
Exhibit H – Soil Scientists Report

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WETLANDS DELINEATION REPORT

Date: June 6, 2017

Project No.: 42256.00

Prepared For: Tobacco Valley Solar Project

Site Location: Hoskins Road, County Road, and Hopmeadow Street, Simsbury, CT

Site Map: Wetland Delineation GIS Figure, dated May 30, 2017

Inspection Dates: January 26, 2017 to April 19, 2017

Field Conditions: Weather: sunny, high 20's to 40's
Snow Depth: 0-4 inches

General Soil Moisture: moist
Frost Depth: 0-2 inches

Type of Wetlands Identified and Delineated:

Connecticut Inland Wetlands and Watercourses ☒

Tidal Wetlands ☐

U.S. Army Corps of Engineers ☐

Local Regulated Upland Review Areas: Wetlands: 100 feet Watercourses: 100 feet

Field Numbering Sequence of Wetlands Boundary: Connecticut - WF 1-100 to 1-203, WF 1-300 to 1-310, WF 1-400 to 1-480, WF 2-100 to 2-137, WF 3-100 to 3-107, WF 4-100 to 4-130, WF 5-100 to 5-110, WF 6-100 to 6-198, 6-200 to 6-223, 6-300 to 6-317, 6-400 to 6-414, 6-500 to 6-509, 6-600 to 6-611, 6-700 to 6-722, WF 7-100 to 7-107, WF 8-100 to 8-180, and WF 9-100 to 9-110. [as depicted on attached wetland delineation map]

The classification systems of the National Cooperative Soil Survey, the U.S. Department of Agriculture, Natural Resources Conservation Service, County Soil Survey Identification Legend, and the Connecticut Department of Energy and Environmental Protection were used in this investigation.

All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

The wetlands delineation was conducted and reviewed by:



Jeffrey Peterson
Certified Professional Soil Scientist

Enclosures

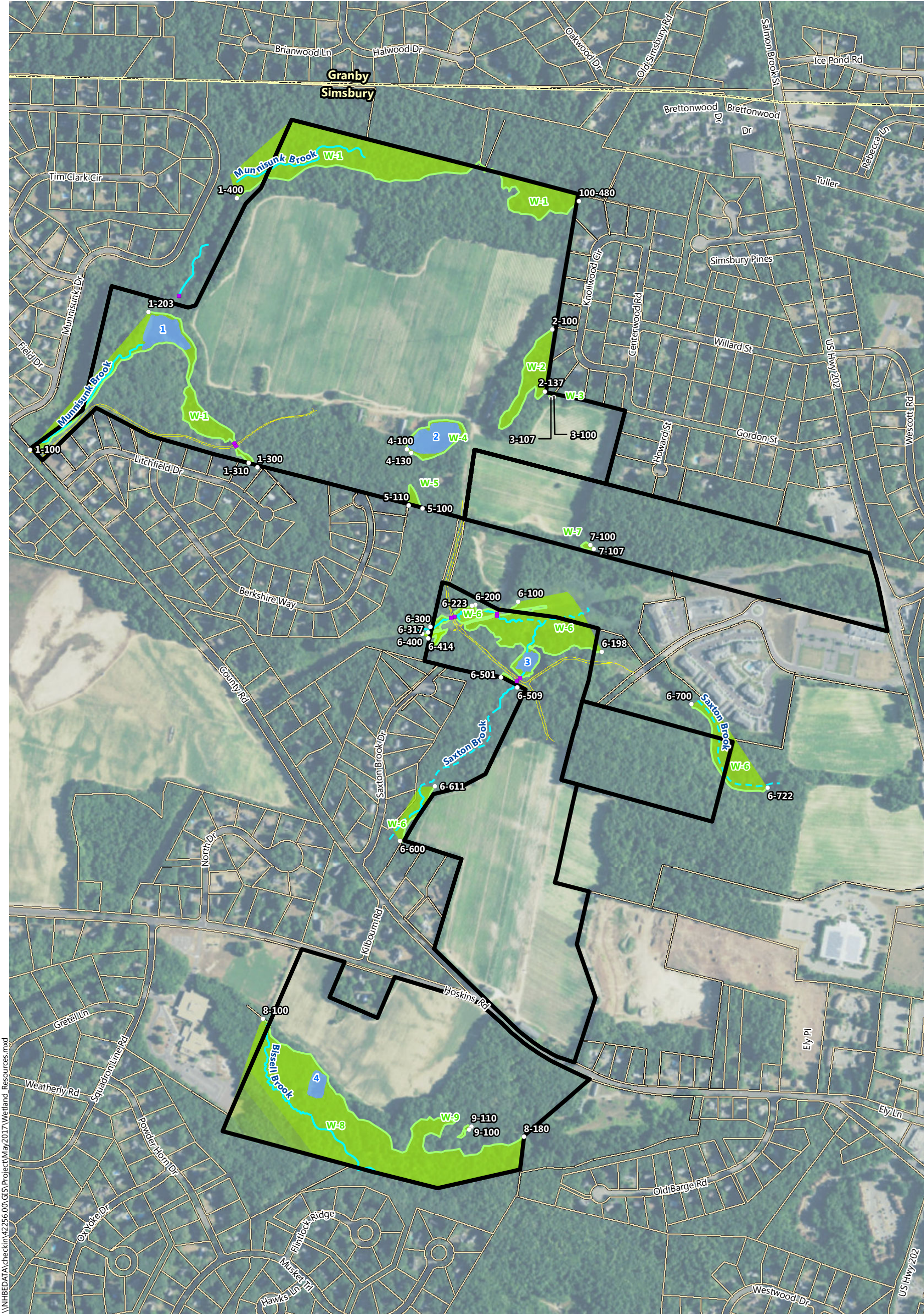
Engineers | Scientists | Planners | Designers

