silty clay loam, or clay. Included soils make up as much as 15 percent of this unit.

Permeability is rapid in the Naumburg soil. The available water capacity is low. Surface runoff is very slow. A seasonal high water table is at a depth of about 0.5 foot to 1.5 feet in winter and spring. The water table drops to a depth of 3 feet or more in summer. The rooting depth is limited by the fluctuating water table and the weakly cemented parts of the subsoil.

Most areas are used as woodland. Some areas are used as pasture or are idle.

This soil is poorly suited to cultivated crops and to pasture and hay. The major limitations are the seasonal high water table and the low available water capacity. A drainage system can lower the water table.

If this soil is used for residential or commercial development, the major limitation is the seasonal high water table. If the soil is used for septic sewage disposal systems, sewage lagoons, or sanitary landfills, the seasonal high water table and a poor filtering capacity in the substratum are severe limitations. The poor filtering capacity can result in the contamination of ground water.

The potential productivity for eastern white pine is medium. The major limitation is the seasonal high water table, which moderately limits the use of equipment and restricts the rooting depth. The restricted rooting depth causes a moderate hazard of windthrow. Seedling mortality is severe.

The capability subclass is IVw.

Figure 11.—An area of Naumburg loamy sand, which is in basins or depressions on outwash plains and terraces.

NCB—Naumburg-Croghan association, gently sloping. This unit consists of gently sloping, very deep soils on low sandy terraces along streams and lakes. Most areas are elongated or irregularly shaped and are 40 to 200 acres in size. Slopes range from 0 to 8 percent. They generally are concave but are convex in a few areas. The unit is about 50 percent a poorly drained and somewhat poorly drained Naumburg soil, 35 percent a moderately well drained Croghan soil, and 15 percent other soils. The Naumburg soil is in concave areas. The Croghan soil is in slightly convex areas.

Typically, the Naumburg soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown loamy sand about 2 inches thick. The subsurface layer is brown, mottled loamy sand about 3 inches thick. The subsoil is about 31 inches thick. It is dark reddish brown and dark brown, mottled loamy sand in the upper part and grades from brown, mottled sand to light olive brown, mottled sand in the lower part. The substratum to a depth of 60 inches or more is olive, mottled coarse sand.

Typically, the Croghan soil has a layer of forest litter over a surface layer of grayish brown loamy fine sand about 2 inches thick. The subsoil is about 33 inches thick. The upper part is dark brown, strong brown, and yellowish brown loamy fine sand, and the lower part is yellowish brown and light olive brown, mottled loamy sand. The substratum to a depth of 60 inches or more is light olive brown, mottled sand.

Included with these soils in mapping are areas of very deep, somewhat poorly drained soils that have a cemented subsoil and small areas of the very deep Brayton, Hermon, Skerry, Searsport, and Wonsqueak soils. The somewhat excessively drained Hermon soils and the moderately well drained Skerry soils are on the highest rises. The very poorly drained Wonsqueak and Searsport soils are in depressions and along streams that dissect the unit. The poorly drained Brayton soils are in shallow depressions along streams and in areas that are transitional to areas of glacial till.

Permeability is rapid in the Naumburg soil and rapid or very rapid in the Croghan soil. Surface runoff is slow on both soils. The available water capacity is low in the Naumburg soil and very low in the Croghan soil. In fall, winter, and spring, a seasonal high water table is commonly at a depth of about 0.5 to 1.5 feet in the Naumburg soil and at a depth of about 1.5 to 2.0 feet in the Croghan soil.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to pasture and hay. The Croghan soil is better suited to farming than the Naumburg soil. The main limitations are the seasonal high water table and droughtiness.

If this unit is used for residential or commercial development, the main limitation is the seasonal high water table. If the soils are used for sewage disposal systems, a poor filtering capacity in the substratum can result in the contamination of ground water.

The potential productivity for eastern white pine is medium on the Naumburg soil and very high on the Croghan soil. The major limitations are the seasonal high water table in the Naumburg soil and the sandy texture of the Croghan soil. In areas of the Naumburg soil, seedling mortality is severe and a seasonal high water table moderately limits the use of equipment and restricts the rooting depth. The restricted rooting depth causes a moderate hazard of windthrow. The sandy texture of the Croghan soil causes droughtiness and moderate seedling mortality.

No capability subclass is assigned.

NvB—Nicholville very fine sandy loam, 3 to 8 percent slopes. This gently sloping, moderately well drained, very deep soil is on lacustrine plains. Areas are oval and are about 5 to 40 acres in size. Slopes are smooth and are slightly concave to slightly convex.

Typically, this soil has a surface layer of dark brown very fine sandy loam about 8 inches thick. The subsoil is very fine sandy loam about 10 inches thick. It is dark brown in the upper part and dark yellowish brown and mottled in the lower part. The substratum to a depth of 60 inches or more is firm, olive, mottled silt loam.

Included with this soil in mapping are small areas of Hermon, Roundabout, and Skerry soils. The somewhat poorly drained and poorly drained Roundabout soils are in small, nearly level depressions or in the middle of concave slopes. The somewhat excessively drained Hermon soils and the moderately well drained Skerry soils are on isolated glacial till knobs. Also included are some areas in the town of Canton where the soils are underlain by sandy material at a depth of 20 to 24 inches and a few areas that have slopes of less than 3 percent or more than 8 percent. Included soils make up as much as 10 percent of this unit.

Permeability is moderate in the Nicholville soil. Surface runoff is medium. The available water capacity is high. Unless the soil has been drained, a seasonal high water table is at a depth of about 1.5 to 2.0 feet in fall, winter, and spring.

Most areas are used as woodland. Some areas are used for pasture or hay.

This soil is fairly well suited to cultivated crops. In spring the seasonal high water table limits the use of farm machinery. Erosion is a severe hazard if cultivated crops are grown. Revegetating bare areas and planting winter cover crops can protect the soil.

This soil is well suited to pasture and hay. Grazing when the soil is wet causes surface compaction. Applications of lime and fertilizer, rotational grazing, and restricted grazing during wet periods are the major management needs.

If this soil is used for residential or commercial development, the seasonal high water table and frost action are severe limitations. Seepage is a limitation if the soil is used as embankment material for ponds.

The potential productivity is very high for eastern white pine. Such trees as eastern white pine, northern red oak, sugar maple, and eastern hemlock respond well to pruning and thinning.

The capability subclass is IIe.

Od—Ondawa fine sandy loam, occasionally flooded. This nearly level, well drained, very deep soil is on flood plains along rivers and streams. Areas are elongated and are about 5 to 70 acres in size. Slopes are generally smooth and are 0 to 3 percent.

Typically, this soil has a surface layer of very dark grayish brown fine sandy loam about 8 inches thick. The subsoil is fine sandy loam about 24 inches thick. It is light olive brown in the upper part and grades from light yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is loamy fine sand. It grades from pale olive to light yellowish brown.

Included with this soil in mapping are small areas of Fryeburg, Lovewell, Podunk, and Sunday soils. These soils are very deep. The well drained Fryeburg soils and the excessively drained Sunday soils are along the margin of fields next to watercourses. The moderately well drained Lovewell and Podunk soils are in shallow depressions. Also included are areas along the Saco River in Fryeburg where the soils are similar to the Ondawa soil but have a surface layer of very fine sandy loam or silt loam as much as 15 inches thick and some areas of soils that have strata of very coarse sand, coarse sand, sand, loamy sand, fine sandy loam, or fine

Figure 12.—A cultivated area of Ondawa fine sandy loam, occasionally flooded.

gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 15 percent of this unit.

Permeability is moderate or moderately rapid in the surface layer and subsoil of the Ondawa soil and rapid or very rapid in the substratum. Surface runoff is medium. The available water capacity is high. The soil is subject to occasional, brief periods of flooding from November through April. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used for cultivated crops (fig. 12), especially silage corn, potatoes, and dry beans. Some areas are used for hay.

This soil is fairly well suited to cultivated crops and to pasture and hay. The occasional flooding is the major hazard. Fencing dairy animals away from streambanks helps to control erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding is a severe hazard. It can damage or destroy permanent structures that are inadequately protected.

The potential productivity is medium for eastern white pine and red spruce and high for red pine. New seedlings should be planted during periods when the soil is not subject to flooding.

The capability class is I.

On—Ondawa fine sandy loam, frequently flooded. This nearly level, well drained, very deep soil is on flood plains along rivers and streams. Areas are elongated and are about 8 to 50 acres in size. Slopes are generally smooth and convex and are 0 to 3 percent.

Typically, this soil has a surface layer of very dark grayish brown fine sandy loam about 8 inches thick. The subsoil is fine sandy loam about 24 inches thick. It is light olive brown in the upper part and grades from light yellowish brown to light olive brown in the lower part. The substratum to a depth of 60 inches or more is loamy fine sand that grades from pale olive to light yellowish brown.

Included with this soil in mapping are small areas of the very deep Fryeburg, Lovewell, Podunk, and Sunday soils. The well drained Fryeburg soils and the excessively drained Sunday soils are along the margin of fields next to watercourses. The moderately well drained Lovewell and Podunk soils are in shallow depressions. Also included are areas along the Saco River in Fryeburg where the soils are similar to the Ondawa soil but have a surface layer of very fine sandy loam or silt loam as much as 15 inches thick and some areas of soils that have strata of very coarse sand, coarse sand, sand, loamy sand, fine sandy loam, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 15 percent of this unit.

Permeability is moderate or moderately rapid in the surface layer and subsoil of the Ondawa soil and rapid or very rapid in the substratum. Surface runoff is medium. The available water capacity is high. The soil is subject to frequent, brief periods of flooding from November through April.

Most areas are used for cultivated crops, especially silage corn. Some areas are used for hay. A few areas are idle or are used as woodland.

This soil is fairly well suited to cultivated crops. The frequent flooding is a hazard. In most years it occurs before crops are planted. In some years, however, it may occur in May, after some crops have been planted.

This soil is fairly well suited to pasture and hay. The frequent flooding is the major hazard. Fencing dairy animals away from the streambanks helps to control erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding is a severe hazard. It can damage or destroy permanent structures that are inadequately protected.

The potential productivity is medium for eastern white pine and red spruce and high for red pine. New seedlings should be planted during periods when the soil is not subject to flooding.

The capability class is I.

Pg—Pits, gravel. This unit consists of open excavations from which the soil and the underlying material have been removed. The underlying material is mainly gravel. In places, most of the gravel has been excavated and the remaining material is dominantly sand. The unit generally is on outwash plains and terraces. Areas are circular or irregularly shaped and range from about 4 to 50 acres in size. The excavations have very steep sides and are commonly 10 to 50 feet deep.

No capability subclass is assigned.

Ps—Pits, sand. This unit consists of open excavations from which the soil and the underlying material have been removed. The underlying material is mainly sand. The unit generally is on sandy outwash plains, terraces, and flood plains. Areas are 3 to 20 acres in size and are circular or irregularly shaped. The excavations have very steep sides and are commonly 5 to 20 feet deep.

No capability subclass is assigned.

Pt—Podunk fine sandy loam, occasionally flooded. This nearly level, moderately well drained, very deep soil is on flood plains along rivers and streams. Areas are elongated or oval and are about 4 to 50 acres in size. Slopes are generally smooth and slightly convex and are 0 to 3 percent.

Typically, this soil has a surface layer of dark yellowish brown fine sandy loam about 10 inches thick. The subsoil is light olive brown fine sandy loam about 20 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is olive gray, mottled loamy fine sand.

Included with this soil in mapping are the very deep Cornish, Fryeburg, and Ondawa soils. The somewhat poorly drained Cornish soils are in shallow depressions. The well drained Fryeburg and Ondawa soils are on rises. Also included are some areas of soils that have a subsoil of loamy sand, soils that have a surface layer of very fine sandy loam as much as 15 inches thick, and soils that have strata of sandy loam, very fine sand, silt, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 20 percent of this unit.

Permeability is moderate or moderately rapid in the solum of the Podunk soil and rapid or very rapid in the substratum. Surface runoff is medium or slow. The available water capacity is high. A seasonal high water table is at a depth of about 1.5 to 3.0 feet in fall, winter, and spring. The soil is subject to occasional, brief periods of flooding from November through April. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used for corn silage, potatoes, or dry beans. A small acreage is used for pasture or hay or as woodland.

This soil is fairly well suited to cultivated crops. The major limitations are the flooding and the seasonal high water table. In some years the flooding occurs in May, after the crops have been planted. In most years, however, crops can be successfully grown. Tile drainage can improve crop yields. Increasing the content of organic matter helps to maintain soil structure.

This soil is fairly well suited to pasture and hay. The flooding is the major hazard. Fencing dairy animals away from the streambanks helps to control erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding and the seasonal high water table are severe limitations. The flooding can damage or destroy permanent structures that are inadequately protected.

The potential productivity for eastern white pine and red pine is very high. Careful management is needed to prevent excessive soil loss around the roots of new seedlings and to keep alluvial deposits from smothering the seedlings.

The capability subclass is IIw.

Pw—Podunk fine sandy loam, frequently flooded. This nearly level, moderately well drained, very deep soil is on flood plains along rivers and streams. Areas are elongated and are about 4 to 40 acres in size. Slopes are generally smooth or slightly convex and are 0 to 3 percent.

Typically, this soil has a surface layer of dark yellowish brown fine sandy loam about 10 inches thick. The subsoil is light olive brown fine sandy loam about 20 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is olive gray, mottled loamy fine sand.

Included with this soil in mapping are small areas of the very deep Cornish, Ondawa, and Sunday soils. The somewhat poorly drained Cornish soils are in shallow depressions. The well drained Ondawa soils are on slight rises. The excessively drained Sunday soils are along the margins of fields next to watercourses. Also included are soils in the Fryeburg area that are similar to the Podunk soil but have a surface layer of very fine sandy loam about 15 inches thick and some areas of soils that have strata of sandy loam, very fine sand, silt, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 15 percent of this unit.

Permeability is moderate or moderately rapid in the solum of the Podunk soil and rapid or very rapid in the substratum. Surface runoff is slow. The available water capacity is high. A seasonal water table is at a depth of 1.5 to 3.0 feet in fall, winter, and spring. The soil is subject to frequent, brief periods of flooding from November through April.

Most areas are used for cultivated crops. A small acreage is used for pasture or hay.

This soil is fairly well suited to cultivated crops. The major limitations are the flooding and the seasonal high water table. In some years the flooding occurs in May, after the crops have been planted. In most years, however, crops can be successfully grown. Tile drainage can improve crop yields. Increasing the content of organic matter helps to maintain soil structure.

This soil is fairly well suited to pasture and hay. The flooding is the major hazard. Fencing dairy animals away from the streambanks helps to control erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding and the seasonal high water table are severe limitations. The flooding can damage or destroy permanent structures that are inadequately protected.

The potential productivity for eastern white pine and red pine is very high. Special management is needed to prevent excessive soil loss around the roots of new seedlings and to keep alluvial deposits from smothering the seedlings.

The capability subclass is IIw.

RCE—Ricker-Saddleback-Rock outcrop complex, very hilly. This unit consists of very hilly areas on bedrock-controlled mountain ridges at elevations of more than 2,500 feet. Stones cover 0.1 to 3 percent of the surface. Most areas are irregular in shape and are 10 to 500 acres in size. The Ricker and Saddleback soils have slopes of 15 to 60 percent, and the Rock outcrop has slopes of 15 to 80 percent. The slopes are mostly complex and convex. The unit is about 45 percent a very shallow, well drained to excessively drained Ricker soil; 15 percent Rock outcrop; 15 percent a shallow, well drained Saddleback soil; and 25 percent other soils. The Ricker soil is in convex areas on or near the tops and shoulders of mountain ridges. The Saddleback soil is in slightly convex areas on or near the tops of mountain ridges. They are generally on the less convex slopes. The Rock outcrop is on or near the tops and shoulders of mountain ridges. It is generally on the more convex slopes and is closer to the ridgetops than the Ricker and Saddleback soils. The Ricker and Saddleback soils and Rock outcrop occur in an intricate pattern and cannot be mapped separately.

Typically, the Ricker soil has a dark reddish brown layer of forest litter about 1 inch thick and a layer of very dusky red, highly decomposed organic material about 2 inches thick. The surface layer is gray very channery loamy very fine sand about 1 inch thick. Hard bedrock is at a depth of about 4 inches.

Typically, the Saddleback soil has a thin layer of forest litter and a layer of dark reddish brown, highly decomposed organic material over a surface layer of grayish brown very fine sandy loam about 3 inches thick. The subsoil is fine sandy loam about 14 inches thick. It is very dusky red and dark reddish brown in the upper part and reddish brown in the lower part. Hard bedrock is at a depth of about 19 inches.

Typically, the Rock outcrop is hard bedrock that has a very thin cover of mosses or lichens or that is bare.

Included in this unit in mapping are small areas of very deep, well drained soils on knolls and the upper side slopes; well drained, moderately deep soils in slightly concave areas and on the lower side slopes; and very deep, moderately well drained soils on the lower, concave slopes. Also included are intermingled areas of moderately well drained to poorly drained soils that are moderately deep or very shallow over bedrock and, at or near the base of side slopes, a few extremely stony or bouldery areas.

Permeability is moderate or moderately rapid in the Ricker soil and moderate in the Saddleback soil. Surface runoff is slow to rapid on both soils, depending on the slope. The available water capacity is moderate in the Saddleback soil and very low in the Ricker soil. The rooting depth is limited by the bedrock.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. Severe limitations affect residential and commercial development. The main limitations are the depth to bedrock, droughtiness, the slope, rockiness, and a short growing season. The soils generally are in very remote areas that commonly do not have established roads.

The potential productivity for balsam fir is very low. The major limitations are the slope and the restricted rooting depth. The slope severely limits the use of equipment and causes a severe hazard of erosion. Winds are stronger and more frequent in areas of this unit than in areas at the lower elevations. The restricted rooting depth and the high elevation result in a severe hazard of windthrow. Building logging roads on the contour helps to control erosion. Road construction is difficult because of the depth to bedrock and the Rock outcrop.

No capability subclass is assigned.

Rm—Riverwash. This unit is adjacent to rivers and the larger streams throughout the survey area. It is bare of vegetation, except for some small areas of brush. Areas are crescent shaped and range from about 4 to 60 acres in size.

Riverwash consists mainly of medium, coarse, and very coarse sand and a few strata of fine gravel and cobbles. The water table fluctuates with the seasonal rise and fall of the adjacent bodies of water. The unit is subject to frequent, long or very long periods of flooding from October through July.

This unit is severely limited as a site for urban uses, farming, and forestry. It is a source of sand. In a few areas it is a source of gravel. It provides access to rivers and streams that are used for recreational purposes.

No capability subclass is assigned.

RNE—Rock outcrop-Ricker complex, very hilly. This unit consists of very hilly areas on glaciated, bedrock-controlled mountaintops at elevations of more than 2,500 feet. Stones cover 0.1 to 3 percent of the surface. Most areas are elongated and are 40 to 140 acres in size. The Rock outcrop has slopes of 15 to 80 percent, and the Ricker soil has slopes of 15 to 60 percent. The slopes are mostly complex and convex. The unit is about 45 percent Rock outcrop; 40 percent a very shallow, well drained to excessively drained Ricker soil; and 15 percent other soils. The Rock outcrop is in the higher positions on the landscape. The Ricker soil is on the convex side slopes of mountain ridges. The Rock outcrop and the Ricker soil occur in an intricate pattern and cannot be mapped separately.

Typically, the Rock outcrop is hard bedrock that has a very thin cover of mosses and lichens or that is bare.

Typically, the Ricker soil has a dark reddish brown layer of forest litter about 1 inch thick and a layer of very dusky red, highly decomposed organic material about 2 inches thick. The surface layer is gray very channery loamy very fine sand about 1 inch thick. Hard bedrock is at a depth of about 4 inches.

Included with this unit in mapping are well drained soils in slightly convex areas where the depth to bedrock is 10 to 40 inches. Also included are small areas of well drained, very deep soils on knolls and side slopes; moderately well drained to poorly drained soils that are moderately deep, shallow, or very shallow over bedrock and are in depressions; and a few extremely stony or bouldery areas at or near the base of side slopes.

Permeability is moderate or moderately rapid in the Ricker soil. Surface runoff is rapid or very rapid, depending on the slope. The available water capacity is very low. The rooting depth is limited by the depth to bedrock.

Most areas are used as woodland.

The Ricker soil is very poorly suited to cultivated crops and to hay and pasture. It is severely limited as a site for residential and commercial development. The main limitations are the Rock outcrop, the depth to bedrock, the slope, a short growing season, and a severe hazard of erosion. The unit commonly is in very remote areas that generally do not have established roads.

The potential productivity for balsam fir is very low on the Ricker soil. The Rock outcrop does not support trees. The major limitations are the slope and the restricted rooting depth. The slope severely limits the use of equipment and causes a severe hazard of erosion. Winds are stronger and more frequent in areas of this unit than in areas at the lower elevations. The restricted rooting depth and the high elevation result in a severe hazard of windthrow. Building logging roads on the contour helps to control erosion. Road construction is difficult because of the numerous areas of Rock outcrop.

No capability subclass is assigned.

Ro—Roundabout silt loam. This nearly level, poorly drained and somewhat poorly drained, very deep soil formed in glaciolacustrine sediments near streams, lakes, and bogs on outwash plains and in lake basins. Most areas are irregular in shape and range from about 5 to 70 acres in size. Slopes are mostly smooth and concave and are 0 to 3 percent.

Typically, this soil has a surface layer of dark brown, mottled silt loam about 7 inches thick. The subsoil is about 23 inches thick. It is olive brown, mottled silt loam in the upper part and grades from grayish brown, mottled silt loam to olive gray, mottled very fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is olive, mottled silt loam.

Included with this soil in mapping are small, isolated areas of the very deep Hermon, Naumburg, Nicholville, and Skerry soils and some areas that have a stony surface. The moderately well drained Nicholville soils are in the slightly higher areas. The somewhat excessively drained Hermon soils and the moderately well drained Skerry soils are on the higher glacial till knobs or in transitional areas adjoining glacial till uplands. The somewhat poorly drained and poorly drained Naumburg soils are on sandy terraces. Included soils make up as much as 10 percent of this unit.

Permeability is moderate or moderately slow in the solum of the Roundabout soil and moderately slow or slow in the substratum. Surface runoff is slow or medium. The available water capacity is high. A seasonal high water table is within a depth of about 1.5 feet in fall, winter, and spring.

Most areas are used as woodland. A few areas are used for pasture or hay.

This soil is poorly suited to cultivated crops. The seasonal high water table is the major limitation. Installing a drainage system lowers the water table.

This soil is poorly suited to pasture and hay. The water-tolerant varieties of grasses and legumes are suitable. Grazing when the soil is too wet causes surface compaction. A surface drainage system is needed in areas used for improved pasture and hay.

This soil is severely limited as a site for residential and commercial development. If the soil is used for sewage disposal, the seasonal high water table and the slow or moderately slow permeability are severe limitations. Frost action is a limitation on sites for roads and streets.

The potential productivity is very high for eastern white pine and high for balsam fir. The major limitation is the seasonal high water table. The major management concerns are a severe hazard of windthrow, a severe equipment limitation, and severe plant competition. Such trees as eastern white pine, red maple, balsam fir, white spruce, and red spruce respond well to pruning and thinning.

The capability subclass is IVw.

Ru—Rumney fine sandy loam, occasionally flooded. This nearly level, poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated and range from about 4 to 50 acres in size. Slopes are generally smooth and slightly concave and are 0 to 2 percent.

Typically, this soil has a surface layer of very dark grayish brown, mottled fine sandy loam about 9 inches thick. The subsoil is about 21 inches thick. It grades from dark grayish brown, mottled fine sandy loam to grayish brown, mottled sandy loam. The substratum to a depth of 60 inches or more is olive gray, mottled loamy sand.

Included with this soil in mapping are small areas of the very deep Cornish, Lovewell, Ondawa, Podunk, and Sunday soils. The excessively drained Sunday soils are along the margin of fields next to watercourses. The well drained Ondawa soils are on rises. The moderately well drained Lovewell and Podunk soils and the somewhat poorly drained Cornish soils are in the slightly higher positions on the landscape. Also included are areas of poorly drained soils that are loamy sand or sand throughout and some areas of soils that have strata of sandy loam, very fine sand, silt, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 10 percent of this unit.

Permeability is moderate or moderately rapid in the solum of the Rumney soil and rapid or very rapid in the substratum. Surface runoff is slow. The available water capacity is high. A seasonal high water table is commonly within a depth of about 1.5 feet in fall, winter, and spring. The soil is subject to occasional, brief periods of flooding from October through May. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used for pasture or hay. Some areas are wooded. This soil is near areas of wetlands.

This soil is poorly suited to cultivated crops. Occasional flooding during the growing season is a hazard because the soil is lower on the landscape than most of the other cultivated soils on the flood plains. The slow runoff and the seasonal high water table are the major limitations.

This soil is poorly suited to pasture and hay. The flooding, the slow runoff, and the seasonal high water table are the major limitations. The wetness and frost action restrict the choice of crops mainly to grasses. A drainage system can lower the water table. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the occasional flooding is a severe hazard. The seasonal high water table and the slow runoff are limitations. Frost action is a limitation on sites for roads.

The potential productivity is medium for eastern white pine and red spruce. The major limitations are the flooding and the seasonal high water table. The major management concerns are a severe equipment limitation, a severe hazard of windthrow, and severe plant competition.

The capability subclass is IVw.

Ry—Rumney fine sandy loam, frequently flooded. This nearly level, poorly drained, very deep soil is on flood plains along rivers and streams. Areas are elongated and range from about 5 to 200 acres in size. Slopes are generally smooth and slightly concave and are 0 to 2 percent.

Typically, this soil has a surface layer of very dark grayish brown, mottled fine sandy loam about 9 inches thick. The subsoil is about 21 inches thick. It grades from dark grayish brown, mottled fine sandy loam to grayish brown, mottled sandy loam. The substratum to a depth of 60 inches or more is olive gray, mottled loamy sand.

Included with this soil in mapping are small areas of the very deep Cornish, Lovewell, Ondawa, Podunk, and Sunday soils. The excessively drained Sunday soils are along the margin of fields next to watercourses. The well drained Ondawa soils are on rises. The moderately well drained Lovewell and Podunk soils and the somewhat poorly drained Cornish soils are in the slightly higher positions on the landscape. Also included are poorly drained soils that are loamy sand or sand throughout and some areas of soils that have strata of sandy loam, very fine sand, silt, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick. Included soils make up as much as 10 percent of this unit.

Permeability is moderate or moderately rapid in the solum of the Rumney soil and rapid or very rapid in the substratum. Surface runoff is slow. The available water capacity is high. A seasonal high water table is commonly within a depth of about 1.5 feet in fall, winter, and spring. The soil is subject to frequent, brief periods of flooding from October through May.

Most areas are used as woodland or pasture. This soil is near areas of wetlands.

This soil is very poorly suited to cultivated crops. Frequent flooding during the growing season is a hazard because the soil is lower on the landscape than most of the other cultivated soils on the flood plains. The slow runoff and the seasonal high water table are the major limitations.

This soil is poorly suited to pasture and hay. The flooding, the slow runoff, and the seasonal high water table are the major limitations.

If this soil is used for residential or commercial development, the flooding is a severe hazard and the seasonal high water table and the slow runoff are limitations. Frost action is a limitation on sites for roads.

The potential productivity is medium for eastern white pine and red spruce. The major limitations are the flooding and the seasonal high water table. The major management concerns are a severe equipment limitation, a severe hazard of windthrow, and severe plant competition.

The capability subclass is IVw.

RZ—Rumney-Podunk association, frequently flooded. This unit consists of nearly level, very deep soils on flood plains along rivers and streams throughout the county. Most areas are elongated and range from 10 to 50 acres in size. The Rumney soil has slopes of 0 to 2 percent, and the Podunk soil has slopes of 0 to 3 percent. The slopes are generally smooth and slightly concave, but some are slightly convex. The unit is about 40 percent a poorly drained Rumney soil, 30 percent a moderately well drained Podunk soil, and 30 percent other soils. The Podunk soil is in the higher, slightly convex areas beside streams and rivers. The Rumney soil is in slightly concave areas farther from the streams.

Typically, the surface layer of the Rumney soil is very dark grayish brown, mottled fine sandy loam about 9 inches thick. The subsoil is about 21 inches thick. It grades from dark grayish brown, mottled fine sandy loam to grayish brown, mottled sandy loam. The substratum to a depth of 60 inches or more is olive gray, mottled loamy sand.

Typically, the Podunk soil has a surface layer of dark yellowish brown fine sandy loam about 10 inches thick. The subsoil is light olive brown fine sandy loam about 20 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is olive gray, mottled loamy fine sand.

Included with these soils in mapping are small areas of Charles, Cornish, Lovewell, and Medomak soils. The moderately well drained Lovewell soils, the somewhat poorly drained Cornish soils, the poorly drained Charles soils, and the very poorly drained Medomak soils are very deep. They formed in silty alluvium and are intermingled with areas of the Rumney and Podunk soils. Lovewell soils are in the slightly higher positions on the landscape. Also included are some areas of soils that have strata of sandy loam, very fine sand, silt, or fine gravel below a depth of 40 inches. The strata are less than 5 inches thick.

Permeability is moderate or moderately rapid in the solum of the Rumney and Podunk soils and rapid or very rapid in the substratum. Surface runoff is medium or slow on both soils. The available water capacity is high. In fall, winter, and spring, a seasonal high water table is commonly within a depth of about 1.5 feet in the Rumney soil and at a depth of about 1.5 to 3.0 feet in the Podunk soil. The Rumney soil is subject to frequent, brief periods of flooding from October through May. The Podunk soil is subject to frequent, brief periods of flooding from November through April.

Most areas are used as woodland and as habitat for wildlife.

These soils are poorly suited to cultivated crops and to pasture and hay. The main limitations are the flooding and the seasonal high water table. Erosion is a severe hazard if the plant cover is removed. Installing drainage tile can lower the water table.

If this unit is used for residential or commercial development, the flooding and the seasonal high water table are severe limitations.

The potential productivity for eastern white pine is medium on the Rumney soil and very high on the Podunk soil. In areas of the Rumney soil, the major limitations are the seasonal high water table and the flooding, which restrict the rooting depth and severely limit the use of equipment. The restricted rooting depth causes a severe hazard of windthrow.

No capability subclass is assigned.

SAD—Saddleback-Ricker complex, moderately steep. This unit consists of moderately steep soils on glaciated, bedrock-controlled mountain ridges at elevations of more than 2,500 feet. Stones cover as much as 3 percent of the surface. Most areas are irregular in shape and are 10 to 300 acres in size. Slopes range from 8 to 35 percent and are mostly convex. The unit is about 50 percent a shallow, well drained Saddleback soil; 20 percent a very shallow, well drained to excessively drained Ricker soil; and 30 percent other soils. The Saddleback soil is in convex areas on mountaintops and the side slopes of mountain ridges. The Ricker soil is in convex areas on mountaintops and the upper side slopes and generally is higher in elevation than the Saddleback soil. The two soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Saddleback soil has a thin layer of forest litter and a layer of dark reddish brown, highly decomposed organic material over a surface layer of grayish brown very fine sandy loam about 3 inches thick. The subsoil is fine sandy loam about 14 inches thick. It is very dusky red and dark reddish brown in the upper part and reddish brown in the lower part. Hard bedrock is at a depth of about 19 inches.

Typically, the Ricker soil has a dark reddish brown layer of forest litter about 1 inch thick and a layer of very dusky red, highly decomposed organic material about 2 inches thick. The surface layer is gray very channery loamy very fine sand about 1 inch thick. Hard bedrock is at a depth of about 4 inches.

Included with these soils in mapping are small areas of well drained, very deep soils on side slopes and in saddles; small areas of well drained, moderately deep soils in concave areas where the depth to bedrock is 20 to 40 inches; small areas of moderately well drained, very deep soils on the lower, concave slopes; and intermingled areas of moderately well drained to poorly drained soils that are moderately deep to very shallow over bedrock. Also included are scattered areas of rock outcrop and, at or near the base of some side slopes, areas where stones and boulders cover more than 3 percent of the surface.

Permeability is moderate in the Saddleback soil and moderate or moderately rapid in the Ricker soil. Surface runoff is slow to rapid on both soils, depending on the slope. The available water capacity is moderate in the Saddleback soil and very low in the Ricker soil. The rooting depth is limited by the depth to bedrock in both soils.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the depth to bedrock, droughtiness, rockiness, and a short growing season. The soils are commonly in very remote areas and generally do not have established roads.

The potential productivity for balsam fir is very low. The major limitations are the slope and the depth to bedrock. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. Winds are stronger and more frequent in areas of this unit than in areas at the lower elevations. The elevation and the depth to bedrock, which restricts the rooting depth, result in a severe hazard of windthrow.

No capability subclass is assigned.

SAE—Saddleback-Ricker complex, steep. This unit consists of steep soils on glaciated, bedrock-controlled mountain ridges at elevations of more than 2,500 feet. Stones cover as much as 3 percent of the surface. Most areas are irregular in shape and are 30 to 300 acres in size. Slopes range from 35 to 60 percent and are commonly complex and convex. The unit is about 40 percent a shallow, well drained Saddleback soil; 35 percent a very shallow, well drained to excessively drained Ricker soil; and 25 percent other soils. The Saddleback soil is in convex areas on mountaintops and ridges. The Ricker soil is in convex areas on the crests of ridges and on mountaintops and is generally higher in elevation than the Saddleback soil. The two soils occur in an intricate pattern and cannot be mapped separately.

Typically, the Saddleback soil has a thin layer of forest litter and a layer of dark reddish brown, highly decomposed organic material over a surface layer of grayish brown very fine sandy loam about 3 inches thick. The subsoil is fine sandy loam about 14 inches thick. It is very dusky red and dark reddish brown in the upper part and reddish brown in the lower part. Hard bedrock is at a depth of about 19 inches.

Typically, the Ricker soil has a dark reddish brown layer of forest litter about 1 inch thick and a layer of very dusky red, highly decomposed organic material about 2 inches thick. The surface layer is gray very channery loamy very fine sand about 1 inch thick. Hard bedrock is at a depth of about 4 inches.

Included with these soils in mapping are small areas of well drained, very deep soils on side slopes; small areas of well drained, moderately deep soils in concave areas where the depth to bedrock is 20 to 40 inches; small areas of moderately well drained, very deep soils on the lower, concave slopes; and intermingled areas of moderately well drained to poorly drained soils that are moderately deep to very shallow over bedrock. Also included are some scattered areas of rock outcrop and, at or near the base of some side slopes, some areas where stones and boulders cover more than 3 percent of the surface.

Permeability is moderate in the Saddleback soil and moderate or moderately rapid in the Ricker soil. Surface runoff is medium to very rapid on both soils, depending on the slope. The available water capacity is moderate in the Saddleback soil and very low in the Ricker soil. The rooting depth is limited by the depth to bedrock in both soils.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the depth to bedrock, droughtiness, rockiness, a short growing season, and the slope. The soils commonly are in very remote areas that generally do not have established roads.

The potential productivity for balsam fir is very low. The major limitations are the slope and the depth to bedrock. The slope severely limits the use of equipment and causes a severe hazard of erosion. Winds are stronger and more frequent in areas of this unit than in areas at the lower elevations. The elevation and the depth to bedrock, which restricts the rooting depth, cause a severe hazard of windthrow. Building logging roads on the contour helps to control erosion. Road construction is difficult because of the depth to bedrock.

No capability subclass is assigned.

Se—Searsport muck. This nearly level, very poorly drained, very deep soil is in depressions on outwash plains and lake plains and on glaciated uplands. Slopes range from 0 to 2 percent and are smooth and concave. Areas are about 5 to 60 acres in size and are irregular in shape.

Typically, this soil has a layer of forest litter over a surface layer of highly decomposed organic material about 8 inches thick. The surface layer is black muck in the upper part and very dark gray muck in the lower part. The subsurface layer is dark gray loamy sand about 3 inches thick. The substratum to a depth of 60 inches or more is olive gray coarse sand.

Included with this soil in mapping are small areas of Naumburg and Wonsqueak soils. The somewhat poorly drained and poorly drained Naumburg soils are at the slightly higher elevations. The very poorly drained, shallow, organic Wonsqueak soils are in depressions. Also included are some areas where thin strata of gravel are below a depth of 40 inches, some seasonally ponded areas, and some areas of very poorly drained alluvial soils near stream borders. Included soils make up as much as 10 percent of this unit.

Permeability is rapid or very rapid in the Searsport soil. Surface runoff is slow to ponded. The available water capacity is moderate. A seasonal high water table is commonly about 1 foot above to 1 foot below the surface in fall, winter, and spring.

Most areas are used as woodland and as habitat for wetland wildlife. This soil is near areas of wetlands.

This soil is not used for cultivated crops, pasture, hay, residential or commercial development, or woodland. The major limitations are ponding, the seasonal high water table, and low strength.

The potential productivity is low for eastern white pine and medium for balsam fir. The major limitations are the ponding and the seasonal high water table, which cause a severe equipment limitation and a severe hazard of windthrow. Plant competition is severe.

This soil is well suited to wetland plants and to wetland wildlife habitat. The major problem in managing wetland wildlife habitat is controlling the depth to the water table during nesting periods.

The capability subclass is Vw.

SkB—Skerry fine sandy loam, 3 to 8 percent slopes. This gently sloping, moderately well drained, very deep soil is on the crests and side slopes of glacial till drumlins and ridges. Most areas are oval and range from about 10 to 80 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with this soil in mapping are areas of Becket, Brayton, Colonel, Hermon, and Monadnock soils. These soils are very deep. The well drained Becket soils are on the upper side slopes at the higher elevations. The poorly drained Brayton soils and the somewhat poorly drained Colonel soils are at the base of long slopes, in depressions, and along drainageways. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are in the lower areas adjacent to outwash terraces and in the higher areas on the southeast side of bedrock-controlled ridgetops. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; areas that have slopes of less than 3 percent or more than 8 percent; a few areas that are very stony; and some areas of soils that are similar to the Skerry soil but have a subsoil of loamy sand. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium. The available water capacity is low. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used for cultivated crops, orchards, pasture, or hay. The original stone cover has been removed. A few areas have reverted to woodland.

This soil is fairly well suited to cultivated crops. The seasonal high water table and the slowly permeable substratum are the major limitations. Installing drainage tile can improve the suitability for cultivated crops and orchards. Stripcropping, cover crops, and green manure crops reduce the hazard of erosion.

This soil is fairly well suited to pasture and hay. If the soil is used for legumes, the seasonal high water table and frost action are the major limitations. Applications of lime and fertilizer and rotational grazing are the major management needs.

If this unit is used for sewage disposal, houses with basements, or sanitary landfills, the seasonal high water table, the slowly permeable substratum, and frost action are severe limitations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The compact substratum limits root development, especially of trees with taproots, such as red pine. The restricted rooting depth causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as northern red oak, eastern white pine, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is IIe.

SkC—Skerry fine sandy loam, 8 to 15 percent slopes. This strongly sloping, moderately well drained, very deep soil is on the side slopes of glacial till drumlins and ridges. Most areas are oval and range from about 5 to 60 acres in size. Slopes are smooth and convex.

Typically, this soil has a surface layer of dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with this soil in mapping are small areas of

Becket, Brayton, Colonel, Hermon, and Monadnock soils. These soils are very deep. The well drained Becket soils are on the upper side slopes at the higher elevations. The poorly drained Brayton soils and the somewhat poorly drained Colonel soils are at the base of long slopes, in depressions, and along drainageways. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are in the areas adjacent to outwash terraces and in the higher areas on the southeast side of bedrock-controlled ridgetops. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; areas that have slopes of less than 8 percent or more than 15 percent; a few areas that are very stony; and some areas of soils that are similar to the Skerry soil but have a subsoil of loamy sand. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium or rapid. The available water capacity is low. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used for pasture or hay. Some areas are used as cropland or orchards. The original cover of stones has been removed. A few areas have reverted to woodland.

This soil is poorly suited to cultivated crops. The hazard of erosion, the seasonal high water table, the slowly permeable substratum, and the slope are the main limitations. Installing drainage tile can improve the suitability for cultivated crops and orchards. Stripcropping, diversions, cover crops, and green manure crops help to control erosion.

This soil is fairly well suited to pasture and hay. If the soil is used for legumes, the seasonal high water table and frost action are the main limitations. Applications of lime and fertilizer and rotational grazing are the major management needs.

If this soil is used for sewage disposal, houses with basements, or sanitary landfills, the seasonal high water table, the slowly permeable substratum, frost action, and the slope are severe limitations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The compact substratum limits root development, especially of trees with taproots, such as red pine. The restricted rooting depth causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as northern red oak, eastern white pine, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is IIIe.

SnB—Skerry fine sandy loam, 3 to 8 percent slopes, very stony. This gently sloping, moderately well drained, very deep soil is on the crests and side slopes of glacial till drumlins and ridges. Most areas are irregular in shape and range from about 5 to 75 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with this soil in mapping are small areas of Becket, Brayton, Colonel, Hermon, and Monadnock soils. These soils are very deep. The well drained Becket soils are on the upper side slopes at the higher elevations. The poorly drained Brayton soils and the somewhat poorly drained Colonel soils are at the base of long slopes, in depressions, and along drainageways. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are in the lower areas adjacent to outwash terraces and in the higher areas on the southeast side of bedrock-controlled ridgetops. Also included, in the towns of Buckfield and Hartford and in a few other areas, are soils that are similar to the Skerry soil but do not have a firm substratum; areas of soils that have slopes of less than 3 percent or more than 8 percent; a few areas where stones cover more than 3 percent of the surface; and some areas of soils that are similar to the Skerry soil but have a subsoil of loamy sand. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium. The available water capacity is low. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used as woodland. A few areas have been cleared and are used as native pasture.

This soil is very poorly suited to cultivated crops. The major limitations are the seasonal high water table, the slowly permeable substratum, and the surface stones.

This soil is very poorly suited to pasture and hay. The surface stones limit the use of farm equipment. The soil can be used as unimproved pasture if some of the stones are removed.

If this unit is used for septic sewage disposal systems, sewage lagoons, houses with basements, or sanitary landfills, the seasonal high water table, the slowly permeable substratum, and frost action are severe limitations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The compact substratum restricts root development, especially of trees with taproots, such as red pine. The restricted rooting depth causes a moderate hazard of windthrow and plant competition. Such trees as northern red oak, eastern white pine, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is VIs.

SnC—Skerry fine sandy loam, 8 to 15 percent slopes, very stony. This strongly sloping, moderately well drained, very deep soil is on the side slopes of glacial till drumlins and ridges. Most areas are irregular in shape and range from about 10 to 100 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with this soil in mapping are small areas of Becket, Brayton, Colonel, Hermon, and Monadnock soils. These soils are very deep. The well drained Becket soils are on the upper side slopes at the higher elevations. The poorly drained Brayton soils and the somewhat poorly drained Colonel soils are at the base of long slopes, in depressions, and along drainageways. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are in the lower areas adjacent to outwash terraces and in the higher areas on the southeast side of bedrock-controlled ridgetops. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; areas that have slopes of less than 8 percent or more than 15 percent; a few areas where stones cover more than 3 percent of the surface; and some areas of soils that are similar to the Skerry soil but have a subsoil of loamy sand. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium or rapid. The available water capacity is low. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used as woodland. A few areas have been cleared and are used as native pasture.

This soil is very poorly suited to cultivated crops. The slope, the seasonal high water table, the slowly permeable substratum, and the surface stones are the major limitations.

This soil is very poorly suited to pasture and hay. The surface stones and the slope limit the use of farm equipment. The soil can be used as unimproved pasture if some of the stones are removed.

If this soil is used for septic sewage disposal systems, sewage lagoons, houses with basements, or sanitary landfills, the seasonal high water table, the slowly permeable substratum, frost action, and the slope are severe limitations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The compact substratum restricts root development, especially of trees with taproots, such as red pine. The restricted rooting depth causes a moderate hazard of windthrow. Plant competition is moderate. Such trees as northern red oak, eastern white pine, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is VIs.

SnD—Skerry fine sandy loam, 15 to 25 percent slopes, very stony. This moderately steep, moderately well drained, very deep soil is on the side slopes of glacial till drumlins and ridges. Most areas are irregular in shape and range from about 5 to 85 acres in size. Slopes are smooth and convex. Stones cover 0.1 to 3 percent of the surface.

Typically, this soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Included with this soil in mapping are small areas of Becket, Brayton, Colonel, Hermon, and Monadnock soils. These soils are very deep. The well drained Becket soils are on the upper side slopes at the higher elevations. The poorly drained Brayton soils and the somewhat poorly drained Colonel soils are at the base of long slopes, in depressions, and along drainageways. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are in the lower areas adjacent to outwash terraces and in the higher areas on the southeast side of bedrock-controlled ridgetops. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; areas that have slopes of less than 15 percent or more than 25 percent; a few areas where stones cover more than 3 percent of the surface; and some areas of soils that are similar to the Skerry soil but have a subsoil of loamy sand. Included soils make up as much as 15 percent of this unit.

Permeability is moderate in the surface layer and subsoil of the Skerry soil and slow or moderately slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is rapid. The available water capacity is low. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in fall, winter, and spring.

Most areas are used as woodland.

This soil is very poorly suited to cultivated crops. The major limitations are the slope, the hazard of erosion, the seasonal high water table, the slowly permeable substratum, and the surface stones.

This soil is very poorly suited to pasture and hay. The surface stones and the slope limit the use of farm equipment. The soil is fairly well suited to unimproved pasture if some of the stones are removed.

If this soil is used for septic sewage disposal systems, sewage lagoons, houses with basements, or sanitary landfills, the seasonal high water table, the slowly permeable substratum, frost action, and the slope are severe limitations.

The potential productivity is very high for eastern white pine and white spruce and high for balsam fir. The slope moderately limits the use of equipment and causes a moderate hazard of erosion. Plant competition is moderate. The compact substratum restricts root development, especially of trees with taproots, such as red pine. It causes a moderate hazard of windthrow. Such trees as northern red oak, eastern white pine, eastern hemlock, sugar maple, and yellow birch respond well to pruning and thinning.

The capability subclass is VIs.

SOC—Skerry-Becket association, strongly sloping. This unit consists of strongly sloping, very deep soils on drumlin-shaped ridges, glaciated hills in the uplands, and mountains. Most surface stones have been removed. The Skerry soil has slopes of 0 to 15 percent, and the Becket soil has slopes of 3 to 15 percent. The slopes are mostly smooth and convex and are dissected by a few depressions or drainageways. Areas are generally rectangular, are 25 to 100 acres in size, and commonly have stone walls as their boundaries. The unit is about 50 percent a moderately well drained Skerry soil, 20 percent a well drained Becket soil, and 30 percent other soils. The Skerry soil is on smooth, slightly concave slopes, on the lower side slopes, or in shallow depressions. The Becket soil is on crests and the upper slopes.

Typically, the Skerry soil has a surface layer of dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Becket soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 17 inches thick. It is dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are Colonel, Hermon, Lyman, Monadnock, and Tunbridge soils. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are on irregular, dissected slopes, commonly near areas of outwash, or on side slopes with an east-west aspect. The somewhat poorly drained Colonel soils are in depressions between the ridges. Hermon, Colonel, and Monadnock soils are very deep. The moderately deep Tunbridge soils and the shallow Lyman soils are on knobby ridges and in other areas where bedrock is near the surface. Lyman soils are somewhat excessively drained, and Tunbridge soils are well drained. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that are similar to the Skerry and Becket soils but have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; a few areas that have slopes of less than 3 percent or more than 15 percent; and some areas where stones cover as much as 3 percent of the surface.

Permeability is moderate in the surface layer and subsoil of the Skerry and Becket soils and slow or moderately slow in the compact substratum. Surface runoff is medium. The available water capacity is low or moderate. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Becket soil in winter and spring. The rooting depth is limited by the firm substratum in both soils.

Most areas are used as woodland.

These soils are fairly well suited to cultivated crops and to hay and pasture. The main limitations are the seasonal high water table and the compact substratum. Seepage areas in depressions limit the use of farm equipment.

If these soils are used for residential or commercial development, the seasonal high water table, the compact substratum, and frost action are severe limitations.

The potential productivity for eastern white pine is very high. The compact substratum of glacial till limits the rooting depth and causes a moderate hazard of windthrow.

No capability subclass is assigned.

SOD—Skerry-Becket association, moderately steep. This unit consists of moderately steep, very deep soils on drumlin-shaped ridges, glaciated hills in the uplands, and mountains. Most surface stones have been removed. Areas are generally rectangular, are 10 to 50 acres in size, and commonly have stone walls as their boundaries. The Skerry soil has slopes of 15 to 25 percent, and the Becket soil has slopes of 15 to 35 percent. The slopes are mostly smooth and convex and are dissected by a few depressions and drainageways. The unit is about 50 percent a moderately well drained Skerry soil, 30 percent a well drained Becket soil, and 20 percent other soils. The Skerry soil is on smooth, slightly concave slopes, on the lower slopes, or in shallow depressions. The Becket soil is on crests and the upper slopes.

Typically, the Skerry soil has a surface layer of dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Becket soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 17 inches thick. It is dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are small areas of Colonel, Hermon, Lyman, Monadnock, and Tunbridge soils. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are on irregular, dissected slopes, commonly near areas of outwash, or on side slopes with an east-west aspect. The somewhat poorly drained Colonel soils are near drainageways or in depressions between the ridges. Colonel, Hermon, and Monadnock soils are very deep. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are on knobby ridges and in other areas where bedrock is near the surface. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that are similar to the Skerry and Becket soils but have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; a few areas that have slopes of less than 15 percent or more than 35 percent; and some areas where stones cover as much as 3 percent of the surface.

Permeability is moderate in the surface layer and subsoil of the Skerry and Becket soils and slow or moderately slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is low or moderate. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Becket soil in winter and spring. The rooting depth is limited by the firm substratum in both soils.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to pasture and hay. They are severely limited as sites for residential and commercial development. The main limitations are the slope, the seasonal high water table, frost action, and the compact substratum.

The potential productivity for eastern white pine is very high. The major limitations are the slope and the compact substratum. The slope causes a moderate hazard of erosion and a moderate equipment limitation. The compact substratum limits the rooting depth and causes a moderate hazard of windthrow.

No capability subclass is assigned.

SRC—Skerry-Becket association, strongly sloping, very stony. This unit consists of strongly sloping, very deep soils that commonly are on the northwest slopes of drumlin-shaped ridges, glaciated hills, and mountains throughout the survey area. The Skerry soil has slopes of 0 to 15 percent, and the Becket soil has slopes of 3 to 15 percent. The slopes are mostly smooth and convex or are broken into irregular, complex segments by drainageways. Areas are oblong or irregularly shaped and generally are 50 to 300 acres in size. Stones cover 0.1 to 3 percent of the surface. The unit is about 50 percent a moderately well drained Skerry soil, 20 percent a well drained Becket soil, and 30 percent other soils. The Skerry soil is on the lower slopes or in gently sloping areas. The Becket soil is on the upper slopes or on ridgetops.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Becket soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are small areas of Colonel, Hermon, Lyman, Monadnock, and Tunbridge soils. The somewhat excessively drained Hermon soils and the well drained Monadnock soils are intermingled with areas of the Becket soil on irregular, dissected slopes. The somewhat poorly drained Colonel soils are in depressions between the ridges. Hermon, Colonel, and Monadnock soils are very deep. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are on knobby ridges and in other areas where bedrock is near the surface. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that are similar to the Skerry and Becket soils but have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; a few scattered rock outcrops; areas that have slopes of less than 3 percent or more than 15 percent; areas where stones and boulders cover more than 3 percent of the surface; and a few areas of soils that are similar to the Skerry and Becket soils but are not stony.

Permeability is moderate in the surface layer and subsoil of the Skerry and Becket soils and slow or moderately slow in the compact substratum. Surface runoff is medium. The available water capacity is low or moderate. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Becket soil in winter and spring. The rooting depth is limited by the firm substratum in both soils.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the compact substratum, the surface stones, frost action, and the seasonal high water table.

The potential productivity for eastern white pine is very high. The compact substratum restricts the rooting depth and causes a moderate hazard of windthrow. Reforestation is difficult because of the surface stones.

No capability subclass is assigned.

SRD—Skerry-Becket association, moderately steep, very stony. This unit consists of moderately steep and steep, very deep soils that commonly are on the northwest slopes of drumlin-shaped ridges and on glaciated hills and mountains throughout the survey area. The Skerry soil has slopes of 15 to 25 percent, and the Becket soil has slopes of 15 to 35 percent. The slopes are generally smooth and convex. Most areas are irregularly shaped or elongated and are 50 to 250 acres in size. Stones and some boulders cover 0.1 to 3 percent of the surface. The unit is about 50 percent a moderately well drained Skerry soil, 30 percent a well drained Becket soil, and 20 percent other soils. The Skerry soil is on the lower side slopes. The Becket soil is on the upper, convex slopes.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Becket soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of pinkish gray fine sandy loam about 1 inch thick. The subsoil is about 23 inches thick. It is reddish brown and dark yellowish brown fine sandy loam in the upper part and yellowish brown and light olive brown sandy loam in the lower part. The substratum to a depth of 60 inches or more is firm, olive gravelly sandy loam. Thin lenses of loose sandy material make up 20 to 80 percent of the substratum.

