



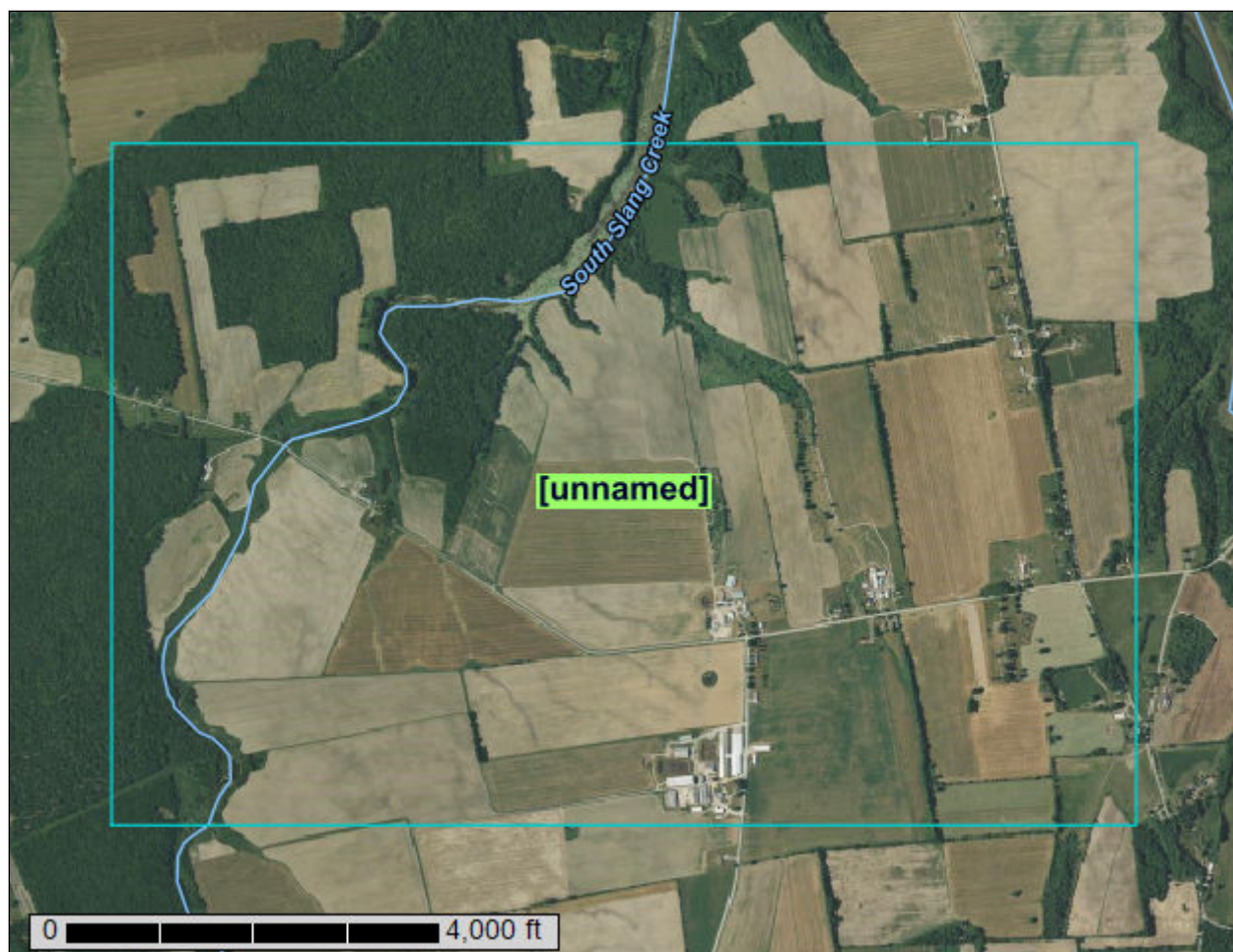
United States
Department of
Agriculture

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 Addison County, Vermont



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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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

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

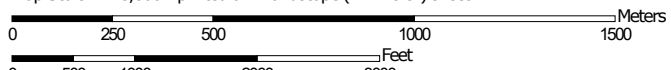
Soil Map

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.

Custom Soil Resource Report Soil Map



Map Scale: 1:18,800 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

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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 1:15,800.

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: Addison County, Vermont

Survey Area Data: Version 27, Sep 10, 2023

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

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

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
AdC	Adams loamy sand, 8 to 15 percent slopes	3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	13.7	0.7%
Cw	Covington and Panton silty clays	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	1.0	0.1%
Fw	Fresh water marsh	6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	29.0	1.6%
Sw	Swanton fine sandy loam	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	25.1	1.4%
W	Water	37.8	2.0%
Totals for Area of Interest		1,851.2	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.

Addison County, Vermont

AdC—Adams loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wqn8

Elevation: 10 to 2,000 feet

Mean annual precipitation: 31 to 95 inches

Mean annual air temperature: 27 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Adams and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Adams

Setting

Landform: Outwash terraces

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits

Typical profile

Ap - 0 to 7 inches: loamy sand

Bs - 7 to 21 inches: sand

BC - 21 to 27 inches: sand

C - 27 to 65 inches: sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(1.42 to 14.17 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

Minor Components

Colton

Percent of map unit: 8 percent

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Landform: Outwash terraces
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Croghan

Percent of map unit: 3 percent
Landform: Outwash terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Nicholville

Percent of map unit: 2 percent
Landform: Outwash terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Sheepscot

Percent of map unit: 2 percent
Landform: Outwash terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

AmB—Amenia stony loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9fmt
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 120 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Amenia and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Amenia