1 Cedar Street
Suite 400
Providence, RI 02903
P 401.272.8100
F 401.277.8400




Attachments

- › Wetland Delineation Map
- › Wetland Delineation Field Forms
- › NRCS Soil Reports and Soil Maps



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0


325


650


1300 Feet


 Property Boundary


 Wetland Resource Area


 Farm Pond


 Delineated Wetland Edge


 Stream


 Approximate Stream

 Existing Gravel Road

 Wetland Flag

 Culvert

 Town Boundary

 Adjacent Parcels

Tobacco Valley Solar

Simsbury, Connecticut

Wetland Delineation

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	1/26/17, 1/30/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 1		

Field Conditions:	Weather: Light rain 30s, Clear 30s	Snow Depth: 0 - 3 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 1-100 to 1-203, 1-300 to 1-310, 1-400 to 1-480		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input checked="" type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input checked="" type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Surficial geology primarily outwash. Steep escarpment along Munnisunk Brook.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input checked="" type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Narrow riverine corridor along Munnisunk Brook		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Open water is an artificially impounded irrigation pond constructed within Munnisunk Brook		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Munnisunk Brook has a bedrock exposures within the stream bed along its lower reaches		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments:		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sudbury sandy loam, 0 to 5 percent slope (23A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3 & 3 to 8 percent slopes (34A & B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Windsor loamy sand, 0 to 3, 3 to 8, & 8 to 15 percent slopes (36A, B, & C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Manchester gravelly sand, 3 to 15 & 15 to 45 percent slopes, very stony (37C & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 0 to 3, 3 to 15, & 15 to 45 percent slopes (38A, C, & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Arrowwood (<i>Viburnum recognitum</i>)
American elm (<i>Ulmus americana</i>)	Winterberry (<i>Ilex verticillata</i>)
Eastern hemlock (<i>Tsuga canadensis</i>)	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)
Yellow birch (<i>Betula alleghaniensis</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
White pine (<i>Pinus strobus</i>)	Jewelweed (<i>Impatiens capensis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Evergreen wood fern (<i>Dryopteris intermedia</i>)

WETLAND NARRATIVE:

Munnisunk Brook and the on-site wetlands that drain to this stream have been delineated as Wetland 1. Baseline flow in Munnisunk Brook and hydrologic support of this wetland is driven by groundwater discharge from the outwash terrace in the adjacent uplands supplemented by runoff during storm events. The site access road from County Road crosses an intermittent tributary over a concrete pipe culvert. Soils examined in Wetland 1 included sloping phases of the Walpole sandy loam, a red parent material variant of the Walpole series, and very poorly drained soils similar to the Scarboro series. Small areas of recent alluvium are also present along Munnisunk Brook. The delineation included phases of poorly and very poorly drained soils that have been partially buried by sediment washed down the slopes.

Munnisunk Brook is impounded to create a farm pond. Water from this pond is used to irrigate row crops.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	1/26/17, 1/30/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 2		

Field Conditions:	Weather: Light rain 30s, Clear 30s	Snow Depth: 0 - 3 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 2-100 to 2-139		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Seasonal GW discharge site. There may be a field drain in this wetland behind subdivision.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Sloping discharge wetland		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Mostly red maple.		

WATERCOURSE TYPE:

Perennial	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: NA		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments:		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3 & 3 to 8 percent slopes (34A & B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 0 to 3, 3 to 15, & 15 to 45 percent slopes (38A, C, & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Arrowwood (<i>Viburnum recognitum</i>)
American elm (<i>Ulmus americana</i>)	Winterberry (<i>Ilex verticillata</i>)
White pine (<i>Pinus strobus</i>)	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)
Yellow birch (<i>Betula alleghaniensis</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Poison ivy (<i>Toxicodendron radicans</i>)

WETLAND NARRATIVE:

This sloping wetland receives runoff and sediment from the fields south of this resource area. Any former surface outlet from this wetland has been obstructed by the development of Knollwood Circle. There may be a field drain in this wetland to replace the former surface outlet. No standing water was observed in this wetland when it was delineated in January 2017. The southern finger of this wetland is scoured by runoff from the farm fields.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	01/30/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 3		

Field Conditions:	Weather: Clear 30s	Snow Depth: 0 inches
	General Soil Moisture: moist	Frost Depth: 0 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 3-100 to 3-107		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Small excavated depression near property line that fills with water in wet season.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Sloping discharge wetland		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Mostly red maple.		

