

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 Seneca County, New York

Hydric Soils Workshop



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.

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 Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the 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.

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.

Custom Soil Resource Report Soil Map (Hydric Soils Workshop)





					Meters	
0	50	100		200	300	
						Feet
0	2	50	500		1,000	1,500

Custom Soil Resource Report Legend (Hydric Soils Workshop)

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Units

Special Point Features

() Blowout

■ Borrow Pit

Clay Spot

Closed Depression

X Gravel Pit

.. Gravelly Spot

Landfill

∧ Lava Flow

ىلد Marsh

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

+ Saline Spot

"." Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

2

Gully

Short Steep Slope

Other

Water Features

Oceans

Streams and Canals

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 18N

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

Soil Survey Area: Seneca County, New York Survey Area Data: Version 6, Dec 11, 2006

Date(s) aerial images were photographed: 4/22/1994; 4/16/1995

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 (Hydric Soils Workshop)

Seneca County, New York (NY099)					
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
СеВ	Cazenovia silt loam, 3 to 8 percent slopes	13.3	16.7%		
Fw	Fresh water marsh	29.5	37.0%		
Lf	Lamson fine sandy loam and Mucky fine sandy loam	4.9	6.1%		
LtB	Lima silt loam, 3 to 8 percent slopes	2.3	2.9%		
Mr	Muck, deep	16.1	20.1%		
OdA	Odessa silt loam, 0 to 2 percent slopes	2.0	2.5%		
OnD3	Ontario loam, 15 to 25 percent slopes, eroded	9.6	12.0%		
OvA	Ovid silt loam, 0 to 3 percent slopes	2.1	2.7%		
Totals for Area of Interest (AC	ol)	79.8	100.0%		

Map Unit Descriptions (Hydric Soils Workshop)

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.

Seneca County, New York Version date:12/11/2006 9:08:29 PM

CeB—Cazenovia silt loam, 3 to 8 percent slopes

Map Unit Setting

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Cazenovia and similar soils: 100 percent

Description of Cazenovia

Setting

Landform: Reworked lake plains, till plains Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Loamy till that contains limestone with an admixture of

reddish lake-laid clays or reddish clay shale

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

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 24 to 48 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent Available water capacity: Moderate (about 8.4 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 8 inches: Silt loam

8 to 31 inches: Silty clay loam 31 to 60 inches: Gravelly silt loam

Fw—Fresh water marsh

Map Unit Setting

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Fresh water marsh and similar soils: 100 percent

Description of Fresh Water Marsh

Setting

Landform: Marshes

Properties and qualities

Depth to restrictive feature: More than 80 inches Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: Frequent

Lf—Lamson fine sandy loam and Mucky fine sandy loam

Map Unit Setting

Elevation: 50 to 1,100 feet

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Lamson and similar soils: 100 percent

Description of Lamson

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Concave

Parent material: Deltaic or glaciolacustrine deposits with a high content

of fine and very fine sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately

high to high (0.57 to 5.95 in/hr) Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Available water capacity: Moderate (about 6.3 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 13 inches: Fine sandy loam 13 to 33 inches: Fine sandy loam

33 to 60 inches: Stratified loamy fine sand to fine sand to silty clay

LtB—Lima silt loam, 3 to 8 percent slopes

Map Unit Setting

Elevation: 250 to 1,500 feet

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Lima and similar soils: 100 percent

Description of Lima

Setting

Landform: Drumlins, till plains

Landform position (two-dimensional): Summit Landform position (three-dimensional): Crest

Down-slope shape: Concave Across-slope shape: Convex

Parent material: Loamy till derived mainly from limestone and

calcareous shale

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

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 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent Available water capacity: Moderate (about 6.9 inches)

Interpretive groups

Land capability (nonirrigated): 2e

Typical profile

0 to 11 inches: Silt loam 11 to 21 inches: Silt loam 21 to 60 inches: Gravelly loam

Mr—Muck, deep

Map Unit Setting

Elevation: 600 to 1,200 feet

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Muck and similar soils: 100 percent

Description of Muck

Setting

Landform: Swamps, marshes

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Concave Across-slope shape: Concave Parent material: Organic material

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately

high to high (0.20 to 5.95 in/hr) Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Available water capacity: Very high (about 23.9 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 66 inches: Muck

OdA—Odessa silt loam, 0 to 2 percent slopes

Map Unit Setting

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Odessa and similar soils: 100 percent

Description of Odessa

Setting

Landform: Lake plains

Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Reddish clayey and silty glaciolacustrine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

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 6 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent Available water capacity: Moderate (about 8.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 8 inches: Silt loam 8 to 25 inches: Silty clay 25 to 60 inches: Silty clay

OnD3—Ontario loam, 15 to 25 percent slopes, eroded

Map Unit Setting

Mean annual precipitation: 32 to 36 inches Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Ontario and similar soils: 100 percent

Description of Ontario

Setting

Landform: Drumlins, till plains

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Calcareous till high in limestone and sandstone