Included with these soils in mapping are Hermon, Lyman, Monadnock, and Tunbridge soils. The somewhat excessively drained, very deep Hermon soils and the well drained, very deep Monadnock soils are intermingled with areas of the Becket and Skerry soils and are commonly on the lower, irregular knolls. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are in knobby areas where bedrock is near the surface. Also included are areas of soils that are extremely stony or bouldery, areas that have slopes of less than 15 percent or more than 35 percent, and a few scattered rock outcrops.

Permeability is moderate in the surface layer and subsoil of the Skerry and Becket soils and slow or moderately slow in the compact substratum. Surface runoff is medium or rapid. The available water capacity is low or moderate. A seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil in fall, winter, and spring and at a depth of about 2.0 to 3.5 feet in the Becket soil in winter and spring. The rooting depth is limited by the firm substratum in both soils.

Most areas are used as woodland.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for commercial and residential development. The main limitations are the surface stones, the slope, and the seasonal high water table.

The potential productivity for eastern white pine is very high. The major limitation is the slope, which causes a moderate hazard of erosion and a moderate equipment limitation. The compact substratum limits the rooting depth and causes a moderate hazard of windthrow. Reforestation is difficult because of the surface stones.

No capability subclass is assigned.

SSC—Skerry-Colonel association, strongly sloping. This unit consists of strongly sloping, very deep soils on drumlin-shaped ridges and glaciated uplands. Most surface stones have been removed. Slopes range from 0 to 15 percent and are mostly smooth and concave. Most areas are 25 to 100 acres in size, are rectangular, and have stone walls as their boundaries. They are dissected by depressions and drainageways. The unit is about 60 percent a moderately well drained Skerry soil, 20 percent a somewhat poorly drained Colonel soil, and 20 percent other soils. The Skerry soil is on the intermediate and higher slopes. The Colonel soil is on the lower slopes or in concave areas.

Typically, the Skerry soil has a surface layer of dark brown fine sandy loam about 6 inches thick. The subsoil is yellowish brown sandy loam about 16 inches thick. It is mottled in the lower part. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Colonel soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is about 10 inches thick. It is dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of Becket and Brayton soils. The well drained, very deep Becket soils are in the higher positions on the landscape. The poorly drained, very deep Brayton soils are in the lowest depressional areas. Also included, in the towns of Buckfield and Hartford and in a few other areas, mostly where the landscape is rough and rolling, are soils that have a friable substratum of loamy sand or sandy loam and are massive or have weak platy structure; adjacent to soils on outwash terraces, areas of soils that have a surface layer of sand as much as 30 inches thick; a few areas that have slopes of more than 15 percent; and areas where stones cover as much as 3 percent of the surface.

Permeability is moderate in the surface layer and subsoil of the Skerry and Colonel soils and moderately slow or slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium. The available water capacity is low or moderate. In fall, winter, and spring, a seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil and at a depth of about 1.0 to 2.0 feet in the Colonel soil.

Most areas are used as woodland.

These soils are fairly well suited to cultivated crops and to hay and pasture. The main limitations are the seasonal high water table and the compact substratum. Seepage areas in depressions and on the lower slopes limit the use of farm equipment.

If these soils are used for residential or commercial development, the seasonal high water table, the compact substratum, and frost action are severe limitations.

The potential productivity for eastern white pine is very high on the Skerry soil and high on the Colonel soil. The major limitation is a restricted rooting depth, which causes a moderate hazard of windthrow on the Skerry soil and a severe hazard of windthrow on the Colonel soil. The compact substratum in the Colonel soil restricts the rooting depth and causes a seasonal high water table, which moderately limits the use of equipment.

No capability subclass is assigned.

STC—Skerry-Colonel association, strongly sloping, very stony. This unit consists of strongly sloping, very deep soils on drumlin-shaped ridges and glaciated uplands throughout the survey area. Stones cover 0.1 to 3 percent of the surface. Slopes range from 0 to 15 percent and are complex, concave, or convex. Most areas are irregular in shape and are 50 to 200 acres in size. The unit is about 50 percent a moderately well drained Skerry soil, 30 percent a somewhat poorly drained Colonel soil, and 20 percent other soils. Typically, the Skerry soil is on the higher parts of the slopes, and the Colonel soil is on the lower parts of the slopes or in concave areas.

Typically, the Skerry soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Colonel soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of the very deep Becket, Brayton, Hermon, Monadnock, and Peacham soils. The well drained Becket and Monadnock soils and the somewhat excessively drained Hermon soils are in the higher positions on the landscape. The poorly drained Brayton soils and the very poorly drained Peacham soils are in the lower depressional areas and receive runoff from the higher adjacent areas. Also included are areas of soils that have a sandy surface layer as much as 30 inches thick and are adjacent to outwash terraces; a few areas that have slopes of more than 15 percent; areas of poorly drained soils that have a substratum of loose loamy sand or gravelly loamy sand; and some extremely stony areas.

Permeability is moderate in the surface layer and subsoil of the Skerry and Colonel soils and moderately slow or slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium. The available water capacity is low in the Skerry soil and moderate in the Colonel soil. In fall, winter, and spring, a seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil and at a depth of about 1.0 to 2.0 feet in the Colonel soil.

Most areas are used as woodland. Some areas are used as pasture (fig. 13).

These soils are poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for commercial and residential development. The main limitations are the seasonal high water table, the compact substratum, the surface stones, and frost action.

The potential productivity for eastern white pine is very high on the Skerry soil and high on the Colonel soil. The major limitations are a restricted rooting depth in both soils and excessive wetness in the Colonel soil. The restricted rooting depth causes a moderate hazard of windthrow on the Skerry soil and a severe hazard of windthrow on the Colonel soil. The compact substratum in the Colonel soil causes a seasonal high water table, which moderately limits the use of equipment. Reforestation is difficult because of the surface stones on both soils.

No capability subclass is assigned.

STD—Skerry-Colonel association, moderately steep, very stony. This unit consists of moderately steep, very deep soils on drumlin-shaped ridges and glaciated uplands throughout the survey area. Stones cover 0.1 to 3 percent of the surface. The Skerry soil has slopes of 15 to 25 percent, and the Colonel soil has slopes of 8 to 15 percent. The slopes are smooth and are concave or convex. Most areas are irregular in shape and are 20 to 300 acres in size. The unit is about 60 percent a moderately well drained Skerry soil, 20 percent a somewhat poorly drained Colonel soil, and 20 percent other soils. The Skerry soil is on the upper parts of the slopes. The Colonel soil is on the lower parts of the slopes or in concave areas.

Typically, the Skerry soil has a layer of forest litter

Figure 13.—A pastured area of Skerry-Colonel association, strongly sloping, very stony.

and a thin layer of highly decomposed organic material over a surface layer of light brownish gray fine sandy loam about 2 inches thick. The subsoil is about 20 inches thick. The upper part is dark brown fine sandy loam, and the lower part is yellowish brown sandy loam that is mottled below a depth of 18 inches. The substratum to a depth of 60 inches or more is firm, light olive brown, mottled gravelly sandy loam. Thin lenses of loose sandy material make up more than 20 percent of the substratum.

Typically, the Colonel soil has a layer of forest litter and a thin layer of highly decomposed organic material over a surface layer of grayish brown fine sandy loam about 1 inch thick. The subsoil is about 16 inches thick. It is dark reddish brown and dark brown fine sandy loam in the upper part and grades from dark yellowish brown, mottled fine sandy loam to light olive brown, mottled gravelly fine sandy loam in the lower part. The substratum to a depth of 60 inches or more is very firm, olive, mottled gravelly fine sandy loam.

Included with these soils in mapping are small areas of Becket, Brayton, Hermon, Lyman, Monadnock, and Tunbridge soils. The well drained Becket soils, the somewhat excessively drained Hermon soils, and the well drained Monadnock soils are in the highest positions on the landscape. The poorly drained Brayton soils are in the lower depressions. The well drained, moderately deep Tunbridge soils and the somewhat excessively drained, shallow Lyman soils are in areas on knobs and the crests of ridges where bedrock is close to the surface. Also included are a few areas that have slopes of less than 8 percent or more than 25 percent and some areas that are extremely stony.

Permeability is moderate in the surface layer and subsoil of the Skerry and Colonel soils and moderately slow or slow in the compact substratum. Water moves laterally along the top of the compact substratum and through the sandy layers within the substratum. Surface runoff is medium or rapid. The available water capacity is low in the Skerry soil and moderate in the Colonel soil. In fall, winter, and spring, a seasonal high water table is at a depth of about 1.5 to 2.5 feet in the Skerry soil and at a depth of about 1.0 to 2.0 feet in the Colonel soil.

Most areas are used as woodland.

These soils are poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the seasonal high water table, the surface stones, the slope, the compact substratum, and frost action.

The potential productivity for eastern white pine is very high on the Skerry soil and high on the Colonel soil. The major limitations are the slope and a restricted rooting depth in both soils and excessive wetness in the Colonel soil. The compact substratum in the Colonel soil causes a seasonal high water table, which limits the use of equipment. The slope causes a moderate hazard of erosion on the Skerry soil and a moderate equipment limitation on both soils. The restricted rooting depth causes a moderate hazard of windthrow on the Skerry soil and a severe hazard of windthrow on the Colonel soil. Reforestation is difficult because of the surface stones on both soils.

No capability subclass is assigned.

Su—Sunday loamy fine sand, occasionally flooded. This nearly level, excessively drained, very deep soil is on flood plains adjacent to rivers and streams. Areas are crescent shaped and range from about 3 to 40 acres in size. Slopes are smooth and convex and are 0 to 3 percent.

Typically, this soil has a layer of forest litter over a surface layer of dark brown loamy fine sand about 4 inches thick. The upper part of the substratum grades from light olive brown sand to olive brown fine sand. The lower part to a depth of 60 inches or more is light olive brown coarse sand.

Included with this soil in mapping are small areas of Ondawa and Podunk soils. These soils are very deep. The well drained Ondawa soils are in the slightly lower positions on the landscape and are generally farther from the streams than the Sunday soil. The moderately well drained Podunk soils are in shallow depressions. Also included are a few areas of soils that have a surface layer of loamy sand, sand, or fine sandy loam. Included soils make up as much as 10 percent of this unit.

Permeability is rapid or very rapid in the Sunday soil. Surface runoff is slow. The available water capacity is low. The soil is subject to occasional, brief periods of flooding from March through October. According to a U.S. Army Corps of Engineers study of the flood plains in the Fryeburg area, some areas of this soil have not been flooded since the course of the Saco River was altered in the early 1800's.

Most areas are used as woodland. Some areas are used as cropland or hayland.

This soil is poorly suited to cultivated crops. The major limitations are the flooding and droughtiness. In most years the soil can be used for cultivated crops because the flooding normally ends in April, after the peak period of runoff from snowmelt and heavy rains and before planting time. The flooding is unlikely to occur during the growing season. The soil loss caused by flooding can be minimized if cover crops are grown, if crop residue is not removed, and if the soil is plowed after the peak runoff period. Additions of manure, cover crops, and crop residue management increase the content of organic matter, help to maintain soil structure, and increase the available water capacity. In some years irrigation is needed to increase crop yields.

This soil is poorly suited to pasture and hay. The major limitations are the flooding and droughtiness. Fencing dairy animals away from streambanks helps to control erosion. Additions of organic matter, rotational grazing, and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding is a severe hazard. It can damage or destroy permanent structures that are inadequately protected.

The potential productivity for eastern white pine is low. The flooding and droughtiness are the major limitations. Special management is needed in establishing new seedlings because of the hazard of flooding.

The capability subclass is IIIs.

Sy—Sunday loamy fine sand, frequently flooded. This nearly level, excessively drained, very deep soil is on flood plains adjacent to rivers and streams. Areas are crescent shaped and range from about 3 to 60 acres in size. Slopes are smooth and convex and are 0 to 3 percent.

Typically, this soil has a layer of forest litter over a surface layer of dark brown loamy fine sand about 4 inches thick. The upper part of the substratum grades from light olive brown sand to olive brown fine sand. The lower part to a depth of 60 inches or more is light olive brown coarse sand.

Included with this soil in mapping are small areas of Ondawa and Podunk soils. These soils are very deep. The well drained Ondawa soils are in the slightly lower positions on the landscape and are generally farther from the streams than the Sunday soil. The moderately well drained Podunk soils are in shallow depressions. Also included are a few areas of soils that have a surface layer of loamy sand, sand, or fine sandy loam. Included soils make up as much as 10 percent of this unit.

Permeability is rapid or very rapid in the Sunday soil. Surface runoff is slow. The available water capacity is low. The soil is subject to frequent, brief periods of flooding from March through October.

Most areas are used as woodland. Some areas are used as cropland or hayland.

This soil is poorly suited to cultivated crops. The major limitations are the flooding and droughtiness. In some years the soil can be used for cultivated crops because the flooding normally ends in April, after the peak period of runoff from snowmelt and heavy rains and before planting time. The flooding occurs during the growing season in some years. The soil loss caused by flooding can be minimized if cover crops are grown, if crop residue is not removed, and if the soil is plowed after the peak runoff period. Additions of manure, cover crops, and crop residue management increase the content of organic matter, help to maintain soil structure, and increase the available water capacity. In some years irrigation is needed to increase crop yields.

This soil is poorly suited to pasture and hay. The major limitations are the flooding and droughtiness. Fencing dairy animals away from streambanks helps to control erosion. Additions of organic matter, rotational grazing, and applications of lime and fertilizer are the major management needs.

If this soil is used for residential or commercial development, the flooding is a severe hazard. It can damage or destroy permanent structures that are inadequately protected.

The potential productivity for eastern white pine is low. The flooding and droughtiness are the major limitations. Special management is needed in establishing new seedlings because of the hazard of flooding.

The capability subclass is IIIs.

TyB—Tunbridge-Lyman complex, 3 to 8 percent slopes. This unit consists of gently sloping soils on the tops and crests of drumlin-shaped, bedrock-controlled ridges and till plains. It is about 50 percent a moderately deep, well drained Tunbridge soil; 30 percent a shallow, somewhat excessively drained Lyman soil; and 20 percent other soils. The Lyman and Tunbridge soils occur in an intricate pattern and cannot be mapped separately. Most areas are about 5 to 40 acres in size and are oval. Slopes are convex.

Typically, the Tunbridge soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is gravelly fine sandy loam about 18 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 25 inches.

Typically, the Lyman soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 7 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 14 inches.

Included with these soils in mapping are small areas of the very deep Becket, Brayton, Colonel, Dixfield, Marlow, and Skerry soils. The well drained Becket and Marlow soils are in areas of the deeper deposits of glacial till in isolated pockets and on the upper slopes. The poorly drained Brayton soils, the somewhat poorly drained Colonel soils, the moderately well drained Dixfield soils, and the moderately well drained Skerry soils are in depressions and on the lower slopes. Also included are intermingled bedrock exposures that cover less than 1 percent of the surface on the highest points and crests, very stony areas, some areas where stones cover as much as 3 percent of the surface, areas that have slopes of less than 3 percent or more than 8 percent, and areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Lyman and Tunbridge soils. Surface runoff is slow. The available water capacity is low or moderate. The rooting depth is limited by the bedrock in the Lyman soil. The depth to bedrock ranges from 10 to 20 inches in the Lyman soil and from 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland or pasture. Some areas are used for apple orchards.

This unit is poorly suited to cultivated crops. The main limitations are droughtiness and the depth to bedrock. The included bedrock exposures interfere with tillage. Additions of manure, cover crops, green manure crops, and crop rotations that include grasses and legumes help to control runoff and conserve moisture.

This unit is fairly well suited to pasture and hay. The main limitations are droughtiness and the depth to bedrock. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this unit is used for residential or commercial development, the depth to bedrock is a severe limitation. Excavating is extremely difficult because of the hard bedrock close to the surface. The best sites for sewage disposal systems and building foundations are in areas of the moderately deep Tunbridge soil and the deeper included soils.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitation is the depth to bedrock, which causes a moderate hazard of windthrow on the Tunbridge soil and a severe hazard of windthrow on the Lyman soil. Plant competition is moderate on the Lyman soil.

The capability subclass is IIIe.

TyC—Tunbridge-Lyman complex, 8 to 15 percent slopes. This unit consists of strongly sloping and rolling soils on the sides and tops of bedrock-controlled ridges and till plains. It is about 50 percent a moderately deep, well drained Tunbridge soil; 30 percent a shallow, somewhat excessively drained Lyman soil; and 20 percent other soils. The Lyman and Tunbridge soils occur in an intricate pattern and cannot be mapped separately. Most areas are about 5 to 50 acres in size and are oval. Slopes are convex, smooth, or complex.

Typically, the Tunbridge soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is gravelly fine sandy loam about 18 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 25 inches.

Typically, the Lyman soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 7 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 14 inches.

Included with these soils in mapping are small areas of the very deep Brayton, Becket, Colonel, Dixfield, Marlow, and Skerry soils. The well drained Becket and Marlow soils are in areas of the deeper deposits of glacial till in isolated pockets and on the upper slopes. The poorly drained Brayton soils, the somewhat poorly drained Colonel soils, the moderately well drained Dixfield soils, and the moderately well drained Skerry soils are in depressions and pockets and on the lower slopes in the larger areas of the unit. Also included are intermingled bedrock exposures that cover less than 1 percent of the surface on the highest points and crests of hills and ridges, some areas where stones cover as much as 3 percent of the surface, some areas that have slopes of less than 8 percent or more than 15 percent, and areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Tunbridge and Lyman soils. Surface runoff is medium. The available water capacity is low or moderate. The rooting depth is limited by the bedrock in the Lyman soil. The depth to bedrock ranges from 10 to 20 inches in the Lyman soil and from 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland or pasture. Some areas are used for apple orchards.

This unit is poorly suited to cultivated crops. The main limitations are the hazard of erosion, droughtiness, and the depth to bedrock. The included bedrock exposures interfere with tillage. Crop rotations that include grasses and legumes, stripcropping, and applications of lime and fertilizer are the major management needs.

This unit is fairly well suited to pasture and hay. The main limitations are droughtiness, the depth to bedrock, and the hazard of erosion. Rotational grazing and applications of lime and fertilizer are the major management needs.

If this unit is used for residential or commercial development, the depth to bedrock, the bedrock exposures, and the slope are severe limitations. Excavating is extremely difficult because of the hard bedrock near the surface. The best sites for sewage disposal systems and building foundations are in areas of the moderately deep Tunbridge soil and the deeper included soils.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitation is the depth to bedrock, which causes a moderate hazard of windthrow on the Tunbridge soil and a severe hazard of windthrow on the Lyman soil. Plant competition is moderate on the Lyman soil.

The capability subclass is IVe.

TyD—Tunbridge-Lyman complex, 15 to 35 percent slopes. This unit consists of moderately steep and steep soils on the sides of bedrock-controlled ridges and hills. It is about 50 percent a moderately deep, well drained Tunbridge soil; 30 percent a shallow, somewhat excessively drained Lyman soil; and 20 percent other soils. The Lyman and Tunbridge soils occur in an intricate pattern and cannot be mapped separately. Most areas are about 5 to 40 acres in size and are oval. Slopes are convex or complex.

Typically, the Tunbridge soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is gravelly fine sandy loam about 18 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 25 inches.

Typically, the Lyman soil has a surface layer of dark brown fine sandy loam about 7 inches thick. The subsoil is fine sandy loam about 7 inches thick. It is dark yellowish brown in the upper part and yellowish brown in the lower part. Hard bedrock is at a depth of about 14 inches.

Included with these soils in mapping are small areas of Becket, Marlow, Brayton, Colonel, Dixfield, Hermon, and Skerry soils. These soils are very deep. The well drained Becket soils, the somewhat excessively drained Hermon soils, and the well drained Marlow soils are in areas of the deeper deposits of glacial till in isolated pockets and on the upper slopes. The poorly drained Brayton soils, the somewhat poorly drained Colonel soils, the moderately well drained Dixfield soils, and the moderately well drained Skerry soils are in depressions and on the lower slopes. Also included are intermingled bedrock exposures that cover less than 1 percent of the surface on the highest points and crests of hills and ridges, areas where stones cover as much as 3 percent of the surface, some very stony areas, small areas that have slopes of less than 15 percent or more than 35 percent, and areas of soils that are similar to the Lyman and Tunbridge soils but are moderately well drained to poorly drained.

Permeability is moderate or moderately rapid in the Tunbridge and Lyman soils. Surface runoff is medium or rapid. The available water capacity is low or moderate. The rooting depth is limited by the bedrock in the Lyman soil. The depth to bedrock ranges from 10 to 20 inches in the Lyman soil and from 20 to 40 inches in the Tunbridge soil.

Most areas are used as woodland. Some areas are used as pasture.

This unit is poorly suited to cultivated crops and to pasture and hay. The main limitations are the slope, a severe hazard of erosion, droughtiness, and the depth to bedrock.

If this unit is used for residential or commercial development, the depth to bedrock, the bedrock exposures, and the slope are severe limitations. Excavating is extremely difficult because of the hard bedrock.

The potential productivity for eastern white pine is high on the Tunbridge soil and medium on the Lyman soil. The major limitations are the depth to bedrock and the slope. The depth to bedrock causes a moderate hazard of windthrow on the Tunbridge soil and a severe hazard of windthrow on the Lyman soil. The slope of both soils causes a moderate hazard of erosion and moderately limits the use of equipment. Plant competition is moderate on the Lyman soil.

The capability subclass is VIIe.

UaC—Urban land-Adams complex, 0 to 15 percent slopes. This unit consists of nearly level to strongly sloping areas on outwash plains and terraces. The Urban land has slopes of 0 to 2 percent, and the Adams soil has slopes of 0 to 15 percent. The slopes vary in shape but are generally smooth and slightly convex. The unit is about 65 percent Urban land; 25 percent a somewhat excessively drained, very deep Adams soil; and 10 percent other soils. The Adams soil and Urban land occur in an intricate pattern and cannot be mapped separately. Most areas are about 20 to 80 acres in size and are square or oval, generally conforming to the built-up areas of the larger towns.

Typically, the Urban land is covered by roads, parking lots, buildings, or other structures. In many areas it has been cut and filled. The fill material varies in origin. In some areas it is sandy, loamy, or gravelly or is fragments of bedrock. In other areas it is waste material that is mixed or covered with soil material.

Typically, the Adams soil has a layer of forest litter and a layer of highly decomposed organic material over a surface layer of pinkish gray loamy sand about 1 inch thick. The subsoil is loamy sand about 17 inches thick. It is dark brown in the upper part and dark yellowish brown and yellowish brown in the lower part. The substratum to a depth of 60 inches or more is light yellowish brown sand.

Included in this unit in mapping are small areas of the moderately well drained Croghan and somewhat poorly drained and poorly drained Naumburg soils in scattered shallow depressions. These soils are very deep. Also included are the shallow Lyman, moderately deep Tunbridge, and very deep Hermon soils on knolls and ridges and in other areas where bedrock is close to the surface and some areas that have slopes of more than 15 percent. The somewhat excessively drained Lyman and Hermon soils and the well drained Tunbridge soils formed in glacial till. Included soils make up as much as 10 percent of this unit.

Permeability is rapid or very rapid in the Adams soil. Surface runoff is slow on the Adams soil and very rapid on the impervious Urban land. The available water capacity is very low in the Adams soil.

If the Adams soil is used for sewage disposal, the main limitation is a poor filtering capacity in the substratum. Because of the poor filtering capacity, the effluent from sewage disposal systems can contaminate ground water. The Adams soil is poorly suited to grasses, trees, shrubs, and vegetable gardens because of droughtiness. Irrigation is needed in most years. Shade-tolerant grasses and plants can be grown in areas shaded by buildings or large trees. Onsite investigation is needed to determine the suitability of this unit for any proposed use.

No capability subclass is assigned.

UhC—Urban land-Hermon complex, 0 to 20 percent slopes. This unit consists of nearly level to moderately steep areas on ridges made up of loose glacial till. The unit is about 65 percent Urban land; 25 percent a somewhat excessively drained, very deep Hermon soil; and 10 percent other soils. The Hermon soil and Urban land occur in an intricate pattern and cannot be mapped separately. Most areas are about 20 to 120 acres in size and are square or oval, generally conforming to the built-up areas of the larger towns.

Typically, the Urban land is covered by roads, parking lots, buildings, or other structures. In many areas it has been cut and filled. The fill material varies in origin. In some areas it is sandy, loamy, or gravelly or is fragments of bedrock. In other areas it is waste material that is mixed or covered with soil material.

Typically, the Hermon soil has a surface layer of dark brown sandy loam about 9 inches thick. The subsoil is about 23 inches thick. It is strong brown very gravelly sandy loam in the upper part and dark yellowish brown extremely gravelly loamy sand in the lower part. The substratum to a depth of 60 inches or more is light olive brown very gravelly coarse sand.

Included in this unit in mapping are small areas of Becket, Colonel, Lyman, Skerry, and Tunbridge soils. The very deep, moderately well drained Skerry soils and the somewhat poorly drained Colonel soils are in shallow depressions and on the lower foot slopes. The somewhat excessively drained, shallow Lyman soils and the well drained, moderately deep Tunbridge soils are on knolls and in other areas where bedrock is near the surface. The very deep, well drained Becket soils are in areas where compact till is near the surface. Included soils make up as much as 10 percent of this unit.

Permeability is moderately rapid or rapid in the solum of the Hermon soil and rapid or very rapid in the substratum. It varies in the areas of Urban land, depending on the composition. Surface runoff is slow to rapid on the Hermon soil, depending on the slope, and is very rapid on the impervious Urban land. The available water capacity is low on the Hermon soil and varies on the Urban land. Most areas of the undisturbed Hermon soil are between streets, houses, and commercial buildings and in yards and playgrounds.

If the Hermon soil is used for sewage disposal, the main limitation is a poor filtering capacity in the substratum. Because of the poor filtering capacity, the effluent from sewage disposal systems can contaminate ground water. In some areas the slope is a problem. Droughtiness is a limitation affecting many trees, shrubs, and vegetable gardens. Onsite investigation is needed to determine the suitability of this unit for any proposed use.

No capability subclass is assigned.

Va—Vassalboro mucky peat. This level, very poorly drained, very deep, organic soil formed in decomposed herbaceous and woody deposits in depressions on outwash plains and glaciated uplands. Areas are 4 to 250 acres in size and are irregular in shape. Slopes are 0 to 1 percent and are smooth and concave.

Typically, this soil consists of very dark gray, black, and dark reddish brown, slightly decomposed and moderately decomposed organic material to a depth of 51 inches or more.

Included with this soil in mapping are small areas of Wonsqueak soils, freshwater marsh, and open water areas. The very poorly drained Wonsqueak soils are organic to a depth of less than 51 inches and are underlain by mineral material. They are near the inlets of some depressions and along the margins of the adjacent mineral soils. Also included are areas of very poorly drained alluvial soils near streams. Included areas make up as much as 10 percent of this unit.

Permeability is moderately rapid in the Vassalboro soil. Surface runoff is very slow. The available water capacity is high. For most of the year, a seasonal high water table is within a depth of about 0.5 foot. The rooting depth is shallow because of the seasonal high water table.

Most areas have been left in their original state and are used as habitat for wetland wildlife. This soil is mainly in swamps and bogs that support sphagnum moss, sedges, and low shrubs. It is sparsely covered with trees.

This soil is in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

This soil has severe limitations if it is used for cultivated crops, for pasture and hay, or for commercial timber production. The major limitation is the seasonal high water table.

If this soil is used for residential or commercial development, the seasonal high water table and low strength are severe limitations.

This soil is not suited to the native trees that are common in the survey area. The trees growing on the soil are widely spaced red maple, gray birch, cedar, and black spruce.

The herbaceous vegetation is sedges and grasses. This soil is well suited to wetland plants. It is suited to wetland wildlife habitat. The major management concern is controlling the depth to a seasonal high water table.

The capability subclass is VIIIw.

Vb—Vassalboro mucky peat, ponded. This level, very poorly drained, very deep, organic soil formed in decomposed herbaceous and woody deposits in depressions on outwash plains and glaciated uplands. It borders lakes and ponds and is covered by shallow water most of the time. The major area of the soil is along the Saco River in Fryeburg and Brownfield. Areas are 5 to 250 acres in size and are irregular in shape. Slopes are 0 to 1 percent and are smooth and concave.

Typically, this soil consists of very dark gray, black, and dark reddish brown, slightly decomposed and moderately decomposed organic material to a depth of 51 inches or more.

Included with this soil in mapping are small areas of the very poorly drained Wonsqueak soils. These soils are organic to a depth of less than 51 inches and are underlain by mineral material. They are inundated with water. Also included are small areas of open water near the center of some of the depressions and small areas of very poorly drained alluvial soils along streams and drainageways. The open water is more than 2 feet deep. Included areas make up as much as 10 percent of this unit.

Permeability is moderately rapid in the Vassalboro soil. The available water capacity is high. For most of the year, a seasonal high water table is about 1.0 foot above to 0.5 foot below the surface. The rooting depth is restricted because of the seasonal high water table. The soil is subject to rare flooding.

Most areas have been left in their original state and are used as habitat for wetland wildlife. This soil is mainly in bogs and swamps that support floating herbaceous vegetation. Trees and shrubs grow only on the drier included soils.

This soil is in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

The ponding and the very poor drainage are severe limitations affecting commercial and residential development, woodland, and farmland.

This soil is suited to wetland wildlife habitat and to wetland vegetation. Areas of the soil are extremely important to waterfowl. The soil provides breeding and feeding areas for native and migratory game species.

The capability subclass is VIIIw.

VW—Vassalboro-Wonsqueak association. This unit consists of very deep, nearly level, organic soils throughout the survey area. Most areas are elongated or irregularly shaped and are 20 to 100 acres in size. Slopes are 0 to 1 percent and are concave. The unit is about 60 percent a very poorly drained Vassalboro soil, 30 percent a very poorly drained Wonsqueak soil, and 10 percent other soils. The Vassalboro soil typically is in concave areas, but it is also in some slightly convex areas. The Wonsqueak soil is typically along the edges of the unit and in concave areas.

Typically, the Vassalboro soil consists of very dark gray, black, and dark reddish brown, slightly decomposed and moderately decomposed organic material to a depth of 51 inches or more.

Typically, the Wonsqueak soil is very dark gray, very dark grayish brown, and dark reddish brown, highly decomposed organic material about 40 inches thick. The substratum to a depth of 60 inches or more is gray silt loam.

Included with these soils in mapping are small areas of the very deep Brayton, Peacham, Naumburg, and Searsport soils. These included soils are in areas that are transitional to the surrounding mineral soils. The very poorly drained Peacham soils and the poorly drained Brayton soils are adjacent to areas of glacial till at the margins of the unit. The somewhat poorly drained and poorly drained Naumburg soils and the very poorly drained Searsport soils are adjacent to outwash areas at the margins of the unit. Also included are small areas of open water and marshes.

Permeability is moderately rapid in the Vassalboro soil. It is moderately slow to moderately rapid in the organic layers of the Wonsqueak soil and moderate or moderately slow in the underlying mineral layers. Surface runoff is very slow or ponded on both soils. The available water capacity is high. For most of the year, a seasonal high water table is about 1.0 foot above to 0.5 foot below the surface. The rooting depth is shallow because of the seasonal high water table.

Most areas are used as habitat for woodland and wetland wildlife.

These soils are in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The

Figure 14.—An area of Wonsqueak mucky peat.

main limitations are the seasonal high water table and low strength.

The potential productivity is very low for black spruce. The major limitation is the excessive wetness. The natural vegetation consists of shrubs, grasses, sedges, and scattered red maple, balsam fir, tamarack, and black spruce. Tree growth is slow, and many trees may not reach marketable size.

This unit is well suited to habitat for wetland wildlife. The major management concern is controlling the depth to a seasonal high water table.

No capability subclass is assigned.

Wk—Wonsqueak mucky peat. This level, very poorly drained, very deep soil is in depressions on outwash plains and lake plains and on glaciated uplands (fig. 14). Areas are 5 to 100 acres in size and are irregular in shape. Slopes are 0 to 1 percent and are smooth and concave.

Typically, this soil is very dark gray, very dark grayish brown, and dark reddish brown, highly decomposed organic material to a depth of about 40 inches. The substratum to a depth of 60 inches or more is gray silt loam.

Included with this soil in mapping are small areas of the very poorly drained Vassalboro soils. These soils are near the middle of the larger areas of the unit. Also included are very poorly drained alluvial soils adjacent to streams and brooks and areas of open water and freshwater marsh as much as 3 acres in size. Included areas make up as much as 10 percent of this unit.

Permeability is moderately slow to moderately rapid in the organic layers of the Wonsqueak soil and moderate or moderately slow in the mineral substratum.

Surface runoff is very slow or ponded. The available water capacity is high. For most of the year, a seasonal high water table is about 1.0 foot above to 0.5 foot below the surface. The rooting depth is shallow because of the seasonal high water table.

Most areas have been left in their original state and either are used as habitat for wetland wildlife or are idle. This soil is mainly in swamps and bogs that support low shrubs, reeds, and sedges and commonly have a canopy of trees.

This soil is in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

This soil is not suitable for cultivated crops, for pasture, or for commercial timber production. The major limitations are the seasonal high water table and a lack of suitable drainage outlets.

If this soil is used for residential or commercial development, the seasonal high water table and low strength are severe limitations.

The potential productivity is very low for black spruce. The species of trees depends on the depth to and duration of the seasonal high water table. The herbaceous vegetation consists of cattails, sedges, and grasses.

This soil is well suited to wetland plants. If the soil is used as habitat for wetland wildlife, controlling the depth to a seasonal high water table is the major management concern.

The capability subclass is VIIw.

WS—Wonsqueak and Searsport soils. This unit consists of nearly level, very deep soils in depressions or drainageways and on the borders of lakes or marshes on outwash sand plains. Most areas are oval or irregularly shaped and are 20 to 100 acres in size. The Wonsqueak soil has slopes of 0 to 1 percent, and the Searsport soil has slopes of 0 to 2 percent. The slopes are mostly concave but have a few slight rises. Some areas consist mainly of the very poorly drained Wonsqueak soil, some consist mainly of the very poorly drained Searsport soil, and some consist of both. The two soils were mapped together because they have no major differences affecting use and management. The unit is about 60 percent Wonsqueak soil, 20 percent Searsport soil, and 20 percent other soils.

Typically, the Wonsqueak soil is very dark gray, very dark grayish brown, and dark reddish brown, highly decomposed organic material to a depth of about 40 inches. The substratum to a depth of 60 inches or more is gray silt loam.

Typically, the Searsport soil has a layer of forest litter over a surface layer of highly decomposed organic material about 8 inches thick. The surface layer is black muck in the upper part and very dark gray muck in the lower part. The subsurface layer is dark gray loamy sand about 3 inches thick. The substratum to a depth of 60 inches or more is olive gray coarse sand.

Included with these soils in mapping are small areas of Croghan, Medomak, Naumburg, and Rumney soils. The somewhat poorly drained and poorly drained Naumburg soils and the moderately well drained Croghan soils are on slight rises on the adjoining sandy outwash terraces. The poorly drained Rumney soils and the very poorly drained Medomak soils are along streams. Also included are some areas where surface stones cover less than 1 percent of the surface, some areas of soils that are similar to the Wonsqueak soil but are underlain by very fine sand and silty material, and some areas of soils that are similar to the Searsport soil but have thin strata of gravel below a depth of 40 inches.

Permeability is moderately slow to moderately rapid in the organic layers of the Wonsqueak soil and moderate or moderately slow in the mineral material. It is rapid or very rapid in the Searsport soil. Surface runoff is very slow or ponded on the Wonsqueak soil and slow to ponded on the Searsport soil. The available water capacity is high in the Wonsqueak soil and moderate in the Searsport soil. For most of the year, a seasonal high water table is about 1.0 foot above to 0.5 foot below the surface of the Wonsqueak soil and 1.0 foot above to 1.0 foot below the surface of the Searsport soil.

In most areas these soils are used as woodland and as habitat for wildlife.

These soils are in areas of wetlands that have the potential to control floodwater and erosion, improve the quality and availability of water, provide valuable habitat for wetland wildlife, and provide opportunities for recreation.

These soils are very poorly suited to cultivated crops and to hay and pasture. They are severely limited as sites for residential and commercial development. The main limitations are the seasonal high water table and low strength in the surface layer.

The potential productivity is low for eastern white pine on the Searsport soil and very low for black spruce on the Wonsqueak soil. The major limitation is the excessive wetness.

This unit is suited to habitat for wetland wildlife. The vegetation on the Wonsqueak soil is mainly cattails, reeds, grasses, and sedges. The major concern in managing wildlife habitat is controlling the depth to a seasonal high water table.

No capability subclass is assigned.

Prime Farmland

Prime farmland is one of several kinds of important farmlands defined by the U.S. Department of Agriculture. Identification of prime farmland is a major step in meeting the Nation's needs for food and fiber.

The U.S. Department of Agriculture defines prime farmland as the land that is best suited to food, feed, forage, fiber, and oilseed crops. The soil qualities, growing season, and moisture supply are those needed for a well managed soil to produce a sustained high yield of crops in an economic manner. Prime farmland produces the highest yields and requires minimal expenditure of energy and economic resources, and farming it results in the least damage to the environment.

An area identified as prime farmland must be used for food or fiber or must be available for those uses. Thus, urban or built-up land and water areas are not classified as prime farmland.

The general criteria for prime farmland are as follows: a generally adequate and dependable supply of moisture from precipitation or irrigation, favorable temperature and growing-season length, acceptable levels of acidity or alkalinity, few or no rocks, and permeability to air and water. Prime farmland is not excessively erodible, is not saturated for long periods, and is not frequently flooded during the growing season. The 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 Soil Conservation Service.

This survey area has about 87,600 acres of prime farmland. This acreage makes up about 9 percent of the total acreage in the survey area. The prime farmland is mainly in the southern part of the county.

The map units that are considered prime farmland in the survey area are listed in table 5. This list does not constitute a recommendation for a particular land use. The extent of each listed map unit is shown in table 4, and the location of each unit is shown on the detailed soil maps at the back of this publication. The soil properties and characteristics that affect use and management of the units are described in the section "Detailed Soil Map Units."

Most of the soils in table 5 are considered as prime farmland only where certain limitations have been overcome. The need for measures that overcome these limitations is indicated in parentheses after the name of the map unit.

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 woodland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; and for wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help to 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 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.

Crops and Pasture

Richard Ferland, soil conservationist, Soil Conservation Service, helped prepare this section.

General management needed for crops and pasture is suggested in this section. The crops or pasture plants best suited to the soils, including some not commonly grown in the survey area, are identified; the system of land capability classification used by the Soil Conservation Service is explained; and the estimated yields of the main crops and hay and pasture plants are listed for each soil.

Planners of management systems for individual fields or farms should consider 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 Soil Conservation Service or the University of Maine Cooperative Extension.

In 1982, a total of 19,628 acres in Oxford County was used for crops or pasture *(5)*. Of this total, 13,197 acres was used for hay and pasture and 6,431 acres was used for corn, potatoes, apples, dry beans, or other crops.

The field crops suited to many of the soils in the survey area are the commonly grown row crops, such as silage corn, high-moisture corn, potatoes, and dry beans. Timothy, alfalfa, orchardgrass, and clover are the most common crops used for grass silage, hay, or pasture. The specialty crops grown in the survey area include vegetables, strawberries, native low-bush blueberries, and nursery plants.

A drainage system is needed on about one-third of the acreage used as cropland in the survey area. Natural drainage is inadequate because the soils have a seasonal high water table.

Most of the soils that have a seasonal high water table are in the lower positions on the landscape. Surface runoff from the higher areas increases the amount of water in these soils. Some gently sloping soils have a seasonal high water table because runoff is slow and the rate of water infiltration is high. Soils that have a slowly permeable or moderately permeable subsoil and substratum or that have a compact substratum also can have a seasonal high water table. Becket soils, for example, are well drained but have a seasonal high water table for a short period in spring because permeability is restricted in the substratum.

Cornish, Rumney, Colonel, and other soils that have a seasonal high water table tend to dry and warm slowly in spring. As a result, planting is delayed. The poorly drained Charles and Brayton and very poorly drained Medomak soils have a high water table for most of the year. They are very poorly suited to crop production.

Water erosion is a hazard on about 10 percent of the cropland in the survey area. It is a hazard mainly on soils that have slopes of more than 3 percent, such as Becket, Skerry, Dixfield, and Colonel soils. Wind erosion is a hazard on about 60 percent of the cropland. It is a hazard mainly in large open areas of soils on flood plains, such as Ondawa, Lovewell, Podunk, and Fryeburg soils.

Loss of the surface soil is especially damaging on soils that have a restrictive layer in or below the subsoil. Examples are Skerry, Dixfield, and Colonel soils, which have a compact substratum.

Contour farming, terraces, conservation tillage, stripcropping, and diversions help to control erosion. A cropping system that keeps a plant cover on the soil for extended periods also helps to control erosion. Using strongly sloping soils for pasture and hay or including legumes in the cropping system on these soils helps to control erosion, adds nitrogen to the soils, and improves tilth.

Fall tillage generally is not an acceptable practice on the soils in the survey area because erosion is a hazard in winter and spring. About 70 percent of tilled cropland in the area is on soils that are subject to excessive wind erosion or water erosion unless they are protected by a winter cover crop, such as rye.

Fertility is naturally low in the soils on uplands in the survey area. Most of these soils also are naturally extremely acid to strongly acid. The soils on flood plains, such as Lovewell and Ondawa soils, range from very strongly acid to slightly acid. They generally have a higher content of plant nutrients than most of the soils on uplands.

On most of the soils that are used as cropland, lime and fertilizer have been applied many times. These applications have altered the natural fertility and acidity of the soils. In most unlimed areas, the soils require substantial applications of lime to offset the acidity. If lime is applied, the soils can be used for alfalfa or other crops. In most of these soils, the levels of available phosphorus and potassium are naturally low.

The organic matter in soils is an important source of nitrogen for crops. It helps to maintain tilth, increases the rate of water intake and the available water capacity, helps to control erosion, and helps to prevent surface crusting. In this survey area the surface layer in most of the soils used for crops is loam, silt loam, very fine sandy loam, or fine sandy loam. Originally, the organic matter content was adequate. After years of continuous cropping on many of these soils, however, the organic matter content in the surface layer has decreased and the soil structure generally has weakened. During periods of intensive rainfall, a crust forms at the surface. The crust reduces the rate of water infiltration and increases the runoff rate. Conservation tillage and regular additions of crop residue and manure improve tilth, minimize crusting, and help to maintain the organic matter content in the surface layer.

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 6. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of each narrowly defined map unit also is shown in the table. The section "Detailed Soil Map Units" gives a definition of "narrowly defined."

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 6 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 Soil Conservation Service or of the University of Maine Cooperative Extension can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops.

Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for woodland or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class I soils have slight limitations that restrict their use.

Class II soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class III soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class IV soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class V soils are not likely to erode but have other limitations, impractical to remove, that limit their use.

Class VI soils have severe limitations that make them generally unsuitable for cultivation.

Class VII soils have very severe limitations that make them unsuitable for cultivation.

Class VIII soils and miscellaneous areas have limitations that nearly preclude their use for commercial crop production.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c* to the class numeral, for example, IIe. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class I there are no subclasses because the soils of this class have few limitations. Class V contains only the subclasses indicated by *w, s,* or *c* because the soils in class V are subject to little or no erosion. They have other limitations that restrict their use to pasture, woodland, wildlife habitat, or recreation.

The capability classification of each narrowly defined map unit is given in the section "Detailed Soil Map Units" and in the yields table.

Woodland Management and Productivity

James Spielman, forester, Soil Conservation Service, helped prepare this section.

Timber covers more than 90 percent of the land in Oxford County. About 41 percent of the woodland is the beech-yellow birch-sugar maple forest type, 24 percent is the white pine-red pine type, 20 percent is the spruce-balsam fir type, 10 percent is the aspen-birch type, 4 percent is the oak-hickory-pine type, and less than 1 percent is in the elm-ash-red maple type.

In 1982, about 44 percent of the woodland in the county was stocked with sawtimber-sized stands, 47 percent with pole-sized stands, and 9 percent with sapling- and seedling-sized stands.

The economy in the western part of Maine is highly dependent on forest resources. Historically, there has been a strong demand and diverse market for wood products in Oxford County. Veneer logs, sawtimber, boltwood for the wood-turning industry, pulpwood, firewood for residential use, and wood chips for energy production are currently produced from the timber in the county. The most productive and valuable tree species in the survey area are white pine and white birch. Other important commercial species are red spruce, white spruce, hemlock, white ash, yellow birch, sugar maple, and northern red oak.

Diverse markets and dwindling supplies of high-quality wood are incentives for good forest management. Forest management may be useful in enhancing nontimber values, such as wildlife, recreation, water quality, and esthetics.

Table 7 can be used by woodland owners or forest managers in planning the use of soils for wood crops. Only those soils suitable for wood crops are listed. The table gives the ordination symbol for each soil. Soils assigned the same ordination symbol require the same general management and have about the same potential productivity.

The first part of the *ordination symbol*, a number, indicates the potential productivity of the soils for an indicator tree species. The indicator tree species in Oxford County Area is dominantly eastern white pine. The number indicates the volume, in cubic meters per hectare per year, that the indicator species can produce. The larger the number, the greater the potential productivity. The numbers 1 to 5 indicate very low productivity; 6, low; 7, medium; 8, high; 9 and 10, very high; and 11 or more, extremely high. The second part of the symbol, a letter, indicates the major kind of soil limitation for use and management. The letter *R* indicates steep slopes; *X*, stones or rocks on the surface; *W*, excess water in or on the soil; *D*, restricted rooting depth caused by bedrock, a hardpan, or other restrictive layers; and *S*, sandy texture of the soil. The letter *A* indicates that limitations or restrictions are insignificant. If a soil has more than one limitation, the priority is as follows: R, X, W, D, and S.

In table 7, *slight, moderate,* and *severe* indicate the degree of the major soil limitations to be considered in management.

Erosion hazard is the probability that erosion can occur as a result of site preparation or cutting where the soil is exposed along roads, skid trails, and fire lanes and in log-handling areas. Forests that have been burned or overgrazed also are subject to erosion. Ratings of the erosion hazard are based on the percent of the slope and on the erosion factor K shown in table 15. A rating of *slight* indicates that no particular prevention measures are needed under ordinary conditions. A rating of *moderate* indicates that erosion-control measures are needed in certain silvicultural activities. A rating of *severe* indicates that special precautions are needed to control erosion in most silvicultural activities. The proper construction and maintenance of roads, trails, landings, and fire lanes can reduce the erosion hazard.

Equipment limitation reflects the characteristics and conditions of the soil that restrict use of the equipment generally needed in woodland management or harvesting. The chief characteristics and conditions considered in the ratings are slope, stones on the surface, rock outcrops, soil wetness, and texture of the surface layer. A rating of *slight* indicates that under normal conditions the kind of equipment and season of use are not significantly restricted by soil factors. If soil wetness is a factor, equipment use is restricted for a period of less than 1 month. A rating of *moderate* indicates that equipment use is moderately restricted because of one or more soil factors. If soil wetness is a factor, equipment use is restricted for 1 to 3 months. A rating of *severe* indicates that equipment use is severely restricted either as to the kind of equipment or the season of use. If soil wetness is a factor, equipment use is restricted for more than 3 months. Choosing the best suited equipment and deferring the use of harvesting and other equipment during wet periods help to overcome the equipment limitation.

Seedling mortality refers to the death of naturally occurring or planted tree seedlings, as influenced by the kinds of soil or topographic conditions. The factors considered in rating the soils for seedling mortality are texture of the surface layer, depth to a seasonal high water table and the length of the period when the water table is high, rock fragments in the surface layer, rooting depth, and aspect of the slope. A rating of *slight* indicates that under usual conditions the expected mortality is less than 25 percent. A rating of *moderate* indicates that the expected mortality is 25 to 50 percent. Extra precautions are advisable. A rating of *severe* indicates that the expected mortality is more than 50 percent. Extra precautions are important. Replanting may be necessary. Selection of special planting stock and special site preparation, such as bedding, furrowing, or installing a surface drainage system, can reduce the seedling mortality rate.

Windthrow hazard is the likelihood that trees will be uprooted by the wind because the soil is not deep enough for adequate root anchorage. The main restrictions that affect rooting are a seasonal high water table and the depth to bedrock, a fragipan, or other limiting layers. A rating of *slight* indicates that under normal conditions no trees are blown down by the wind. Strong winds may damage trees but do not uproot them. A rating of *moderate* indicates that a few trees can be blown down during periods when the soil is wet and winds are moderate or strong. A rating of *severe* indicates that many trees can be blown down during these periods. The use of special equipment that does not damage surficial root systems during partial cutting operations can reduce the hazard of windthrow. Care in thinning or not thinning at all also can reduce the hazard.

Plant competition ratings indicate the degree to which undesirable species are likely to invade and grow when openings are made in the tree canopy. The main factors that affect plant competition are depth to the water table and the available water capacity of the soil. A rating of *slight* indicates that competition from unwanted plants is not likely to suppress the more desirable species or prevent their natural regeneration. Planted seedlings can become established without undue competition. A rating of *moderate* indicates that competition may delay the natural regeneration of desirable species or of planted trees. Competition may hamper stand development, but it will not prevent the eventual development of fully stocked stands. A rating of *severe* indicates that competition can be expected to prevent natural regeneration or restrict the growth of planted seedlings unless precautionary measures are applied. Adequate site preparation before the new crop is planted can minimize plant competition.

The *potential productivity* of merchantable or *common trees* on a soil is expressed as a *site index*. This index is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that woodland managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability.

The *productivity class*, a number, represents an expected volume produced by the most important trees. This number, expressed as cubic meters per hectare per year, indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand. One cubic meter per hectare equals 14.3 cubic feet per acre.

The first species listed under *common trees* for a soil is the indicator species for that soil. This species is common in the survey area. It generally is the most productive species on the soil. The productivity class of the indicator species is the number in the ordination symbol. The chief indicator species in this survey area is eastern white pine.

Trees to plant are those that are suitable for commercial wood production on the soil.

Recreation

Because of the proximity of this survey area to the White Mountain National Forest, the opportunities for recreation are numerous. The many lakes, ponds, and rivers throughout most of the survey area provide opportunities for fishing, swimming, boating, and other water sports. Camping areas, golf courses, youth camps, and hiking trails also are available in the survey area. Many visitors are drawn to the area to view the fall foliage. Ski areas are available in winter, particularly near Bethel. Mineral collectors and rock hounds from around the world are drawn to the mines and quarries of the survey area.

The soils of the survey area are rated in table 8 according to limitations that affect their suitability for recreation. The ratings 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 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.

In table 8, the degree of soil limitation is expressed as slight, moderate, or severe. *Slight* means that soil properties are generally favorable and that limitations are minor and easily overcome. *Moderate* means that limitations can be overcome or alleviated by planning, design, or special maintenance. *Severe* means that soil properties are unfavorable and that limitations can be offset by costly soil reclamation, special design, intensive maintenance, limited use, or by a combination of these measures.

The information in table 8 can be supplemented by other information in this survey, for example, interpretations for septic tank absorption fields in table 11 and interpretations for dwellings without basements and for local roads and streets in table 10.

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 best soils have mild slopes and are not wet or subject to flooding during the period of use. The surface has few or no stones or boulders, absorbs rainfall readily but remains firm, and is not dusty when dry. Strong slopes and stones or boulders can greatly increase the cost of constructing campsites.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The best soils for picnic areas are firm when wet, are not dusty when dry, are not subject to flooding during the period of use, and do not have slopes or stones or boulders that increase the cost of shaping sites or of building access roads and parking areas.

Playgrounds require soils that can withstand intensive foot traffic. The best soils are almost level and are not wet or subject to flooding during the season of use. The surface is free of stones and boulders, is firm after rains, and is not dusty when dry. If grading is needed, the depth of the soil over bedrock or a hardpan should be considered.

Paths and trails for hiking and horseback riding should require little or no cutting and filling. The best soils are not wet, are firm after rains, are not dusty when dry, and are not subject to flooding more than once a year during the period of use. They have moderate slopes and few or no stones or boulders on the surface.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. The best soils for use as golf fairways are firm when wet, are not dusty when dry, and are not subject to prolonged flooding during the period of use. They have moderate slopes and no stones or boulders on the surface. The suitability of the soil for tees or greens is not considered in rating the soils.

Wildlife Habitat

Robert J. Wengrzynek, biologist, Soil Conservation Service, helped prepare this section.

The kind and abundance of wildlife depend largely on the quality, amount, and distribution of habitat elements, which provide food, shelter, and water. If any elements are missing, inadequate, or inaccessible, some wildlife species may disappear or become scarce. The diversity and quality of habitat elements are closely related to land use, to the resulting kinds and patterns of vegetation, and to the distribution of wetlands, streams, and ponds. These, in turn, generally are related to the kinds and productivity of the soils, which have influenced land and water use patterns.

Although vegetation and land use patterns are important influences on the kind, distribution, and abundance of wildlife, soils are at least equally important. Browse, fruits, and forage are richer in protein, nutrients, and trace elements on the more fertile soils. Nutrition affects survival, reproduction, and other physiological processes of wildlife in the same way as it affects domestic livestock and humans.

Soil nutrients affect the size and health of deer. Together with moisture, they can make browse more palatable and nutritious.