Setting

Landform: Depressions
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy till

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 28 inches: loam
H3 - 28 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F142XB013NY - Moist Till Upland
Hydric soil rating: No

Minor Components

Massena

Percent of map unit: 5 percent
Hydric soil rating: No

Nellis

Percent of map unit: 5 percent
Hydric soil rating: No

Farmington

Percent of map unit: 5 percent
Hydric soil rating: No

BeA—Berkshire and Marlow soils, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wlng

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Elevation: 160 to 1,480 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 48 degrees F
Frost-free period: 90 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Berkshire and similar soils: 45 percent
Marlow and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berkshire

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interflue, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bs1 - 7 to 13 inches: fine sandy loam
Bs2 - 13 to 21 inches: fine sandy loam
BC1 - 21 to 28 inches: fine sandy loam
BC2 - 28 to 33 inches: fine sandy loam
C - 33 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Ecological site: F143XY501ME - Loamy Slope
Hydric soil rating: No

Description of Marlow

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interflue, base slope
Down-slope shape: Convex

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Across-slope shape: Convex

Parent material: Loamy lodgment till derived from mica schist and/or granite and/or phyllite

Typical profile

Ap - 0 to 4 inches: fine sandy loam

E - 4 to 6 inches: fine sandy loam

Bs1 - 6 to 10 inches: fine sandy loam

Bs2 - 10 to 15 inches: fine sandy loam

Bs3 - 15 to 20 inches: fine sandy loam

BC - 20 to 24 inches: fine sandy loam

Cd - 24 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 39 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 1

Hydrologic Soil Group: C

Ecological site: F142XA018NY - Rich Till Upland Frigid

Hydric soil rating: No

Minor Components

Cabot

Percent of map unit: 5 percent

Landform: Mountains, hills

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountainbase, interfluve, base slope

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Peru

Percent of map unit: 5 percent

Landform: Mountains, hills

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountainbase, interfluve, base slope

Microfeatures of landform position: Closed depressions, closed depressions

Down-slope shape: Convex, concave

Across-slope shape: Linear, concave

Hydric soil rating: No

Stetson

Percent of map unit: 5 percent

Landform: Mountains, hills

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Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interfluve, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

BeB—Berkshire and Marlow soils, 3 to 12 percent slopes

Map Unit Setting

National map unit symbol: 2wlnh
Elevation: 160 to 1,740 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 48 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Berkshire and similar soils: 45 percent
Marlow and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berkshire

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bs1 - 7 to 13 inches: fine sandy loam
Bs2 - 13 to 21 inches: fine sandy loam
BC1 - 21 to 28 inches: fine sandy loam
BC2 - 28 to 33 inches: fine sandy loam
C - 33 to 65 inches: fine sandy loam

Properties and qualities

Slope: 3 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F143XY501ME - Loamy Slope
Hydric soil rating: No

Description of Marlow

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from mica schist and/or granite and/or phyllite

Typical profile

Ap - 0 to 4 inches: fine sandy loam
E - 4 to 6 inches: fine sandy loam
Bs1 - 6 to 10 inches: fine sandy loam
Bs2 - 10 to 15 inches: fine sandy loam
Bs3 - 15 to 20 inches: fine sandy loam
BC - 20 to 24 inches: fine sandy loam
Cd - 24 to 65 inches: fine sandy loam

Properties and qualities

Slope: 3 to 12 percent
Depth to restrictive feature: 20 to 39 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F142XA018NY - Rich Till Upland Frigid
Hydric soil rating: No

Minor Components

Cabot

Percent of map unit: 5 percent
Landform: Mountains, hills

Custom Soil Resource Report

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope, base slope

Microfeatures of landform position: Open depressions, closed depressions, closed depressions, open depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Peru

Percent of map unit: 5 percent

Landform: Mountains, hills

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope, base slope

Microfeatures of landform position: Open depressions, closed depressions, open depressions, closed depressions

Down-slope shape: Convex, concave

Across-slope shape: Linear, concave

Hydric soil rating: No

Stetson

Percent of map unit: 5 percent

Landform: Mountains, hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope, base slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Cw—Covington and Panton silty clays

Map Unit Setting

National map unit symbol: 9fnj

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Farmland of statewide importance, if drained

Map Unit Composition

Covington and similar soils: 46 percent

Panton and similar soils: 44 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Covington

Setting

Landform: Depressions on lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: silty clay
H2 - 8 to 24 inches: clay
H3 - 24 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Ecological site: F142XB007VT - Wet Clayplain Depression
Hydric soil rating: Yes

Description of Panton

Setting

Landform: Depressions on lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: silty clay
H2 - 8 to 46 inches: clay
H3 - 46 to 80 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None

Custom Soil Resource Report

Available water supply, 0 to 60 inches: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: D

Ecological site: F142XB007VT - Wet Clayplain Depression

Hydric soil rating: Yes

Minor Components

Livingston

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Vergennes

Percent of map unit: 5 percent

Hydric soil rating: No

EIB—Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9fns

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood, coarse variant, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood, Coarse Variant

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Parent material: Sandy glaciolacustrine deposits over clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam

H2 - 8 to 32 inches: loamy fine sand

H3 - 32 to 72 inches: clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: F142XA012NY - Rich Lacustrine Terraces Frigid
Hydric soil rating: No

Minor Components

Elmwood

Percent of map unit: 5 percent
Hydric soil rating: No

Nasmith

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Swanton

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

FdB—Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9fnx
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 120 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Farmington, moderately deep variant, and similar soils: 85 percent
Minor components: 15 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Farmington, Moderately Deep Variant

