Biodiversity Research Institute
innovative wildlife science

April 23, 2021

Matthew Dietrich
James W. Sewall Company
136 Center St.
Old Town, Maine 04468

Dear Matt,

Biodiversity Research Institute, Inc. (BRI) performed a site visit to describe soil profiles at the test pit locations identified and provided to us by James W. Sewall Company (Sewall). The review was performed at the location of the proposed Big Moose redevelopment project, located at the terminus of Ski Resort Road in Greenville Junction, Maine (Site). This memo includes the results of the soil profile descriptions and confirms hydrologic soil groups and soil conditions within the identified stormwater buffer areas.

INTRODUCTION

The following memorandum outlines the results of the April 22nd, 2021 field visit to the Site for the purpose of providing descriptions of soil conditions present within the identified buffers proposed onsite. The purpose of our soil investigation was to provide taxonomic classification for soils identified within the buffer areas so that soil physical properties could be accounted for in stormwater planning and post-construction activities.

SITE DESCRIPTION

The Site contains a ski area and its associated infrastructure along with previously cleared woodlands. Several logging roads and existing access road with roadside transmission lines as well as several pipelines, a small pond, and other snowmaking equipment within the property. Access to the Site will involve improvement of existing roads on site as well as new construction. A review of historic aerial photos provides evidence of the ski resort as primary use of the Site since the 1960's.

EXISTING SOIL MAPPING

The Site is generally characterized by moderately sloping to steep terrain, with soils formed in glacial till. Soils range from moderately well drained to poorly drained. Predominant surface textures of mapped soils are gravelly silt loams. Most of the soils mapped have a restrictive layer below the soil surface. A soils map generated from the Natural Resource Conservation Service (NRCS) Web Soil Survey indicates one soil map unit present within the Site. The source of the data is the Piscataquis County, Maine, Southern Part soil survey, and the Site was mapped at Order 2 (intensive, Class D).

The NRCS Web Soil Survey is included in Exhibit 2. The soil map unit and corresponding acreage within the Site are presented in the table below:

Map Unit Symbol	Map Unit Name	Acres in Site	Drainage Class
THC	Telos-Chesuncook association, 3-15% slopes, very stony	51.6	Somewhat poorly drained/moderately well drained

One soil map units covers 100 percent of the Site. The following is a brief description of the soil map unit:

1. **THC** – Telos-Chesuncook association, 3-15% slopes, very stony. This soil association is not prime farmland.

a. The Telos series consists of somewhat poorly drained soils on till plains, hills, and ridges. They are shallow to dense lodgement till and very deep to bedrock. These soils are formed in till. Saturated hydraulic conductivity is moderately high or high in the solum and low to moderately high in the substratum.

b. The Chesuncook series consists of very deep, moderately well drained soils on till plains, hills,ridges, and mountains. These soils formed in dense glacial till. Saturated hydraulic conductivity is moderately high or high in the solum, and low to moderately high in the dense substratum.

The soils present onsite are generally all suitable for the proposed use, given the lack of ground disturbance proposed. Properly installed and maintained Best Management Practices and Erosion Control Measures will address any necessary soil stabilization and restoration efforts.

FIELD OBSERVATIONS & TEST PITS

Field test pit data was collected in ten (10) locations to verify presence of soils mapped remotely (see Exhibit 1). In Tables 1 through 10 below, test pit soil profile descriptions and photographs are provided.

Table 1: Test Pit 1A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-4	Very Fine Sandy Loam	7.5yr 3/2	Granular	Friable	Ø
Bw1	4-16	Very Fine Sandy Loam	7.5yr 4/3	Granular	Friable	Ø
Bw2	16-28+	Very Fine Sandy Loam	10yr 4/2	Granular	Friable	Ø

Photo 1: Test Pit 1A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 2: Test Pit 2A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-4	Very Fine Sandy Loam	7.5yr 3/2	Granular	Friable	Ø
B1	4-12	Very Fine Sandy Loam	10yr 3/3	Granular	Friable	Ø
B2	12-24+	Channery Very Fine Sandy Loam	10y4 4/3	Granular	Friable	Ø