The reproductive success of some birds is related to the calcium in soils. The weight and size of bones in animals and the quality of fur on furbearers is related to diet, soil minerals, and soil fertility.

The soil type and the nutrient level of soils are related to agricultural land use patterns. Wildlife are generally more abundant in areas of productive agriculture, such as the valley of the Saco River, than in other areas.

The pattern of land use in the survey area is less diverse than in other areas in Maine. The climate is moderate or severe. The mixture of hardwood and softwood forests and topographic types provide good or excellent habitat for wildlife, particularly woodland species.

The wetlands in the survey area and the cropland, hayland, and pasture provide a variety of habitat elements for wildlife. The patterns of woodland ownership and management vary enough to provide relatively diverse areas of woodland habitat.

Deer are moderately abundant in the southern part of the survey area. The deer population is lower in the northern part of the survey area, where the habitat is not so diverse and the winters are more severe. Moose and bear inhabit all parts of the survey area.

Soils affect the type, amount, and quality of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. Wildlife habitat can be improved by maintaining the existing plant cover, promoting the natural establishment of desirable plants, or planting suitable vegetation.

In table 9, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be useful in selecting soils that are suitable for creating, improving, or maintaining specific elements of wildlife habitat and in determining the degree of management needed. Knowledge of habitat and soil relationships can be used in planning farms, rural residences, parks, wildlife refuges and other wildlife areas, and nature study areas.

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, rye, sorghum, and sunflowers.

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 reed canarygrass, ryegrass, redtop, vetch, bluegrass, switchgrass, timothy, trefoil, fescue, 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 meadowrue, thistle, mustard, goldenrod, aster, hawkweed, wild strawberries, and milkweed.

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 hardwoods and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, aspen, cherry, maple, ash, beech, birch, alder, willow, apple, hawthorn, dogwood, blackberry, sumac, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated good are Russian-olive, autumn-olive, dogwood, blueberry, viburnum, raspberry, elderberry, crabapple, and roses.

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, balsam fir, yew, cedar, and hemlock.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist and 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, bur reed, wild rice, cattail, cordgrass, rushes, and sedges.

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, swamps, 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 bobolink, sparrow hawk, meadowlark, field sparrow, meadow vole, woodchuck, red fox, woodcock, and deer.

Habitat for woodland wildlife consists of areas of deciduous plants or coniferous plants or both and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include ruffed grouse, woodcock, woodpecker, squirrel, coyote, red fox, raccoon, bear, moose, and deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are moose, ducks, geese, rails, shore birds, muskrat, mink, otter, 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 kind of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, the 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

Table 10 shows the degree and kind of soil limitations that affect shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping. The limitations are considered *slight* if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. Special feasibility studies may be required where the soil limitations are severe.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for basements, graves, utility lines, open ditches, and other purposes. The ratings are based on soil properties, site features, and observed performance of the soils. The ease of digging, filling, and compacting is affected by the depth to bedrock, a cemented pan, or a very firm dense layer; stone content; soil texture; and slope. The time of the year that excavations can be made is affected by the depth to a seasonal high water table and the susceptibility of the soil to flooding. The resistance of the excavation walls or banks to sloughing or caving is affected by soil texture and depth to the water table.

Dwellings and *small commercial buildings* are structures built on shallow foundations on undisturbed soil. The load limit is the same as that for single-family dwellings no higher than three stories. Ratings are made for small commercial buildings without basements, for dwellings with basements, and for dwellings without basements. The ratings are based on soil properties, site features, and observed performance of the soils. A high water table, flooding, shrinking and swelling, and organic layers can cause the movement of footings. A high water table, depth to bedrock or to a cemented pan, large stones, slope, and flooding affect the ease of excavation and construction. Landscaping and grading that require cuts and fills of more than 5 or 6 feet are not considered.

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 stabilized soil material; and a flexible or rigid surface. Cuts and fills are generally limited to less than 6 feet. The ratings are based on soil properties, site features, and observed performance of the soils. The depth to bedrock or to a cemented pan, a high water table, flooding, large stones, and slope affect the ease of excavating and grading. Soil strength (as inferred from the engineering classification of the soil), shrink-swell potential, frost-action potential, and depth to a high water table affect the traffic-supporting capacity.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. The ratings are based on soil properties, site features, and observed performance of the soils. Soil reaction, a high water table, depth to bedrock or to a cemented pan, and the available water capacity in the upper 40 inches affect plant growth. Flooding, wetness, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer affect trafficability after vegetation is established.

Sanitary Facilities

Table 11 shows the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, and sanitary landfills. The limitations are considered *slight* if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required.

Table 11 also shows the suitability of the soils for use as daily cover for landfill. A rating of *good* indicates that soil properties and site features are favorable for the use and good performance and low maintenance can be expected; *fair* indicates that soil properties and site features are moderately favorable for the use and one or more soil properties or site features make the soil less desirable than the soils rated good; and *poor* indicates that one or more soil properties or site features are unfavorable for the use and overcoming the unfavorable properties requires special design, extra maintenance, or costly alteration.

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 72 inches is evaluated. The ratings are based on soil properties, site features, and observed performance of the soils. Permeability, a high water table, depth to bedrock or to a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock interfere with installation.

Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health. Ground water can be polluted if highly permeable sand and gravel or fractured bedrock is less than 4 feet below the base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Many local ordinances require that this material be of a certain thickness.

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. Lagoons generally are designed to hold the sewage within a depth of 2 to 5 feet. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water.

Table 11 gives ratings for the natural soil that makes up the lagoon floor. The surface layer and, generally, 1 or 2 feet of soil material below the surface layer are excavated to provide material for the embankments. The ratings are based on soil properties, site features, and observed performance of the soils. Considered in the ratings are slope, permeability, a high water table, depth to bedrock, flooding, large stones, and content of organic matter.

Excessive seepage resulting from rapid permeability in the soil or a water table that is high enough to raise the level of sewage in the lagoon causes a lagoon to function unsatisfactorily. Pollution results if seepage is excessive 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 and bedrock can cause construction problems, and large stones can hinder compaction of the lagoon floor.

Sanitary landfills are areas where solid waste is disposed of by burying it in soil. There are two types of landfill—trench and area. In a trench landfill, the waste is placed in a trench. It is spread, compacted, and covered daily with a thin layer of soil excavated at the site. In an area landfill, the 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.

Both types of landfill must be able to bear heavy vehicular traffic. Both types involve a risk of ground-water pollution. Ease of excavation and revegetation should be considered.

The ratings in table 11 are based on soil properties, site features, and observed performances of the soils. Permeability, depth to bedrock, a high water table, slope, and flooding affect both types of landfill. Texture, stones and boulders, highly organic layers, and soil reaction affect trench landfills. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, a limitation rated slight or moderate may not be valid. Onsite investigation is needed.

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.

Soil texture, wetness, coarse fragments, and slope affect the ease of removing and spreading the material during wet and dry periods. Loamy or silty soils that are free of large stones or excess gravel are the best cover for a landfill. Clayey soils are sticky or cloddy and are difficult to spread; sandy soils are subject to wind erosion.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock or the water table to permit revegetation. The soil material used as final cover for a landfill should be suitable for plants. The surface layer generally has the best workability, more organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

Construction Materials

Table 12 gives information about the soils as a source of roadfill, sand, gravel, and topsoil. The soils are rated *good, fair,* or *poor* as a source of roadfill and topsoil. They are rated as a *probable* or *improbable* source of sand and gravel. The ratings are based on soil properties and site features that affect the removal of the soil and its use as construction material. Normal compaction, minor processing, and other standard construction practices are assumed. Each soil is evaluated to a depth of 5 or 6 feet.

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 soil material below the surface layer to a depth of 5 or 6 feet. It is assumed that soil layers will be mixed during excavating and spreading. Many soils have layers of contrasting suitability within their profile. The table showing engineering index properties provides detailed information about each soil layer. This information can help to determine the suitability of each layer for use as roadfill. The performance of soil after it is stabilized with lime or cement is not considered in the ratings.

The ratings are based on soil properties, site features, and observed performance of the soils. The thickness of suitable material is a major consideration. The ease of excavation is affected by large stones, a high 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 engineering classification of the soil) and the shrink-swell potential.

Soils rated *good* contain significant amounts of sand or gravel or both. They have at least 5 feet of suitable material, a low shrink-swell potential, few cobbles and stones, and slopes of 15 percent or less. Depth to the water table is more than 3 feet. Soils rated *fair* are more than 35 percent silt- and clay-sized particles and have a plasticity index of less than 10. They have a moderate shrink-swell potential, slopes of 15 to 25 percent, or many stones. Depth to the water table is 1 to 3 feet. Soils rated *poor* have a plasticity index of more than 10, a high shrink-swell potential, many stones, or slopes of more than 25 percent. They are wet and have a water table at a depth of less than 1 foot. They may have layers of suitable material, but the material is less than 3 feet thick.

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 12, only the probability 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 engineering classification of the soil), the thickness of suitable material, and the content of rock fragments. Kinds of rock, acidity, and stratification are given in the soil series descriptions. Gradation of grain sizes is given in the table on engineering index properties.

A soil rated as a probable source has a layer of clean sand or gravel or a layer of sand or gravel that is as much as 12 percent silty fines. This material must be at least 3 feet thick and less than 50 percent, by weight, large stones. All other soils are rated as an improbable source. Coarse fragments of soft bedrock, such as shale and siltstone, are not considered to be sand and gravel.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area.

Plant growth is affected by toxic material and by such properties as soil reaction, available water capacity, and fertility. The ease of excavating, loading, and spreading is affected by rock fragments, slope, a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, a water table, rock fragments, bedrock, and toxic material.

Soils rated *good* have friable, loamy material to a depth of at least 40 inches. They are free of stones and cobbles, have little or no gravel, and have slopes of less than 8 percent. They are low in content of soluble salts, are naturally fertile or respond well to fertilizer, and are not so wet that excavation is difficult.

Soils rated *fair* are sandy soils, loamy soils that have a relatively high content of clay, soils that have only 20 to 40 inches of suitable material, soils that have an appreciable amount of gravel or stones, or soils that have slopes of 8 to 15 percent. The soils are not so wet that excavation is difficult.

Soils rated *poor* are very sandy or clayey, have less than 20 inches of suitable material, have a large amount of gravel or stones, have slopes of more than 15 percent, or have a seasonal high water table at or near the surface.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content.

Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 13 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 limitations are considered *slight* if soil properties and site features are generally favorable for the indicated use and limitations are minor and are easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, a significant increase in construction costs, and possibly increased maintenance are required.

This table also gives for each soil the restrictive features that affect drainage, irrigation, terraces and diversions, and grassed waterways.

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 in 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. 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 or organic matter. 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 and permeability in the aquifer. The depth to bedrock and the content of large stones affect the ease of excavation.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, to a cemented pan, or to other layers that affect the rate of water movement; permeability; depth to a high water table or depth of standing water if the soil is subject to ponding; slope; susceptibility to flooding; subsidence of organic layers; and the potential for frost action. Excavating and grading and the stability of ditchbanks are affected by depth to bedrock or to a cemented pan, large stones, slope, and the hazard of cutbanks caving. The productivity of the soil after drainage may be adversely affected by extreme acidity. Availability of drainage outlets is not considered in the ratings.

Irrigation is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to the water table, the need for drainage, flooding, available water capacity, intake rate, permeability, erosion hazard, and slope. The construction of a system is affected by large stones and depth to bedrock or to a cemented pan. The performance of a system is affected by the depth of the root zone and soil reaction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, wetness, large stones, and depth to bedrock or to a cemented pan affect the construction of terraces and diversions. A restricted rooting depth, a severe hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, wetness, slope, and depth to bedrock or to a cemented pan affect the construction of grassed waterways. A hazard of wind erosion, low available water capacity, restricted rooting depth, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

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.

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 *(11)*. 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 14 gives estimates of the engineering classification and of the range of index properties for the major layers of each soil in the survey area. Most soils have layers of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given for each soil series under the heading "Soil Series and Their Morphology."

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam" for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as about 15 percent, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the "Glossary."

Classification of the soils is determined according to the Unified soil classification system *(2)* and the system adopted by the American Association of State Highway and Transportation Officials *(1)*.

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, 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-2 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

Physical and Chemical Properties

Table 15 shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated content of clay in each major soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence 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 ⅓-bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In this table, the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute 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. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The estimates indicate the rate of downward movement of water when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil layer. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Shrink-swell potential is the potential for volume change in a soil with a loss or gain in moisture. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the soil. The size of the load on the soil and magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils.

If the shrink-swell potential is rated moderate to very high, shrinking and swelling can cause damage to buildings, roads, and other structures. Special design is often needed.

Shrink-swell potential classes are based on the change in length of an unconfined clod as moisture content is increased from air-dry to field capacity. The classes are *low*, a change of less than 3 percent; *moderate*, 3 to 6 percent; and *high*, more than 6 percent. *Very high*, greater than 9 percent, is sometimes used.

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) 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 (up to 4 percent) and on soil structure and permeability. Values of K range from 0.05 to 0.69. The higher the value, the more susceptible the soil is to sheet and rill erosion by water.

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.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 15, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Soil and Water Features

Table 16 gives estimates of various soil and water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are used to estimate runoff from precipitation. Soils not protected by vegetation are assigned to one of four groups. They are grouped according to the infiltration of water when the soils are thoroughly wet and receive precipitation from long-duration storms.

Soils in table 16 may be assigned to two hydrologic soil groups. Dual grouping is used for one of two reasons. Some soils have a seasonal high water table but can be drained. In this instance, the first letter is for drained areas and the second is for undrained areas. For some soils that are less than 20 inches deep over bedrock, the first letter is for areas where the bedrock is cracked and previous and the second is for areas where the bedrock is impervious or where exposed bedrock makes up more than 25 percent of the surface.

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 that have 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 high shrink-swell potential, soils that have a permanent 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.

Flooding, the temporary covering of the surface by flowing water, is caused by overflowing streams, by runoff from adjacent slopes, or by inflow from high tides. Shallow water standing or flowing for short periods after rainfall or snowmelt is not considered flooding. Standing water in swamps and marshes or in a closed depression is considered ponding.

Table 16 gives the frequency and duration of flooding and the time of year when flooding is most likely to occur.

Frequency, duration, and probable period of occurrence are estimated. Frequency generally is expressed as *none, rare, occasional*, or *frequent. None* means that flooding is not probable. *Rare* means that flooding is unlikely but possible under unusual weather conditions (the chance of flooding is nearly 0 percent to 5 percent in any year). *Occasional* means that flooding occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year). *Frequent* means that flooding occurs often under normal weather conditions (the chance of flooding is more than 50 percent in any year). Duration is expressed as *very brief* (less than 2 days), *brief* (2 to 7 days), *long* (7 days to 1 month), and *very long* (more than 1 month). The time of year that floods are most likely to occur is expressed in months. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information on flooding is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and 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.

High water table (seasonal) is the highest level of a saturated zone in the soil in most years. The estimates are based mainly on the evidence of a saturated zone, namely, grayish colors or mottles in the soil. Indicated in table 16 are the depth to the seasonal high water table; the kind of water table—that is, perched or apparent; and the months of the year that the water table commonly is highest. A water table that is seasonally high for less than 1 month is not indicated in table 16.

An *apparent* water table is a thick zone of free water in the soil. It is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil. A *perched* water table is water standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

Two numbers in the column showing depth to the water table indicate the normal range in depth to a saturated zone. Depth is given to the nearest half foot. The first numeral in the range indicates the highest water level. A plus sign preceding the range in depth indicates that the water table is above the surface of the soil. "More than 6.0" indicates that the water table is below a depth of 6 feet or that it is within a depth of 6 feet for less than a month.

Depth to bedrock is given if bedrock is within a depth of 5 feet. The depth is based on many soil borings and on observations during soil mapping. The rock is specified as either soft or hard. If the rock is soft or fractured, excavations can be made with trenching machines, backhoes, or small rippers. If the rock is hard or massive, blasting or special equipment generally is needed for excavation.

Potential 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 mainly to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that dissolves 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 in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than steel 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.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories *(10)*. 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 17 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

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

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Orthod (*Orth*, meaning the central or most representative concept, plus *od*, from Spodosol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Haplorthods (*Hapl*, meaning minimal horizonation, plus *orthod*, the suborder of the Spodosols that has a horizon characterized by an accumulation of iron, aluminum, and organic carbon).

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

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

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

Samples of Becket, Colton, Lyman, Naumburg, and Skerry soils were taken at selected sites in this survey area and were analyzed in the laboratory. Five sites of Becket and Skerry soils and one site each of Colton, Lyman, and Naumburg soils were sampled *(8)*. Data obtained from these sites were used to aid in the classification of these soils.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. The descriptions are arranged in alphabetic order.

Characteristics of the soil and the material in which it formed are identified for each series. The soil is compared with nearby soils of other 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" *(11)*. Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" *(10)*. Unless otherwise stated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

The relationship of soil series to landscape position, parent material, and drainage is shown in table 18.

The map units of each soil series are described in the section "Detailed Soil Map Units."

Abram Series

The Abram series consists of excessively drained soils that are very shallow over bedrock. These soils formed in a thin mantle of glacial till derived mainly from granite, phyllite, and schist. They are on the crests and side slopes of bedrock-controlled mountains and ridges at an elevation of less than 2,500 feet. Slope ranges from 0 to 60 percent.

Abram soils are adjacent to Lyman, Ricker, Saddleback, and Tunbridge soils and to areas of Rock outcrop. Lyman and Saddleback soils are shallow over bedrock. Ricker soils formed in thin deposits of organic material over a very thin layer of mineral material. Tunbridge soils are moderately deep.

Typical pedon of Abram sandy loam, in a wooded area of Abram-Rock outcrop-Lyman complex, very hilly, in the town of Hiram, 1.2 miles southeast of Little Clemmons Pond, on the south slope of Bill Merrill Mountain:

Oi—1 inch to 0; litter of leaves, twigs, and needles.

Oa—0 to 1 inch; black (10YR 2/1), highly decomposed organic material; moderate medium granular structure; very friable; many very fine and fine roots; extremely acid; abrupt wavy boundary.

E—1 to 2 inches; pinkish gray (7.5YR 6/2) sandy loam; weak fine granular structure; friable; common very fine and fine roots; about 10 percent angular gravel; extremely acid; abrupt wavy boundary.

Bh—2 to 3 inches; very dusky red (2.5YR 2/2) sandy loam; weak fine granular structure; very friable; common very fine and fine roots; about 10 percent angular gravel; very strongly acid; abrupt smooth boundary.

Bs—3 to 5 inches; brown (7.5YR 4/4) sandy loam; weak fine granular structure; very friable; common very fine and fine roots; about 10 percent angular gravel; very strongly acid; abrupt wavy boundary.

R—5 inches; hard bedrock.

The thickness of the solum and the depth to bedrock range from 1 to 10 inches. The content of rock fragments, mainly angular gravel, is 10 to 35 percent in the solum. Reaction is extremely acid to strongly acid throughout the solum.

The E horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 1 or 2.

The Bh horizon has hue of 2.5YR to 7.5YR and value and chroma of 2 to 4. The Bs horizon has hue of 7.5YR or 10YR and value and chroma of 4 to 6. These horizons are silt loam, very fine sandy loam, loam, fine sandy loam, or sandy loam in the fine-earth fraction. They have weak or moderate, fine or medium granular structure and are very friable or friable. Some pedons do not have a B horizon.

The bedrock is granite, phyllite, or schist.

Adams Series

The Adams series consists of very deep, somewhat excessively drained soils. These soils formed in sandy glaciofluvial material derived from crystalline rock. They are on outwash plains, deltas, kame terraces, and eskers. Slope ranges from 0 to 35 percent.

Adams soils are adjacent to Colton, Croghan, Hermon, and Nicholville soils. Colton soils are excessively drained. Hermon soils are somewhat excessively drained. Croghan and Nicholville soils are moderately well drained. Colton and Hermon soils have more rock fragments than the Adams soils.

Typical pedon of Adams loamy sand, 3 to 8 percent slopes, in a wooded area in the town of Fryeburg, 0.5 mile east of Clays Pond and 0.8 mile northwest of the intersection of the Little Saco River and Maine Routes 5 and 113:

Oi—3 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 1 inch; black (5YR 2/1), highly decomposed organic material; strong fine and medium granular structure; friable; many very fine and fine roots; very strongly acid; abrupt wavy boundary.

E—1 to 2 inches; pinkish gray (7.5YR 6/2) loamy sand; single grain; loose; many very fine and common fine roots; very strongly acid; abrupt wavy boundary.

Bhs—2 to 4 inches; dark brown (7.5YR 3/2) loamy sand; weak fine granular structure; very friable; many very fine and common fine and medium roots; very strongly acid; clear broken boundary.

Bs1—4 to 9 inches; dark yellowish brown (10YR 4/6) loamy sand; single grain; loose; common very fine and few fine roots; strongly acid; clear wavy boundary.

Bs2—9 to 19 inches; yellowish brown (10YR 5/6) loamy sand; single grain; loose; common very fine and few fine roots; moderately acid; abrupt wavy boundary.

C—19 to 65 inches; light yellowish brown (2.5Y 6/4) sand; single grain; loose; few very fine roots; moderately acid.

The thickness of the solum ranges from 16 to 30 inches. The content of rock fragments is 0 to 5 percent within a depth of 20 inches and 0 to 20 percent below that depth. In unlimed areas reaction is very strongly acid to moderately acid in the solum and very strongly acid to slightly acid in the substratum.

The E horizon has hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 2. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 3 or 4, and chroma of 4.

The Bh horizon has hue of 2.5YR to 7.5YR, value of 3, and chroma of 2 to 4. The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 6. These horizons are sand, loamy sand, or loamy fine sand in the fine-earth fraction.

The C horizon has hue of 2.5Y, value of 4 to 6, and chroma of 3 or 4. It is fine sand to coarse sand in the fine-earth fraction.

Becket Series

The Becket series consists of very deep, well drained soils. These soils formed in compact glacial till derived principally from gneiss, granite, and schist. They are on the side slopes and crests of drumlins and ridges. Slope ranges from 3 to 60 percent.

Becket soils are adjacent to Lyman, Skerry, and Tunbridge soils. Lyman soils are somewhat excessively drained and are shallow over bedrock. Tunbridge soils are well drained and are moderately deep over bedrock. Skerry soils are moderately well drained.

Typical pedon of Becket fine sandy loam, 15 to 35 percent slopes, very stony, in a wooded area in the town of Paris, 0.8 mile southwest of Paris Hill and 1.2 miles north-northeast of the intersection of the Little Androscoggin River and Maine Route 26 north of South Paris:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 1 inch; black (5YR 2/1), highly decomposed organic material; moderate fine granular structure; very friable; many very fine and fine roots; very strongly acid; abrupt wavy boundary.

E—1 to 2 inches; pinkish gray (5YR 6/2) fine sandy loam; weak fine granular structure; very friable; many very fine, fine, medium, and coarse roots; about 5 percent rock fragments; strongly acid; abrupt wavy boundary.

Bh—2 to 5 inches; reddish brown (5YR 4/4) fine sandy loam; weak fine granular structure; very friable; many very fine and fine and few medium roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—5 to 10 inches; dark yellowish brown (10YR 4/6) fine sandy loam; weak fine granular structure; friable; many very fine and fine and few medium roots; about 5 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—10 to 16 inches; yellowish brown (10YR 5/6) sandy loam; weak fine granular structure; friable; common very fine and few medium roots; about 10 percent rock fragments; moderately acid; clear wavy boundary.

BC—16 to 25 inches; light olive brown (2.5Y 5/4) sandy loam; moderate medium granular structure; friable; common very fine and few medium roots; about 10 percent rock fragments; moderately acid; clear wavy boundary.

Cd—25 to 65 inches; olive (5Y 5/3) gravelly sandy loam; massive; firm; about 25 percent rock fragments; segregated loose sand lenses, ½ inch to 2 inches thick, making up 30 percent of the fabric of the till; moderately acid.

The thickness of the solum ranges from 19 to 31 inches. The content of rock fragments is 5 to 25 percent in the solum and 15 to 35 percent in the substratum. In unlimed areas reaction is extremely acid to slightly acid in the solum and very strongly acid to neutral in the substratum.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR and value and chroma of 3.

The Bh horizon has hue of 5YR or 7.5YR and value and chroma of 2 to 4. The Bs horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8. The BC horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 4 to 6. These horizons are fine sandy loam or sandy loam in the fine-earth fraction.

The Cd horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 2 to 4. It is loamy sand, loamy fine sand, or sandy loam in the fine-earth fraction. Where the texture is sandy loam, segregated sand lenses oriented horizontally between structural plates or within massive material make up 20 to 80 percent of the horizon. The structure is weak or moderate, medium or thick, and platy, or the horizon is massive or single grain in the lenses. Consistence is dominantly firm or very firm but is loose in the sand lenses.

Brayton Series

The Brayton series consists of very deep, poorly drained soils. These soils formed in compact glacial till derived mainly from granite, phyllite, and schist. They are in upland depressions or along drainageways. Slope ranges from 0 to 4 percent.

Brayton soils are adjacent to Colonel, Dixfield, Peacham, and Skerry soils. Dixfield and Skerry soils are moderately well drained. Colonel soils are somewhat poorly drained. Peacham soils are very poorly drained.

Typical pedon of Brayton fine sandy loam, in a wooded area of Brayton-Peacham complex, very stony, in the town of Hebron, 0.5 mile northwest of the village of East Hebron and 1.0 mile southwest of Mud Pond:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 1 inch; very dark brown (10YR 2/2), highly decomposed organic material; weak fine granular structure; very friable; many very fine and fine and common medium and coarse roots; strongly acid; abrupt wavy boundary.

A—1 to 5 inches; very dark grayish brown (2.5Y 3/2) fine sandy loam, light brownish gray (2.5Y 6/2) dry; few fine faint grayish brown (2.5Y 5/2) mottles; weak fine granular structure; very friable; common very fine and medium roots; about 5 percent rock fragments; moderately acid; abrupt wavy boundary.

Bg—5 to 15 inches; grayish brown (2.5Y 5/2) fine sandy loam; many coarse distinct dark brown (10YR 4/3) and many medium distinct gray (5Y 6/1) mottles; moderate medium granular structure; friable; few very fine, fine, and medium roots; about 10 percent rock fragments; moderately acid; gradual wavy boundary.

BCg—15 to 24 inches; olive gray (5Y 5/2) fine sandy loam; many coarse prominent dark yellowish brown (10YR 4/4) and many medium faint light olive gray (5Y 6/2) mottles; weak thin and medium platy structure; firm; about 10 percent rock fragments; slightly acid; gradual wavy boundary.

Cd—24 to 65 inches; olive (5Y 5/3) fine sandy loam; many coarse distinct gray (5Y 5/1), common coarse distinct light olive brown (2.5Y 5/4), and common coarse prominent dark yellowish brown (10YR 4/4) mottles; moderate thin and medium platy structure; very firm; about 10 percent rock fragments; slightly acid.

The thickness of the solum ranges from 12 to 24 inches. The content of rock fragments ranges from 5 to 25 percent throughout the profile. Reaction is extremely acid to moderately acid in the surface layer, strongly acid to slightly acid in the subsoil, and moderately acid to neutral in the substratum.

The A horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2. Some pedons have an Eg horizon, which has hue of 10YR to 5Y, value of 5 or 6 and chroma of 1 or 2.

The B horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 2 to 4. It is sandy loam, fine sandy loam, or silt loam in the fine-earth fraction.

The Cd horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 2 to 4. It is loam, fine sandy loam, or sandy loam in the fine-earth fraction. The structure is strong very coarse prismatic or moderate thin and medium platy, or the horizon is massive. Consistence is firm or very firm.

Charles Series

The Charles series consists of very deep, poorly drained soils. These soils formed in recent alluvium on flood plains adjacent to streams and rivers. They are commonly in the lower areas along rivers and streams or in depressions surrounded by better drained soils on the flood plains. Slope ranges from 0 to 2 percent.

Charles soils are adjacent to Cornish and Medomak soils. Cornish soils are somewhat poorly drained. Medomak soils are very poorly drained.

Typical pedon of Charles silt loam, frequently flooded, in a wooded area in the town of Bethel, 0.25 mile north of East Bethel and 1.8 miles southwest of the village of Hanover:

Oi—1 inch to 0; litter of leaves, needles, and twigs.

Oa—0 to 2 inches; very dark gray (5Y 3/1), highly decomposed organic material; moderate medium granular structure; very friable; many very fine and fine and common medium roots; very strongly acid; abrupt smooth boundary.

A—2 to 9 inches; dark brown (10YR 4/3) silt loam, light brownish gray (10YR 6/2) dry; few fine distinct grayish brown (2.5Y 5/2) mottles; moderate medium granular structure; friable; common very fine and fine roots; very strongly acid; abrupt wavy boundary.

Cg1—9 to 33 inches; grayish brown (2.5Y 5/2) silt loam; common medium distinct light olive gray (5Y 6/2) and common fine distinct light olive brown (2.5Y 5/6) mottles; massive; friable; common very fine roots; moderately acid; clear wavy boundary.

Cg2—33 to 47 inches; olive gray (5Y 5/2) very fine sandy loam; common medium faint light olive gray (5Y 6/2) and common fine prominent light olive brown (2.5Y 5/4) mottles; massive; friable; common very fine roots; moderately acid; abrupt smooth boundary.

Cg3—47 to 65 inches; olive gray (5Y 4/2) loamy very fine sand; common fine prominent light olive brown (2.5Y 5/4) and common medium faint gray (5Y 6/1) mottles; massive; friable; moderately acid.

Reaction is extremely acid to slightly acid throughout the profile. Some pedons have buried horizons.

The A or Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 3.

The Cg horizon has hue of 2.5Y or 5Y, value of 4 or

5, and chroma of 1 or 2. It is dominantly very fine sandy loam, silt loam, or loamy very fine sand. In some pedons it has strata of silt loam to fine gravel below a depth of 40 inches. The structure is weak fine granular, or the horizon is massive or single grain.

Colonel Series

The Colonel series consists of very deep, somewhat poorly drained soils. These soils formed in compact glacial till derived mainly from gneiss, granite, phyllite, and schist. They are in low areas and depressions on glacial uplands. Slope ranges from 0 to 15 percent.

Colonel soils are adjacent to Brayton, Dixfield, Marlow, and Skerry soils. Marlow soils are well drained. Dixfield and Skerry soils are moderately well drained. Brayton soils are poorly drained.

Typical pedon of Colonel fine sandy loam, in a wooded area of Dixfield-Colonel association, strongly sloping, very stony, in the town of Dixfield, 1.9 miles southwest of the confluence of Tucker Valley Brook and Seven Mile Stream and 0.8 mile southwest of Severy Hill:

Oi—1 inch to 0; litter of leaves and twigs.

Oa—0 to 1 inch; dark reddish brown (5YR 2/2), highly decomposed organic material; weak fine granular structure; very friable; many very fine and fine and common medium roots; about 10 percent rock fragments; very strongly acid; abrupt smooth boundary.

E—1 to 2 inches; grayish brown (10YR 5/2) fine sandy loam; weak fine granular structure; friable; many very fine and fine and common medium roots; about 10 percent rock fragments; very strongly acid; abrupt broken boundary.

Bh—2 to 3 inches; dark reddish brown (5YR 3/2) fine sandy loam; weak fine granular structure; friable; many very fine and fine, common medium, and few coarse roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—3 to 9 inches; dark brown (7.5YR 4/4) fine sandy loam; weak fine granular structure; friable; many very fine and fine, common medium, and few coarse roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs2—9 to 12 inches; dark yellowish brown (10YR 4/4) fine sandy loam; common fine prominent olive gray (5Y 5/2) and common fine distinct yellowish brown (10YR 5/6) mottles; weak thin platy structure separating to weak fine granular; friable; common very fine and fine roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.

BC—12 to 18 inches; light olive brown (2.5Y 5/4) gravelly fine sandy loam; common medium prominent olive gray (5Y 5/2) and common medium distinct dark brown (10YR 4/3) mottles; moderate medium platy structure; friable; few fine and very fine roots; about 15 percent rock fragments; strongly acid; abrupt wavy boundary.

Cd—18 to 65 inches; olive (5Y 4/3) gravelly fine sandy loam; common coarse faint olive gray (5Y 5/2) and common fine prominent dark brown (10YR 4/3) mottles; strong very coarse prismatic structure separating to strong medium and thick platy; very firm; common fine prominent dark reddish brown (5YR 2/2) oxide coatings on and within peds; about 15 percent rock fragments; strongly acid.

The thickness of the solum ranges from 10 to 24 inches. The content of rock fragments, dominantly gravel and cobbles, is 10 to 25 percent throughout the profile. Reaction is extremely acid to slightly acid in the solum and very strongly acid to slightly acid in the substratum.

The A or Ap horizon has hue of 7.5YR or 10YR and value and chroma of 2 or 3. The structure is weak or moderate, fine or medium, and granular. Consistence is very friable or friable. Some pedons do not have an A or Ap horizon.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 2. The structure is weak or moderate, fine or medium, and granular. Consistence is very friable or friable.

The Bh horizon has hue of 5YR or 7.5YR, value of 3 or 4, and chroma of 2 to 4. The Bs horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6. These horizons are sandy loam, fine sandy loam, or loam in the fine-earth fraction.

The BC horizon has hue of 2.5Y, value of 4 to 6, and chroma of 2 to 4. It is sandy loam, fine sandy loam, or 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 to 4. It is loam, fine sandy loam, or sandy loam in the fine-earth fraction. The structure is dominantly strong very coarse prismatic separating to weak to strong, thin to thick, and platy. In some pedons, however, the primary structure is weak to strong, thin to thick, and platy or the horizon is massive. Consistence is firm or very firm.

Colton Series

The Colton series consists of very deep, excessively drained soils. These soils formed in glaciofluvial sand and gravel derived mainly from granite and schist. They are on outwash plains, deltas, kames, kame terraces, and eskers. Slope ranges from 0 to 35 percent.

Colton soils are adjacent to Adams, Croghan, and Hermon soils. Adams and Croghan soils have fewer

Figure 15.—Profile of Colton gravelly loamy sand, in an area of Colton-Adams association, strongly sloping.

rock fragments throughout than the Colton soils. Adams soils are somewhat excessively drained. Croghan soils are moderately well drained. Hermon soils are somewhat excessively drained and formed in glacial till.

Typical pedon of Colton gravelly loamy sand (fig. 15), in a wooded area of Colton-Adams association, strongly sloping, in the town of Andover, 0.3 mile north-northwest of the village of East Andover and 0.8 mile east-northeast of the confluence of the Ellis River and the West Branch Ellis River:

Oi—2 inches to 0; litter of needles and twigs.

Oa—0 to 3 inches; black (5YR 2/1), highly decomposed organic material; moderate medium granular structure; very friable; many very fine and fine and common medium roots; very strongly acid; abrupt wavy boundary.

E—3 to 5 inches; pinkish gray (7.5YR 6/2) gravelly loamy sand; moderate fine granular structure; friable; many very fine and fine and common medium and coarse roots; about 15 percent gravel; very strongly acid; abrupt wavy boundary.

Bhs—5 to 6 inches; dark reddish brown (5YR 3/2) gravelly loamy sand; weak fine granular structure; very friable; many very fine and fine and common medium and coarse roots; about 25 percent gravel and cobbles; strongly acid; abrupt broken boundary.

Bs1—6 to 12 inches; strong brown (7.5YR 5/6) very gravelly loamy sand; weak fine granular structure; very friable; many fine and very fine roots; about 35 percent gravel and cobbles; strongly acid; clear wavy boundary.

Bs2—12 to 23 inches; yellowish brown (10YR 5/6) very gravelly loamy sand; single grain; loose; common very fine and fine roots; about 45 percent gravel and cobbles; strongly acid; clear wavy boundary.

C—23 to 65 inches; light olive brown (2.5Y 5/4) extremely gravelly sand; single grain; loose; about 70 percent gravel and cobbles; moderately acid.

The thickness of the solum ranges from 18 to 36 inches. The content of rock fragments, mainly gravel and cobbles, is 15 to 50 percent in the solum and 35 to 70 percent in the substratum. Reaction is extremely acid to moderately acid in the solum and very strongly acid to slightly acid in the substratum.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 2. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 3 or 4, and chroma of 2 or 3.

The Bhs horizon has hue of 2.5YR or 5YR, value of 3, and chroma of 2 or 3. The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 6. It is loamy sand, loamy fine sand, sand, or coarse sand in the fine-earth fraction.

Some pedons have a BC horizon. This horizon has hue of 10YR, value of 5 or 6, and chroma of 4 to 6. It is loamy sand, loamy fine sand, sand, or coarse sand in the fine-earth fraction.

The C horizon has hue of 10YR to 5Y, value of 5 to 7, and chroma of 2 to 4. It is loamy sand, sand, or coarse sand in the fine-earth fraction. This horizon is stratified in varying degrees.

Cornish Series

The Cornish series consists of very deep, somewhat poorly drained soils. These soils formed in recent alluvium in shallow depressions on flood plains along the major rivers and streams. Slope ranges from 0 to 2 percent.

Cornish soils are adjacent to Charles, Fryeburg, Lovewell, and Rumney soils. Charles and Rumney soils are poorly drained. Lovewell soils are moderately well drained. Fryeburg soils are well drained.

Typical pedon of Cornish very fine sandy loam, occasionally flooded, in a cultivated field in the town of Fryeburg, 1.5 miles east of the village of North Fryeburg and 0.5 mile southwest of Fryeburg Harbor:

Ap—0 to 12 inches; very dark grayish brown (10YR 3/2) very fine sandy loam, light gray (2.5Y 7/2) dry; moderate medium granular structure; friable; few fine and very fine roots; moderately acid; abrupt smooth boundary.

Bw—12 to 24 inches; light olive brown (2.5Y 5/4) very fine sandy loam; common fine prominent strong brown (7.5YR 5/6) and common fine distinct light brownish gray (2.5Y 6/2) mottles; weak fine granular structure; friable; few very fine roots; strongly acid; clear wavy boundary.

BC—24 to 35 inches; olive (5Y 5/4) very fine sandy loam; few fine prominent strong brown (7.5YR 5/6) and many coarse prominent light brownish gray (2.5Y 6/2) mottles; weak fine granular structure; friable; few very fine roots; strongly acid; clear wavy boundary.

Cg—35 to 65 inches; olive gray (5Y 5/2) very fine sandy loam; common medium prominent dark yellowish brown (10YR 4/4) and few fine prominent strong brown (7.5YR 5/6) mottles; massive; friable; common fine prominent strong brown (7.5YR 5/8) nodules; strongly acid.

The thickness of the solum ranges from 20 to 38 inches. Mottles that have chroma of 2 or less are between depths of 7 and 16 inches. In unlimed areas reaction is very strongly acid to slightly acid throughout the profile. Some pedons have buried horizons.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. The BC horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 3 to 6. These horizons are 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 to 4. It is dominantly silt loam, very fine sandy loam, or loamy very fine sand. In some pedons it has strata of silt loam to fine gravel below a depth of 40 inches. It is massive or single grain. Consistence is loose to friable.

Croghan Series

The Croghan series consists of very deep, moderately well drained soils. These soils formed in sandy glaciofluvial material derived from crystalline rock. They are on deltas, kame terraces, and outwash plains. Slope ranges from 0 to 8 percent.

Croghan soils are adjacent to Adams, Colton, Naumburg, Nicholville, and Roundabout soils. Adams soils are somewhat excessively drained. Colton soils are excessively drained and have more rock fragments than the Croghan soils. Naumburg and Roundabout soils are poorly drained and somewhat poorly drained. Nicholville soils are moderately well drained.

Typical pedon of Croghan loamy fine sand, in a wooded area of Naumburg-Croghan association, gently sloping, in the town of Oxford, 0.5 mile northeast of Welchville and 1.9 miles northwest of the intersection of the Little Androscoggin River and the Oxford County-Androscoggin County line:

Oi—1 inch to 0; litter of leaves and needles.

E—0 to 2 inches; grayish brown (10YR 5/2) loamy fine sand; weak fine granular structure; very friable; many very fine and fine roots; very strongly acid; abrupt broken boundary.

Bh—2 to 3 inches; dark brown (7.5YR 3/2) loamy fine sand; weak fine granular structure; friable; many very fine and fine roots; very strongly acid; abrupt smooth boundary.

Bs1—3 to 10 inches; strong brown (7.5YR 5/6) loamy fine sand; single grain; loose; common very fine and fine roots; strongly acid; abrupt smooth boundary.

Bs2—10 to 18 inches; yellowish brown (10YR 5/6) loamy fine sand; single grain; loose; common very fine and fine roots; strongly acid; clear wavy boundary.

Bs3—18 to 30 inches; yellowish brown (10YR 5/6) loamy sand; common fine prominent light brownish gray (2.5Y 6/2) and common medium distinct brown (10YR 5/3) mottles; single grain; loose; about 5 percent gravel; common very fine and fine roots; strongly acid; clear wavy boundary.

BC—30 to 35 inches; light olive brown (2.5Y 5/4) loamy sand; common fine prominent yellowish brown (10YR 5/6) and common fine distinct light brownish gray (2.5Y 6/2) mottles; single grain; loose; about 5 percent gravel; strongly acid; abrupt smooth boundary.

C—35 to 65 inches; light olive brown (2.5Y 5/6) sand; common fine distinct yellowish brown (10YR 5/6) and few fine distinct grayish brown (2.5Y 5/2) mottles; single grain; loose; about 5 percent gravel; strongly acid.

The thickness of the solum ranges from 20 to 45 inches. The content of rock fragments is 0 to 3 percent in the upper part of the solum and 0 to 10 percent in the lower part of the solum and in the substratum. Reaction is extremely acid to moderately acid in the surface layer and very strongly acid to moderately acid in the subsoil and substratum.

The E horizon has hue of 5YR to 10YR, value of 5 to 7, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR and value and chroma of 3.

The Bh horizon has hue of 5YR or 7.5YR, value of 3, and chroma of 2 to 4. The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 6. These horizons are loamy fine sand, loamy sand, or sand.

The BC horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4. It is sand, loamy sand, or loamy fine sand.

The C horizon has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 6. It is loamy sand, fine sand, sand, or coarse sand.

Dixfield Series

The Dixfield series consists of very deep, moderately well drained soils. These soils formed in compact glacial till derived mainly from granite, phyllite, and schist. They are on the northerly slopes of hills and mountains in the central and northern parts of the survey area. Slope ranges from 3 to 35 percent.

Dixfield soils are adjacent to Brayton, Colonel, Lyman, Marlow, and Tunbridge soils. Brayton soils are poorly drained. Colonel soils are somewhat poorly drained. Marlow soils are well drained. Lyman soils are somewhat excessively drained and are shallow over bedrock. Tunbridge soils are well drained and are moderately deep over bedrock.

Typical pedon of Dixfield fine sandy loam, in a wooded area of Dixfield-Colonel association, strongly sloping, very stony, in the town of Canton, 1.9 miles south-southeast along the Oxford County-Franklin County line from the northernmost point in the town of Canton and 1.0 mile east of Canton Mountain:

Oi—1 inch to 0; litter of leaves, needles, and twigs.

Oa—0 to 2 inches; black (5YR 2/1), highly decomposed organic material; weak medium granular structure; very friable; many very fine and fine roots; about 5 percent rock fragments; very strongly acid; abrupt wavy boundary.

E—2 to 5 inches; pinkish gray (7.5YR 6/2) fine sandy loam; weak fine granular structure; very friable; many very fine and fine roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bh—5 to 6 inches; dark brown (7.5YR 4/4) fine sandy loam; weak fine granular structure; friable; many very fine and fine roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—6 to 13 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; friable; many very fine and fine and common medium roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—13 to 19 inches; yellowish brown (10YR 5/6) gravelly fine sandy loam; weak fine granular structure; friable; common very fine, fine, and medium roots; about 15 percent rock fragments; strongly acid; clear wavy boundary.

BC—19 to 24 inches; pale olive (5Y 6/3) gravelly fine sandy loam; common fine faint light olive gray (5Y 6/2) and common medium prominent dark yellowish brown (10YR 4/4) mottles; weak thin platy structure; friable; few very fine and fine roots; about 15 percent rock fragments; moderately acid; abrupt wavy boundary.

Cd—24 to 65 inches; olive (5Y 5/3) gravelly fine sandy loam; many coarse distinct gray (5Y 6/1) and common medium prominent dark yellowish brown (10YR 4/4) mottles; strong very coarse prismatic structure separating to moderate medium platy; very firm; about 15 percent rock fragments; moderately acid.

The thickness of the solum ranges from 18 to 26 inches. The content of rock fragments is 5 to 25 percent throughout the profile. Reaction ranges from extremely acid to slightly acid in the surface layer and subsurface layer and from very strongly acid to slightly acid in the subsoil and substratum.

The E horizon has hue of 7.5YR or 10YR, value of 6 or 7, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR and value and chroma of 2 or 3.

The Bh horizon has hue of 2.5YR to 7.5YR and value and chroma of 2 to 4. The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 8. These horizons are loam, fine sandy loam, or sandy loam in the fine-earth fraction.

The BC horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 3 to 6. It is loam, fine sandy loam, or sandy 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 to 4. It is loam, fine sandy loam, or sandy loam in the fine-earth fraction. The structure is weak or moderate, thin to thick, and platy or strong very coarse prismatic separating to weak or moderate, thin or medium, and platy, or the horizon is massive. Consistence is firm or very firm.

Fryeburg Series

The Fryeburg series consists of very deep, well drained soils. These soils formed in recent alluvium on flood plains along the major rivers and streams. Slope ranges from 0 to 3 percent.

Fryeburg soils are adjacent to Cornish, Lovewell, Podunk, and Sunday soils. Cornish soils are somewhat poorly drained. Lovewell and Podunk soils are moderately well drained. Sunday soils are excessively drained.

Typical pedon of Fryeburg very fine sandy loam in a cultivated field in the town of Fryeburg, 0.5 mile west-southwest of the junction of Maine Route 5 and U.S. Route 302 and 0.3 mile northeast of the junction of Maine Route 113 and the Saco River:

Ap—0 to 11 inches; dark brown (10YR 4/3) very fine sandy loam, pale brown (10YR 6/3) dry; moderate fine and medium granular structure; very friable; many very fine and few fine roots; slightly acid; abrupt smooth boundary.

Bw—11 to 22 inches; yellowish brown (10YR 5/4) very fine sandy loam; weak fine and medium granular structure; very friable; many very fine and few fine roots; moderately acid; gradual wavy boundary.

C1—22 to 50 inches; olive brown (2.5Y 4/4) very fine sandy loam; massive; friable; few very fine roots; common scattered very fine vesicular pores; moderately acid; abrupt smooth boundary.

C2—50 to 65 inches; light yellowish brown (2.5Y 6/4) sand; single grain; loose; moderately acid.

The thickness of the solum ranges from 18 to 35 inches. The content of rock fragments is less than 5 percent throughout the profile. In unlimed areas reaction is strongly acid to slightly acid throughout the profile. Some pedons have buried horizons.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 4 to 6. It is silt loam or very fine sandy loam.

The C horizon has hue of 10YR or 2.5Y and value and chroma of 4 to 6. It is dominantly silt loam, very fine sandy loam, or loamy very fine sand. Below a depth of 40 inches, it has strata of silt loam to sand and gravel. It is massive or single grain and is loose to friable.

Hermon Series

The Hermon series consists of very deep, somewhat excessively drained soils. These soils formed in loose glacial till derived mainly from granite and gneiss. They are mainly on the southeastern slopes of hills and mountains. Slope ranges from 0 to 50 percent.

Hermon soils are adjacent to Adams, Colton, Lyman, Monadnock, Skerry, and Tunbridge soils. Hermon soils have a substratum that is coarser textured than that in the Adams and Skerry soils. Adams soils are somewhat excessively drained. Colton soils are excessively drained and formed in glaciofluvial deposits. Monadnock soils are well drained. Skerry soils are moderately well drained. Lyman soils are shallow over bedrock, and Tunbridge soils are moderately deep over bedrock.

Typical pedon of Hermon sandy loam, in a wooded area of Hermon and Monadnock soils, moderately steep, very stony, in the town of Bethel, 1 mile north-northeast of Northwest Bethel and 1 mile east of the intersection of Chapman Brook and the Newry-Bethel town line:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 2 inches; black (5YR 2/1), highly decomposed organic material; weak fine granular structure; very friable; many very fine and fine roots; extremely acid; abrupt wavy boundary.

E—2 to 3 inches; pinkish gray (5YR 6/2) sandy loam; weak fine granular structure; friable; many very fine and fine and common medium roots; about 10 percent rock fragments; extremely acid; abrupt wavy boundary.

Bhs—3 to 9 inches; dark reddish brown (5YR 3/3) sandy loam; moderate fine granular structure; friable; common very fine and coarse roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—9 to 16 inches; strong brown (7.5YR 5/6) very gravelly sandy loam; moderate fine and medium granular structure; friable; common very fine, fine, and medium roots; about 35 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—16 to 32 inches; dark yellowish brown (10YR 4/6) extremely gravelly loamy sand; weak fine granular structure; very friable; few very fine and fine roots; about 60 percent rock fragments; strongly acid; clear wavy boundary.

C—32 to 65 inches; light olive brown (2.5Y 5/4) very gravelly coarse sand; single grain; loose; about 45 percent rock fragments; moderately acid.

The thickness of the solum ranges from 21 to 35 inches. The content of rock fragments is 10 to 40 percent in the upper part of the solum and 35 to 60 percent in the lower part of the solum and in the substratum. Reaction is extremely acid to strongly acid in the upper part of the solum, extremely acid to moderately acid in the lower part of the solum, and strongly acid or moderately acid in the substratum.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 3, and chroma of 2 or 3.

The Bhs horizon has hue of 2.5YR to 7.5YR and value and chroma of 2 or 3. The Bh horizon has hue of 5YR, value of 3 or 4, and chroma of 4. The Bhs and Bh horizons are fine sandy loam, sandy loam, or coarse sandy loam. Some pedons do not have a Bh horizon. The Bs horizon has hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 to 6. It is fine sandy loam, sandy loam, coarse sandy loam, loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction.

Some pedons have a BC horizon. This horizon has hue of 2.5Y, value of 4 or 5, and chroma of 4 to 6. It is sandy loam, coarse sandy loam, loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction.

The C horizon has hue of 2.5Y, value of 5 or 6, and chroma of 2 to 4. It is loamy sand, loamy coarse sand, sand, or coarse sand in the fine-earth fraction.

Lovewell Series

The Lovewell series consists of very deep, moderately well drained soils. These soils formed in recent alluvium on flood plains along the major rivers and streams. Slope ranges from 0 to 3 percent.

Lovewell soils are adjacent to Cornish, Fryeburg, Ondawa, and Podunk soils. Cornish soils are somewhat poorly drained. Fryeburg and Ondawa soils are well drained. Podunk soils are moderately well drained and are coarser textured than the Lovewell soils.

Typical pedon of Lovewell very fine sandy loam, in a hayfield in the town of Fryeburg, 0.3 mile west-southwest of the junction of Maine Route 5 and U.S. Route 302 and 0.4 mile northeast of the junction of Maine Route 113 and the Saco River:

Ap—0 to 14 inches; dark grayish brown (10YR 4/2) very fine sandy loam, very pale brown (10YR 7/3) dry; weak fine granular structure; very friable; many very fine and few medium roots; moderately acid; abrupt smooth boundary.

Bw—14 to 22 inches; dark brown (10YR 4/3) very fine sandy loam; weak fine granular structure; very friable; common fine roots; moderately acid; clear wavy boundary.

C1—22 to 31 inches; dark brown (10YR 4/3) very fine sandy loam; few fine distinct grayish brown (2.5Y 5/2) and few fine prominent strong brown (7.5YR 5/6) mottles; massive; very friable; few fine roots; slightly acid; clear wavy boundary.

C2—31 to 41 inches; dark brown (10YR 4/3) very fine sandy loam; many medium distinct light brownish gray (2.5Y 6/2) and many medium prominent strong brown (7.5YR 5/6) mottles; massive; friable; few fine roots; slightly acid; clear wavy boundary.

C3—41 to 65 inches; dark brown (10YR 4/3) very fine sandy loam; many medium distinct light brownish gray (2.5Y 6/2) and few medium prominent strong brown (7.5YR 5/6) mottles; massive; friable; slightly acid.

The thickness of the solum ranges from 20 to 30 inches. The content of rock fragments is less than 5 percent throughout the profile. In unlimed areas reaction is very strongly acid to slightly acid throughout the profile. Some pedons have buried horizons.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. It is silt loam or very fine sandy loam.

The C horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 3 or 4. It is dominantly silt loam, very fine sandy loam, or loamy very fine sand. In some pedons it has strata of silt loam to fine gravel below a depth of 40 inches. It is massive or single grain, depending on the texture. Consistence is loose to friable.

Lyman Series

The Lyman series consists of somewhat excessively drained soils that are shallow over bedrock. These soils formed in a thin mantle of glacial till derived from gneiss, granite, phyllite, and schist. They are on the tops of hills and mountains. Slope ranges from 3 to 60 percent.

Lyman soils are adjacent to Abram, Becket, Dixfield, Hermon, Marlow, Monadnock, Ricker, Saddleback, Skerry, and Tunbridge soils. Lyman soils are shallower over bedrock and droughtier than all of the adjacent soils, except for Abram, Ricker, and Saddleback soils. Abram soils are very shallow over bedrock and are excessively drained. Ricker soils are very shallow or shallow and are organic. Saddleback soils are well drained and are at the higher elevations.