Setting

Landform: Ridges, knolls, hills
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Coarse-loamy till

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 24 inches: silt loam
H3 - 24 to 32 inches: channery silt loam
R - 32 to 42 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F142XB012VT - Rich Till Upland
Hydric soil rating: No

Minor Components

Amenia

Percent of map unit: 5 percent
Hydric soil rating: No

Farmington

Percent of map unit: 5 percent
Hydric soil rating: No

Lordstown

Percent of map unit: 5 percent
Hydric soil rating: No

FdC—Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9fny

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Farmington, moderately deep variant, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Farmington, Moderately Deep Variant

Setting

Landform: Ridges, knolls, hills

Landform position (two-dimensional): Summit, backslope

Landform position (three-dimensional): Interfluvium, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Coarse-loamy till

Typical profile

H1 - 0 to 10 inches: silt loam

H2 - 10 to 24 inches: silt loam

H3 - 24 to 32 inches: channery silt loam

R - 32 to 42 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent

Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F142XB012VT - Rich Till Upland

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Amenia

Percent of map unit: 5 percent

Hydric soil rating: No

Farmington

Percent of map unit: 5 percent

Hydric soil rating: No

Lordstown

Percent of map unit: 5 percent

Hydric soil rating: No

Fw—Fresh water marsh

Map Unit Setting

National map unit symbol: 9fp4

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Water: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Marshes

Down-slope shape: Concave, linear

Across-slope shape: Concave

Properties and qualities

Depth to water table: About 0 inches

Frequency of ponding: Frequent

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydric soil rating: Unranked

Minor Components

Livingston

Percent of map unit: 5 percent

Landform: Lake terraces

Hydric soil rating: Yes

Borosaprists, undrained

Percent of map unit: 5 percent

Landform: Marshes

Hydric soil rating: Yes

MrA—Melrose fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9fpm

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Melrose and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melrose

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Parent material: Coarse-loamy glaciolacustrine deposits over clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: fine sandy loam

H2 - 7 to 23 inches: fine sandy loam

H3 - 23 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: F142XA005NY - Acidic Sandy Outwash
Hydric soil rating: No

Minor Components

Elmwood, coarse variant

Percent of map unit: 5 percent
Hydric soil rating: No

Elmwood

Percent of map unit: 5 percent
Hydric soil rating: No

MrB—Melrose fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9fpn
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 120 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Melrose and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melrose

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex
Parent material: Coarse-loamy glaciolacustrine deposits over clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: fine sandy loam
H2 - 7 to 23 inches: fine sandy loam
H3 - 23 to 65 inches: clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F142XA005NY - Acidic Sandy Outwash

Hydric soil rating: No

Minor Components

Elmwood, coarse variant

Percent of map unit: 5 percent

Hydric soil rating: No

Elmwood

Percent of map unit: 5 percent

Hydric soil rating: No

MrE—Melrose fine sandy loam, 25 to 50 percent slopes

Map Unit Setting

National map unit symbol: 9fpr

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Melrose and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melrose

Setting

Landform: Terraces

Landform position (three-dimensional): Riser

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Coarse-loamy glaciolacustrine deposits over clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: fine sandy loam

Custom Soil Resource Report

H2 - 7 to 23 inches: fine sandy loam

H3 - 23 to 65 inches: clay

Properties and qualities

Slope: 25 to 50 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: C

Ecological site: F142XA005NY - Acidic Sandy Outwash

Hydric soil rating: No

Minor Components

Elmwood

Percent of map unit: 5 percent

Hydric soil rating: No

Elmwood, coarse variant

Percent of map unit: 5 percent

Hydric soil rating: No

Sw—Swanton fine sandy loam

Map Unit Setting

National map unit symbol: 9fqp

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Swanton and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swanton

Setting

Landform: Depressions on terraces

Custom Soil Resource Report

Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex, linear
Parent material: Coarse-loamy glaciolacustrine deposits over clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: fine sandy loam
H2 - 7 to 22 inches: fine sandy loam
H3 - 22 to 65 inches: clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F142XA014NY - Wet Lacustrine Depression
Hydric soil rating: Yes

Minor Components

Covington

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Livingston

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Elmwood, coarse variant

Percent of map unit: 5 percent
Hydric soil rating: No

VgB—Vergennes clay, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9fqq
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches

Custom Soil Resource Report

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vergennes and similar soils: 88 percent

Minor components: 12 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vergennes

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Concave, convex, linear

Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: clay

H2 - 6 to 16 inches: clay

H3 - 16 to 29 inches: clay

H4 - 29 to 65 inches: clay

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 12 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: D

Ecological site: F142XB005VT - Clayplain

Hydric soil rating: No

Minor Components

Covington

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Livingston

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Panton

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Vergennes, moderately shallow variant

Percent of map unit: 3 percent

Hydric soil rating: No

VgC—Vergennes clay, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 9fqr

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vergennes and similar soils: 91 percent

Minor components: 9 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vergennes

Setting

Landform: Terraces

Landform position (three-dimensional): Riser

Down-slope shape: Concave, convex, linear

Across-slope shape: Concave, convex, linear

Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: clay

H2 - 6 to 16 inches: clay

H3 - 16 to 29 inches: clay

H4 - 29 to 65 inches: clay

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 12 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Custom Soil Resource Report

Hydrologic Soil Group: D
Ecological site: F142XB005VT - Clayplain
Hydric soil rating: No