Photo 2: Test Pit 2A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 3: Test Pit 3A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-5	Very Fine Sandy Loam	10yr 2/2	Granular	Friable	Ø
Bw	5-10	Very Fine Sandy Loam	10yr 4/3	Granular	Friable	Ø
B	10-16	Very Fine Sandy Loam	7.5yr 2.5/2	Granular	Friable	Ø
B/C	16-22	Very Fine Sandy Loam	7.5yr 3/2	Granular	Friable	F/F
XXXX	Refusal @ Cobbles/Stones					XXXX

Photo 3: Test Pit 3A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 4: Test Pit 4A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
Oi	4-0	Organic	Ø	Ø	Ø	Ø
A	0-4	Fine Sandy Loam	7.5yr 2.5/2	Granular	Friable	Ø
Bw	4-12	Fine Sandy Loam	10yr 5/3	Granular	Friable	Ø
B	12-18	Fine Sandy Loam	10yr 6/3	Granular	Friable	Ø
XXXX	Refusal Cobbles/Stones					XXXX

Photo 4: Test Pit 4A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 5: Test Pit 5A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
E	0-2	Very Fine Sandy Loam	7.5yr 6/2	Granular	Friable	Ø
Bs	2-9	Very Fine Sandy Loam	5yr 4/6	Granular	Friable	Ø
Bw1	9-19	Very Fine Sandy Loam	7.5yr 4/6	Granular	Friable	Ø
Bw2	19-24+	Very Fine Sandy Loam	10yr 4/6	Granular	Friable	Ø

Photo 5: Test Pit 5A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 6: Test Pit 6A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-6	Sandy Loam	7.5yr 3/3	Granular	Friable	Ø
A/B	6-12	Grv. Sandy Loam	7.5yr 4/2	Granular	Friable	Ø
B	12-24	Stony Sandy Loam	7.5yr 3/2	Granular	Friable	Ø
B/C	24-28+	Silt Loam	10yr 5/3	SBK	Friable	F/F

Photo 6: Test Pit 6A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 7: Test Pit 7A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-4	Silt Loam	7.5yr 2.5/2	Granular	Friable	Ø
Bw1	4-10	Silt Loam	10yr 5/3	SBK	Friable	Ø
Bw2	10-17	Silt Loam	10yr 4/4	SBK	Friable	Ø
B/C	17-24+	Silt Loam	10yr 4/3	SBK	Firm	C/D

Photo 7: Test Pit 7A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 8: Test Pit 8A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-4	Fine Sandy Loam	7.5yr 3/3	Granular	Ø	Ø
Bw1	4-9	Fine Sandy Loam	10yr 4/4	Granular	Friable	Ø
Bw2	9-18	Sandy Loam	10yr 4/4	SBK	Friable	Ø
B/C	18-24+	Sandy Loam	10yr 5/3	SBK	Friable	Ø

Photo 8: Test Pit 8A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 9: Test Pit 9A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A1	0-21	Grv. Sandy Loam	7.5yr 2.5/2	Granular	Friable	Ø
A2	21-36+	Grv. Fine Sand	7.5yr 3/3	Granular	Friable	Ø

Photo 9: Test Pit 9A – Greenville Junction, Maine (BRI, April 23, 2021).

Table 10: Test Pit 10A – Greenville Junction, Maine

Horizon	Depth (inches)	Texture	Color	Structure	Consistency	Redox
A	0-4	Sandy Loam	7.5yr 3/4	Granular	Friable	Ø
E	4-5	Sandy Loam	7.5yr 6/2	Granular	Friable	Ø
Bs1	5-14	Sandy Loam	5yr 4/6	Granular	Friable	Ø
Bs2	14-26+	Grv. Sandy Loam	5yr 3/4	Granular	Friable	Ø

Photo 10: Test Pit 10A – Greenville Junction, Maine (BRI, April 23, 2021).