Typical pedon of Lyman fine sandy loam, in a wooded area of Lyman-Tunbridge-Monadnock complex, rolling, very stony, in the town of Oxford, 2.1 miles east of Welchville and 1.3 miles northeast of the junction of the Little Androscoggin River and the Oxford County-Androscoggin County line:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 1 inch; black (5YR 2/1), highly decomposed organic material; very strongly acid; abrupt wavy boundary.

E—1 to 2 inches; pinkish gray (7.5YR 6/2) fine sandy loam; weak fine granular structure; very friable; about 5 percent rock fragments; very strongly acid; abrupt smooth boundary.

Bhs—2 to 3 inches; dark brown (7.5YR 3/2) fine sandy loam; weak fine granular structure; friable; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—3 to 10 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; friable; about 10 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—10 to 15 inches; yellowish brown (10YR 5/6) fine sandy loam; weak fine granular structure; friable; about 10 percent rock fragments; strongly acid; abrupt smooth boundary.

R—15 inches; hard bedrock.

The thickness of the solum and the depth to bedrock range from 10 to 20 inches. The content of rock fragments is 5 to 30 percent in the upper part of the solum and 10 to 35 percent in the lower part. In unlimed areas reaction is extremely acid to moderately acid.

Some pedons have an A horizon. This horizon is neutral in hue or has hue of 5YR to 10YR. It has value of 2 or 3 and chroma of 0 to 2. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 3 or 4, and chroma of 4. The E horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 1 or 2.

The Bhs horizon has hue of 5YR or 7.5YR, value of 3, and chroma of 2 or 3. Some pedons have a Bh horizon, which has hue of 5YR to 10YR, value of 2 to 4, and chroma of 2 to 6. The Bs horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8. The Bhs, Bh, and Bs horizons are silt loam, loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction.

The bedrock is gneiss, granite, phyllite, or schist.

Marlow Series

The Marlow series consists of very deep, well drained soils. These soils formed in compact glacial till derived mainly from schist and granite. They are generally on the northerly slopes of mountains in the central and northern parts of the survey area. Slope ranges from 3 to 35 percent.

Marlow soils are adjacent to Dixfield, Colonel, Tunbridge, and Lyman soils. Colonel soils are somewhat poorly drained. Dixfield soils are moderately well drained. Lyman soils are shallow over bedrock, and Tunbridge soils are moderately deep over bedrock.

Typical pedon of Marlow fine sandy loam, in a wooded area of Dixfield-Marlow association, moderately steep, very stony, in the town of Rumford, 0.8 mile west-northwest of Rumford Center and 2.3 miles east-northeast of the intersection of Maine Route 232 and U.S. Route 2:

Oi—2 inches to 0; litter of needles and twigs.

Oa—0 to 2 inches; black (5YR 2/1), highly decomposed organic material; many very fine and fine roots; very strongly acid; abrupt smooth boundary.

E—2 to 5 inches; pinkish gray (7.5YR 6/2) fine sandy loam; weak fine granular structure; friable; many very fine and fine and common medium roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bh—5 to 7 inches; dark brown (7.5YR 3/2) fine sandy loam; weak fine granular structure; friable; common very fine and fine roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bs1—7 to 12 inches; yellowish brown (10YR 5/4) fine sandy loam; weak fine granular structure; friable; common very fine and medium roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—12 to 19 inches; yellowish brown (10YR 5/8) gravelly fine sandy loam; weak fine granular structure; friable; common very fine roots; about 15 percent rock fragments; strongly acid; clear wavy boundary.

BC—19 to 36 inches; light olive brown (2.5Y 5/6) gravelly fine sandy loam; moderate thin platy structure separating to weak fine granular; friable; common very fine roots; about 30 percent rock fragments; strongly acid; abrupt smooth boundary.

Cd—36 to 65 inches; olive (5Y 5/4) gravelly fine sandy loam; moderate medium platy structure; very firm; about 20 percent rock fragments; moderately acid.

The thickness of the solum ranges from 16 to 36 inches. The content of rock fragments is 5 to 30 percent throughout the profile. In unlimed areas reaction is extremely acid to moderately acid.

Some pedons have an A horizon, which has hue of 10YR and value and chroma of 3. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 2 to 4, and chroma of 2 or 3. The E horizon has hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 2.

The Bh horizon has hue of 5YR or 7.5YR, value of 2 or 3, and chroma of 2. The Bs horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8. The BC horizon has hue of 2.5Y, value of 4 or 5, and chroma of 3 to 6. The Bh, Bs, and BC horizons are sandy loam, fine sandy loam, or loam in the fine-earth fraction.

The Cd horizon has hue of 2.5Y or 5Y, value of 3 to 5, and chroma of 2 to 4. It is sandy loam, fine sandy loam, or loam in the fine-earth fraction. The structure is weak or moderate, medium or thick, and platy, or the horizon is massive. Consistence is firm or very firm. Segregated loose to friable sand lenses ⅛ to 1 inch thick make up 0 to 20 percent of the matrix.

Medomak Series

The Medomak series consists of very deep, very poorly drained soils. These soils formed in recent alluvium. They are in depressions on flood plains along rivers and streams. Slope ranges from 0 to 2 percent.

Medomak soils are adjacent to Charles, Rumney, and Wonsqueak soils. Charles and Rumney soils are poorly drained. Wonsqueak soils are very poorly drained and formed in organic material.

Typical pedon of Medomak silt loam, in a wooded area in the town of Bethel, 0.7 mile northeast of East Bethel and 1.4 miles southwest of the village of Hanover:

Oa—0 to 3 inches; dark brown (7.5YR 3/2), highly decomposed organic material; many very fine and common fine roots; strongly acid; abrupt smooth boundary.

A—3 to 13 inches; very dark grayish brown (2.5Y 3/2) silt loam, grayish brown (2.5Y 5/2) dry; weak fine granular structure; friable; common very fine roots; slightly acid; clear wavy boundary.

Cg1—13 to 28 inches; dark gray (5Y 4/1) silt loam; common fine prominent dark yellowish brown (10YR 4/4) mottles; massive; friable; few very fine roots; slightly acid; clear wavy boundary.

Cg2—28 to 52 inches; dark gray (5Y 4/1) very fine sandy loam; common medium prominent light olive brown (2.5Y 5/4) mottles; massive; friable; slightly acid; abrupt wavy boundary.

Cg3—52 to 65 inches; 80 percent dark gray (5Y 4/1) and 20 percent dark olive gray (5Y 3/2) sand; single grain; loose; slightly acid.

The content of rock fragments ranges from 0 to 5 percent throughout the profile. Reaction is extremely acid to slightly acid within a depth of 30 inches and extremely acid to neutral below that depth. Some pedons have buried horizons.

The A horizon has hue of 10YR or 2.5Y, value of 3, and chroma of 1 or 2.

The Cg horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 1 or 2. It is dominantly silt loam, very fine sandy loam, or loamy very fine sand. Below a depth of 40 inches, it ranges from silt loam to sand and gravel. It is massive or single grain, depending on the texture. Consistence is loose to friable.

Monadnock Series

The Monadnock series consists of very deep, well drained soils. These soils formed in loose glacial till derived mainly from gneiss and granite. They are on hillsides and ridgetops. Slope ranges from 3 to 60 percent.

Monadnock soils are adjacent to Hermon, Lyman, Skerry, and Tunbridge soils. Hermon soils are somewhat excessively drained and are coarser textured than the Monadnock soils. Lyman soils are shallow over bedrock, and Tunbridge soils are moderately deep over bedrock. Skerry soils are moderately well drained and have a compact substratum.

Typical pedon of Monadnock fine sandy loam, in a wooded area of Hermon and Monadnock soils, moderately steep, very stony, in the town of Hartford, 0.4 mile east-northeast of the north end of Bunganock Pond and 1.3 miles south-southwest of the south end of Anasagunticook Lake:

Oi—1 inch to 0; litter of needles and leaves.

Oa—0 to 1 inch; dark brown (7.5YR 3/2), highly decomposed organic material; moderate fine granular structure; very friable; many very fine and fine roots; strongly acid; abrupt wavy boundary.

A—1 to 3 inches; dark brown (10YR 4/3) fine sandy loam; weak fine granular structure; very friable; many very fine and fine and few medium and coarse roots; about 5 percent rock fragments; strongly acid; abrupt wavy boundary.

E—3 to 5 inches; light brownish gray (10YR 6/2) fine sandy loam; weak very fine granular structure; very friable; many very fine and fine and few medium and coarse roots; about 5 percent rock fragments; strongly acid; abrupt broken boundary.

Bs1—5 to 9 inches; dark brown (7.5YR 4/4) fine sandy loam; weak fine granular structure; very friable; common very fine and fine roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.

Bs2—9 to 13 inches; dark yellowish brown (10YR 4/6) fine sandy loam; weak very fine granular structure; very friable; common very fine and fine and few medium roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.

Bs3—13 to 16 inches; yellowish brown (10YR 5/6) fine sandy loam; weak very fine granular structure; very friable; common very fine, fine, and medium roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

BC—16 to 21 inches; light olive brown (2.5Y 5/6) fine sandy loam; weak fine granular structure; very friable; few very fine and fine roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.

2C—21 to 65 inches; pale olive (5Y 6/3) gravelly loamy fine sand; massive; friable; about 20 percent rock fragments; moderately acid.

The thickness of the solum ranges from 18 to 30 inches. The content of rock fragments is 5 to 30 percent in the solum and 10 to 50 percent in the substratum. Reaction is extremely acid to moderately acid throughout the profile.

The A horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. The Ap horizon, which is in cultivated areas, has hue of 10YR and value and chroma of 2 to 4. The E horizon has hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 1 or 2.

Some pedons have a Bh horizon, which has hue of 2.5YR to 7.5Y and value and chroma of 2 to 4. The Bs horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8. These horizons are fine sandy loam, very fine sandy loam, or loam in the fine-earth fraction.

The BC horizon has hue of 2.5Y and value and chroma of 4 to 6. It is fine sandy loam or loam in the fine-earth fraction.

The 2C horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 2 to 4. It is loamy sand or loamy fine sand in the fine-earth fraction. It is loose to firm.

Naumburg Series

The Naumburg series consists of very deep, poorly drained and somewhat poorly drained soils. These soils formed in sandy glaciofluvial material derived principally from crystalline rock. They are in low areas on outwash plains, deltas, and kame terraces. Slope ranges from 0 to 8 percent.

Naumburg soils are adjacent to Croghan, Searsport, and Wonsqueak soils. Wonsqueak soils are very poorly drained and formed in organic material over mineral material. Croghan soils are moderately well drained. Searsport soils are very poorly drained.

Typical pedon of Naumburg loamy sand, in a wooded area in the town of Oxford, 1.2 miles northwest of the village of Welchville and 1.1 miles northeast of the village of Oxford:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 2 inches; dark reddish brown (5YR 2/2), highly decomposed organic material; many very fine and fine and common medium roots; strongly acid; abrupt smooth boundary.

E1—2 to 4 inches; grayish brown (10YR 5/2) loamy sand; weak fine granular structure; very friable; about 5 percent gravel; many very fine and fine and common medium roots; strongly acid; abrupt smooth boundary.

E2—4 to 7 inches; brown (7.5YR 5/2) loamy sand; few medium faint grayish brown (10YR 5/2) mottles; weak fine granular structure; very friable; about 5 percent gravel; many very fine and fine and few medium roots; strongly acid; abrupt smooth boundary.

Bh—7 to 11 inches; dark reddish brown (5YR 3/2) loamy sand; few medium faint black (5YR 2/1) mottles; weak fine granular structure; very friable; about 5 percent gravel; many very fine and fine roots; strongly acid; abrupt smooth boundary.

Bhs—11 to 20 inches; dark brown (7.5YR 3/2) loamy sand; common medium faint dark reddish brown (5YR 3/2) and few fine prominent dark yellowish brown (10YR 4/4) mottles; weak fine granular structure; very friable; about 5 percent gravel; common very fine and fine roots; strongly acid; abrupt smooth boundary.

Bs1—20 to 27 inches; brown (7.5YR 4/4) sand; common fine prominent light brownish gray (10YR 6/2) mottles; single grain; loose; about 5 percent gravel; strongly acid; clear wavy boundary.

Bs2—27 to 33 inches; dark yellowish brown (10YR 4/4) sand; common fine distinct light brownish gray (10YR 6/2) mottles; single grain; loose; strongly acid; clear wavy boundary.

BC—33 to 38 inches; light olive brown (2.5Y 5/4) sand; common medium prominent light brownish gray (10YR 6/2) mottles; single grain; loose; strongly acid; clear wavy boundary.

C—38 to 65 inches; olive (5Y 5/3) coarse sand; common medium prominent yellowish brown (10YR 5/6) mottles; single grain; loose; moderately acid.

The thickness of the solum ranges from 18 to 40 inches. The content of rock fragments is as much as 5 percent throughout the profile. 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, which is in cultivated areas, has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 2.

The Bh and Bhs horizons have hue of 5YR or 7.5YR, value of 2 or 3, and chroma of 2. The Bs horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 6. The Bh, Bhs, and Bs horizons are loamy fine sand, loamy sand, or sand.

The BC horizon has hue of 2.5Y, value of 4 to 6, and chroma of 2 to 4. It is loamy fine sand, loamy sand, or sand.

The C horizon has hue of 10YR to 5Y, value of 4 to

6, and chroma of 2 or 3. It is loamy fine sand, loamy sand, sand, or coarse sand.

Nicholville Series

The Nicholville series consists of very deep, moderately well drained soils. These soils formed in glaciolacustrine sediments. They are on glaciolacustrine plains or along drainageways. Slope ranges from 3 to 8 percent.

Nicholville soils are adjacent to Adams, Croghan, and Roundabout soils. Adams soils are somewhat excessively drained. Croghan soils are moderately well drained. Roundabout soils are poorly drained and somewhat poorly drained.

Typical pedon of Nicholville very fine sandy loam, 3 to 8 percent slopes, in a hayfield in the town of Buckfield, 0.7 mile north-northeast of the junction of Maine Route 117 and the Nezinscot River and 1.0 mile west of East Buckfield:

Ap—0 to 8 inches; dark brown (10YR 3/3) very fine sandy loam, pale brown (10YR 6/3) dry; weak very fine granular structure; very friable; common very fine, fine, medium, and coarse roots; very strongly acid; abrupt wavy boundary.

Bs1—8 to 16 inches; dark brown (7.5YR 4/4) very fine sandy loam; weak fine granular structure; very friable; common fine and very fine roots; strongly acid; clear wavy boundary.

Bs2—16 to 18 inches; dark yellowish brown (10YR 4/4) very fine sandy loam; common medium prominent strong brown (7.5YR 4/6) and common fine distinct light brownish gray (10YR 6/2) mottles; weak fine granular structure; very friable; common very fine and fine roots; strongly acid; gradual wavy boundary.

C1—18 to 32 inches; olive (5Y 4/3) silt loam; common fine prominent dark yellowish brown (10YR 3/4) and few fine faint light olive gray (5Y 6/2) mottles; massive; firm; strongly acid; gradual wavy boundary.

C2—32 to 65 inches; olive (5Y 5/3) silt loam; common coarse faint pale olive (5Y 6/3) and common medium distinct light olive brown (2.5Y 5/4) mottles; massive; firm; strongly acid.

The thickness of the solum ranges from 16 to 30 inches. The content of rock fragments is less than 5 percent throughout the profile. In unlimed areas reaction is extremely acid to moderately acid in the surface layer, very strongly acid to moderately acid in the subsoil, and 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.

The Bs horizon has hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 4 to 6. It is loamy very fine sand, very fine sandy loam, or silt loam.

The C horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 2 to 4. It is sandy loam, very fine sandy loam, or silt loam. The structure is weak or moderate, medium or thick, and platy, or the horizon is massive. Consistence is friable or firm.

Ondawa Series

The Ondawa series consists of very deep, well drained soils. These soils formed in recent alluvium on flood plains along the major rivers and streams. Slope ranges from 0 to 3 percent.

Ondawa soils are adjacent to Lovewell, Podunk, and Sunday soils. Lovewell soils are moderately well drained and are finer textured than the Ondawa soils. Podunk soils are moderately well drained. Sunday soils are excessively drained.

Typical pedon of Ondawa fine sandy loam, occasionally flooded, in a hayfield in the town of Oxford, 1.2 miles east-southeast of Welchville and 1.0 mile northwest of the junction of the Little Androscoggin River and the Oxford County-Androscoggin County line:

Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) fine sandy loam, pale brown (10YR 6/3) dry; weak fine granular structure; friable; many very fine and fine roots; neutral; abrupt smooth boundary.

Bw1—8 to 16 inches; light olive brown (2.5Y 5/4) fine sandy loam; weak very fine granular structure; friable; common very fine and fine roots; slightly acid; clear wavy boundary.

Bw2—16 to 24 inches; light yellowish brown (2.5Y 6/4) fine sandy loam; weak very fine granular structure; friable; few very fine and fine roots; moderately acid; clear wavy boundary.

Bw3—24 to 32 inches; light olive brown (2.5Y 5/4) fine sandy loam; weak very fine granular structure; friable; moderately acid; clear wavy boundary.

C1—32 to 45 inches; pale olive (5Y 6/4) loamy fine sand; single grain; loose; less than 5 percent gravel; moderately acid; clear wavy boundary.

C2—45 to 65 inches; light yellowish brown (2.5Y 6/4) loamy fine sand; single grain; loose; less than 5 percent gravel; moderately acid.

The thickness of the solum ranges from 20 to 40 inches. The content of rock fragments ranges from 0 to 15 percent in the solum and from 0 to 40 percent in the substratum. In unlimed areas reaction is very strongly acid to neutral throughout the profile. Some pedons have buried horizons.

The Ap horizon has hue of 10YR, value of 3 to 5, and chroma of 2 to 4.

The Bw horizon has hue of 10YR or 2.5Y and value and chroma of 4 to 6. It is loam, fine sandy loam, or sandy loam.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 3 to 6. It is loamy fine sand, sand, or coarse sand.

Peacham Series

The Peacham series consists of very deep, very poorly drained soils. These soils formed in organic material over compact glacial till. They are in nearly level areas in depressions and drainageways on glaciated uplands. Slope ranges from 0 to 2 percent.

Peacham soils are adjacent to Brayton and Wonsqueak soils. Brayton soils are poorly drained. Wonsqueak soils are very poorly drained and are organic.

Typical pedon of Peacham muck, in a wooded area of Brayton-Peacham complex, very stony, in the town of Hebron, 0.5 mile northwest of the village of East Hebron and 1.0 mile southwest of Mud Pond:

Oi—2 inches to 0; litter of leaves, needles, and twigs.

Oa—0 to 8 inches; black (10YR 2/1) muck; about 15 percent fiber, less than 5 percent rubbed; weak medium granular structure; very friable; many very fine and fine and common medium and coarse roots; strongly acid; abrupt smooth boundary.

Bg—8 to 13 inches; olive gray (5Y 5/2) sandy loam; common medium prominent olive brown (2.5Y 4/4) and common fine faint gray (5Y 6/1) mottles; massive; firm; few very fine and fine roots; about 10 percent rock fragments; moderately acid; gradual wavy boundary.

Cdg—13 to 65 inches; gray (5Y 5/1) fine sandy loam; many medium prominent dark yellowish brown (10YR 4/4) and common medium distinct olive (5Y 4/3) mottles; weak medium platy structure; firm; about 10 percent rock fragments; slightly acid.

The thickness of the organic material ranges from 8 to 16 inches. The content of rock fragments is 5 to 20 percent throughout the profile. Reaction is very strongly acid to slightly acid.

Some pedons have an Oe horizon. The Oa and Oe horizons have hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 or 2.

Some pedons have an A horizon. This horizon has hue of 10YR or 2.5Y, value of 2 to 4, and chroma of 1 or 2.

The Bg horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. It is sandy loam, fine sandy loam, loam, or silt loam.

The Cdg horizon has hue of 5Y, value of 5 or 6, and chroma of 1 or 2. It is sandy loam, fine sandy loam, loam, or silt loam.

Podunk Series

The Podunk series consists of very deep, moderately well drained soils. These soils formed in recent alluvium on flood plains along the major rivers and streams. Slope ranges from 0 to 3 percent.

Podunk soils are adjacent to Fryeburg, Lovewell, Ondawa, Rumney, and Sunday soils. Fryeburg and Ondawa soils are well drained. Rumney soils are poorly drained. Lovewell soils are somewhat poorly drained and are finer textured than the Podunk soils. Sunday soils are excessively drained.

Typical pedon of Podunk fine sandy loam, occasionally flooded, in a cultivated field in the town of Fryeburg, 0.6 mile south-southwest of the village of North Fryeburg and 1.8 miles southwest of Fryeburg Harbor:

Ap—0 to 10 inches; dark yellowish brown (10YR 3/4) fine sandy loam, pale brown (10YR 6/3) dry; weak fine granular structure; friable; many roots; strongly acid; abrupt smooth boundary.

Bw1—10 to 18 inches; light olive brown (2.5Y 5/4) fine sandy loam; weak fine granular structure; friable; many roots; strongly acid; gradual smooth boundary.

Bw2—18 to 30 inches; light olive brown (2.5Y 5/4) fine sandy loam; common medium distinct light brownish gray (2.5Y 6/2) and common medium faint light yellowish brown (2.5Y 6/4) mottles; weak fine granular structure; friable; few roots; strongly acid; gradual smooth boundary.

C—30 to 65 inches; olive gray (5Y 5/2) loamy fine sand; many medium prominent light yellowish brown (2.5Y 6/4) and yellowish brown (10YR 5/4) and many medium faint pale olive (5Y 6/3) mottles; single grain; loose; strongly acid.

The thickness of the solum ranges from 20 to 35 inches. The content of rock fragments is less than 5 percent in the solum and 0 to 40 percent in the substratum. In unlimed areas reaction ranges from very strongly acid to slightly acid throughout the profile. Some pedons have buried horizons.

The Ap horizon has hue of 10YR, value of 3, and chroma of 2 to 4.

The Bw horizon has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 to 6. It is loam, fine sandy loam, or sandy loam.

The C horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 6. It is loamy fine sand to coarse sand in the fine-earth fraction.

Ricker Series

The Ricker series consists of well drained to excessively drained, organic soils that are very shallow or shallow over bedrock. These soils formed in thin deposits of organic material that in most places is underlain by a very thin mineral horizon. They are on mountaintops at elevations of about 2,500 to 3,300 feet. Slope ranges from 8 to 60 percent.

Ricker soils are adjacent to the mineral Abram, Lyman, and Saddleback soils and to areas of Rock outcrop. Abram and Lyman soils are at the lower elevations. Abram soils are excessively drained and are very shallow over bedrock, and Lyman soils are somewhat excessively drained and are shallow over bedrock. Saddleback soils are well drained and are shallow over bedrock.

Typical pedon of Ricker peat, in a wooded area of Ricker-Saddleback-Rock outcrop complex, very hilly, in the town of Byron, on top of Dolly Mountain, 1.7 miles east of the village of Houghton:

Oi—0 to 1 inch; peat, dark reddish brown (5YR 2/2) broken face, dark reddish brown (5YR 3/2) crushed and rubbed; about 95 percent fiber, 80 percent rubbed; massive; loose; many fine and medium roots; extremely acid; abrupt wavy boundary.

Oa—1 to 3 inches; muck, very dusky red (2.5YR 2/2) broken face, crushed, and rubbed; about 25 percent fiber, 15 percent rubbed; massive; very friable; common fine and medium roots; extremely acid; abrupt wavy boundary.

E—3 to 4 inches; gray (5YR 5/1) very channery loamy very fine sand; massive; very friable; common fine and medium roots; about 40 percent rock fragments; very strongly acid; abrupt irregular boundary.

R—4 inches; hard bedrock.

The depth to bedrock ranges from 1 to 15 inches. The content of rock fragments is 0 to 50 percent in the mineral layers. Reaction is extremely acid in the organic material and extremely acid or very strongly acid in the mineral layers.

The Oi horizon has hue of 2.5YR to 7.5YR, value of 2 or 3, and chroma of 1 to 4. Some pedons have an Oe horizon, which has hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 1 to 3. The Oa horizon has hue of 2.5YR to 10YR, value of 2 or 3, and chroma of 1 or 2.

The E horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 1 or 2. Some pedons have a Bh or Bhs horizon, which has hue of 5YR to 10YR and value and chroma of 2 or 3 and is coarse sand, loamy sand, loamy very fine sand, loamy fine sand, sandy loam, fine sandy loam, very fine sandy loam, or silt loam in the fine-earth fraction.

The bedrock is generally gneiss, granite, or schist.

Roundabout Series

The Roundabout series consists of very deep, poorly drained and somewhat poorly drained soils. These soils formed in glaciolacustrine sediments on low plains or along drainageways. Slope ranges from 0 to 3 percent.

Roundabout soils are adjacent to the moderately well drained Croghan and Nicholville soils. Croghan soils are coarser textured than the Roundabout soils.

Typical pedon of Roundabout silt loam, in a hayfield in the town of Paris, 1 mile east-southeast of Paine Pond and 1.1 miles southwest of the confluence of Moody Brook and the Little Androscoggin River:

Ap—0 to 7 inches; dark brown (10YR 3/3) silt loam, light gray (10YR 7/1) dry; few fine and medium prominent gray (5Y 5/1) and few fine faint yellowish brown (10YR 5/4) mottles in the lower 2 inches; moderate medium granular structure; friable; common very fine and fine roots; moderately acid; abrupt smooth boundary.

Bw—7 to 17 inches; olive brown (2.5Y 4/4) silt loam; many medium distinct dark yellowish brown (10YR 4/4) and common medium prominent olive gray (5Y 5/2) mottles; weak thin and medium platy structure; friable; few very fine roots; moderately acid; clear wavy boundary.

Bg—17 to 26 inches; grayish brown (2.5Y 5/2) silt loam; many coarse distinct gray (5Y 5/1) and common medium prominent yellowish brown (10YR 5/6) mottles; weak medium platy structure; friable; few fine roots; moderately acid; gradual wavy boundary.

BCg—26 to 30 inches; olive gray (5Y 5/2) very fine sandy loam; many medium faint gray (5Y 5/1) and common medium prominent yellowish brown (10YR 5/6) mottles; weak thin platy structure; friable; moderately acid; clear wavy boundary.

C—30 to 65 inches; olive (5Y 5/3) silt loam; common coarse distinct gray (5Y 6/1) and common medium prominent dark yellowish brown (10YR 4/6) mottles; moderate thin and medium platy structure; firm; moderately acid.

The thickness of the solum ranges from 20 to 35 inches. The content of rock fragments, mostly gravel, is less than 5 percent throughout the profile. Reaction is very strongly acid to slightly acid in the solum and moderately acid to neutral in the substratum.

Some pedons have an E horizon. This horizon has hue of 5Y, value of 5 or 6, and chroma of 1 or 2.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 3. The A horizon, which is in uncultivated areas, has hue of 10YR, value of 3, and chroma of 1.

The B horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 2 to 4. It is silt loam or very fine sandy loam. The structure is weak or moderate, thin to thick, and platy or is weak fine granular or moderate medium subangular blocky.

The BC horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 2 to 4. It is silt loam or very fine sandy loam. The structure is weak or moderate, thin to thick, and platy. Consistence is friable or firm.

The C horizon has hue of 2.5Y or 5Y, value of 5 or 6, and chroma of 1 to 3. It is dominantly silt loam or very fine sandy loam. In some pedons it is fine sand or gravelly sand below a depth of 40 inches. The structure is moderate, thin to thick, and platy, or the horizon is massive. Consistence is commonly firm or very firm but in some pedons is friable.

Rumney Series

The Rumney series consists of very deep, poorly drained soils. These soils formed in recent alluvium on flood plains adjacent to rivers and streams. Slope ranges from 0 to 2 percent.

Rumney soils are adjacent to Cornish, Medomak, and Podunk soils. Podunk soils are moderately well drained. Cornish soils are somewhat poorly drained. Medomak soils are very poorly drained.

Typical pedon of Rumney fine sandy loam, frequently flooded, in a wooded area in the town of Fryeburg, 0.4 mile south-southeast of the junction of the Saco River and U.S. Route 302 and 1.0 mile east of the north end of Lovewell Pond:

Ap—0 to 9 inches; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; few fine distinct dark grayish brown (2.5Y 4/2) mottles; weak fine granular structure; very friable; many very fine and fine and common medium and coarse roots; very strongly acid; clear smooth boundary.

Bg1—9 to 20 inches; dark grayish brown (2.5Y 4/2) fine sandy loam; common fine prominent dark yellowish brown (10YR 4/4) and common fine faint grayish brown (2.5Y 5/2) mottles; weak fine granular structure; very friable; many very fine and fine and common medium roots; strongly acid; clear wavy boundary.

Bg2—20 to 30 inches; grayish brown (2.5Y 5/2) sandy loam; many medium prominent strong brown (7.5YR 4/6) and common medium faint olive gray (5Y 5/2) mottles; weak fine granular structure; friable; common very fine, fine, and medium roots; moderately acid; clear wavy boundary.

Cg—30 to 65 inches; olive gray (5Y 4/2) loamy sand; common medium faint olive gray (5Y 5/2) and few fine faint gray (5Y 6/1) mottles; single grain; loose; moderately acid.

The thickness of the solum ranges from 20 to 30 inches. The content of rock fragments is 0 to 5 percent in the solum and 0 to 40 percent in the substratum. Reaction is very strongly acid to neutral throughout the profile. Some pedons have buried horizons.

The Ap or A horizon has hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 or 2.

The Bg horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 or 2. It is loam, fine sandy loam, or sandy loam.

The C horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 3. It is loamy fine sand to coarse sand in the fine-earth fraction.

Saddleback Series

The Saddleback series consists of well drained soils that are shallow over bedrock. These soils formed in a thin mantle of glacial till. They are on mountaintops at elevations of about 2,500 to 3,300 feet. Slope ranges from 8 to 60 percent.

Saddleback soils are adjacent to Ricker soils and to areas of Rock outcrop. Ricker soils are well drained to excessively drained, are very shallow or shallow over bedrock, and formed in organic material.

Typical pedon of Saddleback very fine sandy loam, in a wooded area of Ricker-Saddleback-Rock outcrop complex, very hilly, in the town of Byron, on the summit of Dolly Mountain:

Oi—1 inch to 0; litter of leaves, needles, and twigs.

Oa—0 to 2 inches; dark reddish brown (5YR 2/2), highly decomposed organic material; weak very fine granular structure; very friable; many very fine and fine and common medium and coarse roots; extremely acid; abrupt wavy boundary.

E—2 to 5 inches; grayish brown (10YR 5/2) very fine sandy loam; weak very fine granular structure; very friable; common very fine and fine and few medium roots; about 5 percent rock fragments; extremely acid; abrupt wavy boundary.

Bh1—5 to 9 inches; very dusky red (2.5YR 2/2) fine sandy loam; weak very fine granular structure; very friable; common very fine and fine and few medium roots; weakly smeary; about 5 percent rock fragments; extremely acid; clear wavy boundary.

Bh2—9 to 15 inches; dark reddish brown (5YR 3/3) fine sandy loam; weak very fine granular structure; very friable; common very fine and fine roots; about 5 percent rock fragments; extremely acid; clear wavy boundary.

Bs—15 to 19 inches; reddish brown (5YR 4/4) fine sandy loam; weak fine granular structure; very friable; few very fine and fine roots; about 10 percent rock fragments; extremely acid; abrupt wavy boundary.

R—19 inches; hard bedrock.

The depth to bedrock ranges from 10 to 20 inches. The content of rock fragments is 5 to 25 percent throughout the solum. Reaction is extremely acid to strongly acid.

The O horizon has hue of 5YR or 7.5YR, value of 2 or 3, and chroma of 1 or 2.

The E horizon has hue of 5YR to 10YR, value of 4 to 7, and chroma of 1 or 2.

The Bh horizon has hue of 10R to 10YR, value of 2 to 4, and chroma of 1 to 4. Some pedons have a Bhs horizon, which has hue of 10R to 10YR and value and chroma of 3 or less. The Bs horizon has hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4. The Bh, Bhs, and Bs horizons are silt loam, loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction. They have weak fine or very fine granular structure and are very friable or friable.

The bedrock is gneiss, granite, or schist.

Searsport Series

The Searsport series consists of very deep, very poorly drained soils. These soils formed in sandy glaciofluvial material derived mainly from crystalline rock. They are in depressions on outwash plains, deltas, and kame terraces. Slope ranges from 0 to 2 percent.

Searsport soils are adjacent to Naumburg, Wonsqueak, and Vassalboro soils. Wonsqueak and Vassalboro soils are very poorly drained and are organic. Naumburg soils are poorly drained and somewhat poorly drained.

Typical pedon of Searsport muck, in a wooded area in the town of Oxford, 1.2 miles southwest of Coldwell Corner and 0.8 mile northwest of the confluence of Willow Brook and Meadow Brook:

Oi—1 inch to 0; litter of leaves and needles.

Oa1—0 to 5 inches; black (10YR 2/1) muck; about 60 percent fiber, 15 percent rubbed; massive; friable, slightly sticky and slightly plastic; many very fine and fine roots; strongly acid; abrupt smooth boundary.

Oa2—5 to 8 inches; very dark gray (10YR 3/1) muck; massive; very friable, nonsticky and nonplastic; common very fine and fine roots; strongly acid; abrupt smooth boundary.

A—8 to 11 inches; dark gray (5Y 4/1) loamy sand; weak fine and medium granular structure; friable, slightly sticky and slightly plastic; few very fine and fine roots; strongly acid; abrupt smooth boundary.

Cg1—11 to 24 inches; olive gray (5Y 4/2) coarse sand; single grain; loose, nonsticky and nonplastic; about 5 percent gravel; slightly acid; abrupt smooth boundary.

Cg2—24 to 65 inches; olive gray (5Y 5/2) coarse sand; single grain; loose, nonsticky and nonplastic; about 5 percent gravel; slightly acid.

The thickness of the O horizon ranges from 8 to 16 inches. The content of rock fragments is 0 to 10 percent throughout the profile. Reaction is extremely acid to slightly acid in the surface layer and subsurface layer and very strongly acid to slightly acid in the substratum.

The O horizon is neutral in hue or has hue of 5YR to 10YR. It has value of 2 or 3 and chroma of 0 to 2.

The A horizon has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 or 2. It is loamy sand, loamy fine sand, sandy loam, fine sandy loam, or mucky sand.

The Cg horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 1 or 2. It is loamy fine sand, loamy sand, fine sand, or coarse sand in the fine-earth fraction.

Skerry Series

The Skerry series consists of very deep, moderately well drained soils. These soils formed in compact glacial till derived mainly from granite and schist. They are on ridges and hills in the uplands throughout the survey area. Slope ranges from 0 to 25 percent.

Skerry soils are adjacent to Becket, Brayton, Colonel, Hermon, Lyman, Monadnock, and Tunbridge soils. Becket and Monadnock soils are well drained. Brayton soils are poorly drained. Colonel soils are somewhat poorly drained. Hermon soils are somewhat excessively drained. Lyman soils are shallow over bedrock, and Tunbridge soils are moderately deep over bedrock.

Typical pedon of Skerry fine sandy loam, in a wooded area of Skerry fine sandy loam, 3 to 8 percent slopes, very stony, in the town of Andover, 0.7 mile northeast of the intersection of Maine Routes 5 and 120 and 0.5 mile east of the confluence of Sawyer Brook and the West Branch Ellis River:

Oi—1 inch to 0; litter of leaves, needles, and twigs.
Oa—0 to 3 inches; black (5YR 2/1), highly decomposed organic material; many very fine and fine and common medium roots; very strongly acid; abrupt wavy boundary.
E—3 to 5 inches; light brownish gray (10YR 6/2) fine sandy loam; weak fine granular structure; friable; common fine and very fine roots; about 10 percent rock fragments; strongly acid; abrupt wavy boundary.
Bh—5 to 8 inches; dark brown (7.5YR 4/4) fine sandy loam; weak fine granular structure; very friable; common fine and very fine roots; about 10 percent rock fragments; strongly acid; clear wavy boundary.
Bs1—8 to 19 inches; yellowish brown (10YR 5/6) sandy loam; weak fine granular structure; friable; common fine, very fine, and medium roots; about 10 percent rock fragments; moderately acid; clear wavy boundary.
Bs2—19 to 25 inches; yellowish brown (10YR 5/4) sandy loam; common medium prominent strong brown (7.5YR 5/6) and common medium distinct grayish brown (10YR 5/2) mottles; weak fine granular structure; friable; few fine and very fine roots; about 10 percent rock fragments; moderately acid; abrupt smooth boundary.
Cd—25 to 65 inches; light olive brown (2.5Y 5/4) gravelly sandy loam; common fine prominent yellowish brown (10YR 5/6) and common medium distinct light yellowish brown (2.5Y 6/2) mottles; massive; firm; about 15 percent rock fragments; segregated loose sand lenses, ¼ to 1 inch thick, making up 30 to 40 percent of the fabric of the till; moderately acid.

The thickness of the solum ranges from 17 to 31 inches. The content of rock fragments is 5 to 25 percent in the solum and 10 to 35 percent in the substratum. In unlimed areas reaction is very strongly acid to slightly acid in the solum and very strongly acid to neutral in the substratum.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR and value and chroma of 3 or 4.

The Bh horizon has hue of 2.5YR to 7.5YR and value and chroma of 2 to 4. The Bs horizon has hue of 5YR to 10YR and value and chroma of 4 to 6. These horizons are fine sandy loam or sandy loam in the fine-earth fraction.

Some pedons have a BC horizon. This horizon has hue of 2.5Y, value of 4 to 6, and chroma of 2 to 4. It is fine sandy loam or sandy loam in the fine-earth fraction

The Cd horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 2 to 4. It is loamy fine sand, loamy sand, sandy loam, or fine sandy loam in the fine-earth fraction. Where the texture is sandy loam or fine sandy loam, segregated sand or loamy sand lenses oriented horizontally between structural plates or within the massive material make up 20 to 80 percent of the horizon. The structure of the lenses is weak or moderate, thin to thick, and platy, or the lenses are massive or single grain. Consistence is dominantly firm or very firm but is loose in the sandy lenses.

Sunday Series

The Sunday series consists of very deep, excessively drained soils. These soils formed in recent alluvium on flood plains along the major rivers and streams. Slope ranges from 0 to 3 percent.

Sunday soils are adjacent to Fryeburg, Ondawa, and Podunk soils. Fryeburg and Ondawa soils are well drained. Podunk soils are moderately well drained and are finer textured than the Sunday soils.

Typical pedon of Sunday loamy fine sand, occasionally flooded, in a wooded area in the town of Fryeburg, 0.7 mile southwest of Swans Falls on the Saco River and 0.9 mile north-northwest of the junction of Maine Route 113 and the Saco River:

Oi—1 inch to 0; litter of pine needles, hardwood leaves, and twigs.
Ap—0 to 4 inches; dark brown (10YR 3/3) loamy fine sand, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; many very fine and fine roots; moderately acid; abrupt smooth boundary.
C1—4 to 12 inches; light olive brown (2.5Y 5/4) sand; single grain; loose; few very fine and fine roots; moderately acid; abrupt wavy boundary.
C2—12 to 25 inches; olive brown (2.5Y 4/4) fine sand; single grain; loose; few very fine and common coarse roots; moderately acid; abrupt smooth boundary.
C3—25 to 65 inches; light olive brown (2.5Y 5/4) coarse sand; single grain; loose; moderately acid.

The content of rock fragments is 0 to 10 percent throughout the profile. In unlimed areas reaction is extremely acid to slightly acid in the surface layer and very strongly acid to slightly acid in the substratum. Some pedons have buried horizons.

The Ap or A horizon has hue of 10YR, value of 3 to 5, and chroma of 2 or 3. The C horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 4. It is loamy fine sand to coarse sand. Some pedons have a thin strata of gravel below a depth of 40 inches.

Tunbridge Series

The Tunbridge series consists of well drained soils that are moderately deep over bedrock. These soils formed in glacial till derived from gneiss, granite, phyllite, and schist. They are in bedrock-controlled areas on the side slopes of hills and mountains. Slope ranges from 3 to 60 percent.

Tunbridge soils are adjacent to Abram, Becket, Dixfield, Hermon, Lyman, Marlow, Monadnock, Saddleback, and Skerry soils. Becket, Dixfield, Hermon, Marlow, Monadnock, and Skerry soils are deeper over bedrock than the Tunbridge soils. Lyman and Saddleback soils are shallow over bedrock. Abram soils are very shallow over bedrock.

Typical pedon of Tunbridge fine sandy loam, in a wooded area of Lyman-Tunbridge-Monadnock complex, rolling, very stony, in the town of Oxford, 2.1 miles east of Welchville and 1.3 miles northeast of the junction of the Little Androscoggin River and the Oxford County-Androscoggin County line:

Oi—1 inch to 0; litter of leaves, needles, and twigs.

Oa—0 to 1 inch; black (10YR 2/1), highly decomposed organic material; many very fine and fine roots; very strongly acid; abrupt smooth boundary.

E—1 to 3 inches; gray (10YR 6/1) fine sandy loam; weak fine granular structure; very friable; many very fine and fine, common medium, and few coarse roots; about 5 percent rock fragments; strongly acid; abrupt smooth boundary.

Bh—3 to 4 inches; dark brown (7.5YR 4/4) gravelly fine sandy loam; weak fine granular structure; friable; many very fine and fine, common medium, and few coarse roots; about 15 percent rock fragments; strongly acid; clear wavy boundary.

Bs—4 to 18 inches; dark yellowish brown (10YR 4/6) gravelly fine sandy loam; weak fine granular structure; friable; many very fine and fine and few coarse roots; about 15 percent rock fragments; moderately acid; clear wavy boundary.

BC—18 to 26 inches; yellowish brown (10YR 5/6) gravelly fine sandy loam; weak fine granular structure; friable; common very fine and fine roots; about 15 percent rock fragments; moderately acid; clear wavy boundary.

R—26 inches; hard bedrock.

The thickness of the solum ranges from 14 to 30 inches. The depth to bedrock ranges from 20 to 40 inches. The content of rock fragments is 5 to 35 percent in the solum and substratum. In unlimed areas reaction is extremely acid to moderately acid in the solum and strongly acid to slightly acid in the substratum.

The E horizon has hue of 5YR to 10YR, value of 5 or 6, and chroma of 1 or 2. The Ap horizon, which is in cultivated areas, has hue of 10YR, value of 3, and chroma of 2 to 4.

The Bh horizon has hue of 5YR to 10YR, value of 3 or 4, and chroma of 2 to 4. Some pedons have a Bhs horizon, which has hue of 7.5YR or 10YR and value and chroma of 2 or 3. The Bs horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8. The Bh, Bhs, and Bs horizons are loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction.

The BC horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 4 to 6. It is loam, very fine sandy loam, fine sandy loam, or sandy loam in the fine-earth fraction.

Some pedons have a C horizon.

The bedrock is dominantly gneiss, granite, phyllite, or schist.

Vassalboro Series

The Vassalboro series consists of very deep, very poorly drained soils. These soils formed in slightly decomposed herbaceous and woody plant material. They are in depressions in areas of glacial till and glaciofluvial deposits throughout the survey area. Slope is 0 to 1 percent.

Vassalboro soils are adjacent to Searsport and Wonsqueak soils. Wonsqueak soils are very poorly drained and have 16 to 51 inches of organic material. Searsport soils are very poorly drained and are mineral.

Typical pedon of Vassalboro mucky peat, in a wooded area of Vassalboro-Wonsqueak association, in the town of Fryeburg, 0.1 mile south of the south end of Clays Pond:

Oe—0 to 12 inches; mucky peat (hemic material), very dark gray (5YR 3/1) broken face and rubbed, dark reddish brown (5YR 2/2) pressed; about 60 percent fiber, 35 percent rubbed; about 80 percent herbaceous and 20 percent woody material; massive; nonsticky; less than 5 percent woody coarse fragments; very pale brown (10YR 7/3) sodium pyrophosphate test; extremely acid; clear smooth boundary.

Oi1—12 to 26 inches; peat (fibric material), very dark gray (5YR 3/1) broken face and rubbed, dark reddish brown (5YR 3/2) pressed; about 70 percent fiber, 45 percent rubbed; about 80 percent herbaceous and 20 percent woody material; massive; nonsticky; less than 5 percent woody coarse fragments; light gray (10YR 7/2) sodium pyrophosphate test; extremely acid; gradual wavy boundary.

Oi2—26 to 33 inches; peat (fibric material), very dark gray (5YR 3/1) broken face, black (5YR 2/1) rubbed, dark reddish brown (5YR 2/2) pressed; about 80 percent fiber, 70 percent rubbed; 80 percent herbaceous and 20 percent woody material; massive; nonsticky; less than 5 percent woody coarse fragments; white (10YR 8/1) sodium pyrophosphate test; extremely acid; clear smooth boundary.

O'e—33 to 38 inches; mucky peat (hemic material), black (5YR 2/1) broken face and rubbed, dark reddish brown (5YR 2/2) pressed; about 60 percent fiber, 35 percent rubbed; about 80 percent herbaceous and 20 percent woody material; massive; nonsticky; less than 5 percent woody coarse fragments; very pale brown (10YR 7/3) sodium pyrophosphate test; extremely acid; clear smooth boundary.

O'i—38 to 65 inches; peat (fibric material), dark reddish brown (5YR 2/2) broken face and pressed, black (5YR 2/1) rubbed; about 80 percent fiber, 45 percent rubbed; about 80 percent herbaceous and 20 percent woody material; massive; nonsticky; about 10 percent woody coarse fragments; white (10YR 8/1) sodium pyrophosphate test; extremely acid.

The organic material is more than 51 inches thick. The content of woody coarse fragments ranges from 0 to 20 percent throughout the profile.

The surface tier has hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 to 4 broken face and rubbed. The subsurface and bottom tiers have hue of 5YR to 10YR, value of 2 to 4, and chroma of 1 or 2 broken face and rubbed. They are nonsticky or slightly sticky. Layers of hemic material less than 10 inches thick are in the lower part of the profile.

Wonsqueak Series

The Wonsqueak series consists of very deep, very poorly drained soils. These soils formed in organic material over loamy mineral deposits. They are in depressions on glacial till plains, outwash plains, and deltas and on the shallow perimeter of the deeper organic bogs. Slope is 0 to 1 percent.

Wonsqueak soils are adjacent to Medomak, Naumburg, Peacham, Searsport, and Vassalboro soils. Naumburg soils are poorly drained and somewhat poorly drained. Medomak, Peacham, and Searsport soils are very poorly drained and are mineral. Vassalboro soils are very poorly drained and have more than 51 inches of organic material.

Typical pedon of Wonsqueak mucky peat, in a meadow in the town of Sweden, 0.5 mile east-northeast of the confluence of the Kezar River and Popple Hill Brook and 0.6 mile southeast of the village of Lovell:

Oe—0 to 6 inches; mucky peat (hemic material), very dark gray (5YR 3/1) broken face, dark reddish brown (5YR 2/2) rubbed and pressed; about 70 percent fiber, 30 percent rubbed; about 80 percent herbaceous and 20 percent woody material; massive; nonsticky; about 10 percent woody coarse fragments; very pale brown (10YR 7/3) sodium pyrophosphate test; very strongly acid; clear smooth boundary.

Oa1—6 to 13 inches; muck (sapric material), very dark gray (5YR 3/1) broken face, dark reddish brown (5YR 3/2) rubbed and pressed; about 45 percent fiber, 15 percent rubbed; about 90 percent herbaceous and 10 percent woody material; massive; nonsticky; about 5 percent woody coarse fragments; brown (10YR 5/3) sodium pyrophosphate test; very strongly acid; gradual smooth boundary.

Oa2—13 to 34 inches; muck (sapric material), very dark grayish brown (10YR 3/2) broken face, rubbed, and pressed; about 15 percent fiber, 5 percent rubbed; 90 percent herbaceous and 10 percent woody material; massive; nonsticky; about 5 percent woody coarse fragments; pale brown (10YR 6/3) sodium pyrophosphate test; strongly acid; gradual smooth boundary.

Oa3—34 to 40 inches; muck (sapric material), dark reddish brown (5YR 3/2) broken face, rubbed, and pressed; about 30 percent fiber, 5 percent rubbed; about 90 percent herbaceous and 10 percent woody material; massive; nonsticky; about 5 percent woody coarse fragments; pale brown (10YR 6/3) sodium pyrophosphate test; strongly acid; abrupt smooth boundary.

Cg—40 to 65 inches; gray (5Y 6/1) silt loam; massive; slightly sticky and slightly plastic; strongly acid.

The thickness of the O horizon ranges from 16 to 51 inches. The content of woody coarse fragments ranges from 0 to 20 percent throughout the organic material. The organic material is extremely acid to slightly acid. It is very strongly acid to slightly acid in at least some part of the profile.

The surface tier has hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 1 or 2. The subsurface and bottom tiers have hue of 5YR to 10YR, value of 2 or 3, and chroma of 1 or 2. They are nonsticky or slightly sticky. Layers of hemic material less than 10 inches thick are in the lower part of the organic material.

The Cg horizon has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 or 2. It is silt loam, silty clay loam, fine sandy loam, or very fine sandy loam. It is strongly acid to neutral.

Formation of the Soils

This section relates the major processes and factors of soil formation to the soils in the survey area. It also describes the physiography and geology of the area.

Processes of Soil Formation

By Robert V. Rourke, senior soil scientist, University of Maine at Orono.

The soils in this survey area exhibit distinct horizons that are the result of soil-forming processes. The principal processes are the addition of organic material; the transformation and transfer of organic matter, iron, and aluminum oxides; the weathering of primary minerals or rocks and parent material into silicate clays; and the formation of soil structure. These processes commonly occur simultaneously in the soils.

Soils that formed under forest vegetation have an O, or organic, horizon at the surface. This horizon consists of accumulated organic matter, such as twigs and leaves, or of humified organic material that is mixed with a little mineral material. The content of organic matter in the surface layer of mineral soils varies with vegetation, aspect, temperature, moisture, and drainage conditions.

As organic matter accumulates and is incorporated into the soil, an A horizon forms. Generally, the drier soils have an organic horizon above the A horizon and the wetter soils have a thick organic surface layer. In many soils plowing has changed the A horizon into an Ap horizon. Organic material that has been deposited by human activities has been incorporated into the Ap horizon.

Weathering has been an important process affecting the formation of soil horizons in the survey area. Organic matter and iron and aluminum oxides have been moved out of the A horizon and into the B horizon. The decomposition of organic matter in the A horizon creates an acid condition that increases the solubility of sesquioxides (iron and aluminum oxides) and results in the reduction of iron and the formation of soluble metal-organic complexes. These complexes are leached from the mineral surface horizon into the B horizon, where they are precipitated by physical, chemical, and biological processes *(3)*. A light grayish, leached E horizon may form over an accumulation of humus and sesquioxides in the B horizon. This process is fairly well expressed in Adams and Hermon soils.

In Lovewell and other soils, the B horizon formed mainly through alteration of the original material rather than through illuviation. This alteration may be caused by the weathering of parent material; the oxidation of iron, which results in a rusty color; or the development of soil structure in place of the original rock structure or the structure of sediments.

In the more poorly drained soils, gray colors in the subsoil indicate the reduction of iron to a ferrous form. In these grayish layers, iron has been chemically reduced to a more soluble form under anaerobic conditions and has been leached from the soils, moved to a different horizon, or concentrated and partly reoxidized. Mottles result from this reduction and reoxidation. Grayish layers are common in the poorly drained Brayton and Roundabout soils.

Marlow and Dixfield soils have a dense, compact substratum. Soil particles are tightly packed, bulk density is high, and the pore space is low. The compact substratum formed partly as a result of great pressure exerted by glacial ice. The eluvial-illuvial sequence is above the dense layer and in many areas is separated from the dense layer by a second area of eluviation. The compact substratum begins at a depth of about 16 to 36 inches and extends to a depth of many feet. In Dixfield soils it has very coarse prismatic structure in the upper part. In both soils it is brittle when moist. It is nearly impervious to plant roots and is slowly permeable to water.

Factors of Soil Formation

Soil forms through the interaction of five major factors—climate, parent material, plant and animal life, topography, and time. Each of these factors influences the soil-forming processes differently from place to place. In some areas one factor dominates the formation of a soil and determines most of its properties. The differing effects of each of the five factors causes local variations among the soils in the survey area.

Climate

Climate influences the weathering process and the vegetation, which in turn further modifies the soil-forming processes. Climatic data for the survey area are given in the section "General Nature of the Survey Area."

Rainfall influences soil formation through its effects on erosion and on leaching and chemical reactions. Many constituents are leached in varying amounts from the soil, including soluble salts and the basic ions of calcium, magnesium, potassium, and sodium, which are released through the weathering of minerals. In the course of a year, water percolating through the soil can remove, via solution, several tons of minerals per square mile. As a result of this leaching, the soils in the survey area generally are slightly acid to extremely acid.

Physical weathering through alternating periods of freezing and thawing takes place from fall to spring. It helps to granulate soil material and break down rock fragments. The freezing and thawing improve soil structure in soils that have been compacted by heavy equipment.