WATERCOURSE TYPE:

Perennial	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: NA		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: NA		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3 & 3 to 8 percent slopes (34A & B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 0 to 3, 3 to 15, & 15 to 45 percent slopes (38A, C, & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Cinnamon fern (<i>Onoclea sensibilis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Sensitive fern (<i>Osmundastrum cinnamomeum</i>)
Arrowwood (<i>Viburnum recognitum</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Winterberry (<i>Ilex verticillata</i>)	

WETLAND NARRATIVE:

This very small wetland depression appears to have been created by an excavation close to the property boundary.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	01/30/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 4		

Field Conditions:	Weather: Clear 30s	Snow Depth: 0 - 2inches
	General Soil Moisture: moist	Frost Depth: 0 - 1 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 4-100 to 4-136		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated - seepage <input type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Excavated irrigation pond with fringe wetland. Water is pumped into and out of this pond.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Water is pumped into and out of pond. Appears to be excavated into the ground water level.		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Mostly red maple.		

WATERCOURSE TYPE:

Perennial	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Farm pond managed to irrigate crops		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: Fish observed in this farm pond. American toad breed at the north end of the pond.		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Water (w)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Merrimac fine sandy loam, 0 to 3 percent slopes (34A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 3 to 15 percent slopes (38C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Multiflora rose (<i>Rosa multiflora</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Arrowwood (<i>Viburnum recognitum</i>)	Reed canary-grass (<i>Phalaris arundinacea</i>)
Buttonbush (<i>Cephalanthus occidentalis</i>)	

WETLAND NARRATIVE:

Farm pond excavated in uplands. Soils spread along the south and eastern sides of the pond and are now wooded. The very poorly drained Scarboro unit mapped south of the pond is broken by a topographic saddle which separates two wetland units. There is no inlet or outlet to this pond. Water can be pumped into this pond from the impoundment on Munnisunk Brook. Water is also pumped from this pond to irrigate crops.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	01/30/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 5		

Field Conditions:	Weather: Clear 30s	Snow Depth: 0 - 4inches
	General Soil Moisture: moist	Frost Depth: 0 – 1 inches
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 5-100 to 5-110		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Scarboro and Walpole soils in this unit		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Wetland 5 does not drain towards the farm pond (Wetland 4).		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Red maple and eastern hemlock.		

WATERCOURSE TYPE:

Perennial	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: NA		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: NA		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Walpole sandy loam, 0 to 3 percent slopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sudbury sandy loams, 0 to 5 percent slopes (23A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 3 to 8 percent slopes (34B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 3 to 15 percent slopes (38C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Eastern hemlock (<i>Tsuga canadensis</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Winterberry (<i>Ilex verticillata</i>)	
Arrowwood (<i>Viburnum recognitum</i>)	

WETLAND NARRATIVE:

The portion of Wetland 5 delineated on the subject property extends from a larger system that continues off-site. Based on the examination of aerial photographs and evidence observed from within the property, Wetland 5 appears to be separate from Wetland 6.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	1/30/17 - 02/3/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 6		

Field Conditions:	Weather: Clear 20s	Snow Depth: 0 - 1 inch
	General Soil Moisture: moist	Frost Depth: 0 - 1 inch
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 6-100 to 6-198, 6-200 to 6-223, 6-304 to 6-310, 6-500 to 6-509, 6-600 to 6-611, 6-700 to 6-713		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input checked="" type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Wetland 6 is the riparian wetland and swamp associated with Saxton Brook.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Sloping discharge wetland		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Most of the scrub-shrub is associated with the cleared Eversource ROW		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Wetland 6 includes Saxton Brook and a intermittent tributaries		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: Farm pond constructed on Saxton Brook has fish.		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3, 3 to 8 & 8 to 15 percent slopes (34A, B, C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 0 to 3, 3 to 15, & 15 to 45 percent slopes (38A, C, & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Multiflora rose (<i>Rosa multiflora</i>)
American elm (<i>Ulmus americana</i>)	Skunk cabbage (<i>Symplocarpus foetidus</i>)
White pine (<i>Pinus strobus</i>)	Jewelweed (<i>Impatiens capensis</i>)
Yellow birch (<i>Betula alleghaniensis</i>)	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)
Eastern Hemlock (<i>Tsuga canadensis</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Arrowwood (<i>Viburnum recognitum</i>)	
Winterberry (<i>Ilex verticillata</i>)	

WETLAND NARRATIVE:

Wetland 6 includes Saxton Brook and its intermittent headwater tributaries. Baseline flow in Saxton Brook and hydrologic support of this wetland is driven by groundwater discharge from the outwash terrace which forms the adjacent uplands supplemented by runoff during storm events. There is a small farm pond constructed on Saxton Brook through a combination of excavation and impoundment. The constructed outlet for this pond has failed and flow out of the pond is through a breach in the berm. This pond is used as a source of irrigation water.