RESULTS

Test pit results showcase soil texture classes that fall within the expected range for soils identified by the NRCS as present onsite. Soil characteristics observed within the proposed buffers areas would generally fall within Hydrologic Soil Group C and Hydrologic Group D. Refusal encountered at Test Pit 3A and Test Pit 4A was the result of cobbles, stones, and boulders that are present in portions of the site and would not represent an impermeable layer that would widely limit infiltration. Our understanding is that the stormwater design has primarily utilized Hydrologic Soil Group D, as identified by existing soil mapping done remotely by the NRCS, field observations have confirmed this to be a suitable assumption for the stormwater design.

If you have questions or comments regarding the content contained, please contact me at 207-631-9134 or via e-mail at dale.knapp@BRIEnvironmental.org.

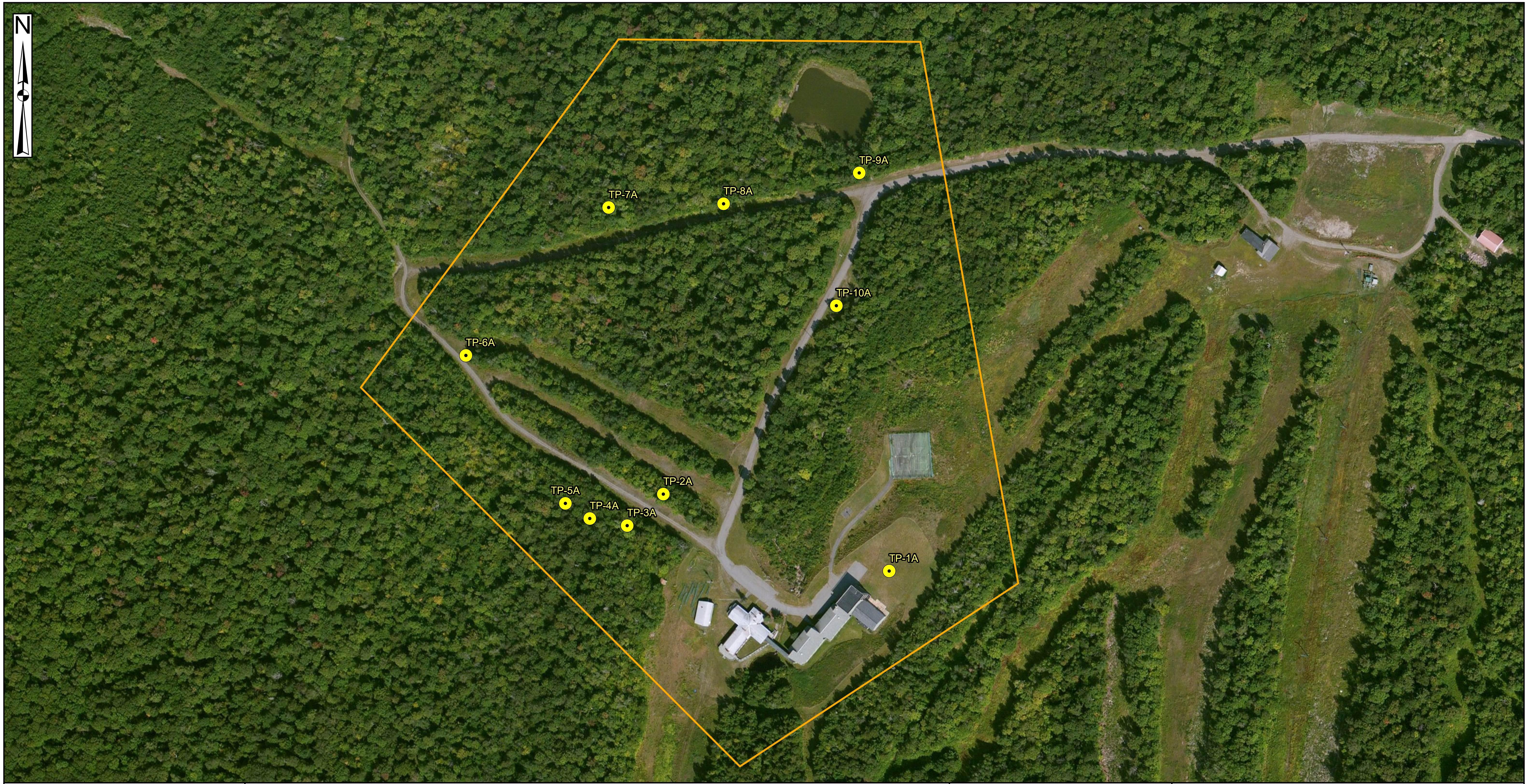
Sincerely,

Dale F. Knapp, CSS, LSE, CEP, PWS
Principal
BRI Environmental
207-631-9134

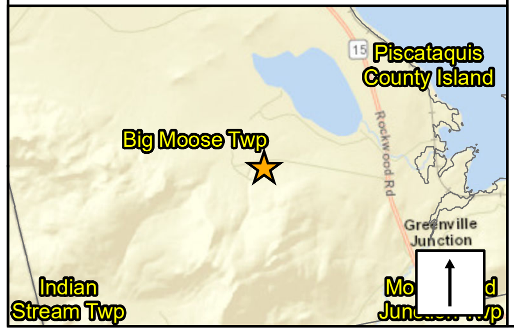
STATE OF MAINE
DALE F. KNAPP
LIC. #306
LICENSED SITE EVALUATOR
9/23/21

STATE OF MAINE
DALE F. KNAPP
LIC. #SS479
SOIL SCIENTIST
9/23/21

EXHIBIT 1 – SOILS TEST PIT LOCATION MAP



INDEX MAP



LEGEND

Stormwater Test Pit Locations

Stormwater Soil Survey Limit

BIODIVERSITY RESEARCH INSTITUTE
innovative wildlife science

Sewall
The evolution of expertise
A TFIC Company

SCALE:

0 250 500 Feet

1 inch = 250 feet

STORMWATER TEST PIT LOCATION MAP
BIG MOOSE MOUNTAIN REDEVELOPMENT PROJECT
BIG MOOSE TWP MAINE

APRIL 23, 2021

EXHIBIT 2 – NRCS SOILS REPORT

United States Department of Agriculture

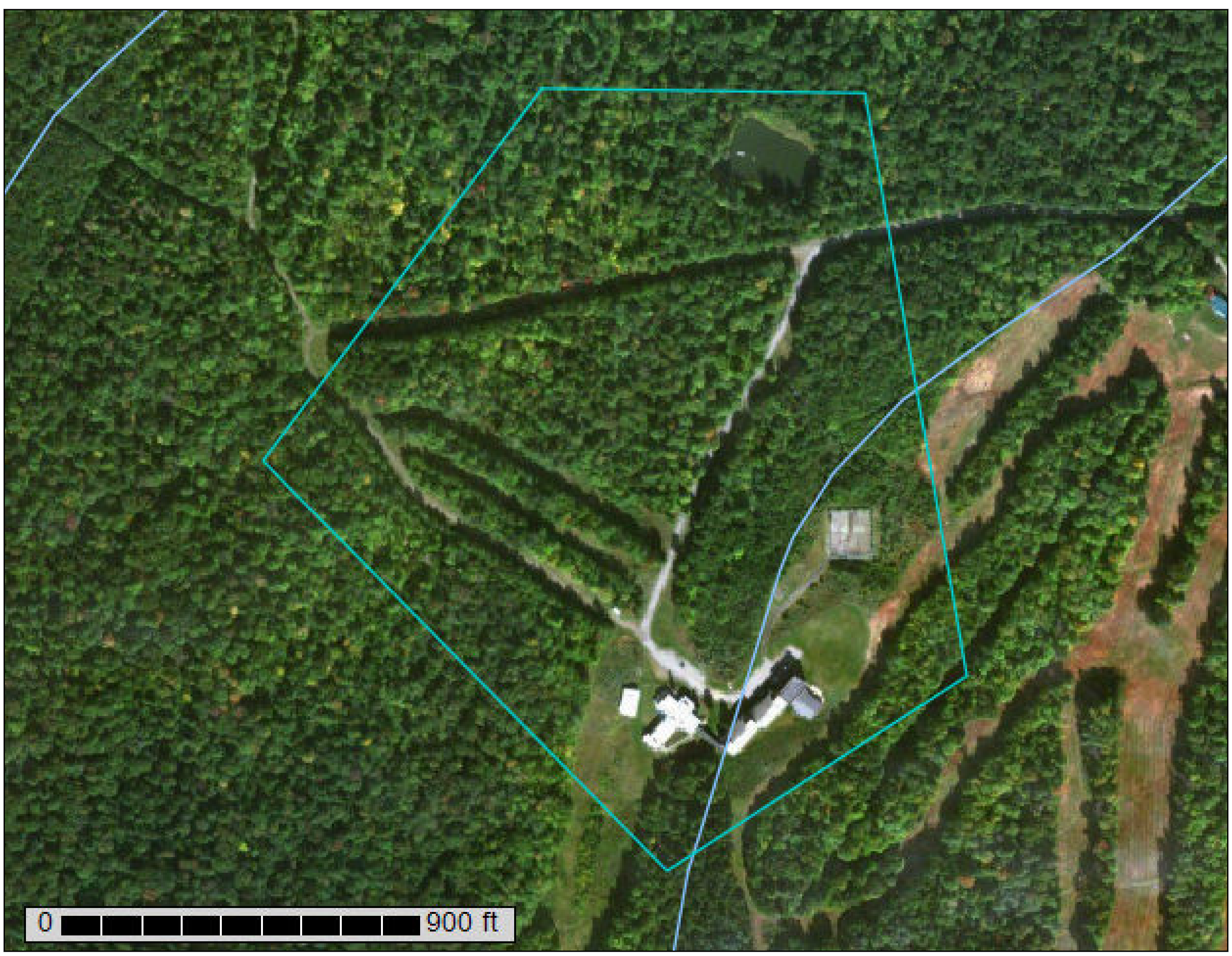
NRCS

Natural Resources Conservation Service

A product 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 participants

Custom Soil Resource Report for

Piscataquis County, Maine, Southern Part



April 23, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

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

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

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

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

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile 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 or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a 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 and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted 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. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