The survey area is at a latitude directly south of the midpoint between the North Pole and the Equator. As a result, the soils in the area are more highly weathered and deeper than the soils in polar regions. They are not so highly weathered or so deep, however, as most soils in tropical latitudes, where climate commonly masks the influence of different kinds of parent material.

Parent Material

The parent material of the soils in the survey area and the landscape features in the area have resulted largely from the Wisconsinan Glaciation. The soils in the area formed mainly in glacial till, glaciofluvial deposits, glaciolacustrine sediments, organic material, and recent alluvium.

Soils that formed in friable glacial till, such as Hermon soils, show evidence of the gouging and scraping of the glacier that deposited this material across the landscape. Becket, Skerry, and Brayton soils formed in dense, compact glacial till derived mainly from schist, gneiss, and granite. Becket and Skerry soils are on drumlin-shaped ridges. Brayton soils are in depressions on the ridges.

Glaciofluvial deposits are stratified sandy, loamy, or gravelly material on deltas, outwash plains, kame terraces, kames, and eskers. This material was picked up by the glacier and then was sorted and deposited by glacial meltwater. Adams, Colton, Croghan, Naumburg, and Searsport soils formed dominantly in glaciofluvial deposits. In some areas they formed in postglacial alluvial deposits.

Glaciolacustrine sediments were deposited in quiet bodies of water. Nicholville and Roundabout soils formed in areas where these sediments consist of silt and fine sand.

Recent alluvium is postglacial material deposited along streams and rivers. Charles, Cornish, Fryeburg, Lovewell, Medomak, Ondawa, Podunk, Rumney, and Sunday soils formed in this material.

Organic material accumulated in depressions that had been ponded and subsequently became filled with plant remains. Wonsqueak and Vassalboro soils formed in slightly decomposed to highly decomposed plant material derived from mosses, grasses, other herbaceous plants, and woody plants. Wonsqueak soils formed in organic material that is as much as 51 inches deep over mineral material.

Plant and Animal Life

Living plants and animals in a mineral soil and the decaying remains of plants and animals are features that distinguish the soil from its parent material. Plants generally supply the organic matter that gives color to the surface layer. In poorly drained and very poorly drained soils, thick layers of organic matter generally are on the surface.

Decaying plants and animals supply nutrients to the soil. Trees and other plants take up nutrients and store them in leaves, stems, and roots. When they die, the trees and other plants are acted on by bacteria or fungi, and thus the nutrients are returned to the soil. Fungi produce some of the organic acids in Adams, Becket, Hermon, Skerry, and other soils, especially where the soils have not been plowed.

Earthworms, insects, rodents, and other animals that live in the soil help to mix the soil layers. Earthworms help to aerate and granulate the soil and decompose organic matter.

Human activities also change the soil. Plowing mixes the layers in the soil. In some areas compact, impermeable layers have formed because of plowing or the use of machinery. Accelerated erosion in some cultivated areas has resulted in the loss of the original surface layer. Some soils have become less acid because lime and fertilizer have been applied for long periods. Where drainage systems have been installed, the soil has commonly become more aerated and warmer and the organic matter content in the surface layer has decreased.

Topography

The influence of topography on soil formation in the survey area is evident in areas where different soils formed in the same kind of parent material and under the same climatic conditions but where topography and drainage are different. Becket, Brayton, and Dixfield soils, for example, formed in compact glacial till. The poorly drained Brayton soils are in depressions and in areas on the lower parts of ridges where slopes are mainly concave. The moderately well drained Dixfield soils are in areas on the middle parts of ridges where slopes generally are slightly concave. The well drained Becket soils are in areas on the upper parts of ridges where slopes are mainly convex.

Time

The degree of horizon development, or maturity, in a soil commonly reflects the length of time that the parent material has been in place. In this survey area the formation of most soils in the uplands began with the retreat of the last glacier about 13,500 years ago.

Most of the soils on flood plains are continually being reworked and are therefore immature. They may have layers that are not well defined, their colors vary only slightly, and their structure is weak. Charles, Cornish, and Lovewell soils are examples.

Some soils show evidence of change and maturity, such as the formation of a distinct dark reddish brown layer. This layer indicates the accumulation of organic matter and of iron and aluminum oxides over a long period. Hermon soils have such a layer.

Physiography and Geology

By D. Bruce Champeon, geologist, Soil Conservation Service.

This section describes the physiographic sections in the survey area. It also describes the geology of the area.

Physiography

This survey area is in the New England physiographic province *(4)*. A line drawn from Stow through Lynchville, West Paris, and Canton separates the survey area into two sections within the province. The section to the south is the New England Uplands, and the section to the north is the White Mountains.

The New England Uplands are in areas of moderate relief where hills and low mountains have summit elevations ranging from a few hundred to about 2,000 feet. The White Mountains are in areas of high relief where hills and rugged mountains have summit elevations of 2,000 to 3,000 feet. The topography is mature, and the drainage pattern is well defined.

Bedrock Geology

The bedrock underlying the survey area has a long and complex history *(6)*. Muddy, sandy, and limy sediments and chemical precipitates were deposited in shallow, subsiding ocean basins, where they eventually hardened into sedimentary rocks, such as shale, siltstone, mudstone, various types of sandstone, and carbonate rocks. Some rocks formed from lava, fragments, and ash of volcanic origin. All of the rocks are about 500 million to 375 million years old, or of Middle Devonian to Late Cambrian age.

Determining the exact ages is difficult because the rocks were deformed, folded, and subject to extreme pressures and temperatures associated with episodes of mountain building, the most intense of which was the Acadian Revolution during the Early Devonian age. New rocks, such as slate, phyllite, schist, gneiss, quartzite, and granulite, formed. Many features of the original sedimentary rocks, including the animal fossils generally used for age determination, were destroyed during this recrystallization process, called metamorphism. The degree of metamorphism generally decreases northward within the survey area. Metamorphosed sedimentary rocks underlie most of the survey area. There are many other kinds of rocks in the area.

Rocks of volcanic origin are in the northern tip of the survey area and in the west-central part, northwest of Old Speck Mountain.

Molten rock was injected into the existing rocks at several different times in the region's geologic history. Ordovician granitic rocks of the Highlandcroft Plutonic Series are northwest of Mooselookmeguntic Lake. Devonian granitic gneiss of the Oliverian Plutonic Series is associated with the volcanic rocks northwest of Old Speck Mountain.

Rocks of the Devonian New Hampshire Plutonic Series are in several areas. Bodies of granodiorite are southwest of Brownfield and between Lower Richardson and Umbagog Lakes. Outcrops of granite and quartz monzonite of the Sebago Pluton are throughout the Brownfield-Oxford-Bethel area. Similar rocks are around West Kennebago Mountain and in the area between Mooselookmeguntic Lake and North Newry.

Surficial Geology

Over the few hundred million years since the formation of the bedrock in the survey area, the slow but persistent process of erosion has removed a great amount of rock *(9)*. The present landscape, however, is a result of the events of the Pleistocene, which began about 2 million years ago. Continental ice sheets advanced and retreated in the survey area probably as many as four times during that epoch, but the only remaining evidence is of the last major glaciation, known as the Wisconsinan Glaciation.

The Late Wisconsinan Laurentide Ice Sheet had spread southeast to its maximum extent on the continental shelf by about 18,000 years ago. As it advanced, the glacier ground up the rocks and soil underneath it and deposited this newly eroded material under the ice as a dense blanket of glacial till, a mixture of all sizes of rock fragments from clay-sized material to boulders. Becket, Marlow, and Dixfield are examples of soils that formed in this dense till.

During periods of glacial retreat, large quantities of meltwater carried sandy material and pebbles and eventually deposited them as kames, kame terraces, deltas, and eskers in contact with the remaining ice. In some areas sand was deposited in front of the ice margin as outwash plains. These types of deposits commonly supply large amounts of ground water to wells. Colton soils are examples of soils that formed in ice-contact deposits. Adams and Naumburg are examples of soils that formed in sandy material on outwash plains.

When the amount of meltwater decreased, some material in the ice remained to form a cover of till on some of the ridges and slopes in the uplands. The till was firm but was not dense. Hermon and Monadnock soils formed in this ablation till.

During the late stages of glaciation, many lakes, ponds, and marshes formed. Some are still evident, but many were filled with glaciolacustrine sediments or organic material. Roundabout soils formed in the lake sediments. Wonsqueak and Vassalboro soils formed in the organic material.

The processes of erosion, sedimentation, and landscape alteration are ongoing. Soils continue to form in the more recently deposited material, primarily on flood plains along rivers and streams. Ondawa, Podunk, and Medomak soils formed in this alluvial material.

Mineral Resources

Quarrying granitic rocks for building and decorative stone, monuments, and paving stone has largely ceased in the survey area *(7)*. Quarries are located in Bryant Pond, Oxford, and Fryeburg.

Silver, lead, gold, tin, and copper have been mined in small quantities in the survey area. Exploration for metallic minerals in the recent past has centered primarily on volcanic rocks, and, to a lesser extent, the larger bodies of igneous rocks.

Mining of the glacial ice-contact and outwash deposits for sand and gravel is of economic importance in the survey area. The sand and gravel are used in the construction industry.

Pegmatite is very coarse grained igneous rock that contains a wide variety of minerals. More than 75 pegmatite mines or prospective mines are in the central part of the survey area. Many of the mines have been of significant economic or strategic importance and have yielded some of the finest mineral specimens in the world. The area is well known to collectors.

Peat deposits are limited, but they may become sources of fuel or soil conditioners in the future.

Soil Survey Procedures

Prior to field mapping of this survey area, general field investigations were made to determine the patterns of landforms. Spot checks of various soils in the field were made. Where available, surficial and bedrock geology maps were used to correlate landforms and the individual soil sites.

Field mapping was done primarily by soil scientists making traverses on foot. The traverses were made at intervals of one-half mile or less, depending on the complexity of the topography and soil patterns. Broadly defined areas were traversed at intervals of one-half mile or more. Some areas of high variability are along streams and in river valleys.

Soil examinations along the traverses were made at intervals of 300 to 800 yards, depending on the landscape and the soil patterns. Broadly defined areas were examined at wider intervals. The soil material was examined with the aid of a shovel or bucket auger to a depth of about 5 feet or to bedrock or a hardpan within a depth of 5 feet. The pedons described as typical were observed and studied in pits. Some of these pedons were sampled for laboratory analysis.

All information about the soils was recorded on aerial photographs. These photographs were at a scale of 1:20,000. The final publication scale is also 1:20,000. Surface drainage features also were recorded on the aerial photographs. Cultural features are from U.S. Geological Survey 7.5- and 15-minute topographic maps.

References

(1) American Association of State Highway and Transportation Officials. 1986. Standard specifications for highway materials and methods of sampling and testing. Ed. 14, 2 vols.

(2) American Society for Testing and Materials. 1993. Standard classification of soils for engineering purposes. ASTM Stand. D 2487.

(3) Buol, Stanley W., Francis D. Hole, and Ralph J. McCracken. 1973. Soil genesis and classification.

(4) Fenneman, Nevin M. 1938. Physiography of the eastern United States.

(5) Maine Department of Agriculture, Food and Rural Resources. 1982. Maine agricultural statistics—1982.

(6) Osberg, Philip H., Arthur M. Hussey II, and Gary M. Boone, eds. 1985. Bedrock geologic map of Maine. Maine Geol. Surv., Dep. of Conserv.

(7) Rand, John R. 1957. Mineral resources of Maine, Bangor Sheet, M.R.R.M. 1. Maine Geol. Surv., Dep. of Econ. Dev.

(8) Rourke, Robert V., and D.C. Bull. 1982. Chemical and physical properties of the Becket, Colton, Finch, Lyman, Masardis, Naumburg, and Skerry soil mapping units. Univ. of Maine, Agric. Exp. Stn. Tech. Bull. 108.

(9) Thompson, Woodrow B., and Harold W. Borns, eds. 1985. Surficial geologic map of Maine. Maine Geol. Surv., Dep. of Conserv.

(10) United States Department of Agriculture. 1975. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Soil Conserv. Serv., U.S. Dep. Agric. Handb. 436.

(11) United States Department of Agriculture. 1993. Soil survey manual. U.S. Dep. Agric. Handb. 18.

Glossary

ABC soil. Soil having an A, a B, and a C horizon.

Ablation till. Loose, permeable till deposited during the final down-wasting of glacial ice. Lenses of crudely sorted sand and gravel are common.

AC soil. Soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep rocky slopes.

Aeration soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

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.

Association, soil. Normally, a group of soils 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.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, K), expressed as a percentage of the total cation-exchange capacity.

Bedding planes. Fine stratifications, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediments.

Bedding system. Drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on the contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Bottom land. The normal flood plain of a stream, subject to flooding.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Cement rock. Shaly limestone used in the manufacture of cement.

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 place is called a channer.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Claypan. A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.

Climax vegetation. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse fragments. If round, mineral or rock particles 2 millimeters to 25 centimeters (10 inches) in diameter; if flat, mineral or rock particles (flagstone) 15 to 38 centimeters (6 to 15 inches) long.

Coarse textured soil. Sand or loamy sand.

Cobblestone (or cobble). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Colluvium. Soil material, 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 constructing terraces, diversions, and other water-control measures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil 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 are somewhat similar in all areas.

Concretions. Grains, pellets, or nodules of various sizes, shapes, and colors consisting of concentrated compounds or cemented soil grains. The composition of most concretions is unlike that of the surrounding soil. Calcium carbonate and iron oxide are common compounds in concretions.

Congeliturbate. Soil material disturbed by frost action.

Conservation tillage. A tillage and planting system in which crop residue covers at least 30 percent of the surface after planting. Where wind erosion is the main concern, the system leaves the equivalent of at least 1,000 pounds per acre of flat small-grain residue on the surface during the critical erosion period.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are:

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—When wet, adheres to other material and tends to stretch somewhat and pull apart rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard; little affected by moistening.

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 to 80 inches.

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.

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.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

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 periods of saturation or partial saturation during soil formation, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized:

Excessively drained.—Water is removed from the soil very rapidly. Excessively drained soils are commonly very coarse textured, rocky, or shallow. Some are steep. All are free of the mottling related to wetness.

Somewhat excessively drained.—Water is removed from the soil rapidly. Many somewhat excessively drained soils are sandy and rapidly pervious. Some are shallow. Some are so steep that much of the water they receive is lost as runoff. All are free of the mottling related to wetness.

Well drained.—Water is removed from the soil readily, but not rapidly. It is available to plants throughout most of the growing season, and wetness does not inhibit growth of roots for significant periods during most growing seasons. Well drained soils are commonly medium textured. They are mainly free of mottling.

Moderately well drained.—Water is removed from the soil somewhat slowly during some periods. Moderately well drained soils are wet for only a short time during the growing season, but periodically they are wet long enough that most mesophytic crops are affected. They commonly have a slowly pervious layer within or directly below the solum or periodically receive high rainfall, or both.

Somewhat poorly drained.—Water is removed slowly enough that the soil is wet for significant periods during the growing season. Wetness markedly restricts the growth of mesophytic crops unless artificial drainage is provided. Somewhat poorly drained soils commonly have a slowly pervious layer, a high water table, additional water from seepage, nearly continuous rainfall, or a combination of these.

Poorly drained.—Water is removed so slowly that the soil is saturated periodically during the growing season or remains wet for long periods. Free water is commonly at or near the surface for long enough during the growing season that most mesophytic crops cannot be grown unless the soil is artificially drained. The soil is not continuously saturated in layers directly below plow depth. Poor drainage results from a high water table, a slowly pervious layer within the profile, seepage, nearly continuous rainfall, or a combination of these.

Very poorly drained.—Water is removed from the soil so slowly that free water remains at or on the surface during most of the growing season. Unless the soil is artificially drained, most mesophytic crops cannot be grown. Very poorly drained soils are commonly level or depressed and are frequently ponded. Yet, where rainfall is high and nearly continuous, they can have moderate or high slope gradients.

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.

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.

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, for example, fire, that exposes the surface.

Erosion pavement. A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.

Esker (geology). 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 is not a source of gravel or sand for construction purposes.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grains are grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

Fast intake (in tables). The rapid movement of water into the soil.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called normal field capacity, normal moisture capacity, or capillary capacity.

Fine textured soil. Sandy clay, silty clay, or clay.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

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.

Foot slope. The inclined surface at the base of a hill.

Forb. Any herbaceous plant not a grass or a sedge.

Fragile (in tables). A soil that is easily damaged by use or disturbance.

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 drift (geology). Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.

Glacial outwash (geology). Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till (geology). Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciofluvial deposits (geology). Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. 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 and mottles.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that is 15 to 50 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water (geology). Water filling all the unblocked pores of the material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric and the more decomposed sapric material.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. The major horizons 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, any plowed or disturbed surface layer.

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 O, A, or E horizon. The B horizon is in part a layer of transition from the overlying horizon 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) granular, 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 horizon. 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.—Hard, consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon but 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-producing characteristics. The chief consideration is the inherent capacity of soil bare of vegetation to permit infiltration. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff. Soils are assigned to four groups. In group A are soils having a high infiltration rate when thoroughly wet and having a low runoff potential. They are mainly deep, well drained, and sandy or gravelly. In group D, at the other extreme, are soils having a very slow infiltration rate and thus a high runoff potential. They have a claypan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other material. Some soils are assigned to two hydrologic groups.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Kame (geology). An irregular, short ridge or hill of stratified glacial drift.

Lacustrine deposit (geology). 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.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Low strength. The soil is not strong enough to support loads.

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. (See Conservation tillage.)

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.

Moraine (geology). 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. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent.* The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Muck. Dark colored, finely divided, well decomposed organic soil material. (See Sapric soil material.)

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value between 6.6 and 7.3. (See Reaction, soil.)

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.

Outwash plain. A landform of mainly sandy or coarse textured material of glaciofluvial origin. An outwash plain is commonly smooth; where pitted, it is generally 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 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 affecting the specified use.

Permeability. The quality of the soil that enables water to move downward through the profile. Permeability is measured as the number of inches per hour that water moves downward through the saturated soil. Terms describing permeability are:

Very slow	less than 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and thickness.

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.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range in 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 permeability, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Extremely acid	below 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
Mildly 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

Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose material above the solid rock.

Relief. The elevations or inequalities of a land surface, considered collectively.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

Rill. A steep-sided channel resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery.

Rippable. Bedrock or hardpan can be excavated using a single-tooth ripping attachment mounted on a tractor with a 200-300 drawbar horsepower rating.

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 (soil science). Unconsolidated residual material underlying the soil and grading to hard bedrock below.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables). The movement of water through the soil. Seepage adversely affects the specified use.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer or of the substratum. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock formed by the hardening of a clay deposit.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silica-sesquioxide ratio. The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperature, humid regions, and especially those in the tropics, generally have a low ratio.

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.

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 feet.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Sloughed till. Water-saturated till that has flowed slowly downhill from its original place of deposit by glacial ice. It may rest on other till, on glacial outwash, or on a glaciolacustrine deposit.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

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.

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 substratum. The living roots and plant and animal activities are largely confined to the solum.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediments of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stripcropping. Growing crops in a systematic arrangement of strips or bands which provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are: *platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Breaking up a compact subsoil by pulling a special chisel through the soil.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summer fallow. The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from about 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. It includes all subdivisions of these horizons.

Terminal moraine. A belt of thick glacial drift that generally marks the termination of important glacial advances.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet.

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.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Varve. A sedimentary layer of a lamina or sequence of laminae deposited in a body of still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1951-81 at Rumford, Maine)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January-----	27.1	6.0	16.6	52	-22	0	2.95	1.24	4.39	7	20.8
February----	30.3	7.8	19.1	51	-20	0	2.94	1.44	4.24	6	19.8
March-------	38.9	19.1	29.0	63	-9	12	3.36	1.73	4.78	7	15.4
April-------	51.7	30.3	41.0	78	11	85	3.52	2.34	4.59	8	6.7
May---------	65.3	40.7	53.0	90	26	408	3.58	1.95	5.01	8	.4
June--------	74.4	50.2	62.3	91	34	669	3.82	2.18	5.27	8	.0
July--------	79.2	55.3	67.3	93	41	846	3.90	2.41	5.23	8	.0
August------	76.7	53.1	64.9	91	39	772	3.71	2.25	5.00	7	.0
September---	68.4	45.4	56.9	88	28	507	3.64	1.92	5.14	7	.0
October-----	57.1	35.7	46.4	81	20	212	4.21	2.55	5.69	7	.8
November----	43.2	27.1	35.2	68	8	24	4.46	2.61	6.11	8	6.6
December----	30.3	12.4	21.4	54	-15	7	3.86	1.84	5.60	7	21.0
Yearly:											
Average---	53.6	31.9	42.8	---	---	---	---	---	---	---	---
Extreme---	---	---	---	94	-22	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,542	43.95	37.26	50.36	88	91.5

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

TABLE 2.--FREEZE DATES IN SPRING AND FALL

(Recorded in the period 1951-81 at Rumford, Maine)

Probability	Temperature: 24 °F or lower	Temperature: 28 °F or lower	Temperature: 32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 3	May 15	May 31
2 years in 10 later than--	Apr. 27	May 10	May 26
5 years in 10 later than--	Apr. 17	May 1	May 17
First freezing temperature in fall:			
1 year in 10 earlier than--	Oct. 9	Sept. 28	Sept. 13
2 years in 10 earlier than--	Oct. 14	Oct. 2	Sept. 18
5 years in 10 earlier than--	Oct. 23	Oct. 11	Sept. 26

TABLE 3.--GROWING SEASON

(Recorded in the period 1951-81 at Rumford, Maine)

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	167	142	110
8 years in 10	174	149	118
5 years in 10	188	163	131
2 years in 10	203	176	145
1 year in 10	210	183	152

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
AbE	Abram-Rock outcrop complex, 15 to 80 percent slopes	251	*
ACC	Abram-Rock outcrop-Lyman complex, rolling	987	0.1
ACE	Abram-Rock outcrop-Lyman complex, very hilly	13,050	1.4
AdA	Adams loamy sand, 0 to 3 percent slopes	4,229	0.5
AdB	Adams loamy sand, 3 to 8 percent slopes	12,880	1.4
AdC	Adams loamy sand, 8 to 15 percent slopes	5,756	0.6
AdD	Adams loamy sand, 15 to 25 percent slopes	3,848	0.4
AED	Adams loamy sand, moderately steep	3,317	0.4
AGC	Adams-Croghan association, strongly sloping	16,309	1.7
AHC	Adams-Hermon association, strongly sloping	5,360	0.6
AHD	Adams-Hermon association, moderately steep	4,153	0.4
BeB	Becket fine sandy loam, 3 to 8 percent slopes	2,199	0.2
BeC	Becket fine sandy loam, 8 to 15 percent slopes	2,626	0.3
BeD	Becket fine sandy loam, 15 to 25 percent slopes	974	0.1
BkB	Becket fine sandy loam, 3 to 8 percent slopes, very stony	474	0.1
BkC	Becket fine sandy loam, 8 to 15 percent slopes, very stony	1,400	0.1
BkD	Becket fine sandy loam, 15 to 35 percent slopes, very stony	1,642	0.2
Bp	Brayton-Peacham complex, very stony	1,347	0.1
BRB	Brayton-Peacham complex, gently sloping, very stony	27,941	3.0
Ca	Charles silt loam, occasionally flooded	947	0.1
Cb	Charles silt loam, frequently flooded	1,384	0.1
CeB	Colonel fine sandy loam, 3 to 8 percent slopes	3,119	0.3
CeC	Colonel fine sandy loam, 8 to 15 percent slopes	484	0.1
CfB	Colonel fine sandy loam, 3 to 8 percent slopes, very stony	16,406	1.8
CfC	Colonel fine sandy loam, 8 to 15 percent slopes, very stony	1,684	0.2
CgB	Colton gravelly loamy sand, 3 to 8 percent slopes	4,689	0.5
CgC	Colton gravelly loamy sand, 8 to 15 percent slopes	2,116	0.2
CgD	Colton gravelly loamy sand, 15 to 25 percent slopes	1,822	0.2
CHC	Colton-Adams association, strongly sloping	6,042	0.6
CHD	Colton-Adams association, moderately steep	1,768	0.2
Co	Cornish very fine sandy loam, occasionally flooded	2,741	0.3
Cp	Cornish very fine sandy loam, frequently flooded	1,050	0.1
CrA	Croghan loamy fine sand, 0 to 3 percent slopes	3,042	0.3
CrB	Croghan loamy fine sand, 3 to 8 percent slopes	4,841	0.5
DfB	Dixfield fine sandy loam, 3 to 8 percent slopes	406	*
DfC	Dixfield fine sandy loam, 8 to 15 percent slopes	537	0.1
DsB	Dixfield fine sandy loam, 3 to 8 percent slopes, very stony	504	0.1
DsC	Dixfield fine sandy loam, 8 to 20 percent slopes, very stony	965	0.1
DTC	Dixfield-Colonel association, strongly sloping	747	0.1
DUC	Dixfield-Colonel association, strongly sloping, very stony	10,528	1.1
DUD	Dixfield-Colonel association, moderately steep, very stony	5,911	0.6
DWC	Dixfield-Marlow association, strongly sloping	1,004	0.1
DXC	Dixfield-Marlow association, strongly sloping, very stony	4,138	0.4
DXD	Dixfield-Marlow association, moderately steep, very stony	25,180	2.7
Fr	Fryeburg very fine sandy loam	585	0.1
HeB	Hermon sandy loam, 3 to 8 percent slopes	1,273	0.1
HeC	Hermon sandy loam, 8 to 15 percent slopes	2,070	0.2
HeD	Hermon sandy loam, 15 to 25 percent slopes	783	0.1
HmB	Hermon sandy loam, 3 to 8 percent slopes, very stony	1,112	0.1
HmC	Hermon sandy loam, 8 to 15 percent slopes, very stony	5,739	0.6
HmD	Hermon sandy loam, 15 to 35 percent slopes, very stony	5,222	0.6
HsC	Hermon sandy loam, 0 to 15 percent slopes, extremely stony	377	*
HsD	Hermon sandy loam, 15 to 35 percent slopes, extremely stony	441	*
HTD	Hermon and Monadnock soils, moderately steep, very stony	92,739	9.9
HTE	Hermon and Monadnock soils, steep, very stony	25,337	2.7
HVC	Hermon-Skerry association, strongly sloping, very stony	35,819	3.8
Lo	Lovewell very fine sandy loam	1,287	0.1
LtB	Lyman-Tunbridge complex, 3 to 8 percent slopes, very stony	634	0.1
LtC	Lyman-Tunbridge complex, 8 to 15 percent slopes, very stony	2,672	0.3
LtD	Lyman-Tunbridge complex, 15 to 35 percent slopes, very stony	2,252	0.2
LUD	Lyman-Tunbridge-Becket complex, hilly, very stony	12,657	1.4
LUE	Lyman-Tunbridge-Becket complex, very hilly, very stony	4,249	0.5

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
LWC	Lyman-Tunbridge-Monadnock complex, rolling, very stony	18,830	2.0
LWD	Lyman-Tunbridge-Monadnock complex, hilly, very stony	57,588	6.2
LWE	Lyman-Tunbridge-Monadnock complex, very hilly, very stony	44,370	4.7
LXC	Lyman-Tunbridge-Skerry complex, rolling, very stony	9,396	1.0
MaB	Marlow fine sandy loam, 3 to 8 percent slopes	191	*
MaC	Marlow fine sandy loam, 8 to 15 percent slopes	510	0.1
MaD	Marlow fine sandy loam, 15 to 25 percent slopes	206	*
MeC	Marlow fine sandy loam, 3 to 15 percent slopes, very stony	184	*
MeD	Marlow fine sandy loam, 15 to 35 percent slopes, very stony	386	*
Mk	Medomak silt loam	4,057	0.4
ML	Medomak and Wonsqueak soils, frequently flooded	6,590	0.7
MnB	Monadnock fine sandy loam, 3 to 8 percent slopes	380	*
MnC	Monadnock fine sandy loam, 8 to 15 percent slopes	1,219	0.1
MnD	Monadnock fine sandy loam, 15 to 25 percent slopes	473	0.1
MvC	Monadnock fine sandy loam, 3 to 15 percent slopes, very stony	810	0.1
MvD	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony	1,132	0.1
MWC	Monadnock-Hermon-Skerry association, strongly sloping	2,187	0.2
MXC	Monadnock-Skerry association, strongly sloping, very stony	21,351	2.3
Nb	Naumburg loamy sand	7,832	0.8
NCB	Naumburg-Croghan association, gently sloping	11,759	1.3
NvB	Nicholville very fine sandy loam, 3 to 8 percent slopes	1,407	0.2
Od	Ondawa fine sandy loam, occasionally flooded	3,477	0.4
On	Ondawa fine sandy loam, frequently flooded	404	*
Pg	Pits, gravel	935	0.1
Ps	Pits, sand	347	*
Pt	Podunk fine sandy loam, occasionally flooded	4,416	0.5
Pw	Podunk fine sandy loam, frequently flooded	1,023	0.1
RCE	Ricker-Saddleback-Rock outcrop complex, very hilly	3,748	0.4
Rm	Riverwash	201	*
RNE	Rock outcrop-Ricker complex, very hilly	530	0.1
Ro	Roundabout silt loam	1,292	0.1
Ru	Rumney fine sandy loam, occasionally flooded	4,078	0.4
Ry	Rumney fine sandy loam, frequently flooded	7,502	0.8
RZ	Rumney-Podunk association, frequently flooded	9,024	1.0
SAD	Saddleback-Ricker complex, moderately steep	2,459	0.3
SAE	Saddleback-Ricker complex, steep	2,410	0.3
Se	Searsport muck	861	0.1
SkB	Skerry fine sandy loam, 3 to 8 percent slopes	9,106	1.0
SkC	Skerry fine sandy loam, 8 to 15 percent slopes	5,851	0.6
SnB	Skerry fine sandy loam, 3 to 8 percent slopes, very stony	9,004	1.0
SnC	Skerry fine sandy loam, 8 to 15 percent slopes, very stony	10,416	1.1
SnD	Skerry fine sandy loam, 15 to 25 percent slopes, very stony	2,776	0.3
SOC	Skerry-Becket association, strongly sloping	7,733	0.8
SOD	Skerry-Becket association, moderately steep	540	0.1
SRC	Skerry-Becket association, strongly sloping, very stony	18,461	2.0
SRD	Skerry-Becket association, moderately steep, very stony	33,347	3.6
SSC	Skerry-Colonel association, strongly sloping	5,090	0.5
STC	Skerry-Colonel association, strongly sloping, very stony	101,663	10.9
STD	Skerry-Colonel association, moderately steep, very stony	25,929	2.8
Su	Sunday loamy fine sand, occasionally flooded	995	0.1
Sy	Sunday loamy fine sand, frequently flooded	306	*
TyB	Tunbridge-Lyman complex, 3 to 8 percent slopes	869	0.1
TyC	Tunbridge-Lyman complex, 8 to 15 percent slopes	1,940	0.2
TyD	Tunbridge-Lyman complex, 15 to 35 percent slopes	859	0.1
UaC	Urban land-Adams complex, 0 to 15 percent slopes	372	*
UhC	Urban land-Hermon complex, 0 to 20 percent slopes	793	0.1
Va	Vassalboro mucky peat	3,715	0.4
Vb	Vassalboro mucky peat, ponded	2,238	0.2
VW	Vassalboro-Wonsqueak association	13,353	1.4
Wk	Wonsqueak mucky peat	3,065	0.3
WS	Wonsqueak and Searsport soils	5,050	0.5

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
	Water areas less than 40 acres in size	4,423	0.5
	Water areas more than 40 acres in size	27,368	2.9
	Total	934,873	100.0

* Less than 0.05 percent. The combined extent of the soils assigned an asterisk in the "Percent" column is about 0.4 percent of the survey area.

TABLE 5.--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
AdA	Adams loamy sand, 0 to 3 percent slopes (where irrigated)
AdB	Adams loamy sand, 3 to 8 percent slopes (where irrigated)
AGC	Adams-Croghan association, strongly sloping (where irrigated)*
AHC	Adams-Hermon association, strongly sloping (where irrigated)*
BeB	Becket fine sandy loam, 3 to 8 percent slopes
CeB	Colonel fine sandy loam, 3 to 8 percent slopes (where drained)
CgB	Colton gravelly loamy sand, 3 to 8 percent slopes (where irrigated)
CHC	Colton-Adams association, strongly sloping (where irrigated)*
Co	Cornish very fine sandy loam, occasionally flooded
CrA	Croghan loamy fine sand, 0 to 3 percent slopes (where irrigated)
CrB	Croghan loamy fine sand, 3 to 8 percent slopes (where irrigated)
DfB	Dixfield fine sandy loam, 3 to 8 percent slopes
Fr	Fryeburg very fine sandy loam
HeB	Hermon sandy loam, 3 to 8 percent slopes (where irrigated)
Lo	Lovewell very fine sandy loam
MaB	Marlow fine sandy loam, 3 to 8 percent slopes
MnB	Monadnock fine sandy loam, 3 to 8 percent slopes
Od	Ondawa fine sandy loam, occasionally flooded
On	Ondawa fine sandy loam, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
Pt	Podunk fine sandy loam, occasionally flooded
Pw	Podunk fine sandy loam, frequently flooded (where protected from flooding or not frequently flooded during the growing season)
SkB	Skerry fine sandy loam, 3 to 8 percent slopes
SOC	Skerry-Becket association, strongly sloping*
SSC	Skerry-Colonel association, strongly sloping (where the Colonel soil is drained)*
Su	Sunday loamy fine sand, occasionally flooded (where irrigated)
Sy	Sunday loamy fine sand, frequently flooded (where irrigated and either protected from flooding or not frequently flooded during the growing season)
TyB	Tunbridge-Lyman complex, 3 to 8 percent slopes (where the Lyman soil is irrigated)

* The steeper areas are not considered prime farmland.

TABLE 6.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE

(Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Soil name and map symbol	Land capability	Corn silage	Potatoes, Irish	Alfalfa hay	Grass legume hay	Grass hay	Pasture	Apples
		Tons	Cwt	Tons	Tons	Tons	AUM*	Bu
AbE**----------- Abram-Rock outcrop	VIIs	---	---	---	---	---	---	---
ACC, ACE. Abram-Rock outcrop-Lyman								
AdA, AdB-------- Adams	IIIs	16	---	---	4.0	---	4.5	---
AdC------------- Adams	IVe	16	---	---	4.0	---	4.5	---
AdD------------- Adams	VIe	---	---	---	---	---	---	---
AED. Adams								
AGC**. Adams-Croghan								
AHC**, AHD**. Adams-Hermon								
BeB------------- Becket	IIe	22	330	4.0	3.5	3.5	---	1,000
BeC------------- Becket	IIIe	20	300	4.0	3.5	3.5	---	1,000
BeD------------- Becket	IVe	18	---	3.5	3.0	3.0	---	700
BkB, BkC-------- Becket	VIs	---	---	---	---	---	---	---
BkD------------- Becket	VIIs	---	---	---	---	---	---	---
Bp-------------- Brayton-Peacham	VIIs	---	---	---	---	---	2.4	---
BRB**. Brayton-Peacham								
Ca, Cb---------- Charles	IVw	---	---	---	2.5	3.0	4.8	---
CeB------------- Colonel	IIIw	16	---	3.0	3.0	3.0	5.5	---
CeC------------- Colonel	IIIe	14	---	3.0	3.0	3.0	5.5	---

See footnotes at end of table.

TABLE 6.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Corn silage	Potatoes, Irish	Alfalfa hay	Grass legume hay	Grass hay	Pasture	Apples
		Tons	Cwt	Tons	Tons	Tons	AUM*	Bu
CfB, CfC-------- Colonel	VIs	---	---	---	---	---	---	---
CgB------------- Colton	IIIs	12	---	2.5	2.0	---	5.0	---
CgC------------- Colton	IVe	---	---	2.5	2.0	---	5.0	---
CgD------------- Colton	VIe	---	---	---	---	---	---	---
CHC**, CHD**. Colton-Adams								
Co, Cp---------- Cornish	IIIw	18	250	---	3.5	3.5	7.0	---
CrA, CrB-------- Croghan	IIw	14	---	3.0	3.0	---	5.5	---
DfB------------- Dixfield	IIw	20	270	4.0	4.0	4.0	8.0	600
DfC------------- Dixfield	IIIe	18	240	4.0	4.0	4.0	8.0	550
DsB, DsC-------- Dixfield	VIs	---	---	---	---	---	---	---
DTC**, DUC**, DUD**. Dixfield-Colonel								
DWC**, DXC**, DXD**. Dixfield-Marlow								
Fr-------------- Fryeburg	I	26	330	---	4.5	4.5	8.5	---
HeB------------- Hermon	IIs	16	270	4.0	3.0	3.0	5.7	650
HeC------------- Hermon	IIIe	14	240	4.0	3.0	3.0	5.7	650
HeD------------- Hermon	IVe	12	---	3.5	2.5	2.5	4.8	600
HmB, HmC, HmD--- Hermon	VIs	---	---	---	---	---	---	---
HsC, HsD-------- Hermon	VIIs	---	---	---	---	---	---	---
HTD, HTE. Hermon and Monadnock								

See footnotes at end of table.

TABLE 6.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Corn silage	Potatoes, Irish	Alfalfa hay	Grass legume hay	Grass hay	Pasture	Apples
		Tons	Cwt	Tons	Tons	Tons	AUM*	Bu
HVC**. Hermon-Skerry								
Lo-------------- Lovewell	IIw	25	310	---	4.5	4.5	8.5	---
LtB, LtC-------- Lyman-Tunbridge	VIs	---	---	---	---	---	---	---
LtD------------- Lyman-Tunbridge	VIIs	---	---	---	---	---	---	---
LUD, LUE. Lyman-Tunbridge-Becket								
LWC, LWD, LWE. Lyman-Tunbridge-Monadnock								
LXC. Lyman-Tunbridge-Skerry								
MaB------------- Marlow	IIe	22	330	4.5	4.0	4.0	---	1,000
MaC------------- Marlow	IIIe	20	300	4.5	4.0	4.0	---	1,000
MaD------------- Marlow	IVe	18	---	4.0	3.5	3.5	---	700
MeC, MeD-------- Marlow	VIs	---	---	---	---	---	---	---
Mk-------------- Medomak	VIw	---	---	---	---	---	---	---
ML. Medomak and Wonsqueak								
MnB------------- Monadnock	IIe	18	---	4.0	4.0	3.5	---	700
MnC------------- Monadnock	IIIe	16	---	4.0	3.5	3.0	---	700
MnD------------- Monadnock	IVe	14	---	3.5	3.0	2.5	---	650
MvC------------- Monadnock	VIs	---	---	---	---	---	---	---
MvD------------- Monadnock	VIIs	---	---	---	---	---	---	---

See footnotes at end of table.

TABLE 6.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Corn silage	Potatoes, Irish	Alfalfa hay	Grass legume hay	Grass hay	Pasture	Apples
		Tons	Cwt	Tons	Tons	Tons	AUM*	Bu
MWC**. Monadnock-Hermon-Skerry								
MXC**. Monadnock-Skerry								
Nb------------- Naumburg	IVw	---	---	---	---	---	---	---
NCB**. Naumburg-Croghan								
NvB------------ Nicholville	IIe	20	270	4.5	4.0	---	7.5	---
Od, On--------- Ondawa	I	26	330	4.5	4.0	---	7.6	---
Pg**, Ps**. Pits								
Pt, Pw--------- Podunk	IIw	24	300	4.0	4.5	4.5	8.5	---
RCE**. Ricker-Saddleback-Rock outcrop								
Rm**. Riverwash								
RNE. Rock outcrop-Ricker								
Ro------------- Roundabout	IVw	---	---	---	---	3.5	5.5	---
Ru, Ry--------- Rumney	IVw	---	---	---	2.5	3.0	4.8	---
RZ**. Rumney-Podunk								
SAD, SAE. Saddleback-Ricker								
Se------------- Searsport	Vw	---	---	---	---	---	---	---
SkB------------ Skerry	IIe	18	---	3.5	4.0	4.0	---	600
SkC------------ Skerry	IIIe	16	---	3.5	4.0	4.0	---	550

See footnotes at end of table.

TABLE 6.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Land capability	Corn silage	Potatoes, Irish	Alfalfa hay	Grass legume hay	Grass hay	Pasture	Apples
		Tons	Cwt	Tons	Tons	Tons	AUM*	Bu
SnB, SnC, SnD--- Skerry	VIs	---	---	---	---	---	---	---
SOC**, SOD**, SRC**, SRD**. Skerry-Becket								
SSC**, STC**, STD**. Skerry-Colonel								
Su, Sy---------- Sunday	IIIs	12	230	2.5	---	2.0	3.6	---
TyB------------- Tunbridge-Lyman	IIIe	18	---	---	3.2	3.0	---	550
TyC------------- Tunbridge-Lyman	IVe	16	---	---	3.2	3.0	---	550
TyD------------- Tunbridge-Lyman	VIIe	---	---	---	2.7	---	---	500
UaC. Urban land- Adams								
UhC. Urban land- Hermon								
Va, Vb---------- Vassalboro	VIIIw	---	---	---	---	---	---	---
VW**. Vassalboro- Wonsqueak								
Wk-------------- Wonsqueak	VIIw	---	---	---	---	---	---	---
WS. Wonsqueak and Searsport								

* Animal unit month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY

(Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available)