In addition to the two wetland soil map units described above there are limited areas of recent alluvium along the stream course. The sediment load in this stream is much higher in its easternmost downstream segment.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	02/23/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 7		

Field Conditions:	Weather: Clear 20s	Snow Depth: 0 - 3 inches
	General Soil Moisture: moist	Frost Depth: 0 - 1 inch
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 7-100 to 7-107 (loop)		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: The surface of Wetland 7 is partially buried by sediment. A depression was created by the construction of a road in a fill section south of the wetland.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Sloping discharge wetland		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments:		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: This wetland is isolated.		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: NA		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sudbury sandy loam, 0 to 5 percent slopes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3 & 3 to 8 percent slopes (34A & B)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 0 to 3, 3 to 15, & 15 to 45 percent slopes (38A, C, & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Winterberry (<i>Ilex verticillata</i>)
American elm (<i>Ulmus americana</i>)	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)
Yellow birch (<i>Betula alleghaniensis</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Poison ivy (<i>Toxicodendron radicans</i>)
Arrowwood (<i>Viburnum recognitum</i>)	

WETLAND NARRATIVE:

This small wetland depression is impounded by an existing access road constructed across the south side of this wetland unit. A small diameter pipe has been placed across this road but does not drain the lowest part of the wetland. Soils are very cobbly and have a mantle of sediment washed off the proximate farm fields.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	1/30/17, 4/19/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 8		

Field Conditions:	Weather: Clear 20s	Snow Depth: 0 - 1 inch
	General Soil Moisture: moist	Frost Depth: 0 - 1 inch
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 8-100 to 8-180		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input checked="" type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input checked="" type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Wetland 8 includes forested riparian wetland along Bissell Brook, sloping forested wetland and an excavated/impounded farm pond. A sewer line appears to have altered slope hydrology.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input checked="" type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: Wetland includes discharge slopes, a farm pond, and riparian wetlands along Bissell Brook.		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input checked="" type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Most of the wetland is forested. .		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: Bissell Brook is perennial. Intermittent tributaries are also present in the wetland.		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: Farm pond contained fish and a small raft of wood frog eggs.		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Scarboro muck, 0 to 3 percent slopes (15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fluvaquents-Udfluvents complex, frequently flooded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3, percent slopes (34A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 3 to 15, & 15 to 45 percent slopes (38C & E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Spicebush (<i>Lindera bezoin</i>)
White pine (<i>Pinus strobus</i>)	Multiflora rose (<i>Rosa multiflora</i>)
Yellow birch (<i>Betula alleghaniensis</i>)	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)
Eastern Hemlock (<i>Tsuga canadensis</i>)	Sensitive fern (<i>Onoclea sensibilis</i>)
Highbush blueberry (<i>Vaccinium corymbosum</i>)	Skunk cabbage (<i>Symplocarpus foetidus</i>)
Arrowwood (<i>Viburnum recognitum</i>)	Jewelweed (<i>Impatiens capensis</i>)
Winterberry (<i>Ilex verticillata</i>)	
Sweet pepperbush (<i>Clethra alnifolia</i>)	

WETLAND NARRATIVE:

Wetland consists of a forested discharge slope, an excavated/impounded farm pond, the perennial Bissell Brook and intermittent tributaries. Baseline flow in Bissell Brook and hydrologic support of this wetland is driven by groundwater discharge from the outwash terrace north of the wetland supplemented by runoff during storm events. East of the farm pond, some of the wetland has developed in the spoils spread on the slope. Some of the wetland along Bissell Brook was ditched. In addition to the Walpole series, some of the soils along the wetland slopes are a red parent material variant of this series. Some of the poorly drained soils formed in red parent material do not have low chroma matrices typical of wetland soils.

Wetland Delineation Field Form

Project Address:	County Road, Hoskins Road, and Hop Meadow Street, Simsbury, CT	Project Number:	42256
Inspection Date:	04/19/17	Inspector:	Jeffrey Peterson, CPSS
Wetland I.D.:	Wetland 8		

Field Conditions:	Weather: Clear 20s	Snow Depth: 0 - 1 inch
	General Soil Moisture: moist	Frost Depth: 0 - 1 inch
Type of Wetland Delineation:	Connecticut <input checked="" type="checkbox"/>	
	ACOE <input type="checkbox"/>	
	Tidal <input type="checkbox"/>	
Field Numbering Sequence: WF 9-100 to 9-110 loop		

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Wetland 9 is a small hillside seep that dissipates as the slope form transitions from concave to convex.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: N/A		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input checked="" type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments:		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: Several recent tree throws.		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Comments: NA		

SPECIAL AQUATIC HABITAT:

Vernal Pool <input type="checkbox"/>	Other <input type="checkbox"/>	
Comments: NA		

Wetland Delineation Field Form (Cont.)

MAPPED SOILS:

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Walpole sandy loam, 0 to 3 percent slopes (13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sudbury sandy loam, 0-5 percent slopes (23A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Merrimac fine sandy loam, 0 to 3, percent slopes (34A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hinckley loam sand, 3 to 15 percent slopes (38C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOMINANT WETLAND PLANTS:

Red maple (<i>Acer rubrum</i>)	Highbush blueberry (<i>Vaccinium corymbosum</i>)
White pine (<i>Pinus strobus</i>)	Arrowwood (<i>Viburnum recognitum</i>)
Eastern Hemlock (<i>Tsuga canadensis</i>)	Sweet pepperbush (<i>Clethra alnifolia</i>)
	Cinnamon fern (<i>Osmundastrum cinnamomeum</i>)

WETLAND NARRATIVE:

This small seasonal hillside seep does not have an inlet or outlet. This wetland is difficult to differentiate from the surrounding wetlands.