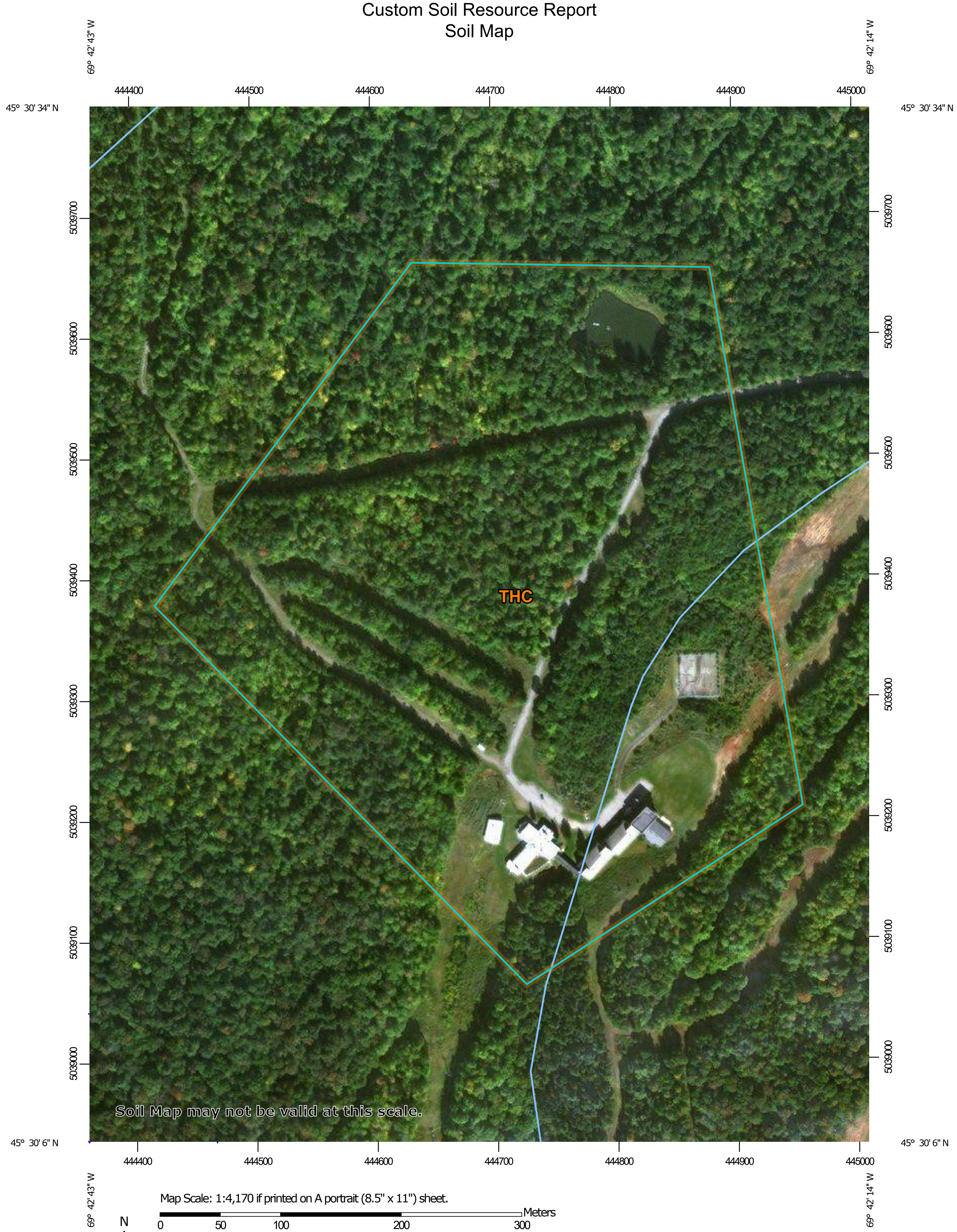
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

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

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map



Map Scale: 1:4,170 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0, 50, 100, 200, 300

Feet: 0, 200, 400, 800, 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Piscataquis County, Maine, Southern Part
Survey Area Data: Version 23, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 24, 2014—Sep 21, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
THC	Telos-Chesuncook association, 3 to 15 percent slopes, very stony	51.6	100.0%
Totals for Area of Interest		**51.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

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

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Piscataquis County, Maine, Southern Part

THC—Telos-Chesuncook association, 3 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2t0jz
Elevation: 120 to 2,500 feet
Mean annual precipitation: 35 to 52 inches
Mean annual air temperature: 37 to 44 degrees F
Frost-free period: 80 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Telos and similar soils: 50 percent
Chesuncook and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Telos

Setting

Landform: Drumlinoid ridges
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy lodgment till

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
E - 3 to 5 inches: silt loam
Bs - 5 to 13 inches: loam
BC - 13 to 19 inches: loam
Cd - 19 to 65 inches: loam

Properties and qualities

Slope: 3 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 15 to 23 inches to densic material
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: About 6 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Chesuncook

Setting

Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy lodgment till

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material
E - 2 to 4 inches: silt loam
Bs - 4 to 20 inches: gravelly silt loam
BC - 20 to 24 inches: gravelly loam
Cd - 24 to 65 inches: gravelly loam

Properties and qualities

Slope: 3 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 21 to 31 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: About 16 to 28 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Monarda

Percent of map unit: 6 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Ragmuff

Percent of map unit: 4 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Elliottsville

Percent of map unit: 4 percent

Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Monson

Percent of map unit: 1 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

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