Properties and qualities

Slope: 15 to 25 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 moderately high (0.06 to 0.20 in/hr) Depth to water table: About 34 to 46 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 15 inches: Loam 15 to 32 inches: Loam 32 to 72 inches: Loam

OvA—Ovid silt loam, 0 to 3 percent slopes

Map Unit Setting

Elevation: 250 to 1,000 feet

Mean annual precipitation: 32 to 36 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 145 to 185 days

Map Unit Composition

Ovid and similar soils: 100 percent

Description of Ovid

Setting

Landform: Reworked lake plains, till plains Landform position (two-dimensional): Footslope Landform position (three-dimensional): Base slope

Down-slope shape: Concave Across-slope shape: Linear

Parent material: Loamy till with a significant component of reddish shale or reddish glaciolacustrine clays, mixed with limestone and some

sandstone

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat poorly drained

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 6 to 24 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent Available water capacity: Moderate (about 8.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 12 inches: Silt loam

12 to 24 inches: Silty clay loam 24 to 60 inches: Silty clay loam

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.

Hydric Rating by Map Unit (Hydric Soils Workshop)

This rating provides an indication of the proportion of the map unit that meets the criteria for hydric soils. Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

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).

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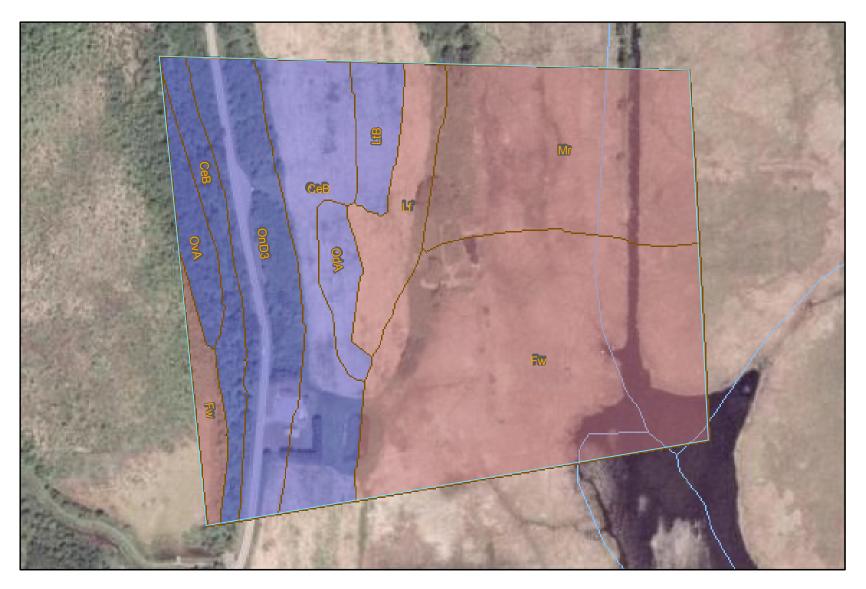
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Custom Soil Resource Report Map—Hydric Rating by Map Unit (Hydric Soils Workshop)





					Meters	
0	50	100		200	300	
						Feet
0	2	50	500		1,000	1,500

Custom Soil Resource Report Legend—Hydric Rating by Map Unit (Hydric Soils Workshop)

MAP LEGEND MAP INFORMATION Original soil survey map sheets were prepared at publication scale. Area of Interest (AOI) Viewing scale and printing scale, however, may vary from the Area of Interest (AOI) original. Please rely on the bar scale on each map sheet for proper Soils map measurements. Soil Map Units Source of Map: Natural Resources Conservation Service Soil Ratings Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov All Hydric Coordinate System: UTM Zone 18N Partially Hydric This product is generated from the USDA-NRCS certified data as of Not Hydric the version date(s) listed below. Unknown Hydric Soil Survey Area: Seneca County, New York Not rated or not available Survey Area Data: Version 6, Dec 11, 2006 **Water Features** Oceans Date(s) aerial images were photographed: 4/22/1994; 4/16/1995 Streams and Canals 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 (Hydric Soils Workshop)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
СеВ	Cazenovia silt loam, 3 to 8 percent slopes	Not Hydric	13.3	16.7%
Fw	Fresh water marsh	All Hydric	29.5	37.0%
Lf	Lamson fine sandy loam and Mucky fine sandy loam	All Hydric	4.9	6.1%
LtB	Lima silt loam, 3 to 8 percent slopes	Not Hydric	2.3	2.9%
Mr	Muck, deep	All Hydric	16.1	20.1%
OdA	Odessa silt loam, 0 to 2 percent slopes	Not Hydric	2.0	2.5%
OnD3	Ontario loam, 15 to 25 percent slopes, eroded	Not Hydric	9.6	12.0%
OvA	Ovid silt loam, 0 to 3 percent slopes	Not Hydric	2.1	2.7%

Rating Options—Hydric Rating by Map Unit (Hydric Soils Workshop)

Aggregation Method: Absence/Presence

Tie-break Rule: Lower

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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