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
AbE**:										
Abram	5R	Severe	Severe	Severe	Severe	Slight	Eastern white pine	48	5	Jack pine.
							Jack pine	---	--	
							Red spruce	34	4	
							White spruce	37	5	
							Balsam fir	33	4	
							Paper birch	40	3	
							Gray birch	---	--	
							Eastern hemlock	---	--	
							Scarlet oak	40	2	
							Eastern hophornbeam	---	--	
Rock outcrop.										
ACC**:										
Abram	5D	Slight	Slight	Severe	Severe	Slight	Eastern white pine	48	5	Jack pine.
							Jack pine	---	--	
							Red spruce	34	4	
							White spruce	37	5	
							Balsam fir	33	4	
							Paper birch	40	3	
							Gray birch	---	--	
							Eastern hemlock	---	--	
							Scarlet oak	40	2	
							Eastern hophornbeam	---	--	
Rock outcrop.										
Lyman	7D	Slight	Slight	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
ACE**:										
Abram	5R	Severe	Severe	Severe	Severe	Slight	Eastern white pine	48	5	Jack pine.
							Jack pine	---	--	
							Red spruce	34	4	
							White spruce	37	5	
							Balsam fir	33	4	
							Paper birch	40	3	
							Gray birch	---	--	
							Eastern hemlock	---	--	
							Scarlet oak	40	2	
							Eastern hophornbeam	---	--	
Rock outcrop.										
Lyman	7R	Severe	Severe	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	9	
							White Spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	
AdA, AdB, AdC Adams	8S	Slight	Slight	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
AdD, AED Adams	8S	Moderate	Moderate	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
AGC**:										
Adams	8S	Slight	Slight	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
Croghan	10S	Slight	Slight	Moderate	Slight	--------	Eastern white pine	65	10	Eastern white pine, European larch, Norway spruce.
							Sugar maple	55	2	
							Red maple	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
AHC**:										
Adams	8S	Slight	Slight	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	7	
							Sugar maple	55	2	
AHD**:										
Adams	8S	Moderate	Moderate	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
Hermon	7R	Moderate	Moderate	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	7	
							Sugar maple	55	2	
BeB, BeC: Becket	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	69	9	Eastern white pine, white spruce.
							Balsam fir	55	8	
							White spruce	55	9	
							Sugar maple	60	3	
							Paper birch	71	6	
BeD: Becket	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	69	9	Eastern white pine, white spruce.
							Balsam fir	55	8	
							White spruce	55	9	
							Sugar maple	60	3	
							Paper birch	71	6	
BkB, BkC: Becket	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	69	9	Eastern white pine, white spruce.
							Balsam fir	55	8	
							White spruce	55	9	
							Sugar maple	60	3	
							Paper birch	71	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns					Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Productivity class*	
BkD---------------- Becket	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	69	9	Eastern white pine, white spruce.
							Balsam fir----------	55	8	
							White spruce--------	55	9	
							Sugar maple---------	60	3	
							Paper birch---------	71	6	
Bp**, BRB**: Brayton-----------	8W	Slight	Severe	Moderate	Severe	Severe	Eastern white pine--	67	8	Red spruce, black spruce, tamarack.
							Red spruce----------	50	8	
							White spruce--------	48	7	
							Black spruce--------	---	--	
							Balsam fir----------	68	9	
							Red maple-----------	65	3	
							Paper birch---------	60	4	
							Tamarack------------	60	--	
Peacham-----------	3W	Slight	Severe	Severe	Severe	Severe	Red maple-----------	60	3	---
							Eastern white pine--	---	--	
							European alder------	---	--	
							Red spruce----------	---	--	
							Northern whitecedar-	---	--	
							Black spruce--------	---	--	
							Tamarack------------	---	--	
Ca, Cb------------ Charles	7W	Slight	Severe	Moderate	Moderate	Severe	Eastern white pine--	60	7	Red spruce, black spruce, European larch.
							Balsam fir----------	50	7	
							Red spruce----------	40	6	
							Black spruce--------	50	3	
							Tamarack------------	---	--	
							Red maple-----------	55	2	
CeB, CeC, CfB, CfC- Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine--	64	8	Eastern white pine, black spruce, European larch.
							Red maple-----------	64	3	
							Paper birch---------	55	4	
							Red spruce----------	45	7	
							Balsam fir----------	54	7	
CgB, CgC---------- Colton	7S	Slight	Slight	Severe	Slight	--------	Eastern white pine--	58	7	Eastern white pine, red pine, European larch.
							Sugar maple---------	61	3	
							Red spruce----------	39	6	
							Red pine------------	52	6	
							White spruce--------	52	8	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
CgD: Colton	7S	Moderate	Moderate	Severe	Slight	--------	Eastern white pine	58	7	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red spruce	39	6	
							Red pine	52	6	
							White spruce	52	8	
CHC**:										
Colton	7S	Slight	Slight	Severe	Slight	--------	Eastern white pine	58	7	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red spruce	39	6	
							Red pine	52	6	
							White spruce	52	8	
Adams	8S	Slight	Slight	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
CHD**:										
Colton	7S	Moderate	Moderate	Severe	Slight	--------	Eastern white pine	58	7	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red spruce	39	6	
							Red pine	52	6	
							White spruce	52	8	
Adams	8S	Moderate	Moderate	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
Co: Cornish	8W	Slight	Moderate	Slight	Moderate	Moderate	Eastern white pine	65	8	Red spruce, black spruce, European larch.
							Balsam fir	55	8	
							Red spruce	45	7	
							Red maple	57	2	
							American elm	---	--	
							Gray birch	---	--	
Cp: Cornish	8W	Slight	Moderate	Severe	Moderate	Moderate	Eastern white pine	65	8	Red spruce, black spruce, European larch.
							Balsam fir	55	8	
							Red spruce	45	7	
							Red maple	57	2	
							American elm	---	--	
							Gray birch	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
CrA, CrB: Croghan	10S	Slight	Slight	Moderate	Slight	--------	Eastern white pine	65	10	Eastern white pine, European larch, Norway spruce.
							Sugar maple	55	2	
							Red maple	---	--	
DfB, DfC: Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							White spruce	64	10	
							Balsam fir	64	9	
DsB, DsC: Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							Balsam fir	64	9	
DTC**:										
Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							White spruce	64	10	
							Balsam fir	64	9	
Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine	64	8	Eastern white pine, black spruce, European larch.
							Red maple	64	3	
							Paper birch	55	4	
							Red spruce	45	7	
							Balsam fir	54	7	
DUC**:										
Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							Balsam fir	64	9	
Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine	64	8	Eastern white pine, black spruce, European larch.
							Red maple	64	3	
							Paper birch	55	4	
							Red spruce	45	7	
							Balsam fir	54	7	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
DUD**:										
Dixfield	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							Balsam fir	64	9	
Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine	64	8	Eastern white pine, black spruce, European larch.
							Red maple	64	3	
							Paper birch	55	4	
							Red spruce	45	7	
							Balsam fir	54	7	
DWC**:										
Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							White spruce	64	10	
							Balsam fir	64	9	
Marlow	8A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir	58	8	
							Red spruce	48	7	
							Sugar maple	60	3	
							Red pine	65	8	
							Yellow birch	60	3	
							Paper birch	65	5	
							White spruce	60	10	
							White ash	67	3	
							American beech	60	3	
							Northern red oak	67	3	
							American basswood	56	2	
DXC**:										
Dixfield	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							Balsam fir	64	9	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
DXC**:										
Marlow	8A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir	58	8	
							Red spruce	48	7	
							Sugar maple	60	3	
							Red pine	65	8	
							Yellow birch	60	3	
							Paper birch	65	5	
							White spruce	60	10	
							White ash	67	3	
							American beech	60	3	
							Northern red oak	67	3	
							American basswood	56	2	
DXD**:										
Dixfield	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	70	9	Eastern white pine, European larch, black spruce.
							Sugar maple	62	3	
							Paper birch	62	5	
							Red spruce	54	8	
							Balsam fir	64	9	
Marlow	8R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir	58	8	
							Red spruce	48	7	
							Sugar maple	60	3	
							Red pine	65	8	
							Yellow birch	60	3	
							Paper birch	65	5	
							White spruce	60	10	
							White ash	67	3	
							American beech	60	3	
							Northern red oak	67	3	
							American basswood	56	2	
Fr: Fryeburg	10A	Slight	Slight	Slight	Slight	Slight	Eastern white pine	75	10	Eastern white pine, red spruce, white spruce, European larch.
							Balsam fir	65	9	
							Red spruce	55	9	
							White spruce	65	10	
							Red maple	62	3	
							American elm	---	--	
							Northern red oak	---	--	
							Gray birch	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
HeB, HeC----------- Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HeD---------------- Hermon	7R	Moderate	Moderate	Moderate	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HmB, HmC----------- Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HmD---------------- Hermon	7R	Moderate	Moderate	Moderate	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HsC---------------- Hermon	7X	Slight	Moderate	Severe	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HsD---------------- Hermon	7R	Moderate	Moderate	Severe	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
HTD**:										
Hermon------------	7R	Moderate	Moderate	Moderate	Slight	Slight	Eastern white pine--	59	7	Eastern white pine, red pine, European larch.
							White spruce--------	45	7	
							Red spruce----------	46	7	
							Red pine------------	59	7	
							Sugar maple---------	55	2	
Monadnock---------	8R	Moderate	Moderate	Slight	Slight	Moderate	Eastern white pine--	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak----	55	3	
							Red pine------------	60	7	
							White spruce--------	55	9	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns					Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Productivity class*	
HTE**:										
Hermon	7R	Severe	Severe	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	7	
							Sugar maple	55	2	
Monadnock	8R	Severe	Severe	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
HVC**:										
Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	7	
							Sugar maple	55	2	
Skerry	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	
Lo Lovewell	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	75	10	Eastern white pine, red spruce, white spruce, European larch.
							Balsam fir	65	9	
							Red spruce	55	9	
							White spruce	65	10	
							Red maple	62	3	
							American elm	---	--	
LtB**, LtC**:										
Lyman	7D	Slight	Slight	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	
Tunbridge	8A	Slight	Slight	Slight	Moderate	Slight	Eastern white pine	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple	60	3	
							Northern red oak	---	--	
							Red spruce	50	8	
							Yellow birch	55	2	
							Paper birch	---	--	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
LtD**:										
Lyman-------------	7D	Moderate	Moderate	Moderate	Severe	Moderate	Eastern white pine--	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple---------	50	2	
							White spruce--------	55	9	
							Balsam fir----------	60	8	
							Red spruce----------	40	6	
Tunbridge---------	8R	Moderate	Moderate	Slight	Moderate	Slight	Eastern white pine--	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple---------	60	3	
							Northern red oak----	---	--	
							Red spruce----------	50	8	
							Yellow birch--------	55	2	
							Paper birch---------	---	--	
							White spruce--------	55	9	
							Balsam fir----------	---	--	
							White ash-----------	65	3	
LUD**:										
Lyman-------------	7D	Moderate	Moderate	Moderate	Severe	Moderate	Eastern white pine--	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple---------	50	2	
							White spruce--------	55	9	
							Balsam fir----------	60	8	
							Red spruce----------	40	6	
Tunbridge---------	8R	Moderate	Moderate	Slight	Moderate	Slight	Eastern white pine--	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple---------	60	3	
							Northern red oak----	---	--	
							Red spruce----------	50	8	
							Yellow birch--------	55	2	
							Paper birch---------	---	--	
							White spruce--------	55	9	
							Balsam fir----------	---	--	
							White ash-----------	65	3	
Becket------------	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	69	9	Eastern white pine, white spruce.
							Balsam fir----------	55	8	
							White spruce--------	55	9	
							Sugar maple---------	60	3	
							Paper birch---------	71	6	
LUE**:										
Lyman-------------	7R	Severe	Severe	Moderate	Severe	Moderate	Eastern white pine--	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple---------	50	2	
							White spruce--------	55	9	
							Balsam fir----------	60	8	
							Red spruce----------	40	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
LUE**:										
Tunbridge	8R	Severe	Severe	Slight	Moderate	Slight	Eastern white pine	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple	60	3	
							Northern red oak	---	--	
							Red spruce	50	8	
							Yellow birch	55	2	
							Paper birch	---	--	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Becket	9R	Severe	Severe	Slight	Moderate	Moderate	Eastern white pine	69	9	Eastern white pine, white spruce.
							Balsam fir	55	8	
							White spruce	55	9	
							Sugar maple	60	3	
							Paper birch	71	6	
LWC**:										
Lyman	7D	Slight	Slight	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	
Tunbridge	8A	Slight	Slight	Slight	Moderate	Slight	Eastern white pine	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple	60	3	
							Northern red oak	---	--	
							Red spruce	50	8	
							Yellow birch	55	2	
							Paper birch	---	--	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Monadnock	8A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
LWD**:										
Lyman	7D	Moderate	Moderate	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
LWD**:										
Tunbridge	8R	Moderate	Moderate	Slight	Moderate	Slight	Eastern white pine	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple	60	3	
							Northern red oak	---	--	
							Red spruce	50	8	
							Yellow birch	55	2	
							Paper birch	---	--	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Monadnock	8R	Moderate	Moderate	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
LWE**:										
Lyman	7R	Severe	Severe	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	
Tunbridge	8R	Severe	Severe	Slight	Moderate	Slight	Eastern white pine	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple	60	3	
							Northern red oak	---	--	
							Red spruce	50	8	
							Yellow birch	55	2	
							Paper birch	---	--	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Monadnock	8R	Severe	Severe	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
LXC**:										
Lyman	7D	Slight	Slight	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine, red pine.
							Sugar maple	50	2	
							White spruce	55	9	
							Balsam fir	60	8	
							Red spruce	40	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
LXC**:										
Tunbridge----------	8A	Slight	Slight	Slight	Moderate	Slight	Eastern white pine--	68	8	Eastern white pine, red spruce, white spruce, balsam fir.
							Sugar maple---------	60	3	
							Northern red oak----	---	--	
							Red spruce----------	50	8	
							Yellow birch--------	55	2	
							Paper birch---------	---	--	
							White spruce--------	55	9	
							Balsam fir----------	---	--	
							White ash-----------	65	3	
Skerry------------	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
MaB, MaC----------- Marlow	8A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir----------	58	8	
							Red spruce----------	48	7	
							Sugar maple---------	60	3	
							Red pine------------	65	8	
							Yellow birch--------	60	3	
							Paper birch---------	65	5	
							White spruce--------	60	10	
							White ash-----------	67	3	
							American beech------	60	3	
							Northern red oak----	67	3	
							American basswood---	56	2	
MaD---------------- Marlow	8R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir----------	58	8	
							Red spruce----------	48	7	
							Sugar maple---------	60	3	
							Red pine------------	65	8	
							Yellow birch--------	60	3	
							Paper birch---------	65	5	
							White spruce--------	60	10	
							White ash-----------	67	3	
							American beech------	60	3	
							Northern red oak----	67	3	
							American basswood---	56	2	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
MeC: Marlow	8A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir	58	8	
							Red spruce	48	7	
							Sugar maple	60	3	
							Red pine	65	8	
							Yellow birch	60	3	
							Paper birch	65	5	
							White spruce	60	10	
							White ash	67	3	
							American beech	60	3	
							Northern red oak	67	3	
							American basswood	56	2	
MeD: Marlow	8R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	66	8	Eastern white pine, white spruce, red pine.
							Balsam fir	58	8	
							Red spruce	48	7	
							Sugar maple	60	3	
							Red pine	65	8	
							Yellow birch	60	3	
							Paper birch	65	5	
							White spruce	60	10	
							White ash	67	3	
							American beech	60	3	
							Northern red oak	67	3	
							American basswood	56	2	
Mk: Medomak	6W	Slight	Severe	Severe	Severe	Severe	Eastern white pine	55	6	Black spruce.
							Tamarack	---	--	
							Black spruce	---	--	
							Red maple	47	2	
							Gray birch	---	--	
ML**:										
Medomak	6W	Slight	Severe	Severe	Severe	Severe	Eastern white pine	55	6	Black spruce.
							Tamarack	---	--	
							Black spruce	---	--	
							Red maple	47	2	
							Gray birch	---	--	
Wonsqueak	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	20	2	---
							Tamarack	---	--	
							Northern whitecedar	---	--	
							Balsam fir	---	--	
							Balsam poplar	---	--	
							Quaking aspen	---	--	
							Red maple	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
MnB, MnC: Monadnock	8A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
MnD: Monadnock	8R	Moderate	Moderate	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
MvC: Monadnock	8A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
MvD: Monadnock	8R	Moderate	Moderate	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
MWC**:										
Monadnock	8A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	7	
							Sugar maple	55	2	
Skerry	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	
MXC**:										
Monadnock	8A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine	63	8	Eastern white pine, red pine, white spruce.
							Northern red oak	55	3	
							Red pine	60	7	
							White spruce	55	9	
Skerry	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
Nb----------------- Naumburg	7W	Slight	Moderate	Severe	Moderate	--------	Eastern white pine--	60	7	Eastern white pine, Norway spruce, white spruce.
							Sugar maple---------	55	2	
							Eastern hemlock-----	---	--	
							Red maple-----------	60	3	
							Paper birch---------	---	--	
							Black ash-----------	---	--	
							Green ash-----------	---	--	
							American elm--------	---	--	
							Yellow birch--------	---	--	
							White spruce--------	50	8	
NCB**:										
Naumburg----------	7W	Slight	Moderate	Severe	Moderate	--------	Eastern white pine--	60	7	Eastern white pine, Norway spruce, white spruce.
							Sugar maple---------	55	2	
							Eastern hemlock-----	---	--	
							Red maple-----------	60	3	
							Paper birch---------	---	--	
							Black ash-----------	---	--	
							Green ash-----------	---	--	
							American elm--------	---	--	
							Yellow birch--------	---	--	
							White spruce--------	50	8	
Croghan-----------	10S	Slight	Slight	Moderate	Slight	--------	Eastern white pine--	65	10	Eastern white pine, European larch, Norway spruce.
							Sugar maple---------	55	2	
							Red maple-----------	---	--	
NvB---------------- Nicholville	10A	Slight	Slight	Slight	Slight	--------	Eastern white pine--	75	10	Norway spruce, eastern white pine, European larch, white spruce.
							Sugar maple---------	65	3	
							Northern red oak----	70	4	
Od----------------- Ondawa	7A	Slight	Slight	Slight	Slight	Slight	Eastern white pine--	57	7	Eastern white pine, white spruce, red pine.
							Northern red oak----	60	3	
							Red pine------------	65	8	
							Red spruce----------	45	7	
							Sugar maple---------	55	2	
On----------------- Ondawa	7A	Slight	Slight	Severe	Slight	Slight	Eastern white pine--	57	7	Eastern white pine, white spruce, red pine.
							Northern red oak----	60	3	
							Red pine------------	65	8	
							Red spruce----------	45	7	
							Sugar maple---------	55	2	
Pt----------------- Podunk	9A	Slight	Slight	Slight	Slight	Moderate	Eastern white pine--	74	9	Eastern white pine, red pine, white spruce.
							Red pine------------	75	10	
							Red spruce----------	45	7	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
Pw----------------- Podunk	9A	Slight	Slight	Severe	Slight	Moderate	Eastern white pine--	74	9	Eastern white pine, red pine, white spruce.
							Red pine------------	75	10	
							Red spruce----------	45	7	
RCE**:										
Ricker------------	4R	Severe	Severe	Severe	Severe	--------	Balsam fir----------	20	4	---
							Red spruce----------	20	2	
							Yellow birch--------	---	--	
							Paper birch---------	---	--	
							Mountainash---------	---	--	
Saddleback--------	4R	Severe	Severe	Moderate	Severe	Moderate	Balsam fir----------	36	4	Red spruce, white spruce.
							Red spruce----------	35	5	
							Paper birch---------	45	3	
							Yellow birch--------	45	2	
							Mountain maple------	---	--	
							Striped maple-------	---	--	
							Mountainash---------	---	--	
Rock outcrop.										
RNE**:										
Rock outcrop.										
Ricker------------	4R	Severe	Severe	Severe	Severe	--------	Balsam fir----------	20	4	---
							Red spruce----------	20	2	
							Yellow birch--------	---	--	
							Paper birch---------	---	--	
							Mountainash---------	---	--	
Ro----------------- Roundabout	9W	Slight	Severe	Moderate	Severe	Severe	Eastern white pine--	70	9	Eastern white pine, balsam fir, white spruce, European larch.
							Balsam fir----------	55	8	
							Red spruce----------	45	7	
							Red maple-----------	55	2	
							Gray birch----------	---	9	
							White spruce--------	55	9	
							Hemlock-------------	---	--	
							Tamarack------------	---	--	
Ru----------------- Rumney	7W	Slight	Severe	Moderate	Severe	Severe	Eastern white pine--	56	7	Eastern white pine, white spruce, northern whitecedar.
							Red maple-----------	65	3	
							Red spruce----------	45	7	
Ry----------------- Rumney	7W	Slight	Severe	Severe	Severe	Severe	Eastern white pine--	56	7	Eastern white pine, white spruce, northern whitecedar.
							Red maple-----------	65	3	
							Red spruce----------	45	7	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
RZ**:										
Rumney	7W	Slight	Severe	Severe	Severe	Severe	Eastern white pine	56	7	Eastern white pine, white spruce, northern whitecedar.
							Red maple	65	3	
							Red spruce	45	7	
Podunk	9A	Slight	Slight	Severe	Slight	Moderate	Eastern white pine	74	9	Eastern white pine, red pine, white spruce.
							Red pine	75	10	
							Red spruce	45	7	
SAD**:										
Saddleback	4R	Moderate	Moderate	Moderate	Severe	Moderate	Balsam fir	36	4	Red spruce, white spruce.
							Red spruce	35	5	
							Paper birch	45	3	
							Yellow birch	45	2	
							Mountain maple	---	--	
							Striped maple	---	--	
							Mountainash	---	--	
Ricker	4D	Moderate	Moderate	Moderate	Severe	--------	Balsam fir	20	4	---
							Red spruce	20	2	
							Yellow birch	---	--	
							Paper birch	---	--	
							Mountainash	---	--	
SAE**:										
Saddleback	4R	Severe	Severe	Moderate	Severe	Moderate	Balsam fir	36	4	Red spruce, white spruce.
							Red spruce	35	5	
							Paper birch	45	3	
							Yellow birch	45	2	
							Mountain maple	---	--	
							Striped maple	---	--	
							Mountainash	---	--	
Ricker	4R	Severe	Severe	Severe	Severe	--------	Balsam fir	20	4	---
							Red spruce	20	2	
							Yellow birch	---	--	
							Paper birch	---	--	
							Mountainash	---	--	
Se Searsport	6W	Slight	Severe	Severe	Severe	Severe	Eastern white pine	55	6	Northern whitecedar, European larch.
							Red maple	55	2	
							Northern whitecedar	45	5	
							Black spruce	---	--	
							Balsam fir	53	7	
							European larch	---	--	
							Tamarack	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
SkB, SkC, SnB, SnC-- Skerry	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
SnD---------------- Skerry	10R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
SOC**:										
Skerry------------	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
Becket------------	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	69	9	Eastern white pine, white spruce.
							Balsam fir----------	55	8	
							White spruce--------	55	9	
							Sugar maple---------	60	3	
							Paper birch---------	71	6	
SOD**:										
Skerry------------	10R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
Becket------------	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine--	69	9	Eastern white pine, white spruce.
							Balsam fir----------	55	8	
							White spruce--------	55	9	
							Sugar maple---------	60	3	
							Paper birch---------	71	6	
SRC**:										
Skerry------------	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	80	10	Eastern white pine, white spruce.
							Sugar maple---------	60	3	
							White spruce--------	60	10	
							Balsam fir----------	57	8	
Becket------------	9A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine--	69	9	Eastern white pine, white spruce.
							Balsam fir----------	55	8	
							White spruce--------	55	9	
							Sugar maple---------	60	3	
							Paper birch---------	71	6	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
SRD**:										
Skerry	10R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	
Becket	9R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	69	9	Eastern white pine, white spruce.
							Balsam fir	55	8	
							White spruce	55	9	
							Sugar maple	60	3	
							Paper birch	71	6	
SSC**, STC**:										
Skerry	10A	Slight	Slight	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	
Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine	64	8	Eastern white pine, black spruce, European larch.
							Red maple	64	3	
							Paper birch	55	4	
							Red spruce	45	7	
							Balsam fir	54	7	
STD**:										
Skerry	10R	Moderate	Moderate	Slight	Moderate	Moderate	Eastern white pine	80	10	Eastern white pine, white spruce.
							Sugar maple	60	3	
							White spruce	60	10	
							Balsam fir	57	8	
Colonel	8W	Slight	Moderate	Slight	Severe	Severe	Eastern white pine	64	8	Eastern white pine, black spruce, European larch.
							Red maple	64	3	
							Paper birch	55	4	
							Red spruce	45	7	
							Balsam fir	54	7	
Su, Sy Sunday	6S	Slight	Slight	Severe	Slight	Slight	Eastern white pine	55	6	Eastern white pine, red pine, European larch.
							Red maple	---	--	
							Northern red oak	50	2	
							Balsam poplar	55	--	
							Sugar maple	48	2	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Management concerns: Equipment limitation	Management concerns: Seedling mortality	Management concerns: Windthrow hazard	Management concerns: Plant competition	Potential productivity: Common trees	Potential productivity: Site index	Potential productivity: Productivity class*	Trees to plant
TyB**, TyC**:										
Tunbridge	8A	Slight	Slight	Slight	Moderate	Slight	Eastern white pine	65	8	Eastern white pine, red spruce, white spruce, balsam fir, Norway spruce.
							Sugar maple	60	3	
							Northern red oak	68	4	
							Red spruce	45	7	
							Yellow birch	60	3	
							Paper birch	78	3	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Lyman	7D	Slight	Slight	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine.
							Sugar maple	---	--	
							White spruce	55	9	
							Balsam fir	48	8	
							Red spruce	42	6	
							Northern red oak	54	3	
							Paper birch	---	--	
							Eastern hemlock	---	--	
							American beech	---	--	
TyD**:										
Tunbridge	8R	Moderate	Moderate	Slight	Moderate	Slight	Eastern white pine	65	8	Eastern white pine, red spruce, white spruce, balsam fir, Norway spruce.
							Sugar maple	60	3	
							Northern red oak	68	4	
							Red spruce	45	7	
							Yellow birch	60	3	
							Paper birch	78	3	
							White spruce	55	9	
							Balsam fir	---	--	
							White ash	65	3	
Lyman	7D	Moderate	Moderate	Moderate	Severe	Moderate	Eastern white pine	58	7	White spruce, balsam fir, eastern white pine.
							Sugar maple	---	--	
							White spruce	55	9	
							Balsam fir	48	8	
							Red spruce	42	6	
							Northern red oak	54	3	
							Paper birch	---	--	
							Eastern hemlock	---	--	
							American beech	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Potential productivity: Common trees	Site index	Productivity class*	Trees to plant
UaC**:										
Urban land.										
Adams	8S	Slight	Slight	Severe	Slight	--------	Eastern white pine	66	8	Eastern white pine, red pine, European larch.
							Sugar maple	61	3	
							Red maple	---	--	
							American beech	---	--	
							Eastern hemlock	---	--	
UhC**:										
Urban land.										
Hermon	7S	Slight	Slight	Moderate	Slight	Slight	Eastern white pine	59	7	Eastern white pine, red pine, European larch.
							White spruce	45	7	
							Red spruce	46	7	
							Red pine	59	6	
							Sugar maple	55	2	
Va, Vb										
Vassalboro	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	25	2	---
							Northern whitecedar	---	--	
							Gray birch	---	--	
VW**:										
Vassalboro	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	25	2	---
							Northern whitecedar	---	--	
							Gray birch	---	--	
Wonsqueak	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	20	2	---
							Tamarack	---	--	
							Northern whitecedar	---	--	
							Balsam fir	---	--	
							Balsam poplar	---	--	
							Quaking aspen	---	--	
							Red maple	---	--	
Wk										
Wonsqueak	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	20	2	---
							Tamarack	---	--	
							Northern whitecedar	---	--	
							Balsam fir	---	--	
							Balsam poplar	---	--	
							Quaking aspen	---	--	
							Red maple	---	--	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns					Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Productivity class*	
WS**:										
Wonsqueak	2W	Slight	Severe	Severe	Severe	Severe	Black spruce	20	2	---
							Tamarack	---	--	
							Northern whitecedar	---	--	
							Balsam fir	---	--	
							Balsam poplar	---	--	
							Quaking aspen	---	--	
							Red maple	---	--	
Searsport	6W	Slight	Severe	Severe	Severe	Severe	Eastern white pine	55	6	Northern whitecedar, European larch.
							Red maple	55	2	
							Northern whitecedar	45	5	
							Black spruce	---	--	
							Balsam fir	53	7	
							European larch	---	--	
							Tamarack	---	--	

* Productivity class is the yield in cubic meters per hectare per year calculated at the age of culmination of mean annual increment for fully stocked natural stands.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 8.--RECREATIONAL DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
AbE*:					
Abram	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
Rock outcrop	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: depth to rock.
ACC*:					
Abram	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, small stones, depth to rock.	Slight	Severe: depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight	Severe: depth to rock.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, slope, depth to rock.	Slight	Severe: depth to rock.
ACE*:					
Abram	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
Rock outcrop	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: depth to rock.
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: large stones, slope, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
AdA Adams	Slight	Slight	Slight	Slight	Severe: droughty.
AdB Adams	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
AdC Adams	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Severe: droughty.
AdD Adams	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope, droughty.
AED Adams	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
AGC*:					
Adams	Slight	Slight	Severe: slope.	Slight	Severe: droughty.
Croghan	Moderate: wetness.	Moderate: wetness.	Moderate: slope, wetness.	Moderate: wetness.	Severe: droughty.
AHC*:					
Adams	Slight	Slight	Severe: slope.	Slight	Severe: droughty.
Hermon	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, slope, small stones.	Moderate: large stones.	Severe: droughty.
AHD*:					
Adams	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.
Hermon	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: droughty, slope.
BeB Becket	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope.	Slight	Moderate: small stones.
BeC Becket	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight	Moderate: small stones, slope.
BeD Becket	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
BkB Becket	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: large stones, slope.	Slight	Moderate: large stones.
BkC Becket	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight	Moderate: large stones, slope.
BkD Becket	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
Bp*, BRB*:					
Brayton	Severe: wetness.	Severe: wetness.	Severe: large stones, small stones.	Severe: wetness.	Severe: wetness.
Peacham	Severe: ponding, percs slowly.	Severe: ponding, excess humus.	Severe: large stones, excess humus, ponding.	Severe: ponding, excess humus.	Severe: large stones, ponding, excess humus.
Ca Charles	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Cb-------------------- Charles	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: wetness, flooding.
CeB------------------- Colonel	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.
CeC------------------- Colonel	Severe: wetness.	Moderate: slope, wetness.	Severe: slope, wetness.	Moderate: wetness.	Moderate: wetness, slope.
CfB------------------- Colonel	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, small stones.	Moderate: wetness.	Moderate: small stones, large stones.
CfC------------------- Colonel	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
CgB------------------- Colton	Moderate: small stones.	Moderate: small stones.	Severe: small stones.	Slight----------	Severe: small stones, droughty.
CgC------------------- Colton	Moderate: small stones, slope.	Moderate: small stones, slope.	Severe: slope, small stones.	Slight----------	Severe: small stones, droughty.
CgD------------------- Colton	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Moderate: slope.	Severe: small stones, droughty, slope.
CHC*:					
Colton---------------	Moderate: small stones.	Moderate: small stones.	Severe: slope, small stones.	Slight----------	Severe: small stones, droughty.
Adams----------------	Slight----------	Slight----------	Severe: slope.	Slight----------	Severe: droughty.
CHD*:					
Colton---------------	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Severe: slope.	Severe: small stones, droughty, slope.
Adams----------------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.
Co-------------------- Cornish	Severe: flooding, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness, flooding.
Cp-------------------- Cornish	Severe: flooding, wetness.	Moderate: flooding, wetness.	Severe: wetness, flooding.	Moderate: wetness, flooding.	Severe: flooding.
CrA------------------- Croghan	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Severe: droughty.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
CrB------------------- Croghan	Moderate: wetness.	Moderate: wetness.	Moderate: slope, wetness.	Moderate: wetness.	Severe: droughty.
DfB------------------- Dixfield	Moderate: wetness.	Moderate: wetness.	Moderate: slope, small stones.	Moderate: wetness.	Moderate: wetness.
DfC------------------- Dixfield	Moderate: slope, wetness.	Moderate: slope, wetness.	Severe: slope.	Moderate: wetness.	Moderate: wetness, slope.
DsB------------------- Dixfield	Moderate: large stones, small stones.	Moderate: wetness, large stones.	Severe: large stones, small stones.	Moderate: wetness.	Moderate: small stones, large stones.
DsC------------------- Dixfield	Moderate: slope, large stones.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
DTC*:					
Dixfield-------------	Moderate: slope, wetness.	Moderate: slope, wetness.	Severe: slope.	Moderate: wetness.	Moderate: wetness, slope.
Colonel--------------	Severe: wetness.	Moderate: wetness.	Severe: slope, wetness.	Moderate: wetness.	Moderate: wetness.
DUC*:					
Dixfield-------------	Moderate: slope, large stones.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
Colonel--------------	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones.
DUD*:					
Dixfield-------------	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Moderate: wetness, slope.	Severe: slope.
Colonel--------------	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
DWC*:					
Dixfield-------------	Moderate: slope, wetness.	Moderate: slope, wetness.	Severe: slope.	Moderate: wetness.	Moderate: wetness, slope.
Marlow---------------	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight----------	Moderate: slope.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
DXC*:					
Dixfield	Moderate: slope, large stones.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
Marlow	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight	Moderate: large stones, slope.
DXD*:					
Dixfield	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: slope.
Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Fr Fryeburg	Severe: flooding.	Slight	Slight	Slight	Slight.
HeB Hermon	Slight	Slight	Moderate: slope, small stones.	Slight	Severe: droughty.
HeC Hermon	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Severe: droughty.
HeD Hermon	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: droughty, slope.
HmB Hermon	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, small stones.	Moderate: large stones.	Severe: droughty.
HmC Hermon	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: large stones, slope, small stones.	Moderate: large stones.	Severe: droughty.
HmD Hermon	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Moderate: large stones, slope.	Severe: droughty, slope.
HsC Hermon	Severe: large stones.	Severe: large stones.	Severe: large stones, slope, small stones.	Moderate: large stones.	Severe: large stones, droughty.
HsD Hermon	Severe: slope, large stones.	Severe: slope, large stones.	Severe: large stones, slope, small stones.	Moderate: large stones, slope.	Severe: large stones, droughty, slope.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
HTD*, HTE*:					
Hermon	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: droughty, slope.
Monadnock	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Severe: slope.	Severe: slope.
HVC*:					
Hermon	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: large stones, slope, small stones.	Moderate: large stones.	Severe: droughty.
Skerry	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness.
Lo Lovewell	Severe: flooding.	Moderate: wetness.	Moderate: wetness, flooding.	Moderate: wetness.	Moderate: wetness, flooding.
LtB*:					
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, depth to rock.	Slight	Severe: depth to rock.
Tunbridge	Moderate: small stones.	Moderate: small stones.	Severe: large stones, small stones.	Slight	Moderate: small stones, large stones, droughty.
LtC*:					
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, slope, depth to rock.	Slight	Severe: depth to rock.
Tunbridge	Moderate: slope, small stones.	Moderate: slope, small stones.	Severe: large stones, slope, small stones.	Slight	Moderate: small stones, large stones, droughty.
LtD*:					
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: large stones, slope, depth to rock.	Moderate: slope.	Severe: slope, depth to rock.
Tunbridge	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Moderate: slope.	Moderate: small stones, large stones, droughty.
LUD*, LUE*:					
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: large stones, slope, depth to rock.	Severe: slope.	Severe: slope, depth to rock.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
LUD*, LUE*:					
Tunbridge	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.	Moderate: small stones, large stones, droughty.
Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
LWC*:					
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, slope, depth to rock.	Slight	Severe: depth to rock.
Tunbridge	Moderate: slope, small stones.	Moderate: slope, small stones.	Severe: large stones, slope, small stones.	Slight	Moderate: small stones, large stones, droughty.
Monadnock	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope, small stones.	Slight	Moderate: large stones, slope.
LWD*, LWE*:					
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: large stones, slope, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
Tunbridge	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.	Moderate: small stones, large stones, droughty.
Monadnock	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Severe: slope.	Severe: slope.
LXC*:					
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, slope, depth to rock.	Slight	Severe: depth to rock.
Tunbridge	Moderate: slope, small stones.	Moderate: slope, small stones.	Severe: large stones, slope, small stones.	Slight	Moderate: small stones, large stones, droughty.
Skerry	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness.
MaB Marlow	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, small stones.	Slight	Slight.
MaC Marlow	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight	Moderate: slope.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
MaD: Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
MeC: Marlow	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight	Moderate: large stones, slope.
MeD: Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
Mk: Medomak	Severe: flooding, ponding.	Severe: ponding.	Severe: ponding, flooding.	Severe: ponding.	Severe: ponding, flooding.
ML*:					
Medomak	Severe: flooding, ponding.	Severe: ponding.	Severe: ponding, flooding.	Severe: ponding.	Severe: ponding, flooding.
Wonsqueak	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.	Severe: ponding, flooding, excess humus.
MnB: Monadnock	Slight	Slight	Moderate: slope, small stones.	Slight	Slight.
MnC: Monadnock	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Moderate: slope.
MnD: Monadnock	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
MvC: Monadnock	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope, small stones.	Slight	Moderate: large stones, slope.
MvD: Monadnock	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Moderate: slope.	Severe: slope.
MWC*:					
Monadnock	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Moderate: slope.
Hermon	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Severe: droughty.
Skerry	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Severe: slope.	Moderate: wetness.	Moderate: small stones, wetness.
MXC*:					
Monadnock	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope, small stones.	Slight	Moderate: large stones, slope.
Skerry	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Nb------------------- Naumburg	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.	Severe: wetness.
NCB*:					
Naumburg-------------	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.	Severe: wetness.
Croghan--------------	Moderate: wetness.	Moderate: wetness.	Moderate: slope, wetness.	Moderate: wetness.	Severe: droughty.
NvB------------------ Nicholville	Slight----------	Slight----------	Moderate: slope.	Slight----------	Slight.
Od------------------- Ondawa	Severe: flooding.	Slight----------	Moderate: flooding.	Slight----------	Moderate: flooding.
On------------------- Ondawa	Severe: flooding.	Moderate: flooding.	Severe: flooding.	Moderate: flooding.	Severe: flooding.
Pg*------------------ Pits	Severe: small stones, too sandy.	Severe: too sandy, small stones.	Severe: small stones, too sandy.	Severe: too sandy, small stones.	Severe: small stones, droughty.
Ps*------------------ Pits	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: droughty.
Pt------------------- Podunk	Severe: flooding.	Moderate: wetness.	Moderate: flooding, wetness.	Moderate: wetness.	Moderate: flooding, wetness.
Pw------------------- Podunk	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.
RCE*:					
Ricker---------------	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: excess humus, slope, fragile.	Severe: slope, thin layer, excess humus.
Saddleback-----------	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
Rock outcrop---------	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: depth to rock.
Rm*------------------ Riverwash	Severe: flooding, wetness.	Severe: wetness, too sandy.	Severe: small stones, too sandy, wetness.	Severe: wetness, too sandy.	Severe: wetness, droughty.
RNE*:					
Rock outcrop---------	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: depth to rock.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
RNE*:					
Ricker	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: excess humus, slope, fragile.	Severe: slope, thin layer, excess humus.
Ro Roundabout	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Ru Rumney	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Ry Rumney	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: flooding, wetness.
RZ*:					
Rumney	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: flooding, wetness.
Podunk	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.
SAD*:					
Saddleback	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Moderate: slope.	Severe: slope, depth to rock.
Ricker	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: excess humus, fragile.	Severe: slope, thin layer, excess humus.
SAE*:					
Saddleback	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Severe: slope.	Severe: slope, depth to rock.
Ricker	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: slope, excess humus, depth to rock.	Severe: excess humus, slope, fragile.	Severe: slope, thin layer, excess humus.
Se Searsport	Severe: small stones, ponding.	Severe: ponding, excess humus, small stones.	Severe: small stones, excess humus, ponding.	Severe: ponding, excess humus.	Severe: small stones, ponding, droughty.
SkB Skerry	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: slope, small stones, percs slowly.	Moderate: wetness.	Moderate: small stones, wetness.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
SkC------------------- Skerry	Moderate: slope, wetness, percs slowly.	Moderate: slope, wetness, percs slowly.	Severe: slope.	Moderate: wetness.	Moderate: small stones, wetness, slope.
SnB------------------- Skerry	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Moderate: large stones, slope.	Moderate: wetness.	Moderate: large stones, wetness.
SnC------------------- Skerry	Moderate: slope, large stones, wetness.	Moderate: slope, wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness, slope.
SnD------------------- Skerry	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: wetness, slope.	Severe: slope.
SOC*:					
Skerry---------------	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Severe: slope.	Moderate: wetness.	Moderate: small stones, wetness.
Becket---------------	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight----------	Moderate: small stones, slope.
SOD*:					
Skerry---------------	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: wetness, slope.	Severe: slope.
Becket---------------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
SRC*:					
Skerry---------------	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness.
Becket---------------	Moderate: slope, percs slowly.	Moderate: slope, percs slowly.	Severe: slope.	Slight----------	Moderate: large stones, slope.
SRD*:					
Skerry---------------	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: wetness, slope.	Severe: slope.
Becket---------------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
SSC*:					
Skerry---------------	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Severe: slope.	Moderate: wetness.	Moderate: small stones, wetness.
Colonel--------------	Severe: wetness.	Moderate: wetness.	Severe: slope, wetness.	Moderate: wetness.	Moderate: wetness.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
STC*:					
Skerry	Moderate: large stones, wetness.	Moderate: wetness, large stones.	Severe: slope.	Moderate: wetness.	Moderate: large stones, wetness.
Colonel	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones.
STD*:					
Skerry	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: wetness, slope.	Severe: slope.
Colonel	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, small stones.	Moderate: wetness.	Moderate: small stones, large stones, slope.
Su Sunday	Severe: flooding.	Moderate: too sandy.	Moderate: too sandy, flooding.	Moderate: too sandy.	Severe: droughty.
Sy Sunday	Severe: flooding.	Moderate: flooding, too sandy.	Severe: flooding.	Moderate: too sandy, flooding.	Severe: droughty, flooding.
TyB*:					
Tunbridge	Slight	Slight	Moderate: slope, small stones.	Slight	Moderate: droughty.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: small stones, depth to rock.	Slight	Severe: depth to rock.
TyC*:					
Tunbridge	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Moderate: droughty, slope.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, small stones, depth to rock.	Slight	Severe: depth to rock.
TyD*:					
Tunbridge	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.	Severe: slope.
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Moderate: slope.	Severe: slope, depth to rock.
UaC*:					
Urban land	Variable	Variable	Variable	Variable	Variable.
Adams	Slight	Slight	Severe: slope.	Slight	Severe: droughty.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
UhC*:					
Urban land	Variable	Variable	Variable	Variable	Variable.
Hermon	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight	Severe: droughty.
Va Vassalboro	Severe: wetness, excess humus.	Severe: wetness, excess humus.	Severe: wetness, excess humus.	Severe: wetness, excess humus.	Severe: wetness, excess humus.
Vb Vassalboro	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
VW*:					
Vassalboro	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
Wonsqueak	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
Wk Wonsqueak	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
WS*:					
Wonsqueak	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.	Severe: ponding, excess humus.
Searsport	Severe: small stones, ponding.	Severe: ponding, excess humus, small stones.	Severe: small stones, excess humus, ponding.	Severe: ponding, excess humus.	Severe: small stones, ponding, droughty.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--WILDLIFE HABITAT

(See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	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
AbE*:										
Abram	Very poor.	Very poor.	Poor	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very 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.
ACC*, ACE*:										
Abram	Very poor.	Very poor.	Poor	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very 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.
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
AdA, AdB, AdC, AdD- Adams	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
AED Adams	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
AGC*:										
Adams	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Croghan	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
AHC*:										
Adams	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Hermon	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
AHD*:										
Adams	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Hermon	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
BeB Becket	Fair	Good	Good	Fair	Fair	Poor	Very poor.	Good	Fair	Very poor.
BeC Becket	Fair	Good	Good	Fair	Fair	Very poor.	Very poor.	Good	Fair	Very poor.
BeD Becket	Poor	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
BkB, BkC, BkD Becket	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
Bp*, BRB*:										
Brayton	Very poor.	Poor	Fair	Fair	Fair	Good	Fair	Poor	Fair	Fair.
Peacham	Very poor.	Poor	Poor	Poor	Poor	Good	Poor	Poor	Poor	Fair.
Ca, Cb: Charles	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
CeB: Colonel	Fair	Good	Good	Fair	Fair	Poor	Very poor.	Good	Fair	Very poor.
CeC: Colonel	Fair	Good	Good	Fair	Fair	Very poor.	Very poor.	Good	Fair	Very poor.
CfB: Colonel	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
CfC: Colonel	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
CgB, CgC, CgD: Colton	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.
CHC*:										
Colton	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.
Adams	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
CHD*:										
Colton	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Adams	Very poor.	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Co: Cornish	Fair	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair.
Cp: Cornish	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair.
CrA: Croghan	Poor	Fair	Fair	Fair	Fair	Poor	Poor	Fair	Fair	Poor.
CrB: Croghan	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
DfB: Dixfield	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
DfC: Dixfield	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
DsB: Dixfield	Very poor.	Poor	Good	Good	Good	Poor	Very poor.	Poor	Good	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
DsC Dixfield	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
DTC*:										
Dixfield	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Colonel	Fair	Good	Good	Fair	Fair	Poor	Very poor.	Good	Fair	Very poor.
DUC*:										
Dixfield	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Colonel	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
DUD*:										
Dixfield	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Colonel	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
DWC*:										
Dixfield	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Marlow	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
DXC*:										
Dixfield	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Marlow	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
DXD*:										
Dixfield	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Marlow	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Fr Fryeburg	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
HeB, HeC Hermon	Fair	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
HeD Hermon	Poor	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
HmB, HmC, HmD Hermon	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
HsC, HsD Hermon	Very poor.	Very poor.	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
HTD*, HTE*:										
Hermon	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Monadnock	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
HVC*:										
Hermon	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
Lo Lovewell	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
LtB*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Poor	Good	Good	Good	Poor	Very poor.	Poor	Good	Very poor.
LtC*, LtD*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
LUD*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Becket	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
LUE*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Very poor.	Good	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
Becket	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
LWC*, LWD*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Monadnock	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
LWE*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Very poor.	Good	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
Monadnock	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
LXC*:										
Lyman	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Tunbridge	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
MaB Marlow	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
MaC Marlow	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
MaD, MeC, MeD Marlow	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Mk Medomak	Very poor.	Poor	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair.
ML*:										
Medomak	Very poor.	Poor	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair.
Wonsqueak	Very poor.	Poor	Poor	Very poor.	Very poor.	Good	Good	Poor	Very poor.	Good.
MnB Monadnock	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
MnC Monadnock	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
MnD Monadnock	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
MvC, MvD Monadnock	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
MWC*:										
Monadnock	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Hermon	Fair	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
Skerry	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
MXC*:										
Monadnock	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
Nb Naumburg	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
NCB*:										
Naumburg	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
Croghan	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
NvB Nicholville	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Od Ondawa	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
On Ondawa	Poor	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Pg*, Ps* Pits	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.
Pt Podunk	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor.
Pw Podunk	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor.
RCE*:										
Ricker	Very poor.	Very poor.	Poor	Poor	Poor	Very poor.	Very poor.	Very poor.	Poor	Very poor.
Saddleback	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Rock outcrop	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.
Rm* Riverwash	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Poor	Very poor.	Very poor.	Poor.
RNE*:										
Rock outcrop	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.
Ricker	Very poor.	Very poor.	Poor	Poor	Poor	Very poor.	Very poor.	Very poor.	Poor	Very poor.
Ro Roundabout	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
Ru, Ry Rumney	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
RZ*:										
Rumney	Poor	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Fair.
Podunk	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor.
SAD*, SAE*:										
Saddleback	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Ricker	Very poor.	Very poor.	Poor	Poor	Poor	Very poor.	Very poor.	Very poor.	Poor	Very poor.
Se Searsport	Very poor.	Poor	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair.
SkB Skerry	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
SkC Skerry	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
SnB Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
SnC, SnD Skerry	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
SOC*:										
Skerry	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Becket	Fair	Good	Good	Fair	Fair	Very poor.	Very poor.	Good	Fair	Very poor.
SOD*:										
Skerry	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Becket	Very poor.	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
SRC*:										
Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
Becket	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
SRD*:										
Skerry	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Becket	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
SSC*:										
Skerry	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	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
SSC*:										
Colonel	Fair	Good	Good	Fair	Fair	Poor	Very poor.	Good	Fair	Very poor.
STC*:										
Skerry	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
Colonel	Very poor.	Poor	Good	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
STD*:										
Skerry	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Colonel	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Su, Sy: Sunday	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
TyB*:										
Tunbridge	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Lyman	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
TyC*:										
Tunbridge	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
Lyman	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
TyD*:										
Tunbridge	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Lyman	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
UaC*:										
Urban land.										
Adams	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
UhC*:										
Urban land.										
Hermon	Fair	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
Va, Vb: Vassalboro	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Good	Good	Very poor.	Very poor.	Good.
VW*:										
Vassalboro	Very poor.	Very poor.	Very poor.	Very poor.	Very poor.	Good	Good	Very poor.	Very poor.	Good.

See footnote at end of table.

TABLE 9.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
VW*:										
Wonsqueak	Very poor.	Poor	Poor	Very poor.	Very poor.	Good	Good	Poor	Very poor.	Good.
Wk Wonsqueak	Very poor.	Poor	Poor	Very poor.	Very poor.	Good	Good	Poor	Very poor.	Good.
WS*:										
Wonsqueak	Very poor.	Poor	Poor	Very poor.	Very poor.	Good	Good	Poor	Very poor.	Good.
Searsport	Very poor.	Poor	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--BUILDING SITE DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
AbE*:						
Abram	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.
ACC*:						
Abram	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.
ACE*:						
Abram	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.
Lyman	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
AdA Adams	Severe: cutbanks cave.	Slight	Slight	Slight	Slight	Severe: droughty.
AdB Adams	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
AdC Adams	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
AdD, AED Adams	Severe: slope, cutbanks cave.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.
AGC*:						
Adams	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
Croghan	Severe: wetness, cutbanks cave.	Moderate: wetness.	Severe: wetness.	Moderate: slope, wetness.	Moderate: frost action, wetness.	Severe: droughty.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
AHC*:						
Adams	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
Hermon	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: large stones.	Severe: droughty.
AHD*:						
Adams	Severe: slope, cutbanks cave.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.
Hermon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
BeB Becket	Moderate: wetness.	Slight	Moderate: wetness.	Moderate: slope.	Moderate: frost action.	Moderate: small stones.
BeC Becket	Moderate: wetness, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: small stones, slope.
BeD Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
BkB Becket	Moderate: wetness.	Slight	Moderate: wetness.	Moderate: slope.	Moderate: frost action.	Moderate: large stones.
BkC Becket	Moderate	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, slope.
BkD Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Bp*, BRB*:						
Brayton	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
Peacham	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: large stones, ponding, excess humus.
Ca Charles	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding, frost action.	Severe: wetness.
Cb Charles	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding, frost action.	Severe: wetness, flooding.
CeB Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
CeC Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Severe: frost action.	Moderate: wetness, slope.
CfB Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: small stones, large stones.
CfC Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Severe: frost action.	Moderate: small stones, large stones, slope.
CgB Colton	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: small stones, droughty.
CgC Colton	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: small stones, droughty.
CgD Colton	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, droughty, slope.
CHC*:						
Colton	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: small stones, droughty.
Adams	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
CHD*:						
Colton	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, droughty, slope.
Adams	Severe: slope, cutbanks cave.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, droughty.
Co Cornish	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, frost action.	Moderate: wetness, flooding.
Cp Cornish	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, frost action.	Severe: flooding.
CrA Croghan	Severe: wetness, cutbanks cave.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: frost action, wetness.	Severe: droughty.
CrB Croghan	Severe: wetness, cutbanks cave.	Moderate: wetness.	Severe: wetness.	Moderate: slope, wetness.	Moderate: frost action, wetness.	Severe: droughty.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
DfB--------------- Dixfield	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: wetness.
DfC--------------- Dixfield	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: wetness, slope.
DsB--------------- Dixfield	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: small stones, large stones.
DsC--------------- Dixfield	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: small stones, large stones, slope.
DTC*:						
Dixfield---------	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: wetness, slope.
Colonel----------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.
DUC*:						
Dixfield---------	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: small stones, large stones, slope.
Colonel----------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: small stones, large stones.
DUD*:						
Dixfield---------	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Colonel----------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Severe: frost action.	Moderate: small stones, large stones, slope.
DWC*:						
Dixfield---------	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: wetness, slope.
Marlow-----------	Moderate: dense layer, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: frost action.	Moderate: slope.
DXC*:						
Dixfield---------	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: small stones, large stones, slope.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
DXC*:						
Marlow	Moderate: dense layer, wetness, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, slope.
DXD*:						
Dixfield	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Fr Fryeburg	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: frost action.	Slight.
HeB Hermon	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: large stones.	Severe: droughty.
HeC Hermon	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, large stones.	Severe: droughty.
HeD Hermon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
HmB Hermon	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: large stones.	Severe: droughty.
HmC Hermon	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, large stones.	Severe: droughty.
HmD Hermon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
HsC Hermon	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: large stones.	Severe: large stones, droughty.
HsD Hermon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: large stones, droughty, slope.
HTD*, HTE*:						
Hermon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Monadnock	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
HVC*:						
Hermon	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, large stones.	Severe: droughty.
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
Lo Lovewell	Severe: cutbanks cave, wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding, frost action.	Moderate: wetness, flooding.
LtB*:						
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Tunbridge	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, frost action.	Moderate: small stones, large stones, droughty.
LtC*:						
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.
Tunbridge	Severe: depth to rock.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, frost action.	Moderate: small stones, large stones, droughty.
LtD*:						
Lyman	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Tunbridge	Severe: depth to rock, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Moderate: small stones, large stones, droughty.
LUD*, LUE*:						
Lyman	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Tunbridge	Severe: depth to rock, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Moderate: small stones, large stones, droughty.
Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
LWC*:						
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
LWC*:						
Tunbridge--------	Severe: depth to rock.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, frost action.	Moderate: small stones, large stones, droughty.
Monadnock--------	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, slope.
LWD*, LWE*:						
Lyman------------	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Tunbridge--------	Severe: depth to rock, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Moderate: small stones, large stones, droughty.
Monadnock--------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
LXC*:						
Lyman------------	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.
Tunbridge--------	Severe: depth to rock.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, frost action.	Moderate: small stones, large stones, droughty.
Skerry-----------	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
MaB--------------- Marlow	Moderate: dense layer.	Slight---------	Moderate: wetness.	Moderate: slope.	Moderate: frost action.	Slight.
MaC--------------- Marlow	Moderate: dense layer, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: frost action.	Moderate: slope.
MaD--------------- Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
MeC--------------- Marlow	Moderate: dense layer, wetness, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, slope.
MeD--------------- Marlow	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Mk---------------- Medomak	Severe: cutbanks cave, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: ponding, flooding, frost action.	Severe: ponding, flooding.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
ML*:						
Medomak	Severe: cutbanks cave, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding.	Severe: ponding, flooding, frost action.	Severe: ponding, flooding.
Wonsqueak	Severe: excess humus, ponding.	Severe: flooding, ponding, low strength.	Severe: flooding, ponding.	Severe: flooding, ponding, low strength.	Severe: flooding, ponding, frost action.	Severe: flooding, ponding, excess humus.
MnB Monadnock	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Slight.
MnC Monadnock	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: slope.
MnD Monadnock	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
MvC Monadnock	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, slope.
MvD Monadnock	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
MWC*:						
Monadnock	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: slope.
Hermon	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, large stones.	Severe: droughty.
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: small stones, wetness.
MXC*:						
Monadnock	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, slope.
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
Nb Naumburg	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
NCB*:						
Naumburg	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Croghan	Severe: wetness, cutbanks cave.	Moderate: wetness.	Severe: wetness.	Moderate: slope, wetness.	Moderate: frost action, wetness.	Severe: droughty.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
NvB--------------- Nicholville	Severe: wetness.	Severe: frost action.	Severe: wetness.	Severe: frost action.	Severe: frost action.	Slight.
Od---------------- Ondawa	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
On---------------- Ondawa	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.
Pg*--------------- Pits	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Severe: small stones, droughty.
Ps*--------------- Pits	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Severe: droughty.
Pt---------------- Podunk	Severe: cutbanks cave, wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding, frost action.	Moderate: flooding, wetness.
Pw---------------- Podunk	Severe: cutbanks cave, wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding, frost action.	Severe: flooding.
RCE*:						
Ricker-----------	Severe: depth to rock, excess humus, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, thin layer, excess humus.
Saddleback-------	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.
Rm*--------------- Riverwash	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding.	Severe: wetness, droughty.
RNE*:						
Rock outcrop-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.
Ricker-----------	Severe: depth to rock, excess humus, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, thin layer, excess humus.
Ro---------------- Roundabout	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
Ru---------------- Rumney	Severe: wetness, cutbanks cave.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness, frost action.	Severe: wetness.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Ry----------------- Rumney	Severe: wetness, cutbanks cave.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness, frost action.	Severe: flooding, wetness.
RZ*:						
Rumney------------	Severe: wetness, cutbanks cave.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness, frost action.	Severe: flooding, wetness.
Podunk------------	Severe: cutbanks cave, wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding, frost action.	Severe: flooding.
SAD*, SAE*:						
Saddleback--------	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Ricker------------	Severe: depth to rock, excess humus, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: low strength, slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, thin layer, excess humus.
Se----------------- Searsport	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: small stones, ponding, droughty.
SkB---------------- Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: small stones, wetness.
SkC---------------- Skerry	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: small stones, wetness, slope.
SnB---------------- Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
SnC---------------- Skerry	Severe: wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Severe: frost action.	Moderate: large stones, wetness, slope.
SnD---------------- Skerry	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
SOC*:						
Skerry------------	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: small stones, wetness.
Becket------------	Moderate: wetness, slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: small stones, slope.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
SOD*:						
Skerry	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
SRC*:						
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
Becket	Moderate: slope.	Moderate: slope.	Moderate: wetness, slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, slope.
SRD*:						
Skerry	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Becket	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
SSC*:						
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: small stones, wetness.
Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.
STC*:						
Skerry	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Severe: frost action.	Moderate: large stones, wetness.
Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: small stones, large stones.
STD*:						
Skerry	Severe: wetness, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Colonel	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Severe: frost action.	Moderate: small stones, large stones, slope.
Su: Sunday	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: droughty.
Sy: Sunday	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: droughty, flooding.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
TyB*:						
Tunbridge	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, frost action.	Moderate: droughty.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
TyC*:						
Tunbridge	Severe: depth to rock.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, frost action.	Moderate: droughty, slope.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.
TyD*:						
Tunbridge	Severe: depth to rock, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: slope.
Lyman	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
UaC*:						
Urban land	Variable	Variable	Variable	Variable	Variable	Variable.
Adams	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
UhC*:						
Urban land	Variable	Variable	Variable	Variable	Variable	Variable.
Hermon	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, large stones.	Severe: droughty.
Va Vassalboro	Severe: excess humus, wetness.	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, frost action.	Severe: wetness, excess humus.
Vb Vassalboro	Severe: excess humus, ponding.	Severe: flooding, ponding, low strength.	Severe: flooding, ponding, low strength.	Severe: flooding, ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
VW*:						
Vassalboro	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding, low strength.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
Wonsqueak	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
Wk Wonsqueak	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
WS*:						
Wonsqueak----------	Severe: excess humus, ponding.	Severe: ponding, low strength.	Severe: ponding.	Severe: ponding, low strength.	Severe: ponding, frost action.	Severe: ponding, excess humus.
Searsport----------	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: small stones, ponding, droughty.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 11.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
AbE*:					
Abram	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, slope.	Poor: depth to rock, slope.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, slope.
ACC*:					
Abram	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock.	Poor: depth to rock.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
Lyman	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock.
ACE*:					
Abram	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, slope.	Poor: depth to rock, slope.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, slope.
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
AdA, AdB Adams	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
AdC Adams	Severe: poor filter.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
AdD, AED Adams	Severe: poor filter, slope.	Severe: slope, seepage.	Severe: slope, seepage, too sandy.	Severe: slope, seepage.	Poor: seepage, too sandy, slope.
AGC*:					
Adams	Severe: poor filter.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
AGC*:					
Croghan	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: too sandy, seepage.
AHC*:					
Adams	Severe: poor filter.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
AHD*:					
Adams	Severe: poor filter, slope.	Severe: slope, seepage.	Severe: slope, seepage, too sandy.	Severe: slope, seepage.	Poor: seepage, too sandy, slope.
Hermon	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
BeB Becket	Severe: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Poor: seepage.
BeC Becket	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Poor: seepage.
BeD Becket	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
BkB Becket	Severe: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Poor: seepage, small stones.
BkC Becket	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Poor: seepage, small stones.
BkD Becket	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, small stones, slope.
Bp*, BRB*:					
Brayton	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: small stones, wetness.
Peacham	Severe: ponding, percs slowly.	Severe: excess humus, ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Ca, Cb------ Charles	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
CeB------ Colonel	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
CeC------ Colonel	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
CfB------ Colonel	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
CfC------ Colonel	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
CgB------ Colton	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
CgC------ Colton	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
CgD------ Colton	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
CHC*:					
Colton------	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
Adams------	Severe: poor filter.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
CHD*:					
Colton------	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
Adams------	Severe: poor filter, slope.	Severe: slope, seepage.	Severe: slope, seepage, too sandy.	Severe: slope, seepage.	Poor: seepage, too sandy, slope.
Co, Cp------ Cornish	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
CrA, CrB------------ Croghan	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: too sandy, seepage.
DfB----------------- Dixfield	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Moderate: wetness.	Fair: small stones, wetness.
DfC----------------- Dixfield	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Fair: small stones, slope, wetness.
DsB----------------- Dixfield	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Moderate: wetness.	Poor: small stones.
DsC----------------- Dixfield	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Poor: small stones.
DTC*:					
Dixfield-----------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Fair: small stones, slope, wetness.
Colonel------------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
DUC*:					
Dixfield-----------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Poor: small stones.
Colonel------------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
DUD*:					
Dixfield-----------	Severe: wetness, percs slowly, slope.	Severe: slope, wetness.	Severe: wetness, slope.	Severe: slope.	Poor: small stones, slope.
Colonel------------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
DWC*:					
Dixfield-----------	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Fair: small stones, slope, wetness.
Marlow-------------	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: wetness, slope.	Fair: small stones, slope, wetness.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
DXC*:					
Dixfield	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Moderate: wetness, slope.	Poor: small stones.
Marlow	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: small stones, slope.
DXD*:					
Dixfield	Severe: wetness, percs slowly, slope.	Severe: slope, wetness.	Severe: wetness, slope.	Severe: slope.	Poor: small stones, slope.
Marlow	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Fr Fryeburg	Moderate: flooding, percs slowly.	Severe: seepage.	Severe: seepage.	Moderate: flooding.	Fair: thin layer.
HeB Hermon	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
HeC Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
HeD Hermon	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
HmB Hermon	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
HmC Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
HmD Hermon	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
HsC Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
HsD----------------- Hermon	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
HTD*, HTE*:					
Hermon-------------	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
Monadnock----------	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, slope.
HVC*:					
Hermon-------------	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
Skerry-------------	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.
Lo------------------ Lovewell	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Fair: wetness.
LtB*:					
Lyman--------------	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock.
Tunbridge----------	Severe: depth to rock.	Severe: seepage, depth to rock.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: area reclaim.
LtC*:					
Lyman--------------	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock.
Tunbridge----------	Severe: depth to rock.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: area reclaim.
LtD*:					
Lyman--------------	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
Tunbridge----------	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Poor: area reclaim, slope.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
LUD*, LUE*:					
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
Tunbridge	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Poor: area reclaim, slope.
Becket	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, small stones, slope.
LWC*:					
Lyman	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock.
Tunbridge	Severe: depth to rock.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: area reclaim.
Monadnock	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage.
LWD*, LWE*:					
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
Tunbridge	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Poor: area reclaim, slope.
Monadnock	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, slope.
LXC*:					
Lyman	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock.
Tunbridge	Severe: depth to rock.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: area reclaim.
Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
MaB----------------- Marlow	Severe: percs slowly.	Moderate: seepage, slope.	Slight-----------	Slight-----------	Fair: small stones, wetness.
MaC----------------- Marlow	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: wetness, slope.	Fair: small stones, slope, wetness.
MaD----------------- Marlow	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
MeC----------------- Marlow	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: small stones, slope.
MeD----------------- Marlow	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Mk------------------ Medomak	Severe: flooding, ponding.	Severe: seepage, flooding, ponding.	Severe: flooding, seepage, ponding.	Severe: flooding, ponding.	Poor: seepage, too sandy, small stones.
ML*:					
Medomak------------	Severe: flooding, ponding.	Severe: seepage, flooding, ponding.	Severe: flooding, seepage, ponding.	Severe: flooding, ponding.	Poor: seepage, too sandy, small stones.
Wonsqueak----------	Severe: flooding, ponding, percs slowly.	Severe: seepage, flooding, excess humus.	Severe: flooding, ponding.	Severe: flooding, seepage, ponding.	Poor: ponding.
MnB----------------- Monadnock	Slight-----------	Severe: seepage.	Severe: seepage.	Severe: seepage.	Poor: seepage.
MnC----------------- Monadnock	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage.
MnD----------------- Monadnock	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, slope.
MvC----------------- Monadnock	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage.
MvD----------------- Monadnock	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, slope.
MWC*:					
Monadnock----------	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
MWC*:					
Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage.
MXC*:					
Monadnock	Moderate: slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage.
Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.
Nb: Naumburg	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, wetness.
NCB*:					
Naumburg	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, wetness.
Croghan	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: too sandy, seepage.
NvB: Nicholville	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness.	Good.
Od, On: Ondawa	Severe: flooding, poor filter.	Severe: flooding, seepage.	Severe: flooding, seepage, too sandy.	Severe: flooding, seepage.	Poor: seepage, too sandy.
Pg*: Pits	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Slight	Poor: seepage, too sandy, small stones.
Ps*: Pits	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Pt, Pw: Podunk	Severe: flooding, wetness, poor filter.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
RCE*:					
Ricker	Severe: depth to rock, slope.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope.	Poor: area reclaim, slope, excess humus.
Saddleback	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: depth to rock, small stones, slope.
Rock outcrop	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, slope.
Rm* Riverwash	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: too sandy, small stones, wetness.
RNE*:					
Rock outcrop	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, slope.
Ricker	Severe: depth to rock, slope.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope.	Poor: area reclaim, slope, excess humus.
Ro Roundabout	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Ru, Ry Rumney	Severe: flooding, wetness, poor filter.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Poor: wetness, seepage, too sandy.
RZ*:					
Rumney	Severe: flooding, wetness, poor filter.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Poor: wetness, seepage, too sandy.
Podunk	Severe: flooding, wetness, poor filter.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Severe: flooding, wetness, seepage.	Poor: seepage, too sandy.
SAD*, SAE*:					
Saddleback	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: depth to rock, small stones, slope.
Ricker	Severe: depth to rock, slope.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope, excess humus.	Severe: depth to rock, slope.	Poor: area reclaim, slope, excess humus.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Se------------------ Searsport	Severe: ponding, poor filter.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
SkB----------------- Skerry	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage.
SkC----------------- Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness, slope.	Poor: seepage.
SnB----------------- Skerry	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.
SnC----------------- Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness, slope.	Poor: seepage, small stones.
SnD----------------- Skerry	Severe: wetness, percs slowly, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Poor: seepage, small stones, slope.
SOC*:					
Skerry-------------	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage.
Becket-------------	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Poor: seepage.
SOD*:					
Skerry-------------	Severe: wetness, percs slowly, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Poor: seepage, slope.
Becket-------------	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
SRC*:					
Skerry-------------	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.
Becket-------------	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Poor: seepage, small stones.
SRD*:					
Skerry-------------	Severe: wetness, percs slowly, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Poor: seepage, small stones, slope.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
SRD*:					
Becket	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, small stones, slope.
SSC*:					
Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage.
Colonel	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
STC*:					
Skerry	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Moderate: wetness.	Poor: seepage, small stones.
Colonel	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
STD*:					
Skerry	Severe: wetness, percs slowly, slope.	Severe: slope.	Severe: wetness, slope.	Severe: slope.	Poor: seepage, small stones, slope.
Colonel	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Su, Sy Sunday	Severe: flooding, poor filter.	Severe: seepage, flooding.	Severe: flooding, seepage, too sandy.	Severe: flooding, seepage.	Poor: seepage, too sandy.
TyB*:					
Tunbridge	Severe: depth to rock.	Severe: seepage, depth to rock.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: depth to rock.
Lyman	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock, small stones.
TyC*:					
Tunbridge	Severe: depth to rock.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Poor: depth to rock.
Lyman	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock, seepage.	Poor: depth to rock, small stones.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
TyD*:					
Tunbridge	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
Lyman	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock, seepage, slope.	Poor: depth to rock, slope.
UaC*:					
Urban land	Variable	Variable	Variable	Variable	Variable.
Adams	Severe: poor filter.	Severe: slope, seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
UhC*:					
Urban land	Variable	Variable	Variable	Variable	Variable.
Hermon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
Va Vassalboro	Severe: wetness.	Severe: wetness, seepage, excess humus.	Severe: seepage, wetness, excess humus.	Severe: seepage, wetness.	Severe: wetness, excess humus.
Vb Vassalboro	Severe: ponding.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
VW*:					
Vassalboro	Severe: ponding.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
Wonsqueak	Severe: ponding, percs slowly.	Severe: seepage, excess humus.	Severe: ponding.	Severe: seepage, ponding.	Poor: ponding.
Wk Wonsqueak	Severe: ponding, percs slowly.	Severe: seepage, excess humus.	Severe: ponding.	Severe: seepage, ponding.	Poor: ponding.
WS*:					
Wonsqueak	Severe: ponding, percs slowly.	Severe: seepage, excess humus.	Severe: ponding.	Severe: seepage, ponding.	Poor: ponding.
Searsport	Severe: ponding, poor filter.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--CONSTRUCTION MATERIALS