Minor Components

Covington

Percent of map unit: 3 percent
Landform: Depressions
Hydric soil rating: Yes

Panton

Percent of map unit: 3 percent
Landform: Depressions
Hydric soil rating: Yes

Vergennes, moderately shallow variant

Percent of map unit: 3 percent
Hydric soil rating: No

VgD—Vergennes clay, 12 to 25 percent slopes

Map Unit Setting

National map unit symbol: 9fqs
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 120 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Vergennes and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vergennes

Setting

Landform: Terraces
Landform position (three-dimensional): Riser
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex, linear
Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: clay
H2 - 6 to 16 inches: clay
H3 - 16 to 29 inches: clay
H4 - 29 to 65 inches: clay

Properties and qualities

Slope: 12 to 25 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: F142XB005VT - Clayplain
Hydric soil rating: No

Minor Components

Covington

Percent of map unit: 3 percent
Landform: Drainageways
Hydric soil rating: Yes

Panton

Percent of map unit: 3 percent
Landform: Drainageways
Hydric soil rating: Yes

Vergennes, moderately shallow variant

Percent of map unit: 3 percent
Hydric soil rating: No

VgE—Vergennes clay, 25 to 50 percent slopes

Map Unit Setting

National map unit symbol: 9fqt
Elevation: 90 to 600 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 120 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Vergennes and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vergennes

Setting

Landform: Terraces
Landform position (three-dimensional): Riser
Down-slope shape: Concave, convex, linear
Across-slope shape: Concave, convex, linear
Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: clay
H2 - 6 to 16 inches: clay
H3 - 16 to 29 inches: clay
H4 - 29 to 65 inches: clay

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F142XB005VT - Clayplain
Hydric soil rating: No

Minor Components

Vergennes, moderately shallow variant

Percent of map unit: 10 percent
Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

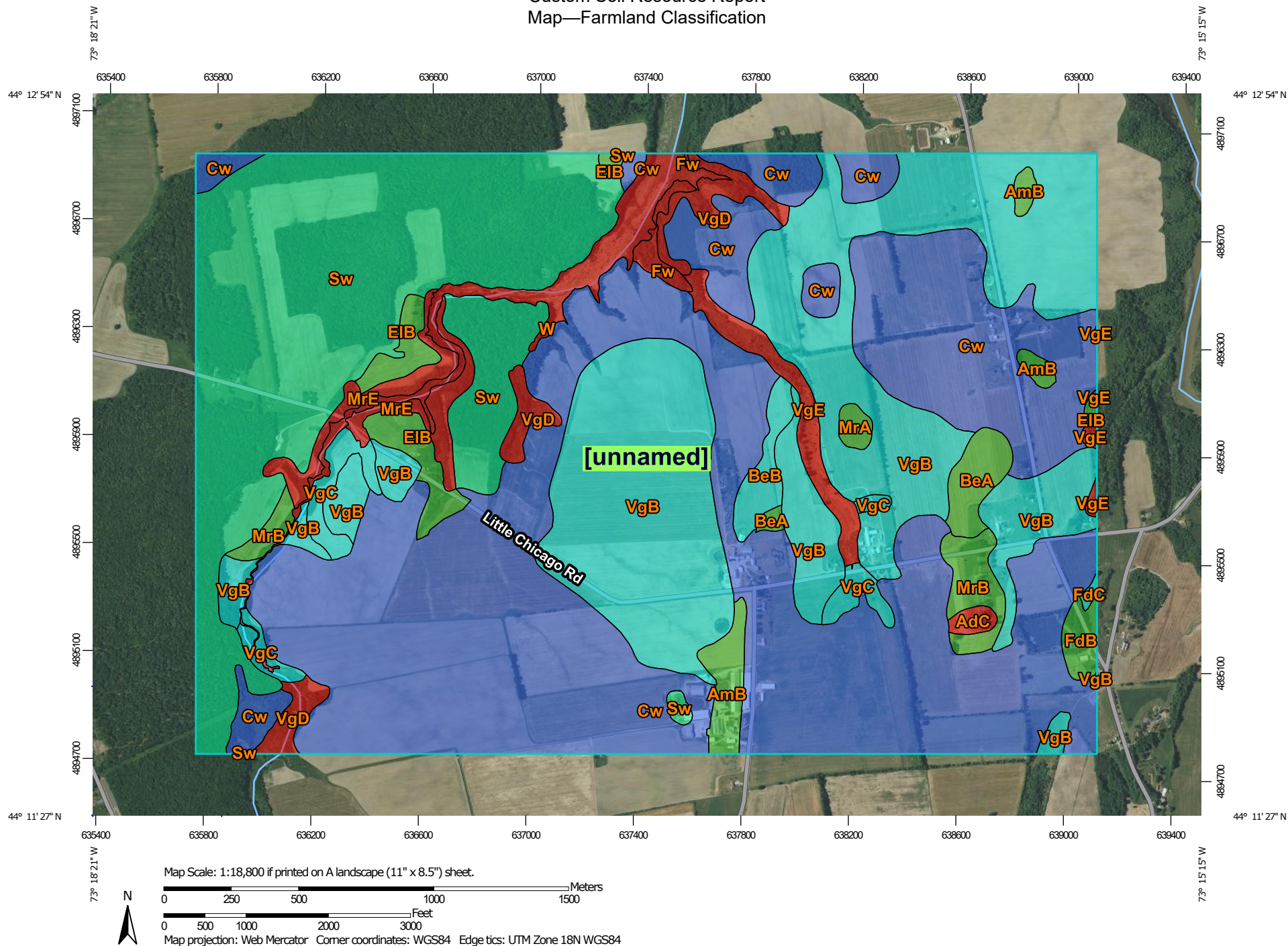
Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Custom Soil Resource Report Map—Farmland Classification