United States
Department of
Agriculture

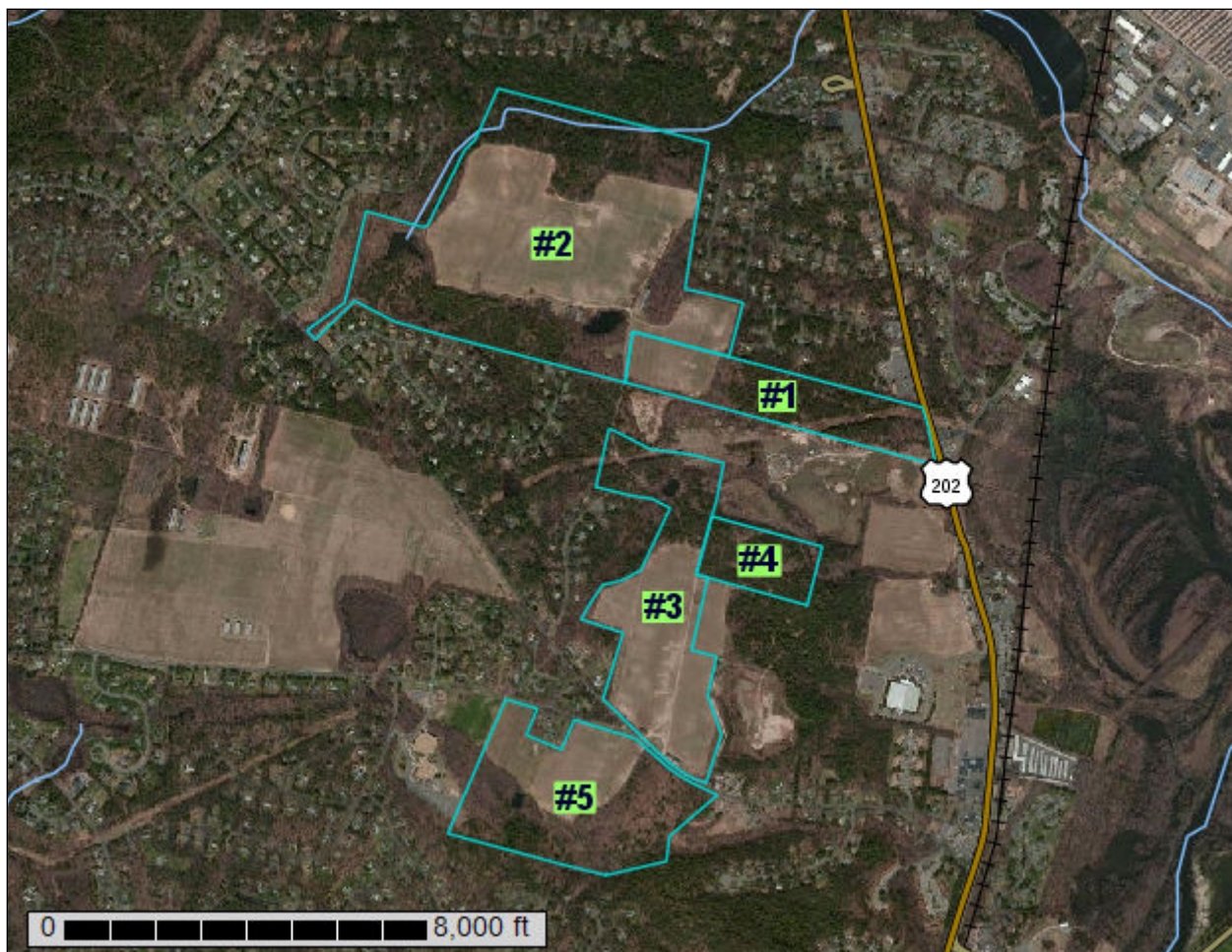
NRCS

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 State of Connecticut

**Tobacco Valley Solar, Simsbury,
CT**



June 5, 2017

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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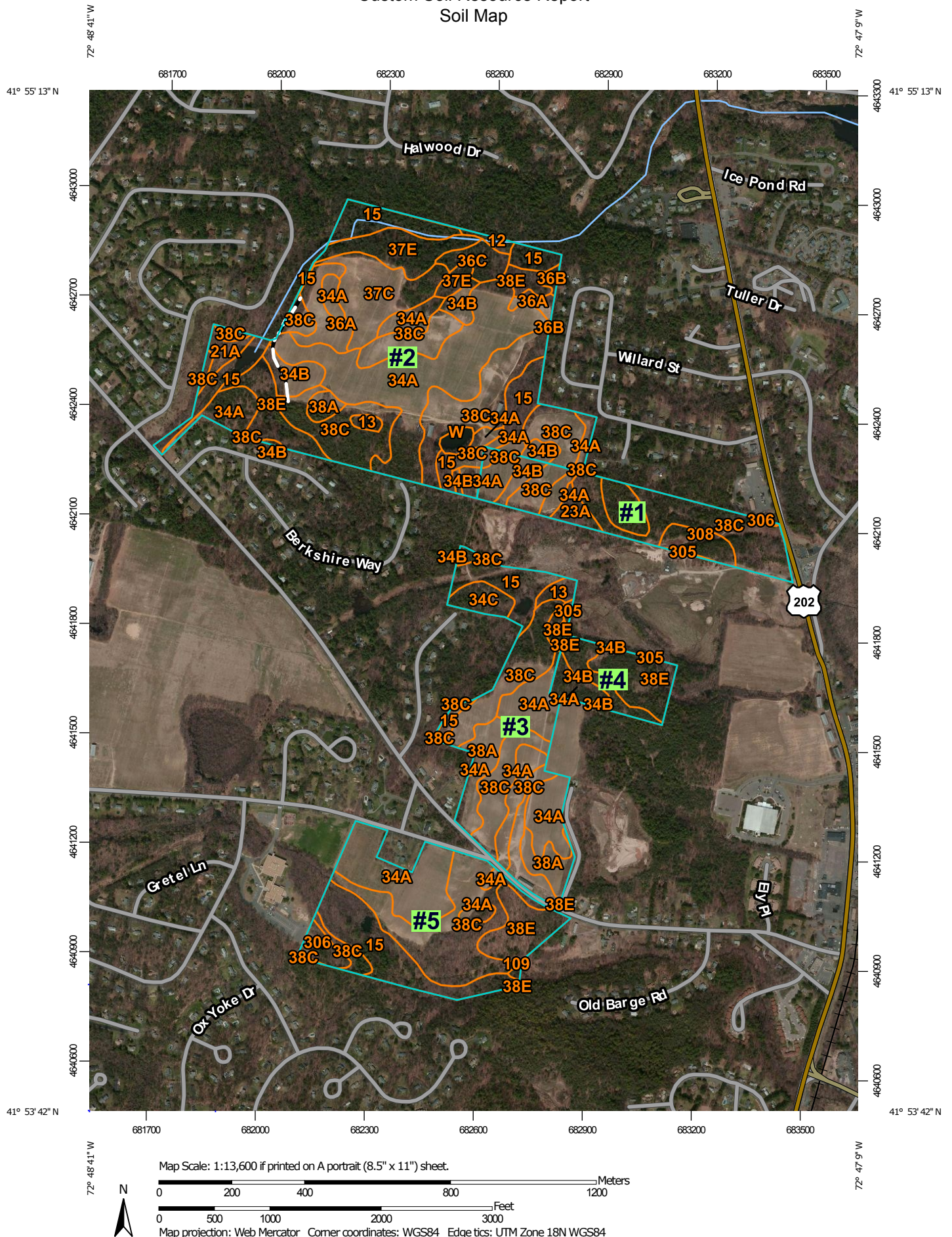
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Soil Map

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



Custom Soil Resource Report


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 1:12,000.

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: State of Connecticut

Survey Area Data: Version 15, Sep 28, 2016

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

Date(s) aerial images were photographed: Mar 28, 2011—Apr 18, 2011

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

#1, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
23A	Sudbury sandy loam, 0 to 5 percent slopes	1.9	0.7%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	3.9	1.4%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	1.6	0.5%
38C	Hinckley loamy sand, 3 to 15 percent slopes	16.8	5.8%