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
AbE*:				
Abram	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Rock outcrop	Poor: depth to rock, slope.	---	---	Poor: depth to rock, slope.
ACC*:				
Abram	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Rock outcrop	Poor: depth to rock.	---	---	Poor: depth to rock.
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
ACE*:				
Abram	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Rock outcrop	Poor: depth to rock, slope.	---	---	Poor: depth to rock, slope.
Lyman	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
AdA, AdB, AdC Adams	Good	Probable	Improbable: too sandy.	Poor: too sandy.
AdD Adams	Fair: slope.	Probable	Improbable: too sandy.	Poor: slope, too sandy.
AED Adams	Poor: slope.	Probable	Improbable: too sandy.	Poor: slope, too sandy.
AGC*:				
Adams	Good	Probable	Improbable: too sandy.	Poor: too sandy.
Croghan	Fair: wetness.	Probable	Improbable: too sandy.	Fair: too sandy, small stones.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
AHC*:				
Adams	Good	Probable	Improbable: too sandy.	Poor: too sandy.
Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
AHD*:				
Adams	Poor: slope.	Probable	Improbable: too sandy.	Poor: slope, too sandy.
Hermon	Poor: slope.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
BeB, BeC Becket	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
BeD Becket	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
BkB, BkC Becket	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
BkD Becket	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Bp*, BRB*:				
Brayton	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim, wetness.
Peacham	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, excess humus, small stones.
Ca, Cb Charles	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
CeB, CeC, CfB, CfC Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
CgB, CgC Colton	Good	Probable	Probable	Poor: small stones, too sandy.
CgD Colton	Fair: slope.	Probable	Probable	Poor: slope, small stones, too sandy.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
CHC*:				
Colton	Good	Probable	Probable	Poor: small stones, too sandy.
Adams	Good	Probable	Improbable: too sandy.	Poor: too sandy.
CHD*:				
Colton	Poor: slope.	Probable	Probable	Poor: slope, small stones, too sandy.
Adams	Poor: slope.	Probable	Improbable: too sandy.	Poor: slope, too sandy.
Co, Cp Cornish	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Good.
CrA, CrB Croghan	Fair: wetness.	Probable	Improbable: too sandy.	Fair: too sandy, small stones.
DfB, DfC Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
DsB, DsC Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim.
DTC*:				
Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
DUC*:				
Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
DUD*:				
Dixfield	Fair: wetness, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim, slope.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
DWC*:				
Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Marlow	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
DXC*:				
Dixfield	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim.
Marlow	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
DXD*:				
Dixfield	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim, slope.
Marlow	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Fr Fryeburg	Good	Probable	Improbable: too sandy.	Fair: too sandy.
HeB, HeC Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
HeD Hermon	Fair: large stones, slope.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
HmB, HmC Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
HmD Hermon	Fair: large stones, slope.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
HsC Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
HsD Hermon	Fair: large stones, slope.	Probable	Probable	Poor: too sandy, small stones, area reclaim.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
HTD*, HTE*:				
Hermon	Poor: slope.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
Monadnock	Poor: slope.	Probable	Improbable: too sandy.	Poor: small stones, slope.
HVC*:				
Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
Lo Lovewell	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy.
LtB*, LtC*:				
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Tunbridge	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
LtD*:				
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Tunbridge	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
LUD*, LUE*:				
Lyman	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Tunbridge	Poor: area reclaim, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Becket	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
LWC*:				
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Tunbridge	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
LWC*:				
Monadnock	Good	Probable	Improbable: too sandy.	Poor: small stones.
LWD*, LWE*:				
Lyman	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Tunbridge	Poor: area reclaim, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Monadnock	Poor: slope.	Probable	Improbable: too sandy.	Poor: small stones, slope.
LXC*:				
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Tunbridge	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
MaB, MaC Marlow	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
MaD Marlow	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
MeC Marlow	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
MeD Marlow	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Mk Medomak	Poor: wetness.	Probable	Probable	Poor: area reclaim, wetness.
ML*:				
Medomak	Poor: wetness.	Probable	Probable	Poor: area reclaim, wetness.
Wonsqueak	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
MnB Monadnock	Good	Probable	Improbable: too sandy.	Fair: small stones.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
MnC: Monadnock	Good	Probable	Improbable: too sandy.	Fair: small stones, slope.
MnD: Monadnock	Fair: slope.	Probable	Improbable: too sandy.	Poor: slope.
MvC: Monadnock	Good	Probable	Improbable: too sandy.	Poor: small stones.
MvD: Monadnock	Fair: slope.	Probable	Improbable: too sandy.	Poor: small stones, slope.
MWC*:				
Monadnock	Good	Probable	Improbable: too sandy.	Fair: small stones, slope.
Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
Skerry	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
MXC*:				
Monadnock	Good	Probable	Improbable: too sandy.	Poor: small stones.
Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
Nb: Naumburg	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
NCB*:				
Naumburg	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
Croghan	Fair: wetness.	Probable	Improbable: too sandy.	Fair: too sandy, small stones.
NvB: Nicholville	Poor: frost action.	Improbable: excess fines.	Improbable: excess fines.	Good.
Od, On: Ondawa	Good	Probable	Improbable: too sandy.	Fair: thin layer, small stones.
Pg*: Pits	Good	Probable	Probable	Poor: too sandy, small stones, area reclaim.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
Ps*: Pits	Good	Probable	Improbable: too sandy.	Poor: too sandy, small stones.
Pt, Pw: Podunk	Fair: wetness.	Probable	Improbable: too sandy.	Fair: small stones, thin layer, area reclaim.
RCE*:				
Ricker	Poor: area reclaim, thin layer, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, slope, excess humus.
Saddleback	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Rock outcrop	Poor: depth to rock, slope.	---	---	Poor: depth to rock, slope.
Rm*: Riverwash	Poor: wetness.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
RNE*:				
Rock outcrop	Poor: depth to rock, slope.	---	---	Poor: depth to rock, slope.
Ricker	Poor: area reclaim, thin layer, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, slope, excess humus.
Ro: Roundabout	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Ru, Ry: Rumney	Poor: wetness.	Probable	Improbable: too sandy.	Poor: wetness, small stones, area reclaim.
RZ*:				
Rumney	Poor: wetness.	Probable	Improbable: too sandy.	Poor: wetness, small stones, area reclaim.
Podunk	Fair: wetness.	Probable	Improbable: too sandy.	Fair: small stones, thin layer, area reclaim.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
SAD*:				
Saddleback	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Ricker	Poor: area reclaim, thin layer.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, slope, excess humus.
SAE*:				
Saddleback	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
Ricker	Poor: area reclaim, thin layer, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, slope, excess humus.
Se Searsport	Poor: wetness.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
SkB, SkC Skerry	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
SnB, SnC Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
SnD Skerry	Fair: wetness, slope.	Probable	Probable	Poor: small stones, slope.
SOC*:				
Skerry	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Becket	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
SOD*:				
Skerry	Fair: wetness, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Becket	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
SRC*:				
Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
Becket	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
SRD*:				
Skerry	Fair: wetness, slope.	Probable	Probable	Poor: small stones, slope.
Becket	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
SSC*:				
Skerry	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
STC*:				
Skerry	Fair: wetness.	Probable	Probable	Poor: small stones.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
STD*:				
Skerry	Fair: wetness, slope.	Probable	Probable	Poor: small stones, slope.
Colonel	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, small stones.
Su, Sy Sunday	Good	Probable	Improbable: too sandy.	Poor: too sandy.
TyB*, TyC*:				
Tunbridge	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, area reclaim, small stones.
TyD*:				
Tunbridge	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Lyman	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope, depth to rock, small stones.
UaC*:				
Urban land	Variable	Variable	Variable	Variable.
Adams	Good	Probable	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
UhC*:				
Urban land	Variable	Variable	Variable	Variable.
Hermon	Fair: large stones.	Probable	Probable	Poor: too sandy, small stones, area reclaim.
Va, Vb Vassalboro	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
VW*:				
Vassalboro	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Wonsqueak	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
Wk Wonsqueak	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
WS*:				
Wonsqueak	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
Searsport	Poor: wetness.	Probable	Probable	Poor: too sandy, small stones, area reclaim.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 13.--WATER MANAGEMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
AbE*:							
Abram------------	Severe: depth to rock, slope.	Severe: thin layer.	Severe: no water.	Deep to water	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
Rock outcrop-----	Severe: depth to rock, slope.	---	Severe: depth to rock.	Depth to rock	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
ACC*:							
Abram------------	Severe: depth to rock.	Severe: thin layer.	Severe: no water.	Deep to water	Slope, depth to rock.	Depth to rock	Depth to rock.
Rock outcrop-----	Severe: depth to rock.	---	Severe: depth to rock.	Depth to rock	Slope, depth to rock.	Depth to rock	Depth to rock.
Lyman------------	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
ACE*:							
Abram------------	Severe: depth to rock, slope.	Severe: thin layer.	Severe: no water.	Deep to water	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
Rock outcrop-----	Severe: depth to rock, slope.	---	Severe: depth to rock.	Depth to rock	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
Lyman------------	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
AdA--------------- Adams	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake.	Too sandy------	Droughty.
AdB--------------- Adams	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Too sandy------	Droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
AdC, AdD, AED----- Adams	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, too sandy.	Slope, droughty.
AGC*:							
Adams------------	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Too sandy------	Droughty.
Croghan----------	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Slope, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, too sandy.	Droughty.
AHC*:							
Adams------------	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Too sandy------	Droughty.
Hermon-----------	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, too sandy.	Large stones, droughty.
AHD*:							
Adams------------	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, too sandy.	Slope, droughty.
Hermon-----------	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
BeB--------------- Becket	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Percs slowly---	Rooting depth, percs slowly.
BeC, BeD---------- Becket	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
BkB--------------- Becket	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Deep to water	Rooting depth, slope.	Percs slowly---	Rooting depth, percs slowly.
BkC, BkD---------- Becket	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
Bp*, BRB*:							
Brayton	Moderate: seepage.	Severe: piping, wetness.	Severe: no water.	Percs slowly, frost action.	Wetness, droughty.	Wetness, percs slowly.	Wetness.
Peacham	Slight	Severe: piping, ponding.	Severe: slow refill.	Ponding, percs slowly, frost action.	Ponding, droughty.	Large stones, ponding, rooting depth.	Large stones, wetness, droughty.
Ca, Cb Charles	Moderate: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Flooding, frost action, cutbanks cave.	Wetness, flooding.	Erodes easily, wetness.	Wetness, erodes easily.
CeB Colonel	Moderate: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Wetness, rooting depth.
CeC Colonel	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Wetness, slope, rooting depth.
CfB Colonel	Moderate: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Wetness, rooting depth.
CfC Colonel	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Wetness, slope, rooting depth.
CgB Colton	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Large stones, too sandy.	Large stones, droughty.
CgC, CgD Colton	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, large stones, too sandy.	Large stones, slope, droughty.
CHC*:							
Colton	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Large stones, too sandy.	Large stones, droughty.
Adams	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Too sandy	Droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
CHD*:							
Colton	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, large stones, too sandy.	Large stones, slope, droughty.
Adams	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Slope, too sandy.	Slope, droughty.
Co, Cp: Cornish	Moderate: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Flooding, frost action, cutbanks cave.	Wetness, flooding.	Erodes easily, wetness.	Wetness, erodes easily.
CrA: Croghan	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty, fast intake.	Wetness, too sandy.	Droughty.
CrB: Croghan	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Slope, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, too sandy.	Droughty.
DfB: Dixfield	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Rooting depth, percs slowly.
DfC: Dixfield	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
DsB: Dixfield	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Rooting depth, percs slowly.
DsC: Dixfield	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
DTC*, DUC*:							
Dixfield	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
Colonel	Moderate: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Wetness, rooting depth.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
DUD*:							
Dixfield	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
Colonel	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Wetness, slope, rooting depth.
DWC*, DXC*, DXD*:							
Dixfield	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
Marlow	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
Fr Fryeburg	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Favorable	Erodes easily	Erodes easily.
HeB Hermon	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, too sandy.	Large stones, droughty.
HeC, HeD Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
HmB Hermon	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, too sandy.	Large stones, droughty.
HmC, HmD Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
HsC Hermon	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, too sandy.	Large stones, droughty.
HsD Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Limitations for-- Embankments, dikes, and levees	Limitations for-- Aquifer-fed excavated ponds	Features affecting-- Drainage	Features affecting-- Irrigation	Features affecting-- Terraces and diversions	Features affecting-- Grassed waterways
HTD*, HTE*:							
Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
Monadnock	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Slope, too sandy.	Slope.
HVC*:							
Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
Lo Lovewell	Moderate: seepage.	Severe: piping, wetness.	Severe: cutbanks cave.	Flooding, frost action, cutbanks cave.	Wetness, flooding.	Erodes easily, wetness.	Erodes easily.
LtB*:							
Lyman	Severe: depth to rock.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Depth to rock	Droughty, depth to rock.
Tunbridge	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Large stones, depth to rock.	Large stones, droughty.
LtC*, LtD*:							
Lyman	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
Tunbridge	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, droughty.
LUD*, LUE*:							
Lyman	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
Tunbridge	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
LUD*, LUE*:							
Becket	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
LWC*, LWD*, LWE*:							
Lyman	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
Tunbridge	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, droughty.
Monadnock	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Slope, too sandy.	Slope.
LXC*:							
Lyman	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Droughty, depth to rock, slope.	Slope, depth to rock.	Slope, droughty, depth to rock.
Tunbridge	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, droughty.
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
MaB Marlow	Moderate: slope.	Severe: piping.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Percs slowly	Rooting depth, percs slowly.
MaC, MaD, MeC, MeD Marlow	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
Mk Medomak	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, flooding, frost action.	Ponding, flooding.	Erodes easily, ponding, too sandy.	Wetness, erodes easily.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
ML*:							
Medomak	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, flooding, frost action.	Ponding, flooding.	Erodes easily, ponding, too sandy.	Wetness, erodes easily.
Wonsqueak	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill.	Ponding, flooding, frost action.	Ponding, flooding.	Erodes easily, ponding.	Wetness, erodes easily.
MnB Monadnock	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Too sandy	Favorable.
MnC, MnD, MvC, MvD Monadnock	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Slope, too sandy.	Slope.
MWC*:							
Monadnock	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Slope, too sandy.	Slope.
Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Wetness, percs slowly.	Rooting depth, percs slowly.
MXC*:							
Monadnock	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope	Slope, too sandy.	Slope.
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
Nb Naumburg	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty, fast intake.	Wetness, too sandy.	Wetness, droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Limitations for-- Embankments, dikes, and levees	Limitations for-- Aquifer-fed excavated ponds	Features affecting-- Drainage	Features affecting-- Irrigation	Features affecting-- Terraces and diversions	Features affecting-- Grassed waterways
NCB*:							
Naumburg	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Slope, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, too sandy.	Wetness, droughty.
Croghan	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Slope, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, too sandy.	Droughty.
NvB Nicholville	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Cutbanks cave	Erodes easily	Erodes easily	Erodes easily.
Od, On Ondawa	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Flooding	Too sandy, erodes easily.	Erodes easily.
Pg* Pits	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake.	Large stones, too sandy.	Large stones, droughty.
Ps* Pits	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, soil blowing.	Too sandy, soil blowing.	Droughty.
Pt, Pw Podunk	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Frost action, flooding, cutbanks cave.	Wetness, flooding.	Wetness, too sandy, erodes easily.	Erodes easily.
RCE*:							
Ricker	Severe: depth to rock, slope.	Severe: thin layer.	Severe: deep to water.	Depth to rock, slope.	Depth to rock, slope.	Slope, depth to rock, erodes easily.	Slope, erodes easily, depth to rock.
Saddleback	Severe: depth to rock, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, depth to rock.
Rock outcrop	Severe: depth to rock, slope.	---	Severe: depth to rock.	Depth to rock	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
Rm* Riverwash	Severe: seepage.	Severe: wetness.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty, fast intake.	Large stones, wetness, too sandy.	Large stones, wetness, droughty.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
RNE*:							
Rock outcrop	Severe: depth to rock, slope.	---	Severe: depth to rock.	Depth to rock	Slope, depth to rock.	Slope, depth to rock.	Slope, depth to rock.
Ricker	Severe: depth to rock, slope.	Severe: thin layer.	Severe: deep to water.	Depth to rock, slope.	Depth to rock, slope.	Slope, depth to rock, erodes easily.	Slope, erodes easily, depth to rock.
Ro: Roundabout	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Percs slowly, frost action.	Wetness, percs slowly.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Ru, Ry: Rumney	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Frost action, flooding, cutbanks cave.	Flooding, wetness.	Wetness, too sandy, erodes easily.	Wetness, erodes easily.
RZ*:							
Rumney	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Frost action, flooding, cutbanks cave.	Flooding, wetness.	Wetness, too sandy, erodes easily.	Wetness, erodes easily.
Podunk	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Frost action, flooding, cutbanks cave.	Wetness, flooding.	Wetness, too sandy, erodes easily.	Erodes easily.
SAD*, SAE*:							
Saddleback	Severe: depth to rock, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, depth to rock.	Slope, large stones, depth to rock.	Large stones, slope, depth to rock.
Ricker	Severe: depth to rock, slope.	Severe: thin layer.	Severe: deep to water.	Depth to rock, slope.	Depth to rock, slope.	Slope, depth to rock, erodes easily.	Slope, erodes easily, depth to rock.
Se: Searsport	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty.	Ponding, too sandy.	Wetness, droughty.
SkB: Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Wetness, percs slowly.	Rooting depth, percs slowly.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
SkC----------------Skerry	Severe: slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
SnB----------------Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
SnC, SnD----------Skerry	Severe: slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Slope, large stones, wetness.	Large stones, slope, rooting depth.
SOC*:							
Skerry-----------	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Wetness, percs slowly.	Rooting depth, percs slowly.
Becket-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
SOD*:							
Skerry-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Slope, wetness, percs slowly.	Slope, rooting depth, percs slowly.
Becket-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Percs slowly, rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
SRC*:							
Skerry-----------	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
Becket-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.
SRD*:							
Skerry-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Slope, large stones, wetness.	Large stones, slope, rooting depth.
Becket-----------	Severe: slope.	Moderate: seepage.	Severe: no water.	Deep to water	Rooting depth, slope.	Slope, percs slowly.	Slope, rooting depth, percs slowly.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
SSC*:							
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Wetness, percs slowly.	Rooting depth, percs slowly.
Colonel	Moderate: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Wetness, rooting depth.
STC*:							
Skerry	Moderate: seepage, slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Large stones, wetness, percs slowly.	Large stones, rooting depth, percs slowly.
Colonel	Moderate: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Wetness, percs slowly.	Wetness, rooting depth.
STD*:							
Skerry	Severe: slope.	Moderate: seepage.	Severe: no water.	Percs slowly, frost action, slope.	Wetness, rooting depth, slope.	Slope, large stones, wetness.	Large stones, slope, rooting depth.
Colonel	Severe: slope.	Severe: piping.	Severe: no water.	Percs slowly, frost action, slope.	Slope, wetness, percs slowly.	Slope, wetness, percs slowly.	Wetness, slope, rooting depth.
Su, Sy Sunday	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, flooding.	Too sandy	Droughty.
TyB*:							
Tunbridge	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Depth to rock	Droughty, depth to rock.
Lyman	Severe: depth to rock.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Depth to rock	Droughty, depth to rock.
TyC*, TyD*:							
Tunbridge	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, depth to rock.	Slope, droughty, depth to rock.
Lyman	Severe: depth to rock, slope.	Severe: thin layer, piping.	Severe: no water.	Deep to water	Slope, droughty, depth to rock.	Slope, depth to rock.	Slope, droughty, depth to rock.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
UaC*:							
Urban land	Variable	Variable	Variable	Variable	Variable	Variable	Variable.
Adams	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake, slope.	Too sandy	Droughty.
UhC*:							
Urban land	Variable	Variable	Variable	Variable	Variable	Variable	Variable.
Hermon	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Slope, large stones, too sandy.	Large stones, slope, droughty.
Va Vassalboro	Severe: seepage.	Severe: excess humus, wetness.	Slight	Frost action	Wetness	Wetness	Wetness.
Vb Vassalboro	Severe: seepage.	Severe: excess humus, ponding.	Slight	Ponding, frost action.	Ponding	Ponding	Wetness.
VW*:							
Vassalboro	Severe: seepage.	Severe: excess humus, ponding.	Slight	Ponding, frost action.	Ponding	Ponding	Wetness.
Wonsqueak	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill.	Ponding, frost action.	Ponding	Erodes easily, ponding.	Wetness, erodes easily.
Wk Wonsqueak	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill.	Ponding, frost action.	Ponding	Erodes easily, ponding.	Wetness, erodes easily.
WS*:							
Wonsqueak	Severe: seepage.	Severe: piping, ponding.	Severe: slow refill.	Ponding, frost action.	Ponding	Erodes easily, ponding.	Wetness, erodes easily.
Searsport	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty.	Ponding, too sandy.	Wetness, droughty.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 14.--ENGINEERING INDEX PROPERTIES

(The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated)

Soil name and map symbol	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	
AbE*:												
Abram--------	0-5	Sandy loam----	SM, GM	A-1, A-2, A-4	0	0-15	65-95	60-95	35-80	20-50	<35	NP-5
	5-9	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Rock outcrop-	0-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
ACC*, ACE*:												
Abram--------	0-5	Sandy loam----	SM, GM	A-1, A-2, A-4	0	0-15	65-95	60-95	35-80	20-50	<35	NP-5
	5-9	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Rock outcrop-	0-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Lyman--------	0-2	Very stony fine sandy loam.	SM, ML, GM	A-1, A-2, A-4	1-5	5-20	65-95	60-90	35-80	15-75	<30	NP-6
	2-15	Loam, channery fine sandy loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	0-10	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
AdA, AdB, AdC, AdD, AED----- Adams	0-2	Loamy sand----	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	45-85	5-40	---	NP
	2-19	Loamy sand, sand, loamy fine sand.	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	35-95	5-40	---	NP
	19-65	Fine sand, coarse sand, gravelly sand.	SP-SM, SW-SM, SP	A-1, A-2, A-3	---	0-1	80-100	70-100	20-90	0-10	---	NP
AGC*:												
Adams--------	0-2	Loamy sand----	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	45-85	5-40	---	NP
	2-19	Loamy sand, sand, loamy fine sand.	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	35-95	5-40	---	NP
	19-65	Fine sand, coarse sand, gravelly sand.	SP-SM, SW-SM, SP	A-1, A-2, A-3	---	0-1	80-100	70-100	20-90	0-10	---	NP
Croghan------	0-2	Loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-3, A-4, A-2	0	0	95-100	95-100	45-80	5-40	---	NP
	2-35	Sand, loamy sand, loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3, A-4	0	0	80-100	75-100	45-80	5-40	---	NP
	35-65	Fine sand, loamy sand, coarse sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	80-100	75-100	45-75	5-30	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	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	
AHC*, AHD*:												
Adams	0-2	Loamy sand	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	45-85	5-40	---	NP
	2-19	Loamy sand, sand, loamy fine sand.	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	35-95	5-40	---	NP
	19-65	Fine sand, coarse sand, gravelly sand.	SP-SM, SW-SM, SP	A-1, A-2, A-3	---	0-1	80-100	70-100	20-90	0-10	---	NP
Hermon	0-3	Very stony sandy loam.	SM, GM	A-2, A-4, A-1	1-5	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	3-9	Fine sandy loam, sandy loam, very gravelly coarse sandy loam.	SM, GM	A-1, A-2, A-4	0-15	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	9-32	Very gravelly sandy loam, extremely gravelly loamy sand.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-20	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-20	10-30	40-80	35-75	10-55	5-25	---	NP
BeB, BeC, BeD-Becket	0-7	Fine sandy loam.	SM	A-2, A-4	0-1	0-10	85-95	75-90	60-85	20-50	<30	NP
	7-24	Fine sandy loam, sandy loam, gravelly sandy loam.	SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP
	24-65	Sandy loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
BkB, BkC, BkD-Becket	0-2	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	2-25	Fine sandy loam, sandy loam, gravelly sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	25-45	<25	NP-10
	25-65	Sandy loam, loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
Bp*, BRB*:												
Brayton	0-5	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	65-95	55-90	35-90	20-80	<30	NP-10
	5-24	Fine sandy loam, gravelly sandy loam, silt loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	65-95	55-90	35-90	20-80	<30	NP-10
	24-65	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	65-95	55-90	35-85	20-70	<30	---
Peacham	0-8	Very stony muck.	PT	A-8	1-5	5-15	---	---	---	---	---	---
	8-13	Silt loam, loam, gravelly sandy loam.	SM, ML	A-2, A-4, A-6	0-5	0-15	75-100	65-100	40-100	20-90	<30	NP-15
	13-65	Silt loam, loam, gravelly sandy loam.	SM, ML	A-2, A-4, A-6	0-5	0-15	75-100	65-100	40-100	20-90	<30	NP-15
Ca, Cb Charles	0-9	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	<40	NP-15
	9-65	Silt loam, very fine sandy loam, loamy very fine sand.	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	60-95	<40	NP-15
CeB, CeC Colonel	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-17	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-5	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	17-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
CfB, CfC Colonel	0-2	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	2-18	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	18-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO			4	10	40	200		
	In				Pct	Pct					Pct	
CgB, CgC, CgD-Colton	0-5	Gravelly loamy sand.	SM, SP, GW, GM	A-1, A-2, A-3	0	5-20	30-80	25-75	25-60	2-25	---	NP
	5-23	Gravelly loamy sand, very gravelly loamy sand, cobbly coarse sand.	SM, GM, SP, GP	A-1	0-2	5-20	30-80	25-75	20-50	2-20	---	NP
	23-65	Very gravelly loamy sand, very cobbly sand, extremely gravelly coarse sand.	GP, SP, GW, SW	A-1	0-5	10-45	20-55	15-50	10-30	0-5	---	NP
CHC*, CHD*:												
Colton-------	0-5	Gravelly loamy sand.	SM, SP, GW, GM	A-1, A-2, A-3	0	5-20	30-80	25-75	25-60	2-25	---	NP
	5-23	Gravelly loamy fine sand, very gravelly sand, cobbly coarse sand.	SM, GM, SP, GP	A-1	0-2	5-20	30-80	25-75	20-50	2-20	---	NP
	23-65	Very gravelly loamy sand, very cobbly sand, extremely gravelly coarse sand.	GP, SP, GW, SW	A-1	0-5	10-45	20-55	15-50	10-30	0-5	---	NP
Adams--------	0-2	Loamy sand----	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	45-85	5-40	---	NP
	2-19	Loamy sand, sand, loamy fine sand.	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	35-95	5-40	---	NP
	19-65	Fine sand, coarse sand, gravelly sand.	SP-SM, SW-SM, SP	A-1, A-2, A-3	---	0-1	80-100	70-100	20-90	0-10	---	NP
Co, Cp-------- Cornish	0-12	Very fine sandy loam.	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	<40	NP-15
	12-35	Very fine sandy loam, silt loam.	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	80-95	<40	NP-15
	35-65	Very fine sandy loam, silt loam, loamy very fine sand.	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	60-95	<40	NP-15
CrA, CrB------ Croghan	0-2	Loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-3, A-4, A-2	0	0	95-100	95-100	45-80	5-40	---	NP
	2-35	Sand, loamy sand, loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3, A-4	0	0	80-100	75-100	45-80	5-40	---	NP
	35-65	Fine sand, loamy sand, coarse sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	80-100	75-100	45-75	5-30	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	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	
DfB, DfC------ Dixfield	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-22	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	22-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
DsB, DsC------ Dixfield	0-5	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	5-24	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	24-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-15	75-95	60-90	35-85	20-70	<25	NP-10
DTC*:												
Dixfield-----	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-22	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	22-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
Colonel------	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-17	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-5	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	17-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	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	
DUC*, DUD*:												
Dixfield-----	0-5	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	5-24	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	24-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-15	75-95	60-90	35-85	20-70	<25	NP-10
Colonel------	0-2	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	2-18	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	18-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
DWC*:												
Dixfield-----	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-22	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	22-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
Marlow-------	0-9	Fine sandy loam.	SM, ML, CL-ML, SC	A-2, A-4	0-1	0-10	90-100	75-90	50-90	30-80	<30	NP-10
	9-34	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	75-95	60-90	40-85	20-65	<30	NP-10
	34-65	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	70-90	60-85	35-80	20-60	<30	NP-10

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
DXC*, DXD*:												
Dixfield-----	0-5	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	5-24	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	24-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-15	75-95	60-90	35-85	20-70	<25	NP-10
Marlow-------	0-5	Very stony fine sandy loam.	SM, ML, CL-ML, SC	A-2, A-4	1-5	5-15	90-100	75-90	50-90	30-80	<30	NP-10
	5-36	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	75-95	60-90	40-85	20-65	<30	NP-10
	36-65	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	70-90	60-85	35-80	20-60	<30	NP-10
Fr------------ Fryeburg	0-11	Very fine sandy loam.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	80-95	<40	NP-15
	11-22	Very fine sandy loam, silt loam.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	80-95	<40	NP-15
	22-50	Very fine sandy loam, silt loam, loamy very fine sand.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	60-95	<40	NP-15
	50-65	Stratified silt loam to sand and gravel.	SM, ML, SP-SM	A-4, A-1, A-3, A-2	0	0	90-100	75-100	40-90	5-80	---	NP
HeB, HeC, HeD- Hermon	0-7	Sandy loam----	SM	A-2, A-4	0-1	0-5	80-95	75-90	50-80	15-45	<40	NP-10
	7-30	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-15	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	30-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-15	10-30	40-80	30-75	10-55	5-25	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO			4	10	40	200		
	In				Pct	Pct					Pct	
HmB, HmC, HmD- Hermon	0-3	Very stony sandy loam.	SM, GM	A-2, A-4, A-1	1-5	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	3-9	Fine sandy loam, sandy loam, very gravelly coarse sandy loam.	SM, GM	A-1, A-2, A-4	0-15	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	9-32	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-20	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-20	10-30	40-80	35-75	10-55	5-25	---	NP
HsC, HsD------ Hermon	0-3	Extremely stony sandy loam.	SM, GM	A-2, A-4, A-1	5-25	10-50	60-95	50-90	30-80	15-45	<40	NP-10
	3-9	Fine sandy loam, sandy loam, very gravelly coarse sandy loam.	SM, GM	A-1, A-2, A-4	0-15	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	9-32	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-20	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-20	10-30	40-80	35-75	10-55	5-25	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
HTD*, HTE*:												
Hermon-------	0-3	Very stony sandy loam.	SM, GM	A-2, A-4, A-1	1-5	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	3-9	Fine sandy loam, sandy loam, very gravelly coarse sandy loam.	SM, GM	A-1, A-2, A-4	0-15	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	9-32	Very gravelly sandy loam, extremely gravelly loamy sand.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-20	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-20	10-30	40-80	35-75	10-55	5-25	---	NP
Monadnock----	0-5	Very stony fine sandy loam.	SM, ML	A-2, A-4	1-5	5-15	80-100	70-90	50-85	30-60	<40	NP-10
	5-21	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-95	70-90	50-85	30-60	<40	NP-10
	21-65	Loamy sand, loamy fine sand, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-85	50-80	20-60	10-35	---	NP
HVC*:												
Hermon-------	0-3	Very stony sandy loam.	SM, GM	A-2, A-4, A-1	1-5	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	3-9	Fine sandy loam, sandy loam, very gravelly coarse sandy loam.	SM, GM	A-1, A-2, A-4	0-15	5-30	60-95	50-90	30-80	15-45	<40	NP-10
	9-32	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-20	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-20	10-30	40-80	35-75	10-55	5-25	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification Unified	Classification AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
HVC*:												
Skerry-------	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
Lo------------ Lovewell	0-14	Very fine sandy loam.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	80-95	<40	NP-15
	14-22	Very fine sandy loam, silt loam.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	80-95	<40	NP-15
	22-65	Very fine sandy loam, silt loam, loamy very fine sand.	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	60-95	<40	NP-15
LtB*, LtC*, LtD*:												
Lyman-------	0-2	Very stony fine sandy loam.	SM, ML, GM	A-1, A-2, A-4	1-5	5-20	65-95	60-90	35-80	15-75	<30	NP-6
	2-15	Loam, channery sandy loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	0-10	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Tunbridge---	0-3	Very stony fine sandy loam.	SM, ML, GM	A-4, A-2	1-5	5-25	55-100	50-95	35-90	20-60	<20	NP-2
	3-26	Silt loam, gravelly sandy loam, channery fine sandy loam.	SM, ML	A-5, A-2	0-5	0-15	70-100	60-95	35-95	20-85	<50	NP-6
	26-30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
LUD*, LUE*:												
Lyman--------	0-2	Very stony fine sandy loam.	SM, ML, GM	A-1, A-2, A-4	1-5	5-20	65-95	60-90	35-80	15-75	<30	NP-6
	2-15	Loam, channery sandy loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	0-10	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag-ments > 10 inches	Frag-ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
LUD*, LUE*:												
Tunbridge----	0-3	Very stony fine sandy loam.	SM, ML, GM	A-4, A-2	1-5	5-25	55-100	50-95	35-90	20-60	<20	NP-2
	3-26	Silt loam, gravelly fine sandy loam, channery fine sandy loam.	SM, ML	A-5, A-2	0-5	0-15	70-100	60-95	35-95	20-85	<50	NP-6
	26-30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Becket-------	0-2	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	2-25	Fine sandy loam, sandy loam, gravelly sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	25-45	<25	NP-10
	25-65	Sandy loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
LWC*, LWD*, LWE*:												
Lyman-------	0-2	Very stony fine sandy loam.	SM, ML, GM	A-1, A-2, A-4	1-5	5-20	65-95	60-90	35-80	15-75	<30	NP-6
	2-15	Loam, channery fine sandy loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	0-10	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Tunbridge---	0-3	Very stony fine sandy loam.	SM, ML, GM	A-4, A-2	1-5	5-25	55-100	50-95	35-90	20-60	<20	NP-2
	3-26	Silt loam, gravelly fine sandy loam, channery fine sandy loam.	SM, ML	A-5, A-2	0-5	0-15	70-100	60-95	35-95	20-85	<50	NP-6
	26-30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Monadnock---	0-5	Very stony fine sandy loam.	SM, ML	A-2, A-4	1-5	5-15	80-100	70-90	50-85	30-60	<40	NP-10
	5-21	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-95	70-90	50-85	30-60	<40	NP-10
	21-65	Loamy sand, loamy fine sandy, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-85	50-80	20-60	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
LXC*:												
Lyman	0-2	Very stony fine sandy loam.	SM, ML, GM	A-1, A-2, A-4	0-1	5-20	65-95	60-90	35-80	15-75	<30	NP-6
	2-15	Loam, channery sandy loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	0-10	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Tunbridge	0-3	Very stony fine sandy loam.	SM, ML, GM	A-4, A-2	1-5	5-25	55-100	50-95	35-90	20-60	<20	NP-2
	3-26	Silt loam, gravelly sandy loam, channery fine sandy loam.	SM, ML	A-5, A-2	0-5	0-15	70-100	60-95	35-95	20-85	<50	NP-6
	26-30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Skerry	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
MaB, MaC, MaD-Marlow	0-9	Fine sandy loam.	SM, ML, CL-ML, SC	A-2, A-4	0-1	0-10	90-100	75-90	50-90	30-80	<30	NP-10
	9-34	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	75-95	60-90	40-85	20-65	<30	NP-10
	34-65	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	70-90	60-85	35-80	20-60	<30	NP-10
MeC, MeD Marlow	0-5	Very stony fine sandy loam.	SM, ML, CL-ML, SC	A-2, A-4	1-5	5-15	90-100	75-90	50-90	30-80	<30	NP-10
	5-36	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	75-95	60-90	40-85	20-65	<30	NP-10
	36-65	Fine sandy loam, loam, gravelly sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4, A-1-b	0-10	0-15	70-90	60-85	35-80	20-60	<30	NP-10

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
Mk------------ Medomak	0-13	Silt loam-----	ML, CL-ML, CL	A-4, A-6	0	0	95-100	90-100	85-100	80-95	<40	NP-15
	13-52	Silt loam, very fine sandy loam, loamy very fine sand.	ML	A-4	0	0	95-100	90-100	85-100	60-95	<40	NP-10
	52-65	Stratified silt loam to sand and gravel.	SM, ML, SP-SM, GM	A-2, A-3, A-4, A-1	0	0	40-100	35-100	20-95	2-90	---	NP
ML*:												
Medomak------	0-13	Silt loam-----	ML, CL-ML, CL	A-4, A-6	0	0	95-100	90-100	85-100	80-95	<40	NP-15
	13-52	Silt loam, very fine sandy loam, loamy very fine sand.	ML	A-4	0	0	95-100	90-100	85-100	60-95	<40	NP-10
	52-65	Stratified silt loam to sand and gravel.	SM, ML, SP-SM, GM	A-2, A-3, A-4, A-1	0	0	40-100	35-100	20-95	2-90	---	NP
Wonsqueak----	0-6	Mucky peat----	PT	A-8	0	0	---	---	---	---	---	---
	6-40	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	40-65	Silt loam, fine sandy loam, silty clay loam.	ML, SM, CL-ML, CL	A-4, A-2, A-6	0	0-5	85-100	75-100	50-100	30-95	<40	NP-20
MnB, MnC, MnD- Monadnock	0-7	Fine sandy loam.	SM, ML	A-2, A-4	0-1	0-5	90-100	85-100	55-85	30-60	<40	NP-10
	7-20	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-100	70-100	50-85	30-60	<40	NP-10
	20-65	Loamy sand, loamy fine sand, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-100	50-100	20-60	10-35	---	NP
MvC, MvD------ Monadnock	0-5	Very stony fine sandy loam.	SM, ML	A-2, A-4	1-5	5-15	80-100	70-90	50-85	30-60	<40	NP-10
	5-21	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-95	70-90	50-85	30-60	<40	NP-10
	21-65	Loamy sand, loamy fine sand, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-85	50-80	20-60	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag-ments > 10 inches	Frag-ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
MWC*:												
Monadnock	0-7	Fine sandy loam.	SM, ML	A-2, A-4	0-1	0-5	90-100	85-100	55-85	30-60	<40	NP-10
	7-20	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-100	70-100	50-85	30-60	<40	NP-10
	20-65	Loamy sand, loamy fine sand, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-100	50-100	20-60	10-35	---	NP
Hermon	0-7	Sandy loam	SM	A-2, A-4	0-1	0-5	80-95	75-90	50-80	15-45	<40	NP-10
	7-30	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-15	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	30-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-15	10-30	40-80	30-75	10-55	5-25	---	NP
Skerry	0-6	Fine sandy loam.	SM, SC, SC-SM	A-2, A-4	0-1	0-10	80-95	75-90	60-85	30-50	<30	NP-10
	6-22	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	22-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
MXC*:												
Monadnock	0-5	Very stony fine sandy loam.	SM, ML	A-2, A-4	1-5	5-15	80-100	70-90	50-85	30-60	<40	NP-10
	5-21	Fine sandy loam, loam, gravelly fine sandy loam.	SM, ML	A-2, A-4	0-15	0-15	80-95	70-90	50-85	30-60	<40	NP-10
	21-65	Loamy sand, loamy fine sand, very gravelly loamy sand.	SM, SP-SM, SW-SM	A-1, A-2	0-25	0-20	65-85	50-80	20-60	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
MXC*:												
Skerry	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
Nb Naumburg	0-7	Loamy sand	SM, SW-SM, SP-SM	A-2, A-4, A-3	0	0	95-100	90-100	50-85	5-45	---	NP
	7-38	Loamy fine sand, loamy sand, sand.	SM, SW-SM, SP-SM	A-1, A-2, A-3	0	0	95-100	90-100	45-85	5-35	---	NP
	38-65	Coarse sand, sand, loamy fine sand.	SM, SW-SM, SP-SM	A-1, A-2, A-3	---	0	95-100	90-100	45-80	5-35	---	NP
NCB*:												
Naumburg	0-7	Loamy sand	SM, SW-SM, SP-SM	A-2, A-4, A-3	0	0	95-100	90-100	50-85	5-45	---	NP
	7-38	Loamy fine sand, loamy sand, sand.	SM, SW-SM, SP-SM	A-1, A-2, A-3	0	0	95-100	90-100	45-85	5-35	---	NP
	38-65	Coarse sand, sand, loamy fine sand.	SM, SW-SM, SP-SM	A-1, A-2, A-3	---	0	95-100	90-100	45-80	5-35	---	NP
Croghan	0-2	Loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-3, A-4, A-2	0	0	95-100	95-100	45-80	5-40	---	NP
	2-35	Sand, loamy sand, loamy fine sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3, A-4	0	0	80-100	75-100	45-80	5-40	---	NP
	35-65	Fine sand, loamy sand, coarse sand.	SM, SP-SM, SW-SM	A-1, A-2, A-3	0	0	80-100	75-100	45-75	5-30	---	NP
NvB Nicholville	0-8	Very fine sandy loam.	ML, CL-ML	A-4, A-6	0	0	90-100	85-100	70-100	60-90	20-40	2-12
	8-18	Silt loam, very fine sandy loam, loamy very fine sand.	ML, CL-ML	A-4	0	0	90-100	85-100	75-100	60-90	15-25	NP-5
	18-65	Silt loam, very fine sand, sandy loam.	ML, CL-ML, SM, SC-SM	A-4, A-2	0	0	90-100	85-100	50-100	25-90	15-25	NP-5

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	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	
Od, On-------- Ondawa	0-8	Fine sandy loam.	SM, ML	A-2, A-4	0	0	100	95-100	60-100	30-60	---	NP
	8-32	Fine sandy loam, sandy loam, loam.	SM, ML	A-2, A-4	0	0	100	95-100	80-95	20-70	---	NP
	32-65	Stratified loamy fine sand to very gravelly coarse sand.	SP, SM, SP-SM	A-2, A-3, A-1	0	0	70-100	45-100	25-75	0-25	---	NP
Pg*----------- Pits	0-6	Extremely gravelly sand.	GP, GW	A-1	---	0-25	10-25	5-25	0-15	0-5	---	NP
	6-60	Extremely gravelly sand, extremely gravelly coarse sand, very gravelly coarse sand.	GP, GW, SP, SW	A-1	---	0-25	10-55	5-50	0-15	0-5	---	NP
Ps*----------- Pits	0-10	Sand----------	SP, SW	A-1, A-3	0	0	100	80-100	30-60	0-5	---	NP
	10-60	Coarse sand, sand, gravelly coarse sand.	SP, SW	A-1, A-3	0	0	80-100	50-100	20-60	0-5	---	NP
Pt, Pw-------- Podunk	0-10	Fine sandy loam.	SM, ML	A-2, A-4	0	0	100	100	60-100	30-90	---	NP
	10-30	Fine sandy loam, sandy loam, loam.	SM, ML	A-2, A-4	0	0	100	100	60-95	30-75	---	NP
	30-65	Stratified loamy fine sand to very gravelly coarse sand.	SP-SM, SM, SP	A-2, A-1, A-3	0	0	70-100	45-100	25-75	0-25	---	NP
RCE*:												
Ricker-------	0-1	Peat----------	PT	A-8	---	---	---	---	---	---	---	---
	1-3	Muck----------	PT	A-8	---	---	---	---	---	---	---	---
	3-4	Very channery coarse sand, very channery silt loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	---	0-35	55-100	50-95	25-95	15-85	---	NP
	4-8	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Saddleback---	0-5	Very fine sandy loam.	SM, ML	A-2, A-4	0-1	0-15	80-95	75-90	55-90	25-80	<35	NP-6
	5-19	Fine sandy loam, silt loam, gravelly sandy loam.	SM, ML	A-1, A-2, A-4	0-1	0-20	70-95	65-90	40-90	20-80	<30	NP-6
	19-23	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
RCE*:												
Rock outcrop-	0-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Rm*----------- Riverwash	0-6	Gravelly coarse sand.	GP, GP-GM, GW, GW-GM	A-1	---	0-5	50-80	50-75	15-45	0-10	---	NP
	6-60	Stratified gravelly sand to extremely gravelly coarse sand.	GP, SP, GW, SW	A-1	---	0-25	25-55	25-50	10-30	0-5	---	NP
RNE*:												
Rock outcrop-	0-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Ricker-------	0-1	Peat----------	PT	A-8	---	---	---	---	---	---	---	---
	1-3	Muck----------	PT	A-8	---	---	---	---	---	---	---	---
	3-4	Very channery coarse sand, very channery silt loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	---	0-35	55-100	50-95	25-95	15-85	---	NP
	4-8	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Ro------------ Roundabout	0-7	Silt loam-----	ML	A-4	0	0	100	90-100	80-100	55-95	<30	NP-4
	7-30	Silt loam, very fine sandy loam.	ML	A-4	0	0	100	90-100	80-100	55-95	<30	NP-4
	30-65	Silt loam, very fine sandy loam.	ML	A-4	0	0	100	95-100	90-100	70-95	<35	NP-4
Ru, Ry-------- Rumney	0-9	Fine sandy loam.	SM, ML	A-2, A-4	0	0	100	85-100	50-85	25-55	<15	NP-4
	9-30	Fine sandy loam, sandy loam, loam.	SM, ML	A-2, A-4	0	0	100	85-100	50-95	25-75	<15	NP-4
	30-65	Stratified loamy fine sand to very gravelly coarse sand.	SM, SP-SM, SP	A-1, A-2, A-3	0	0	70-100	45-100	25-75	0-25	<15	NP
RZ*:												
Rumney-------	0-9	Fine sandy loam.	SM, ML	A-2, A-4	0	0	100	85-100	50-85	25-55	<15	NP-4
	9-30	Fine sandy loam, sandy loam, loam.	SM, ML	A-2, A-4	0	0	100	85-100	50-95	25-75	<15	NP-4
	30-65	Stratified loamy fine sand to very gravelly coarse sand.	SM, SP-SM, SP	A-1, A-2, A-3	0	0	70-100	45-100	25-75	0-25	<15	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
RZ*:												
Podunk-------	0-10	Fine sandy loam.	SM, ML	A-2, A-4	0	0	100	100	60-100	30-90	---	NP
	10-30	Fine sandy loam, sandy loam, loam.	SM, ML	A-2, A-4	0	0	100	100	60-95	30-75	---	NP
	30-65	Stratified loamy fine sand to very gravelly coarse sand.	SP-SM, SM, SP	A-2, A-1, A-3	0	0	70-100	45-100	25-75	0-25	---	NP
SAD*, SAE*:												
Saddleback---	0-5	Very fine sandy loam.	SM, ML	A-2, A-4	0-1	0-15	80-95	75-90	55-90	25-80	<35	NP-6
	5-19	Fine sandy loam, silt loam, gravelly sandy loam.	SM, ML	A-1, A-2, A-4	0-1	0-20	70-95	65-90	40-90	20-80	<30	NP-6
	19-23	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Ricker-------	0-1	Peat----------	PT	A-8	---	---	---	---	---	---	---	---
	1-3	Muck----------	PT	A-8	---	---	---	---	---	---	---	---
	3-4	Very channery coarse sand, very channery silt loam, silt loam.	SM, ML, GM	A-1, A-2, A-4	---	0-35	55-100	50-95	25-95	15-85	---	NP
	4-8	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Se------------ Searsport	0-8	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	8-11	Loamy fine sand, fine sandy loam, mucky sand.	SM, SP-SM, OL	A-1, A-2, A-3, A-4	0	0	85-100	75-100	40-85	5-55	<20	NP
	11-65	Loamy fine sand, coarse sand, loamy sand.	SM, SP, SP-SM	A-1, A-2, A-3, A-4	0	0	80-100	75-100	25-80	2-45	---	NP
SkB, SkC------ Skerry	0-6	Fine sandy loam.	SM, SC, SC-SM	A-2, A-4	0-1	0-10	80-95	75-90	60-85	30-50	<30	NP-10
	6-22	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	22-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
SnB, SnC, SnD-Skerry	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
SOC*, SOD*:												
Skerry-------	0-6	Fine sandy loam.	SM, SC, SC-SM	A-2, A-4	0-1	0-10	80-95	75-90	60-85	30-50	<30	NP-10
	6-22	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	22-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
Becket-------	0-7	Fine sandy loam.	SM	A-2, A-4	0-1	0-10	85-95	75-90	60-85	20-50	<30	NP-10
	7-24	Fine sandy loam, sandy loam, gravelly sandy loam.	SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	24-65	Sandy loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
SRC*:												
Skerry-------	0-5	Very stony sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
SRC*:												
Becket-------	0-2	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	2-25	Fine sandy loam, sandy loam, gravelly sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	25-45	<25	NP-10
	25-65	Sandy loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
SRD*:												
Skerry-------	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
Becket-------	0-2	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	2-25	Fine sandy loam, sandy loam, gravelly sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	25-45	<25	NP-10
	25-65	Sandy loam, loamy sand, gravelly sandy loam.	SM, SP-SM, GM, GP-GM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
SSC*:												
Skerry-------	0-6	Fine sandy loam.	SM, SC, SC-SM	A-2, A-4	0-1	0-10	80-95	75-90	60-85	30-50	<30	NP-10
	6-22	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	22-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 10 inches	Frag- ments 3-10 inches	Percentage passing sieve number-- 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
SSC*:												
Colonel------	0-7	Fine sandy loam.	SM, ML, SC-SM, CL-ML	A-2, A-4	0-1	0-5	85-95	80-90	50-85	25-70	<25	NP-10
	7-17	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-5	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	17-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
STC*, STD*:												
Skerry-------	0-5	Very stony fine sandy loam.	SM, SC, SC-SM	A-2, A-4, A-1-b	1-5	5-25	70-95	60-90	30-85	20-50	<30	NP-10
	5-25	Gravelly fine sandy loam, gravelly sandy loam, fine sandy loam.	SM, SC, SC-SM	A-2, A-4	1-10	5-15	75-95	60-95	50-75	20-45	<25	NP-10
	25-65	Gravelly loamy sand, loamy sand, gravelly fine sandy loam.	SM, GM, GP-GM, SP-SM	A-1, A-2	1-10	5-25	60-85	45-75	30-70	10-35	---	NP
Colonel------	0-2	Very stony fine sandy loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	1-5	1-15	75-95	60-90	35-85	20-70	<25	NP-10
	2-18	Fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
	18-65	Gravelly fine sandy loam, gravelly sandy loam, loam.	SM, ML, SC-SM, CL-ML	A-1, A-2, A-4	0-10	0-10	75-95	60-90	35-85	20-70	<25	NP-10
Su, Sy-------- Sunday	0-4	Loamy fine sand.	SM	A-2, A-4	0	0	100	95-100	60-90	15-50	---	NP
	4-65	Loamy fine sand, fine sand, coarse sand.	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	30-85	5-35	---	NP