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Custom Soil Resource Report

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points			Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if thawed		Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of local importance		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance, if irrigated		Prime farmland if irrigated		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated						Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated

Custom Soil Resource Report

 Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if irrigated and drained  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60	 Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season  Farmland of statewide importance, if warm enough  Farmland of statewide importance, if thawed  Farmland of local importance  Farmland of local importance, if irrigated	 Farmland of unique importance  Not rated or not available Water Features  Streams and Canals Transportation  Rails  Interstate Highways  US Routes  Major Roads  Local Roads Background  Aerial Photography	The soil surveys that comprise your AOI were mapped at 1:15,800. 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: Addison County, Vermont Survey Area Data: Version 27, Sep 10, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020 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.
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Table—Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AdC	Adams loamy sand, 8 to 15 percent slopes	Not prime farmland	3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	All areas are prime farmland	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	All areas are prime farmland	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	Farmland of statewide importance	13.7	0.7%
Cw	Covington and Panton silty clays	Farmland of statewide importance, if drained	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	All areas are prime farmland	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	All areas are prime farmland	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	Farmland of statewide importance	1.0	0.1%
Fw	Fresh water marsh	Not prime farmland	6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	Not prime farmland	29.0	1.6%
Sw	Swanton fine sandy loam	Prime farmland if drained	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	Farmland of statewide importance	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	Farmland of statewide importance	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	Not prime farmland	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	Not prime farmland	25.1	1.4%
W	Water	Not prime farmland	37.8	2.0%
Totals for Area of Interest			1,851.2	100.0%

Rating Options—Farmland Classification*Aggregation Method: No Aggregation Necessary*

Tie-break Rule: Lower

Hydric Rating by Map Unit

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

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Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Custom Soil Resource Report Map—Hydric Rating by Map Unit



Map Scale: 1:18,800 if printed on A landscape (11" x 8.5") sheet.

0 250 500 1000 1500 Meters

0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

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 1:15,800.

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: Addison County, Vermont
 Survey Area Data: Version 27, Sep 10, 2023

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

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

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.

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AdC	Adams loamy sand, 8 to 15 percent slopes	0	3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	0	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	5	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	5	13.7	0.7%
Cw	Covington and Panton silty clays	95	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	10	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	0	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	0	1.0	0.1%
Fw	Fresh water marsh	10	6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	0	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	0	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	0	29.0	1.6%
Sw	Swanton fine sandy loam	95	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	9	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	6	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	6	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	0	25.1	1.4%
W	Water	0	37.8	2.0%
Totals for Area of Interest			1,851.2	100.0%

Rating Options—Hydric Rating by Map Unit*Aggregation Method: Percent Present*

Custom Soil Resource Report

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Chemical Properties

Soil Chemical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil chemical properties include pH, cation exchange capacity, calcium carbonate, gypsum, and electrical conductivity.

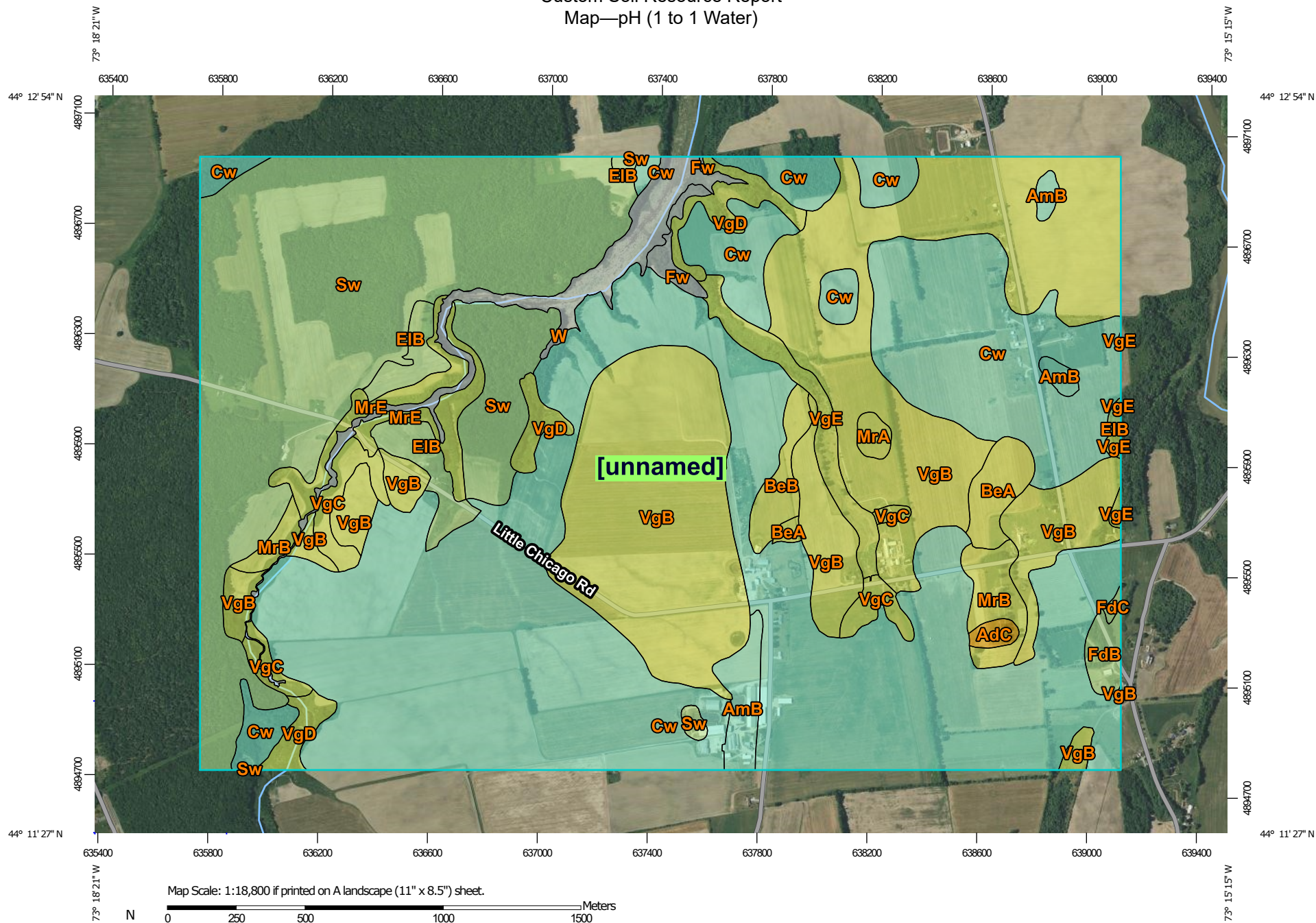
pH (1 to 1 Water)