38E	Hinckley loamy sand, 15 to 45 percent slopes	3.3	1.1%
305	Udorthents-Pits complex, gravelly	0.1	0.0%
306	Udorthents-Urban land complex	0.1	0.0%
308	Udorthents, smoothed	3.4	1.2%
Subtotals for #1		31.1	10.8%
Totals for Area of Interest		288.3	100.0%

#2, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Raypol silt loam	0.8	0.3%
13	Walpole sandy loam, 0 to 3 percent slopes	0.7	0.3%
15	Scarboro muck, 0 to 3 percent slopes	15.4	5.3%
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	1.8	0.6%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	39.2	13.6%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	6.4	2.2%
36A	Windsor loamy sand, 0 to 3 percent slopes	5.9	2.0%
36B	Windsor loamy sand, 3 to 8 percent slopes	0.7	0.2%
36C	Windsor loamy sand, 8 to 15 percent slopes	3.2	1.1%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	10.7	3.7%
37E	Manchester gravelly sandy loam, 15 to 45 percent slopes	8.3	2.9%
38A	Hinckley loamy sand, 0 to 3 percent slopes	1.5	0.5%

Custom Soil Resource Report

#2, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	33.8	11.7%
38E	Hinckley loamy sand, 15 to 45 percent slopes	7.8	2.7%
W	Water	1.3	0.4%
Subtotals for #2		137.5	47.7%
Totals for Area of Interest		288.3	100.0%