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	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	
TyB*, TyC*, TyD*:												
Tunbridge---	0-7	Fine sandy loam.	SM, ML	A-4, A-2	0-1	0-5	85-100	80-95	55-95	30-85	<20	NP-2
	7-25	Silt loam, gravelly fine sandy loam, channery fine sandy loam.	SM, ML	A-2, A-5	0-5	0-15	70-100	60-95	35-95	20-85	<50	NP-6
	25-29	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
Lyman-------	0-7	Fine sandy loam.	ML, SM	A-4, A-1, A-2	0-1	0-15	80-95	70-90	40-85	20-80	<35	NP-6
	7-14	Loam, channery fine sandy loam, silt loam.	SM, ML, GM	A-2, A-4, A-1	0-5	0-20	65-95	60-90	35-85	20-80	<30	NP-4
	14-18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---	---
UaC*:												
Urban land---	0-6	Variable------	---	---	---	---	---	---	---	---	---	---
Adams--------	0-2	Loamy sand----	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	45-85	5-40	---	NP
	2-19	Loamy sand, sand, loamy fine sand.	SM, SP-SM	A-1, A-2, A-3, A-4	0	0	95-100	95-100	35-95	5-40	---	NP
	19-65	Fine sand, coarse sand, gravelly sand.	SP-SM, SW-SM, SP	A-1, A-2, A-3	---	0-1	80-100	70-100	20-90	0-10	---	NP
UhC*:												
Urban land---	0-6	Variable------	---	---	---	---	---	---	---	---	---	---
Hermon-------	0-9	Sandy loam----	SM	A-2, A-4	0-1	0-5	80-95	75-90	50-80	15-45	<40	NP-10
	9-32	Very gravelly coarse sand, gravelly fine sandy loam, extremely gravelly sandy loam.	SM, GM, SP-SM, GP-GM	A-2, A-4, A-1	5-15	10-30	40-80	30-75	15-65	10-40	<40	NP-10
	32-65	Very gravelly coarse sand, gravelly loamy sand, extremely gravelly sand.	SP-SM, SM, GP-GM, GM	A-1, A-2, A-3	5-15	10-30	40-80	30-75	10-55	5-25	---	NP
Va, Vb-------- Vassalboro	0-12	Mucky peat----	PT	A-8	---	0-10	---	---	---	---	---	---
	12-65	Fibric material, peat.	PT	A-8	---	0-10	---	---	---	---	---	---

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag-ments > 10 inches	Frag-ments 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
VW*:												
Vassalboro---	0-12	Mucky peat----	PT	A-8	---	0-10	---	---	---	---	---	---
	12-65	Fibric material, peat.	PT	A-8	---	0-10	---	---	---	---	---	---
Wonsqueak----	0-6	Mucky peat----	PT	A-8	0	0	---	---	---	---	---	---
	6-40	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	40-65	Silt loam, fine sandy loam, silty clay loam.	ML, SM, CL-ML, CL	A-4, A-2, A-6	0	0-5	85-100	75-100	50-100	30-95	<40	NP-20
Wk------------ Wonsqueak	0-6	Mucky peat----	PT	A-8	0	0	---	---	---	---	---	---
	6-40	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	40-65	Silt loam, fine sandy loam, silty clay loam.	ML, SM, CL-ML, CL	A-4, A-2, A-6	0	0-5	85-100	75-100	50-100	30-95	<40	NP-20
WS*:												
Wonsqueak----	0-6	Mucky peat----	PT	A-8	0	0	---	---	---	---	---	---
	6-40	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	40-65	Silt loam, fine sandy loam, silty clay loam.	ML, SM, CL-ML, CL	A-4, A-2, A-6	0	0-5	85-100	75-100	50-100	30-95	<40	NP-20
Searsport----	0-8	Muck----------	PT	A-8	0	0	---	---	---	---	---	---
	8-11	Loamy fine sand, fine sandy loam, mucky sand.	SM, SP-SM, OL	A-1, A-2, A-3, A-4	0	0	85-100	75-100	40-85	5-55	<20	NP
	11-65	Loamy fine sand, coarse sand, loamy sand.	SM, SP, SP-SM	A-1, A-2, A-3, A-4	0	0	80-100	75-100	25-80	2-45	---	NP

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
AbE*:										
Abram-----------	0-5	1-6	0.90-1.10	2.0-6.0	0.10-0.20	3.6-5.5	Low----------	0.17	1	2-4
	5-9	---	---	0.01-20	---	---	-------------	----		
Rock outcrop----	0-60	---	---	---	---	---	-------------	----	---	---
ACC*, ACE*:										
Abram-----------	0-5	1-6	0.90-1.10	2.0-6.0	0.10-0.20	3.6-5.5	Low----------	0.17	1	2-4
	5-9	---	---	0.01-20	---	---	-------------	----		
Rock outcrop----	0-60	---	---	---	---	---	-------------	----	---	---
Lyman-----------	0-2	2-10	0.75-1.20	2.0-6.0	0.13-0.24	3.6-6.0	Low----------	0.20	2	---
	2-15	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low----------	0.32		
	15-19	---	---	0.01-20	---	---	-------------	----		
AdA, AdB, AdC, AdD, AED-------- Adams	0-2	0-5	1.00-1.30	6.0-20	0.06-0.12	3.6-6.0	Low----------	0.17	5	2-5
	2-19	0-5	1.10-1.45	6.0-20	0.03-0.10	4.5-6.0	Low----------	0.17		
	19-65	0-5	1.20-1.50	>20	0.03-0.04	4.5-6.5	Low----------	0.17		
AGC*:										
Adams-----------	0-2	0-5	1.00-1.30	6.0-20	0.06-0.12	3.6-6.0	Low----------	0.17	5	2-5
	2-19	0-5	1.10-1.45	6.0-20	0.03-0.10	4.5-6.0	Low----------	0.17		
	19-65	0-5	1.20-1.50	>20	0.03-0.04	4.5-6.5	Low----------	0.17		
Croghan---------	0-2	0-5	1.10-1.50	6.0-20	0.05-0.09	3.6-6.0	Low----------	0.17	5	2-9
	2-35	0-5	1.20-1.50	>20	0.03-0.07	4.5-6.0	Low----------	0.17		
	35-65	0-5	1.20-1.50	>20	0.03-0.06	4.5-6.0	Low----------	0.17		
AHC*, AHD*:										
Adams-----------	0-2	0-5	1.00-1.30	6.0-20	0.06-0.12	3.6-6.0	Low----------	0.17	5	2-5
	2-19	0-5	1.10-1.45	6.0-20	0.03-0.10	4.5-6.0	Low----------	0.17		
	19-65	0-5	1.20-1.50	>20	0.03-0.04	4.5-6.5	Low----------	0.17		
Hermon----------	0-3	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low----------	0.10	3	0-2
	3-9	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low----------	0.10		
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low----------	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low----------	0.10		
BeB, BeC, BeD---- Becket	0-7	2-6	0.60-1.20	0.6-2.0	0.10-0.23	3.6-6.5	Low----------	0.20	3	2-6
	7-24	2-7	1.30-1.60	0.6-2.0	0.06-0.16	3.6-6.5	Low----------	0.28		
	24-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	5.1-7.3	Low----------	0.17		
BkB, BkC, BkD---- Becket	0-2	2-6	0.60-1.30	0.6-2.0	0.06-0.23	3.6-6.5	Low----------	0.17	3	---
	2-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	3.6-6.5	Low----------	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	5.1-7.3	Low----------	0.17		
Bp*, BRB*:										
Brayton---------	0-5	4-10	1.00-1.30	0.6-2.0	0.18-0.28	3.6-6.0	Low----------	0.20	3	4-8
	5-24	4-10	1.40-1.65	0.6-2.0	0.12-0.28	5.1-6.5	Low----------	0.32		
	24-65	4-10	1.70-2.00	0.06-0.6	0.01-0.06	5.6-7.3	Low----------	0.24		
Peacham---------	0-8	---	0.30-0.50	0.2-6.0	0.32-0.42	4.5-7.3	Low----------	----	---	20-60
	8-13	3-10	1.20-1.40	0.6-2.0	0.11-0.22	4.5-7.3	Low----------	0.28		
	13-65	3-10	1.80-2.00	<0.2	0.02-0.06	4.5-7.3	Low----------	0.28		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
Ca, Cb-----------	0-9	2-18	0.90-1.35	0.6-2.0	0.20-0.40	3.6-6.5	Low----------	0.32	5	5-10
Charles	9-65	2-18	1.00-1.50	0.6-2.0	0.20-0.40	3.6-6.5	Low----------	0.49		
CeB, CeC---------	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low----------	0.20	3	4-8
Colonel	7-17	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	17-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		
CfB, CfC---------	0-2	3-10	0.90-1.20	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.17	3	0-2
Colonel	2-18	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	18-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		
CgB, CgC, CgD----	0-5	1-5	1.10-1.40	>6.0	0.03-0.07	3.6-6.0	Low----------	0.17	3	3-8
Colton	5-23	0-5	1.25-1.55	>6.0	0.02-0.05	3.6-6.0	Low----------	0.17		
	23-65	0-3	1.45-1.65	>20	0.01-0.02	4.5-6.5	Low----------	0.17		
CHC*, CHD*:										
Colton----------	0-5	1-5	1.10-1.40	>6.0	0.03-0.07	3.6-6.0	Low----------	0.17	3	3-8
	5-23	0-5	1.25-1.55	>6.0	0.02-0.05	3.6-6.0	Low----------	0.17		
	23-65	0-3	1.45-1.65	>20	0.01-0.02	4.5-6.5	Low----------	0.17		
Adams-----------	0-2	0-5	1.00-1.30	6.0-20	0.06-0.12	3.6-6.0	Low----------	0.17	5	2-5
	2-19	0-5	1.10-1.45	6.0-20	0.03-0.10	4.5-6.0	Low----------	0.17		
	19-65	0-5	1.20-1.50	>20	0.03-0.04	4.5-6.5	Low----------	0.17		
Co, Cp-----------	0-12	2-17	0.95-1.35	0.6-2.0	0.20-0.45	4.5-6.5	Low----------	0.32	5	2-8
Cornish	12-35	2-15	0.95-1.45	0.6-2.0	0.20-0.45	4.5-6.5	Low----------	0.49		
	35-65	2-10	1.10-1.50	0.6-2.0	0.18-0.45	4.5-6.5	Low----------	0.49		
CrA, CrB---------	0-2	0-5	1.10-1.50	6.0-20	0.05-0.09	3.6-6.0	Low----------	0.17	5	2-9
Croghan	2-35	0-5	1.20-1.50	>20	0.03-0.07	4.5-6.0	Low----------	0.17		
	35-65	0-5	1.20-1.50	>20	0.03-0.06	4.5-6.0	Low----------	0.17		
DfB, DfC---------	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low----------	0.20	3	4-8
Dixfield	7-22	3-10	1.30-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low----------	0.24		
	22-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low----------	0.20		
DsB, DsC---------	0-5	3-10	0.90-1.20	0.6-2.0	0.18-0.28	3.6-6.5	Low----------	0.17	3	0-2
Dixfield	5-24	3-10	1.00-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low----------	0.24		
	24-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low----------	0.20		
DTC*:										
Dixfield--------	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low----------	0.20	3	4-8
	7-22	3-10	1.30-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low----------	0.24		
	22-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low----------	0.20		
Colonel---------	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low----------	0.20	3	4-8
	7-17	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	17-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		
DUC*, DUD*:										
Dixfield--------	0-5	3-10	0.90-1.20	0.6-2.0	0.18-0.28	3.6-6.5	Low----------	0.17	3	0-2
	5-24	3-10	1.00-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low----------	0.24		
	24-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low----------	0.20		
Colonel---------	0-2	3-10	0.90-1.20	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.17	3	0-2
	2-18	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	18-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
DWC*:										
Dixfield	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low	0.20	3	4-8
	7-22	3-10	1.30-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low	0.24		
	22-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low	0.20		
Marlow	0-9	3-10	1.00-1.30	0.6-2.0	0.10-0.23	3.6-6.0	Low	0.24	3	2-6
	9-34	3-10	1.30-1.60	0.6-2.0	0.06-0.20	3.6-6.0	Low	0.32		
	34-65	3-10	1.70-2.05	0.06-0.6	0.05-0.12	3.6-6.0	Low	0.20		
DXC*, DXD*:										
Dixfield	0-5	3-10	0.90-1.20	0.6-2.0	0.18-0.28	3.6-6.5	Low	0.17	3	0-2
	5-24	3-10	1.00-1.60	0.6-2.0	0.20-0.30	4.5-6.5	Low	0.24		
	24-65	3-10	1.65-1.95	0.06-0.6	0.08-0.20	4.5-6.5	Low	0.20		
Marlow	0-5	3-10	1.00-1.30	0.6-2.0	0.10-0.23	3.6-6.0	Low	0.20	3	---
	5-36	3-10	1.30-1.60	0.6-2.0	0.06-0.20	3.6-6.0	Low	0.32		
	36-65	3-10	1.70-2.05	0.06-0.6	0.05-0.12	3.6-6.0	Low	0.20		
Fr Fryeburg	0-11	2-13	1.10-1.35	0.6-2.0	0.20-0.40	5.1-6.5	Low	0.32	5	2-6
	11-22	2-13	0.90-1.35	0.6-2.0	0.20-0.45	5.1-6.5	Low	0.49		
	22-50	2-13	1.00-1.40	0.6-2.0	0.18-0.40	5.1-6.5	Low	0.49		
	50-65	0-3	1.30-1.50	>0.6	0.04-0.13	5.1-6.5	Low	0.20		
HeB, HeC, HeD Hermon	0-7	2-6	0.85-1.20	2.0-20	0.09-0.20	3.6-5.5	Low	0.17	3	3-7
	7-30	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	30-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
HmB, HmC, HmD Hermon	0-3	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10	3	0-2
	3-9	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10		
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
HsC, HsD Hermon	0-3	2-6	0.85-1.20	2.0-20	0.06-0.15	3.6-5.5	Low	0.10	3	0-2
	3-9	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10		
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
HTD*, HTE*:										
Hermon	0-3	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10	3	0-2
	3-9	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10		
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
Monadnock	0-5	1-8	0.80-1.20	0.6-2.0	0.10-0.20	3.6-6.0	Low	0.24	3	---
	5-21	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	21-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
HVC*:										
Hermon	0-3	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10	3	0-2
	3-9	2-6	0.85-1.20	2.0-20	0.07-0.15	3.6-5.5	Low	0.10		
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
Skerry	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low	0.20	3	---
	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low	0.17		
Lo Lovewell	0-14	2-14	0.95-1.35	0.6-2.0	0.20-0.35	4.5-6.5	Low	0.32	5	2-8
	14-22	2-15	0.95-1.40	0.6-2.0	0.20-0.45	4.5-6.5	Low	0.49		
	22-65	2-10	1.10-1.50	0.6-2.0	0.18-0.40	4.5-6.5	Low	0.49		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
LtB*, LtC*, LtD*:										
Lyman	0-2	2-10	0.75-1.20	2.0-6.0	0.13-0.24	3.6-6.0	Low	0.20	2	---
	2-15	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low	0.32		
	15-19	---	---	0.01-20	---	---	---	---		
Tunbridge	0-3	5-9	0.80-1.20	0.6-6.0	0.11-0.21	3.6-6.0	Low	0.20	2	2-8
	3-26	3-9	1.20-1.40	0.6-6.0	0.10-0.21	3.6-6.0	Low	0.20		
	26-30	---	---	0.01-20	---	---	---	---		
LUD*, LUE*:										
Lyman	0-2	2-10	0.75-1.20	2.0-6.0	0.13-0.24	3.6-6.0	Low	0.20	2	---
	2-15	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low	0.32		
	15-19	---	---	0.01-20	---	---	---	---		
Tunbridge	0-3	5-9	0.80-1.20	0.6-6.0	0.11-0.21	3.6-6.0	Low	0.20	2	2-8
	3-26	3-9	1.20-1.40	0.6-6.0	0.10-0.21	3.6-6.0	Low	0.20		
	26-30	---	---	0.01-20	---	---	---	---		
Becket	0-2	2-6	0.60-1.30	0.6-2.0	0.06-0.23	3.6-6.5	Low	0.17	3	---
	2-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	3.6-6.5	Low	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	5.1-7.3	Low	0.17		
LWC*, LWD*, LWE*:										
Lyman	0-2	2-10	0.75-1.20	2.0-6.0	0.13-0.24	3.6-6.0	Low	0.20	2	---
	2-15	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low	0.32		
	15-19	---	---	0.01-20	---	---	---	---		
Tunbridge	0-3	5-9	0.80-1.20	0.6-6.0	0.11-0.21	3.6-6.0	Low	0.20	2	2-8
	3-26	3-9	1.20-1.40	0.6-6.0	0.10-0.21	3.6-6.0	Low	0.20		
	26-30	---	---	0.01-20	---	---	---	---		
Monadnock	0-5	1-8	0.80-1.20	0.6-2.0	0.10-0.20	3.6-6.0	Low	0.24	3	---
	5-21	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	21-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
LXC*:										
Lyman	0-2	2-10	0.75-1.20	2.0-6.0	0.13-0.24	3.6-6.0	Low	0.20	2	---
	2-15	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low	0.32		
	15-19	---	---	0.01-20	---	---	---	---		
Tunbridge	0-3	5-9	0.80-1.20	0.6-6.0	0.11-0.21	3.6-6.0	Low	0.20	2	2-8
	3-26	3-9	1.20-1.40	0.6-6.0	0.10-0.21	3.6-6.0	Low	0.20		
	26-30	---	---	0.01-20	---	---	---	---		
Skerry	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low	0.20	3	---
	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low	0.17		
MaB, MaC, MaD Marlow	0-9	3-10	1.00-1.30	0.6-2.0	0.10-0.23	3.6-6.0	Low	0.24	3	2-6
	9-34	3-10	1.30-1.60	0.6-2.0	0.06-0.20	3.6-6.0	Low	0.32		
	34-65	3-10	1.70-2.05	0.06-0.6	0.05-0.12	3.6-6.0	Low	0.20		
MeC, MeD Marlow	0-5	3-10	1.00-1.30	0.6-2.0	0.10-0.23	3.6-6.0	Low	0.20	3	---
	5-36	3-10	1.30-1.60	0.6-2.0	0.06-0.20	3.6-6.0	Low	0.32		
	36-65	3-10	1.70-2.05	0.06-0.6	0.05-0.12	3.6-6.0	Low	0.20		
Mk Medomak	0-13	2-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low	0.32	5	2-10
	13-52	2-10	1.10-1.35	0.6-2.0	0.20-0.30	3.6-6.5	Low	0.49		
	52-65	0-2	1.30-1.50	>0.6	0.01-0.06	3.6-7.3	Low	0.20		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
ML*:										
Medomak	0-13	2-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low	0.32	5	2-10
	13-52	2-10	1.10-1.35	0.6-2.0	0.20-0.30	3.6-6.5	Low	0.49		
	52-65	0-2	1.30-1.50	>0.6	0.01-0.06	3.6-7.3	Low	0.20		
Wonsqueak	0-6	---	0.10-0.30	0.2-6.0	0.20-0.40	3.6-6.5	-------------	----	---	80-99
	6-40	---	0.10-0.30	0.2-6.0	0.20-0.40	4.5-6.5	-------------	----		
	40-65	5-30	1.50-1.70	0.2-2.0	0.06-0.16	5.1-7.3	Low	0.49		
MnB, MnC, MnD	0-7	1-8	0.80-1.20	0.6-2.0	0.15-0.21	3.6-6.0	Low	0.28	3	3-8
Monadnock	7-20	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	20-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
MvC, MvD	0-5	1-8	0.80-1.20	0.6-2.0	0.10-0.20	3.6-6.0	Low	0.24	3	---
Monadnock	5-21	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	21-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
MWC*:										
Monadnock	0-7	1-8	0.80-1.20	0.6-2.0	0.15-0.21	3.6-6.0	Low	0.28	3	3-8
	7-20	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	20-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
Hermon	0-7	2-6	0.85-1.20	2.0-20	0.09-0.20	3.6-5.5	Low	0.17	3	3-7
	7-30	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	30-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
Skerry	0-6	2-6	0.60-1.20	0.6-2.0	0.10-0.23	4.5-6.5	Low	0.24	3	2-8
	6-22	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low	0.28		
	22-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low	0.17		
MXC*:										
Monadnock	0-5	1-8	0.80-1.20	0.6-2.0	0.10-0.20	3.6-6.0	Low	0.24	3	---
	5-21	1-8	0.80-1.30	0.6-2.0	0.09-0.17	3.6-6.0	Low	0.28		
	21-65	1-5	1.30-1.60	2.0-6.0	0.04-0.08	3.6-6.0	Low	0.17		
Skerry	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low	0.20	3	---
	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low	0.17		
Nb	0-7	1-5	1.20-1.50	2.0-6.0	0.05-0.09	3.6-5.5	Low	0.17	5	3-7
Naumburg	7-38	1-5	1.20-1.50	6.0-20	0.06-0.08	3.6-5.5	Low	0.17		
	38-65	1-5	1.45-1.65	6.0-20	0.04-0.06	4.5-6.5	Low	0.17		
NCB*:										
Naumburg	0-7	1-5	1.20-1.50	2.0-6.0	0.05-0.09	3.6-5.5	Low	0.17	5	3-7
	7-38	1-5	1.20-1.50	6.0-20	0.06-0.08	3.6-5.5	Low	0.17		
	38-65	1-5	1.45-1.65	6.0-20	0.04-0.06	4.5-6.5	Low	0.17		
Croghan	0-2	0-5	1.10-1.50	6.0-20	0.05-0.09	3.6-6.0	Low	0.17	5	2-9
	2-35	0-5	1.20-1.50	>20	0.03-0.07	4.5-6.0	Low	0.17		
	35-65	0-5	1.20-1.50	>20	0.03-0.06	4.5-6.0	Low	0.17		
NvB	0-8	2-18	1.20-1.50	0.6-2.0	0.16-0.22	3.6-6.0	Low	0.49	3	2-6
Nicholville	8-18	2-18	1.20-1.50	0.6-2.0	0.15-0.20	4.5-6.0	Low	0.64		
	18-65	2-18	1.45-1.65	0.6-2.0	0.12-0.20	4.5-6.5	Low	0.49		
Od, On	0-8	1-9	1.15-1.40	0.6-6.0	0.12-0.24	4.5-6.5	Low	0.24	5	4-8
Ondawa	8-32	1-9	1.15-1.45	0.6-6.0	0.12-0.22	4.5-6.5	Low	0.37		
	32-65	0-3	1.30-1.50	>6.0	0.04-0.13	4.5-6.5	Low	0.20		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
Pg*: Pits	0-6	0-1	---	>6.0	0.01-0.02	---	Low	0.02	---	<.1
	6-60	0-1	---	>6.0	0.01-0.02	---	Low	0.02		
Ps*: Pits	0-10	0-1	---	>6.0	0.03-0.05	---	Low	0.17	5	<.1
	10-60	0-1	---	>6.0	0.02-0.05	---	Low	0.15		
Pt, Pw: Podunk	0-10	1-15	1.15-1.40	0.6-6.0	0.12-0.24	4.5-6.5	Low	0.24	5	4-8
	10-30	1-12	1.15-1.45	0.6-6.0	0.12-0.22	4.5-6.5	Low	0.37		
	30-65	0-6	1.30-1.50	>6.0	0.04-0.13	4.5-6.5	Low	0.20		
RCE*:										
Ricker	0-1	---	0.07-0.30	2.0-6.0	0.45-0.65	3.6-4.4	Low	----	---	---
	1-3	---	0.15-0.60	2.0-6.0	0.35-0.45	3.6-4.4	Low	----		
	3-4	3-18	1.35-1.80	0.6-6.0	0.06-0.18	3.6-5.0	Low	0.49		
	4-8	---	---	0.01-20	---	---	-------------	----		
Saddleback	0-5	1-5	1.00-1.20	0.6-2.0	0.15-0.25	3.6-5.5	Low	0.28	2	0-2
	5-19	2-10	0.80-1.10	0.6-2.0	0.15-0.30	3.6-5.5	Low	0.28		
	19-23	---	---	0.01-20	---	---	-------------	----		
Rock outcrop	0-60	---	---	---	---	---	-------------	----	---	---
Rm*: Riverwash	0-6	0-1	---	>6.0	0.03-0.04	---	Low	----	---	<.1
	6-60	0-1	---	>6.0	0.02-0.03	---	Low	----		
RNE*:										
Rock outcrop	0-60	---	---	---	---	---	-------------	----	---	---
Ricker	0-1	---	0.07-0.30	2.0-6.0	0.45-0.65	3.6-4.4	Low	----	---	---
	1-3	---	0.15-0.60	2.0-6.0	0.35-0.45	3.6-4.4	Low	----		
	3-4	3-18	1.35-1.80	0.6-6.0	0.06-0.18	3.6-5.0	Low	0.49		
	4-8	---	---	0.01-20	---	---	-------------	----		
Ro: Roundabout	0-7	3-18	0.85-1.25	0.2-2.0	0.25-0.35	4.5-6.5	Low	0.43	3	3-10
	7-30	3-18	1.30-1.60	0.2-2.0	0.20-0.30	4.5-6.5	Low	0.64		
	30-65	3-18	1.40-1.70	0.06-0.6	0.16-0.26	5.6-6.6	Low	0.64		
Ru, Ry: Rumney	0-9	1-9	1.10-1.40	0.6-6.0	0.12-0.24	4.5-7.3	Low	0.24	5	4-8
	9-30	1-9	1.15-1.45	0.6-6.0	0.12-0.22	4.5-7.3	Low	0.37		
	30-65	0-3	1.30-1.50	>6.0	0.04-0.13	4.5-7.3	Low	0.20		
RZ*:										
Rumney	0-9	1-9	1.10-1.40	0.6-6.0	0.12-0.24	4.5-7.3	Low	0.24	5	4-8
	9-30	1-9	1.15-1.45	0.6-6.0	0.12-0.22	4.5-7.3	Low	0.37		
	30-65	0-3	1.30-1.50	>6.0	0.04-0.13	4.5-7.3	Low	0.20		
Podunk	0-10	1-15	1.15-1.40	0.6-6.0	0.12-0.24	4.5-6.5	Low	0.24	5	4-8
	10-30	1-12	1.15-1.45	0.6-6.0	0.12-0.22	4.5-6.5	Low	0.37		
	30-65	0-6	1.30-1.50	>6.0	0.04-0.13	4.5-6.5	Low	0.20		
SAD*, SAE*:										
Saddleback	0-5	1-5	1.00-1.20	0.6-2.0	0.15-0.25	3.6-5.5	Low	0.28	2	0-2
	5-19	2-10	0.80-1.10	0.6-2.0	0.15-0.30	3.6-5.5	Low	0.28		
	19-23	---	---	0.01-20	---	---	-------------	----		
Ricker	0-1	---	0.07-0.30	2.0-6.0	0.45-0.65	3.6-4.4	Low	----	---	---
	1-3	---	0.15-0.60	2.0-6.0	0.35-0.45	3.6-4.4	Low	----		
	3-4	3-18	1.35-1.80	0.6-6.0	0.06-0.18	3.6-5.0	Low	0.49		
	4-8	---	---	0.01-20	---	---	-------------	----		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
Se---------------	0-8	0-2	0.55-0.75	0.2-6.0	0.20-0.45	3.6-6.5	-------------	----	---	80-99
Searsport	8-11	1-5	1.15-1.35	>6.0	0.01-0.13	3.6-6.5	Low----------	0.17		
	11-65	0-2	1.35-1.55	>6.0	0.01-0.09	4.5-6.5	Low----------	0.17		
SkB, SkC---------	0-6	2-6	0.60-1.20	0.6-2.0	0.10-0.23	4.5-6.5	Low----------	0.24	3	2-8
Skerry	6-22	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	22-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
SnB, SnC, SnD----	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low----------	0.20	3	---
Skerry	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
SOC*, SOD*:										
Skerry----------	0-6	2-6	0.60-1.20	0.6-2.0	0.10-0.23	4.5-6.5	Low----------	0.24	3	2-8
	6-22	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	22-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
Becket----------	0-7	2-6	0.60-1.20	0.6-2.0	0.10-0.23	3.6-6.5	Low----------	0.20	3	2-6
	7-24	2-7	1.30-1.60	0.6-2.0	0.06-0.16	3.6-6.5	Low----------	0.28		
	24-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	5.1-7.3	Low----------	0.17		
SRC*, SRD*:										
Skerry----------	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low----------	0.20	3	---
	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
Becket----------	0-2	2-6	0.60-1.30	0.6-2.0	0.06-0.23	3.6-6.5	Low----------	0.17	3	---
	2-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	3.6-6.5	Low----------	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	5.1-7.3	Low----------	0.17		
SSC*:										
Skerry----------	0-6	2-6	0.60-1.20	0.6-2.0	0.10-0.23	4.5-6.5	Low----------	0.24	3	2-8
	6-22	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	22-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
Colonel---------	0-7	3-10	0.90-1.20	0.6-2.0	0.20-0.30	3.6-6.5	Low----------	0.20	3	4-8
	7-17	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	17-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		
STC*, STD*:										
Skerry----------	0-5	2-6	0.60-1.30	0.6-2.0	0.06-0.23	4.5-6.5	Low----------	0.20	3	---
	5-25	2-7	1.30-1.60	0.6-2.0	0.06-0.16	4.5-6.5	Low----------	0.28		
	25-65	1-5	1.60-1.75	0.06-0.6	0.03-0.09	4.5-7.3	Low----------	0.17		
Colonel---------	0-2	3-10	0.90-1.20	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.17	3	0-2
	2-18	3-10	1.00-1.60	0.6-2.0	0.15-0.25	3.6-6.5	Low----------	0.24		
	18-65	3-10	1.65-1.95	0.06-0.6	0.08-0.15	4.5-6.5	Low----------	0.20		
Su, Sy-----------	0-4	0-5	1.25-1.55	>6.0	0.08-0.17	3.6-6.5	Low----------	0.15	5	1-3
Sunday	4-65	0-2	1.25-1.55	>6.0	0.01-0.10	4.5-6.5	Low----------	0.15		
TyB*, TyC*, TyD*:										
Tunbridge-------	0-7	5-9	0.80-1.20	0.6-6.0	0.14-0.23	3.6-6.0	Low----------	0.24	2	2-8
	7-25	3-9	1.20-1.40	0.6-6.0	0.10-0.21	3.6-6.0	Low----------	0.20		
	25-29	---	---	0.01-20	---	---	-------------	----		
Lyman-----------	0-7	2-10	0.75-1.20	2.0-6.0	0.08-0.25	3.6-6.0	Low----------	0.28	2	1-4
	7-14	2-10	0.90-1.40	2.0-6.0	0.08-0.28	3.6-6.0	Low----------	0.32		
	14-18	---	---	0.01-20	---	---	-------------	----		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH				Pct
UaC*:										
Urban land	0-6	---	---	---	---	---	-------------	----	---	---
Adams	0-2	0-5	1.00-1.30	6.0-20	0.06-0.12	3.6-6.0	Low	0.17	5	2-5
	2-19	0-5	1.10-1.45	6.0-20	0.03-0.10	4.5-6.0	Low	0.17		
	19-65	0-5	1.20-1.50	>20	0.03-0.04	4.5-6.5	Low	0.17		
UhC*:										
Urban land	0-6	---	---	---	---	---	-------------	----	---	---
Hermon	0-9	2-6	0.85-1.20	2.0-20	0.09-0.20	3.6-5.5	Low	0.17	3	3-7
	9-32	2-7	0.85-1.30	2.0-20	0.05-0.10	3.6-6.0	Low	0.10		
	32-65	1-4	1.10-1.70	>6.0	0.02-0.06	5.1-6.0	Low	0.10		
Va, Vb	0-12	---	0.10-0.30	2.0-6.0	0.20-0.40	3.6-4.4	-------------	----	---	80-99
Vassalboro	12-65	---	0.10-0.30	2.0-6.0	0.20-0.40	3.6-4.4	-------------	----		
VW*:										
Vassalboro	0-12	---	0.10-0.30	2.0-6.0	0.20-0.40	3.6-4.4	-------------	----	---	80-99
	12-65	---	0.10-0.30	2.0-6.0	0.20-0.40	3.6-4.4	-------------	----		
Wonsqueak	0-6	---	0.10-0.30	0.2-6.0	0.20-0.40	3.6-6.5	-------------	----	---	80-99
	6-40	---	0.10-0.30	0.2-6.0	0.20-0.40	4.5-6.5	-------------	----		
	40-65	5-30	1.50-1.70	0.2-2.0	0.06-0.16	5.1-7.3	Low	0.49		
Wk	0-6	---	0.10-0.30	0.2-6.0	0.20-0.40	3.6-6.5	-------------	----	---	80-99
Wonsqueak	6-40	---	0.10-0.30	0.2-6.0	0.20-0.40	4.5-6.5	-------------	----		
	40-65	5-30	1.50-1.70	0.2-2.0	0.06-0.16	5.1-7.3	Low	0.49		
WS*:										
Wonsqueak	0-6	---	0.10-0.30	0.2-6.0	0.20-0.40	3.6-6.5	-------------	----	---	80-99
	6-40	---	0.10-0.30	0.2-6.0	0.20-0.40	4.5-6.5	-------------	----		
	40-65	5-30	1.50-1.70	0.2-2.0	0.06-0.16	5.1-7.3	Low	0.49		
Searsport	0-8	0-2	0.55-0.75	0.2-6.0	0.20-0.45	3.6-6.5	-------------	----	---	80-99
	8-11	1-5	1.15-1.35	>6.0	0.01-0.13	3.6-6.5	Low	0.17		
	11-65	0-2	1.35-1.55	>6.0	0.01-0.09	4.5-6.5	Low	0.17		

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 16.--SOIL AND WATER FEATURES

("Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydro-logic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Potential frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In				
AbE*:												
Abram	D	None	---	---	>6.0	---	---	1-10	Hard	Low	Low	High.
Rock outcrop	D	None	---	---	>6.0	---	---	0	Hard	---	---	---
ACC*, ACE*:												
Abram	D	None	---	---	>6.0	---	---	1-10	Hard	Low	Low	High.
Rock outcrop	D	None	---	---	>6.0	---	---	0	Hard	---	---	---
Lyman	C/D	None	---	---	>6.0	---	---	10-20	Hard	Moderate	Low	High.
AdA, AdB, AdC, AdD, AED Adams	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
AGC*:												
Adams	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Croghan	B	None	---	---	1.5-2.0	Apparent	Nov-May	>60	---	Moderate	Low	High.
AHC*, AHD*:												
Adams	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Hermon	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
BeB, BeC, BeD, BkB, BkC, BkD Becket	C	None	---	---	2.0-3.5	Perched	Mar-Apr	>60	---	Moderate	Low	Moderate.
Bp*, BRB*:												
Brayton	C	None	---	---	0-1.0	Perched	Nov-Jun	>60	---	High	High	Moderate.
Peacham	D	None	---	---	+1-0.5	Apparent	Oct-Jun	>60	---	High	Moderate	High.
Ca Charles	C	Occasional	Brief	Mar-Oct	0-1.0	Apparent	Nov-Jun	>60	---	High	High	Moderate.
Cb Charles	C	Frequent	Brief	Mar-Oct	0-1.0	Apparent	Nov-Jun	>60	---	High	High	Moderate.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Potential frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In				
CeB, CeC, CfB, CfC Colonel	C	None	---	---	1.0-2.0	Perched	Oct-May	>60	---	High	Moderate	Moderate.
CgB, CgC, CgD Colton	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
CHC*, CHD*:												
Colton	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Adams	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Co Cornish	C	Occasional	Brief	Mar-Oct	1.0-2.0	Apparent	Nov-May	>60	---	High	High	Moderate.
Cp Cornish	C	Frequent	Brief	Mar-Oct	1.0-2.0	Apparent	Nov-May	>60	---	High	High	Moderate.
CrA, CrB Croghan	B	None	---	---	1.5-2.0	Apparent	Nov-May	>60	---	Moderate	Low	High.
DfB, DfC, DsB, DsC Dixfield	C	None	---	---	1.5-2.5	Perched	Nov-Apr	>60	---	High	Moderate	Moderate.
DTC*, DUC*, DUD*:												
Dixfield	C	None	---	---	1.5-2.5	Perched	Nov-Apr	>60	---	High	Moderate	Moderate.
Colonel	C	None	---	---	1.0-2.0	Perched	Oct-May	>60	---	High	Moderate	Moderate.
DWC*, DXC*, DXD*:												
Dixfield	C	None	---	---	1.5-2.5	Perched	Nov-Apr	>60	---	High	Moderate	Moderate.
Marlow	C	None	---	---	2.0-3.5	Perched	Mar-Apr	>60	---	Moderate	Low	Moderate.
Fr Fryeburg	B	Rare	---	---	>6.0	---	---	>60	---	High	Low	Moderate.
HeB, HeC, HeD, HmB, HmC, HmD, HsC, HsD Hermon	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
HTD*, HTE*:												
Hermon	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Monadnock	B	None	---	---	>6.0	---	---	>60	---	Low	Low	High.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
HVC*:												
Hermon-----------	A	None--------	---	---	>6.0	---	---	>60	---	Low------	Low------	High.
Skerry-----------	C	None--------	---	---	1.5-2.5	Perched	Nov-May	>60	---	High-----	Low------	Moderate.
Lo---------------- Lovewell	B	Occasional	Brief-----	Mar-Oct	1.5-3.0	Apparent	Nov-May	>60	---	High-----	Moderate	Moderate.
LtB*, LtC*, LtD*:												
Lyman------------	C/D	None--------	---	---	>6.0	---	---	10-20	Hard	Moderate	Low------	High.
Tunbridge--------	C	None--------	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	High.
LUD*, LUE*:												
Lyman------------	C/D	None--------	---	---	>6.0	---	---	10-20	Hard	Moderate	Low------	High.
Tunbridge--------	C	None--------	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	High.
Becket-----------	C	None--------	---	---	2.0-3.5	Perched	Mar-Apr	>60	---	Moderate	Low------	Moderate.
LWC*, LWD*, LWE*:												
Lyman------------	C/D	None--------	---	---	>6.0	---	---	10-20	Hard	Moderate	Low------	High.
Tunbridge--------	C	None--------	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	High.
Monadnock--------	B	None--------	---	---	>6.0	---	---	>60	---	Low------	Low------	High.
LXC*:												
Lyman------------	C/D	None--------	---	---	>6.0	---	---	10-20	Hard	Moderate	Low------	High.
Tunbridge--------	C	None--------	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	High.
Skerry-----------	C	None--------	---	---	1.5-2.5	Perched	Nov-May	>60	---	High-----	Low------	Moderate.
MaB, MaC, MaD, MeC, MeD--------- Marlow	C	None--------	---	---	2.0-3.5	Perched	Mar-Apr	>60	---	Moderate	Low------	Moderate.
Mk---------------- Medomak	D	Frequent----	Long------	Mar-Oct	+1-0.5	Apparent	Sep-Jun	>60	---	High-----	High-----	Moderate.
ML*:												
Medomak----------	D	Frequent----	Long------	Mar-Oct	+1-0.5	Apparent	Sep-Jun	>60	---	High-----	High-----	Moderate.
Wonsqueak--------	D	Frequent----	Long------	Mar-Oct	+1-0.5	Apparent	Sep-Jul	>60	---	High-----	Moderate	Moderate.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding: Frequency	Flooding: Duration	Flooding: Months	High water table: Depth	High water table: Kind	High water table: Months	Bedrock: Depth	Bedrock: Hardness	Potential frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
					Ft			In				
MnB, MnC, MnD, MvC, MvD: Monadnock	B	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
MWC*:												
Monadnock	B	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Hermon	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Skerry	C	None	---	---	1.5-2.5	Perched	Nov-May	>60	---	High	Low	Moderate.
MXC*:												
Monadnock	B	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Skerry	C	None	---	---	1.5-2.5	Perched	Nov-May	>60	---	High	Low	Moderate.
Nb: Naumburg	C	None	---	---	0.5-1.5	Apparent	Dec-May	>60	---	Moderate	High	High.
NCB*:												
Naumburg	C	None	---	---	0.5-1.5	Apparent	Dec-May	>60	---	Moderate	High	High.
Croghan	B	None	---	---	1.5-2.0	Apparent	Nov-May	>60	---	Moderate	Low	High.
NvB: Nicholville	C	None	---	---	1.5-2.0	Perched	Nov-May	>60	---	High	Low	Moderate.
Od: Ondawa	B	Occasional	Brief	Nov-Apr	>6.0	---	---	>60	---	Moderate	Low	Moderate.
On: Ondawa	B	Frequent	Brief	Nov-Apr	>6.0	---	---	>60	---	Moderate	Low	Moderate.
Pg*, Ps*: Pits	A	None	---	---	>6.0	---	---	>60	---	---	---	---
Pt: Podunk	B	Occasional	Brief	Nov-Apr	1.5-3.0	Apparent	Nov-May	>60	---	High	Moderate	Moderate.
Pw: Podunk	B	Frequent	Brief	Nov-Apr	1.5-3.0	Apparent	Nov-May	>60	---	High	Moderate	Moderate.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
RCE*:												
Ricker-----------	D	None--------	---	---	>6.0	---	---	2-26	Hard	Low------	High-----	High.
Saddleback-------	C/D	None--------	---	---	>6.0	---	---	10-25	Hard	Moderate	Low------	High.
Rock outcrop-----	D	None--------	---	---	>6.0	---	---	0	Hard	---	---	---
Rm*---------------- Riverwash	D	Frequent----	Long to very long.	Oct-Jul	0-2.0	Apparent	Jan-Dec	>60	---	---	---	---
RNE*:												
Rock outcrop-----	D	None--------	---	---	>6.0	---	---	0	Hard	---	---	---
Ricker-----------	D	None--------	---	---	>6.0	---	---	2-26	Hard	Low------	High-----	High.
Ro---------------- Roundabout	C	None--------	---	---	0-1.5	Perched	Nov-May	>60	---	High-----	High-----	Moderate.
Ru---------------- Rumney	C	Occasional	Brief-----	Oct-May	0-1.5	Apparent	Nov-May	>60	---	High-----	High-----	High.
Ry---------------- Rumney	C	Frequent----	Brief-----	Oct-May	0-1.5	Apparent	Nov-May	>60	---	High-----	High-----	High.
RZ*:												
Rumney-----------	C	Frequent----	Brief-----	Oct-May	0-1.5	Apparent	Nov-May	>60	---	High-----	High-----	High.
Podunk-----------	B	Frequent----	Brief-----	Nov-Apr	1.5-3.0	Apparent	Nov-May	>60	---	High-----	Moderate	Moderate.
SAD*, SAE*:												
Saddleback-------	C/D	None--------	---	---	>6.0	---	---	10-25	Hard	Moderate	Low------	High.
Ricker-----------	D	None--------	---	---	>6.0	---	---	2-26	Hard	Low------	High-----	High.
Se---------------- Searsport	D	None--------	---	---	+1-1.0	Apparent	Sep-Jul	>60	---	Moderate	High-----	High.
SkB, SkC, SnB, SnC, SnD--------- Skerry	C	None--------	---	---	1.5-2.5	Perched	Nov-May	>60	---	High-----	Low------	Moderate.
SOC*, SOD*, SRC*, SRD*:												
Skerry-----------	C	None--------	---	---	1.5-2.5	Perched	Nov-May	>60	---	High-----	Low------	Moderate.
Becket-----------	C	None--------	---	---	2.0-3.5	Perched	Mar-Apr	>60	---	Moderate	Low------	Moderate.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
SSC*, STC*, STD*:												
Skerry	C	None	---	---	1.5-2.5	Perched	Nov-May	>60	---	High	Low	Moderate.
Colonel	C	None	---	---	1.0-2.0	Perched	Oct-May	>60	---	High	Moderate	Moderate.
Su Sunday	A	Occasional	Brief	Mar-Oct	>6.0	---	---	>60	---	Low	Low	Moderate.
Sy Sunday	A	Frequent	Brief	Mar-Oct	>6.0	---	---	>60	---	Low	Low	Moderate.
TyB*, TyC*, TyD*:												
Tunbridge	C	None	---	---	>6.0	---	---	20-40	Hard	Moderate	High	High.
Lyman	C/D	None	---	---	>6.0	---	---	10-20	Hard	Moderate	Low	High.
UaC*:												
Urban land	---	None	---	---	>2.0	---	---	>10	---	---	---	---
Adams	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
UhC*:												
Urban land	---	None	---	---	>2.0	---	---	>10	---	---	---	---
Hermon	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
Va Vassalboro	D	None	---	---	0-0.5	Apparent	Sep-Jul	>60	---	High	High	High.
Vb Vassalboro	D	Rare	---	---	+1-0.5	Apparent	Sep-Jul	>60	---	High	High	High.
VW*:												
Vassalboro	D	None	---	---	+1-0.5	Apparent	Sep-Jul	>60	---	High	High	High.
Wonsqueak	D	None	---	---	+1-0.5	Apparent	Sep-Jul	>60	---	High	Moderate	Moderate.
Wk Wonsqueak	D	None	---	---	+1-0.5	Apparent	Sep-Jul	>60	---	High	Moderate	Moderate.
WS*:												
Wonsqueak	D	None	---	---	+1-0.5	Apparent	Sep-Jul	>60	---	High	Moderate	Moderate.
Searsport	D	None	---	---	+1-1.0	Apparent	Sep-Jul	>60	---	Moderate	High	High.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 17.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Abram	Loamy, mixed, acid, frigid Lithic Udorthents
Adams	Sandy, mixed, frigid Typic Haplorthods
Becket	Coarse-loamy, mixed, frigid Typic Haplorthods
Brayton	Coarse-loamy, mixed, nonacid, frigid Aeric Haplaquepts
Charles	Coarse-silty, mixed, nonacid, frigid Aeric Fluvaquents
Colonel	Coarse-loamy, mixed, frigid Aquic Haplorthods
Colton	Sandy-skeletal, mixed, frigid Typic Haplorthods
Cornish	Coarse-silty, mixed, frigid Fluvaquentic Dystrochrepts
Croghan	Sandy, mixed, frigid Aquic Haplorthods
Dixfield	Coarse-loamy, mixed, frigid Typic Haplorthods
Fryeburg	Coarse-silty, mixed, frigid Fluventic Dystrochrepts
Hermon	Sandy-skeletal, mixed, frigid Typic Haplorthods
Lovewell	Coarse-silty, mixed, frigid Fluvaquentic Dystrochrepts
Lyman	Loamy, mixed, frigid Lithic Haplorthods
Marlow	Coarse-loamy, mixed, frigid Typic Haplorthods
Medomak	Coarse-silty, mixed, nonacid, frigid Fluvaquentic Humaquepts
Monadnock	Coarse-loamy over sandy or sandy-skeletal, mixed, frigid Typic Haplorthods
Naumburg	Sandy, mixed, frigid Aeric Haplaquods
Nicholville	Coarse-silty, mixed, frigid Aquic Haplorthods
Ondawa	Coarse-loamy, mixed, frigid Fluventic Dystrochrepts
Peacham	Coarse-loamy, mixed, nonacid, frigid Histic Humaquepts
Podunk	Coarse-loamy, mixed, frigid Fluvaquentic Dystrochrepts
Ricker	Dysic Lithic Borofolists
Roundabout	Coarse-silty, mixed, nonacid, frigid Aeric Haplaquepts
Rumney	Coarse-loamy, mixed, nonacid, frigid Aeric Fluvaquents
Saddleback	Thixotropic Humic Lithic Cryorthods
Searsport	Sandy, mixed, frigid Histic Humaquepts
Skerry	Coarse-loamy, mixed, frigid Aquic Haplorthods
Sunday	Mixed, frigid Typic Udipsamments
Tunbridge	Coarse-loamy, mixed, frigid Typic Haplorthods
Vassalboro	Dysic Typic Borofibrists
Wonsqueak	Loamy, mixed, euic Terric Borosaprists

TABLE 18.--RELATIONSHIP OF THE SOIL SERIES IN THE SURVEY AREA TO LANDSCAPE POSITION, PARENT MATERIAL, AND DRAINAGE

Parent material	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	SOILS ON UPLANDS						
Very shallow or shallow organic material	Ricker	Ricker	Ricker				
Very shallow, moderately coarse textured glacial till derived mainly from mica schist and phyllite and some granite and gneiss	Abram						
Shallow, moderately coarse textured glacial till derived mainly from mica schist and phyllite and some granite and gneiss		Lyman					
Moderately deep, medium textured and moderately coarse textured glacial till derived mainly from mica schist, gneiss, or phyllite			Tunbridge				
Very deep, moderately coarse textured and coarse textured glacial till derived mainly from granite, gneiss, and some schist		Hermon	Monadnock				
Very deep, moderately coarse textured, compact glacial till derived mainly from mica schist and phyllite and some gneiss or granite			Marlow	Dixfield	Colonel	Brayton	Peacham
Very deep, moderately coarse textured to coarse textured, compact glacial till derived mainly from granite, gneiss, and some schist			Becket	Skerry			
Shallow, medium textured and moderately coarse textured glacial till that has a cryic temperature regime			Saddleback				
Very deep, moderately coarse textured material over gravelly, coarse textured material	Colton						
Very deep, coarse textured material		Adams		Croghan	Naumburg	Naumburg	Searsport

TABLE 18.--RELATIONSHIP OF THE SOIL SERIES IN THE SURVEY AREA
TO LANDSCAPE POSITION, PARENT MATERIAL, AND DRAINAGE--Continued

Parent material	Excessively drained	Somewhat excessively drained	Well drained	Moderately well drained	Somewhat poorly drained	Poorly drained	Very poorly drained
	SOILS ON LACUSTRINE PLAINS						
Very deep, medium textured material				Nicholville	Roundabout	Roundabout	
	SOILS ON FLOOD PLAINS						
Very deep, medium textured material over coarse textured material			Fryeburg				Medomak
Very deep, medium textured material				Lovewell	Cornish	Charles	
Very deep, moderately coarse textured material over coarse textured material			Ondawa	Podunk		Rumney	
Very deep, coarse textured material	Sunday						
	SOILS IN SWAMPS AND BOGS						
Very deep, slightly decomposed, herbaceous, mossy, or woody fiber							Vassalboro
Moderately deep, well decomposed, herbaceous, mossy, or woody fiber							Wonsqueak

NRCS Accessibility Statement

This document is not accessible by screen-reader software. 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.