Soil reaction is a measure of acidity or alkalinity. It is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion. In general, soils that are either highly alkaline or highly acid are likely to be very corrosive to steel. The most common soil laboratory measurement of pH is the 1:1 water method. A crushed soil sample is mixed with an equal amount of water, and a measurement is made of the suspension.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report

Map—pH (1 to 1 Water)



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Ultra acid (pH < 3.5)
-  Extremely acid (pH 3.5 - 4.4)
-  Very strongly acid (pH 4.5 - 5.0)
-  Strongly acid (pH 5.1 - 5.5)
-  Moderately acid (pH 5.6 - 6.0)
-  Slightly acid (pH 6.1 - 6.5)
-  Neutral (pH 6.6 - 7.3)
-  Slightly alkaline (pH 7.4 - 7.8)
-  Moderately alkaline (pH 7.9 - 8.4)
-  Strongly alkaline (pH 8.5 - 9.0)
-  Very strongly alkaline (pH > 9.0)
-  Not rated or not available

Soil Rating Lines

-  Ultra acid (pH < 3.5)
-  Extremely acid (pH 3.5 - 4.4)
-  Very strongly acid (pH 4.5 - 5.0)
-  Strongly acid (pH 5.1 - 5.5)
-  Moderately acid (pH 5.6 - 6.0)
-  Slightly acid (pH 6.1 - 6.5)
-  Neutral (pH 6.6 - 7.3)
-  Slightly alkaline (pH 7.4 - 7.8)
-  Moderately alkaline (pH 7.9 - 8.4)
-  Strongly alkaline (pH 8.5 - 9.0)
-  Very strongly alkaline (pH > 9.0)
-  Not rated or not available

Soil Rating Points

-  Ultra acid (pH < 3.5)
-  Extremely acid (pH 3.5 - 4.4)

-  Very strongly acid (pH 4.5 - 5.0)
-  Strongly acid (pH 5.1 - 5.5)
-  Moderately acid (pH 5.6 - 6.0)
-  Slightly acid (pH 6.1 - 6.5)
-  Neutral (pH 6.6 - 7.3)
-  Slightly alkaline (pH 7.4 - 7.8)
-  Moderately alkaline (pH 7.9 - 8.4)
-  Strongly alkaline (pH 8.5 - 9.0)
-  Very strongly alkaline (pH > 9.0)
-  Not rated or not available

Background

 Aerial Photography

Water Features

 Streams and Canals

Transportation

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

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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: Addison County, Vermont
Survey Area Data: Version 27, Sep 10, 2023

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

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

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.

Table—pH (1 to 1 Water)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AdC	Adams loamy sand, 8 to 15 percent slopes	4.9	3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	6.7	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	5.8	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	5.8	13.7	0.7%
Cw	Covington and Panton silty clays	6.6	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	6.2	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	6.5	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	6.5	1.0	0.1%
Fw	Fresh water marsh		6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	5.6	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	5.6	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	5.6	29.0	1.6%
Sw	Swanton fine sandy loam	6.2	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	5.9	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	5.9	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	5.9	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	5.9	25.1	1.4%
W	Water		37.8	2.0%
Totals for Area of Interest			1,851.2	100.0%