#3, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Walpole sandy loam, 0 to 3 percent slopes	1.3	0.4%
15	Scarboro muck, 0 to 3 percent slopes	6.8	2.4%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	13.9	4.8%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	0.7	0.2%
34C	Merrimac fine sandy loam, 8 to 15 percent slopes	2.9	1.0%
38A	Hinckley loamy sand, 0 to 3 percent slopes	8.2	2.8%
38C	Hinckley loamy sand, 3 to 15 percent slopes	18.2	6.3%
38E	Hinckley loamy sand, 15 to 45 percent slopes	1.0	0.3%
305	Udorthents-Pits complex, gravelly	0.3	0.1%
Subtotals for #3		53.2	18.5%
Totals for Area of Interest		288.3	100.0%

#4, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	2.8	1.0%
34B	Merrimac fine sandy loam, 3 to 8 percent slopes	3.8	1.3%
38E	Hinckley loamy sand, 15 to 45 percent slopes	6.8	2.4%
305	Udorthents-Pits complex, gravelly	0.0	0.0%
Subtotals for #4		13.4	4.7%
Totals for Area of Interest		288.3	100.0%

Custom Soil Resource Report

#5, State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
15	Scarboro muck, 0 to 3 percent slopes	11.6	4.0%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	13.5	4.7%
38C	Hinckley loamy sand, 3 to 15 percent slopes	19.1	6.6%
38E	Hinckley loamy sand, 15 to 45 percent slopes	6.4	2.2%
109	Fluvaquents-Udfluvents complex, frequently flooded	0.2	0.1%
306	Udorthents-Urban land complex	2.2	0.8%
Subtotals for #5		53.0	18.4%
Totals for Area of Interest		288.3	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.

Custom Soil Resource Report

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.

State of Connecticut

12—Raypol silt loam

Map Unit Setting

National map unit symbol: 9ljx
Elevation: 0 to 1,200 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Raypol and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Raypol

Setting

Landform: Depressions, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss

Typical profile

Ap - 0 to 8 inches: silt loam
Bg1 - 8 to 12 inches: very fine sandy loam
Bg2 - 12 to 20 inches: silt loam
Bw1 - 20 to 26 inches: silt loam
Bw2 - 26 to 29 inches: very fine sandy loam
2C1 - 29 to 52 inches: stratified very gravelly coarse sand to loamy fine sand
2C2 - 52 to 65 inches: stratified very gravelly coarse sand to loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Enfield

Percent of map unit: 5 percent
Landform: Outwash plains, terraces
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Haven

Percent of map unit: 5 percent
Landform: Outwash plains, terraces
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Ninigret

Percent of map unit: 3 percent
Landform: Outwash plains, terraces
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Scarboro

Percent of map unit: 2 percent
Landform: Depressions, terraces, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Walpole

Percent of map unit: 2 percent
Landform: Depressions on terraces, drainageways on terraces
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Tisbury

Percent of map unit: 2 percent
Landform: Outwash plains, terraces
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Unnamed, loamy substratum

Percent of map unit: 1 percent

13—Walpole sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svkl

Custom Soil Resource Report

Elevation: 0 to 1,020 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 250 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Walpole and similar soils: 80 percent

Minor components: 20 percent

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

Description of Walpole

Setting

Landform: Deltas, depressions, depressions, outwash plains, outwash terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Sandy glaciofluvial deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Oe - 0 to 1 inches: mucky peat

A - 1 to 7 inches: sandy loam

Bg - 7 to 21 inches: sandy loam

BC - 21 to 25 inches: gravelly sandy loam

C - 25 to 65 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: Very high

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: About 0 to 4 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Hydric soil rating: Yes

Minor Components

Sudbury

Percent of map unit: 10 percent

Landform: Deltas, outwash plains, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Linear

Hydric soil rating: No

Scarboro

Percent of map unit: 10 percent

Landform: Deltas, outwash plains, outwash terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

15—Scarboro muck, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svkt

Elevation: 0 to 1,350 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Scarboro and similar soils: 80 percent

Minor components: 20 percent

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

Description of Scarboro

Setting

Landform: Depressions, outwash terraces, drainageways, outwash deltas

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope, tread, dip

Down-slope shape: Concave

Across-slope shape: Concave, linear

Parent material: Sandy glaciofluvial deposits derived from schist and/or gneiss and/or granite

Typical profile

Oa - 0 to 8 inches: muck

A - 8 to 14 inches: mucky fine sandy loam

Cg1 - 14 to 22 inches: sand

Cg2 - 22 to 65 inches: gravelly sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Very poorly drained

Runoff class: Negligible

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

Custom Soil Resource Report

Depth to water table: About 0 to 2 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: A/D

Hydric soil rating: Yes

Minor Components

Timakwa

Percent of map unit: 10 percent

Landform: Swamps

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope, tread, dip

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Hydric soil rating: Yes

Walpole

Percent of map unit: 8 percent

Landform: Deltas, depressions, depressions, outwash plains, outwash terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, tal, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Deerfield

Percent of map unit: 2 percent

Landform: Outwash plains, terraces

Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

21A—Ninigret and Tisbury soils, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2tx07