Rating Options—pH (1 to 1 Water)*Aggregation Method: Dominant Component*

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 12

Units of Measure: Inches

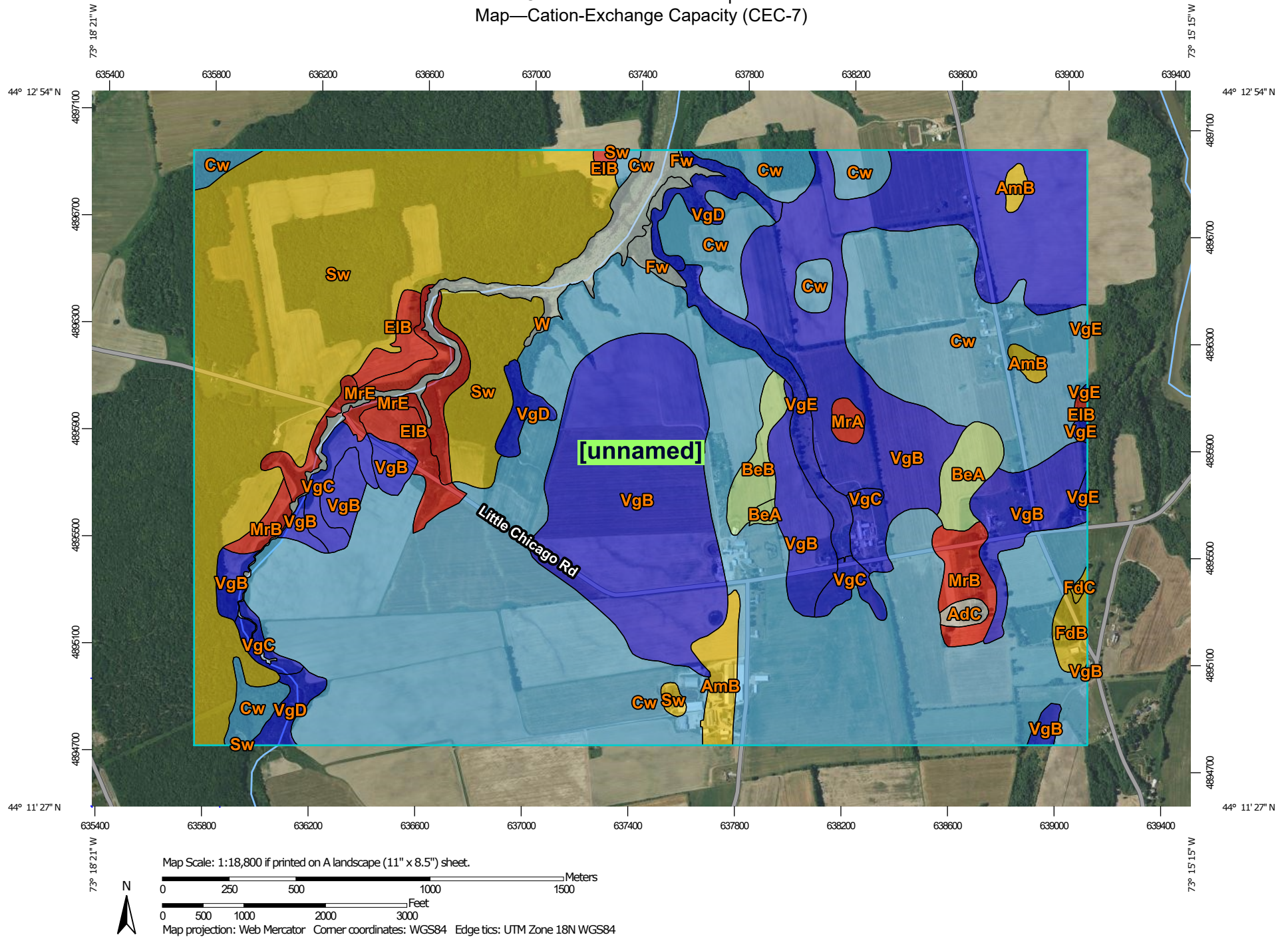
Cation-Exchange Capacity (CEC-7)

Cation-exchange capacity (CEC-7) is the total amount of extractable 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. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report

Map—Cation-Exchange Capacity (CEC-7)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  ≤ 5.3
-  > 5.3 and ≤ 10.1
-  > 10.1 and ≤ 13.4
-  > 13.4 and ≤ 28.9
-  > 28.9 and ≤ 31.6
-  Not rated or not available

Soil Rating Lines

-  ≤ 5.3
-  > 5.3 and ≤ 10.1
-  > 10.1 and ≤ 13.4
-  > 13.4 and ≤ 28.9
-  > 28.9 and ≤ 31.6
-  Not rated or not available

Soil Rating Points

-  ≤ 5.3
-  > 5.3 and ≤ 10.1
-  > 10.1 and ≤ 13.4
-  > 13.4 and ≤ 28.9
-  > 28.9 and ≤ 31.6
-  Not rated or not available

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 1:15,800.

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: Addison County, Vermont

Survey Area Data: Version 27, Sep 10, 2023

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

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

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.

Table—Cation-Exchange Capacity (CEC-7)

Map unit symbol	Map unit name	Rating (milliequivalents per 100 grams)	Acres in AOI	Percent of AOI
AdC	Adams loamy sand, 8 to 15 percent slopes		3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	9.4	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	13.4	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	13.4	13.7	0.7%
Cw	Covington and Panton silty clays	28.9	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	3.8	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	10.1	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	10.1	1.0	0.1%
Fw	Fresh water marsh		6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	5.3	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	5.3	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	5.3	29.0	1.6%
Sw	Swanton fine sandy loam	7.7	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	31.6	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	31.6	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	31.6	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	31.6	25.1	1.4%
W	Water		37.8	2.0%
Totals for Area of Interest			1,851.2	100.0%

Rating Options—Cation-Exchange Capacity (CEC-7)

Units of Measure: milliequivalents per 100 grams

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 12

Units of Measure: Inches

Soil Qualities and Features

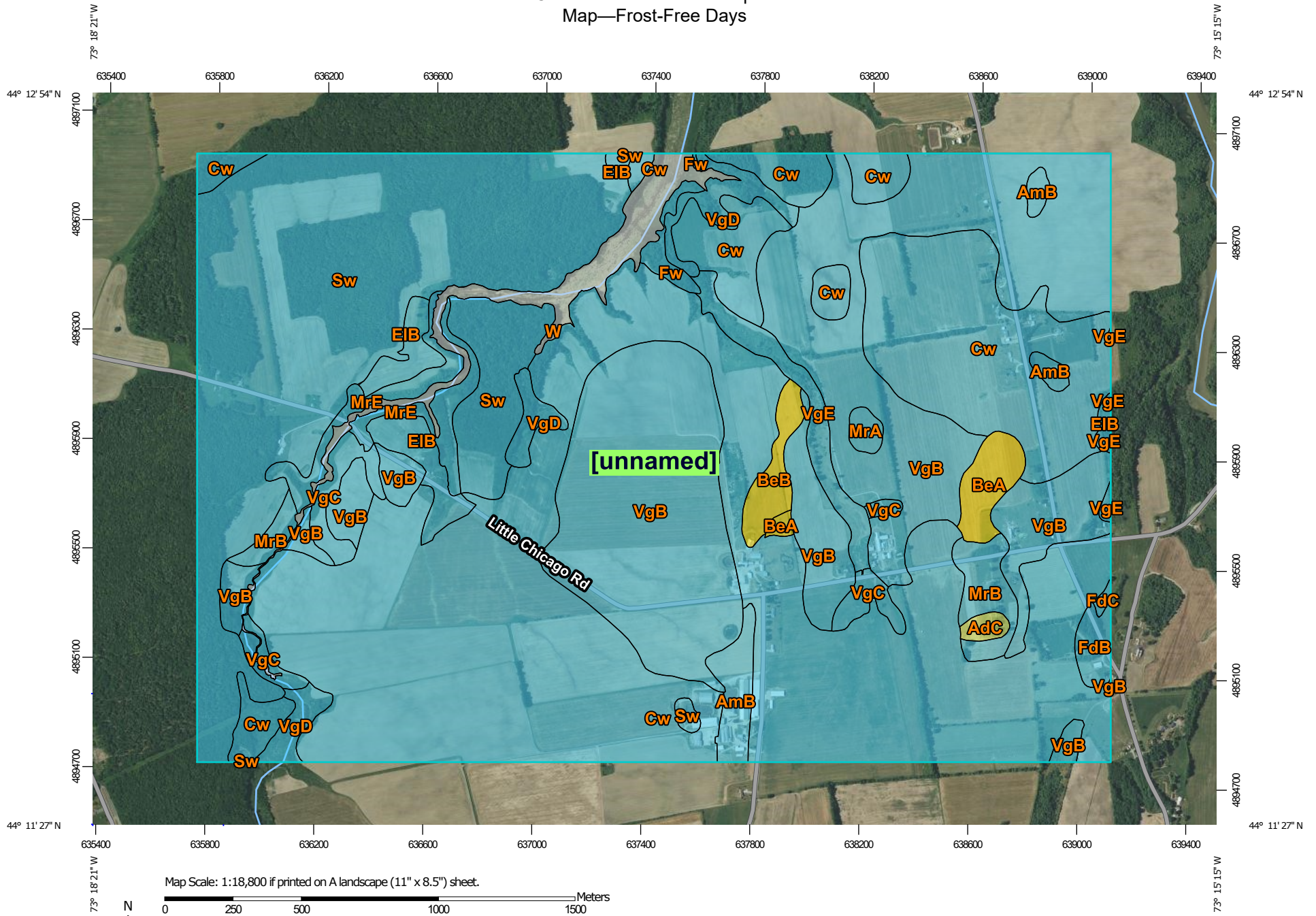
Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Frost-Free Days

The term "frost-free days" refers to the expected number of days between the last freezing temperature (0 degrees Celsius) in spring (January-July) and the first freezing temperature in fall (August-December). The number of days is based on the probability that the values for the standard "normal" period of 1961 to 1990 will be exceeded in 5 years out of 10.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

Custom Soil Resource Report Map—Frost-Free Days



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 0 - 35
 35 - 75
 75 - 125
 125 - 135
 135 - 145
 145 - 165
 165 - 180
 180 - 365
 Not rated or not available

Soil Rating Lines

 0 - 35
 35 - 75
 75 - 125
 125 - 135
 135 - 145
 145 - 165
 165 - 180
 180 - 365
 Not rated or not available

Soil Rating Points

 0 - 35
 35 - 75

 75 - 125
 125 - 135
 135 - 145
 145 - 165
 165 - 180
 180 - 365
 Not rated or not available

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 1:15,800.

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: Addison County, Vermont

Survey Area Data: Version 27, Sep 10, 2023

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

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

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.

Table—Frost-Free Days

Map unit symbol	Map unit name	Rating (days)	Acres in AOI	Percent of AOI
AdC	Adams loamy sand, 8 to 15 percent slopes	135	3.7	0.2%
AmB	Amenia stony loam, 0 to 8 percent slopes	150	20.8	1.1%
BeA	Berkshire and Marlow soils, 0 to 3 percent slopes	125	16.9	0.9%
BeB	Berkshire and Marlow soils, 3 to 12 percent slopes	125	13.7	0.7%
Cw	Covington and Panton silty clays	150	769.1	41.5%
EIB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	150	27.4	1.5%
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	150	8.3	0.4%
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	150	1.0	0.1%
Fw	Fresh water marsh	150	6.6	0.4%
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	150	4.2	0.2%
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	150	22.3	1.2%
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	150	29.0	1.6%
Sw	Swanton fine sandy loam	150	372.4	20.1%
VgB	Vergennes clay, 2 to 6 percent slopes	150	437.3	23.6%
VgC	Vergennes clay, 6 to 12 percent slopes	150	26.2	1.4%
VgD	Vergennes clay, 12 to 25 percent slopes	150	29.4	1.6%
VgE	Vergennes clay, 25 to 50 percent slopes	150	25.1	1.4%
W	Water		37.8	2.0%
Totals for Area of Interest			1,851.2	100.0%

Rating Options—Frost-Free Days*Units of Measure:* days

Custom Soil Resource Report

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

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