Elevation: 0 to 1,260 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Ninigret and similar soils: 60 percent

Tisbury and similar soils: 25 percent

Minor components: 15 percent

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

Description of Ninigret

Setting

Landform: Depressions, kames, kame terraces, outwash plains, outwash terraces, drainageways, moraines

Landform position (two-dimensional): Backslope, shoulder, footslope, summit

Landform position (three-dimensional): Side slope, crest, tread, dip, rise

Down-slope shape: Concave, convex, linear

Across-slope shape: Concave, convex

Parent material: Coarse-loamy eolian deposits over sandy and gravelly glaciofluvial deposits derived from gneiss, granite, schist, and/or phyllite

Typical profile

Ap - 0 to 8 inches: fine sandy loam

Bw1 - 8 to 16 inches: fine sandy loam

Bw2 - 16 to 26 inches: fine sandy loam

2C - 26 to 65 inches: stratified loamy sand to loamy fine sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: 18 to 38 inches to strongly contrasting textural stratification

Natural drainage class: Moderately well drained

Runoff class: Very low

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: About 17 to 39 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Tisbury

Setting

Landform: Deltas, depressions, depressions, outwash plains, outwash terraces, valley trains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, tal, dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Coarse-silty eolian deposits over sandy and gravelly glaciofluvial deposits derived from granite, schist, and/or gneiss

Custom Soil Resource Report

Typical profile

Ap - 0 to 8 inches: silt loam
Bw1 - 8 to 18 inches: silt loam
Bw2 - 18 to 26 inches: silt loam
2C - 26 to 65 inches: stratified extremely gravelly sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 24 to 36 inches to strongly contrasting textural stratification
Natural drainage class: Moderately well drained
Runoff class: Low
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: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Merrimac

Percent of map unit: 5 percent
Landform: Eskers, kames, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Agawam

Percent of map unit: 5 percent
Landform: Kames, kame terraces, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Backslope, shoulder, footslope, summit
Landform position (three-dimensional): Side slope, crest, tread, riser, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Haven

Percent of map unit: 3 percent
Landform: Kames, kame terraces, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Shoulder, footslope, backslope, summit
Landform position (three-dimensional): Side slope, crest, tread, riser, rise, dip
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Raypol

Percent of map unit: 2 percent

Landform: Deltas, depressions, depressions, outwash plains, outwash terraces, valley trains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

23A—Sudbury sandy loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 9lkv

Elevation: 0 to 1,200 feet

Mean annual precipitation: 43 to 54 inches

Mean annual air temperature: 45 to 55 degrees F

Frost-free period: 140 to 185 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Sudbury and similar soils: 80 percent

Minor components: 20 percent

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

Description of Sudbury

Setting

Landform: Outwash plains, terraces

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Sandy and gravelly glaciofluvial deposits derived from granite and/or schist and/or gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 5 inches: sandy loam

Bw1 - 5 to 17 inches: gravelly sandy loam

Bw2 - 17 to 25 inches: sandy loam

2C - 25 to 60 inches: stratified gravel to sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: About 18 to 36 inches

Custom Soil Resource Report

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Ninigret

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Agawam

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Kames, outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Tisbury

Percent of map unit: 3 percent

Landform: Outwash plains, terraces

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Walpole

Percent of map unit: 2 percent

Landform: Depressions on terraces, drainageways on terraces

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

34A—Merrimac fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tyqr

Elevation: 0 to 1,100 feet

Custom Soil Resource Report

Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

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

Description of Merrimac

Setting

Landform: Eskers, kames, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw1 - 10 to 22 inches: fine sandy loam
Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand
2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Sudbury

Percent of map unit: 5 percent
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Linear

Hydric soil rating: No

Hinckley

Percent of map unit: 5 percent

Landform: Deltas, eskers, kames, outwash plains

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

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise

Down-slope shape: Convex

Across-slope shape: Convex, linear

Hydric soil rating: No

Agawam

Percent of map unit: 3 percent

Landform: Eskers, kames, outwash plains, outwash terraces, moraines, stream terraces

Landform position (three-dimensional): Rise

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Windsor

Percent of map unit: 2 percent

Landform: Deltas, dunes, outwash plains, outwash terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Riser, tread

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Hydric soil rating: No

34B—Merrimac fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyqs

Elevation: 0 to 1,290 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Merrimac and similar soils: 85 percent

Minor components: 15 percent

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

Description of Merrimac

Setting

Landform: Eskers, kames, outwash plains, outwash terraces, moraines

Landform position (two-dimensional): Backslope, footslope, shoulder, summit

Custom Soil Resource Report

Landform position (three-dimensional): Side slope, crest, riser, tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam

Bw1 - 10 to 22 inches: fine sandy loam

Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand

2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 5 percent

Landform: Deltas, eskers, kames, outwash plains

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

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise

Down-slope shape: Convex

Across-slope shape: Convex, linear

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent

Landform: Deltas, outwash plains, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Windsor

Percent of map unit: 3 percent

Custom Soil Resource Report

Landform: Deltas, dunes, outwash plains, outwash terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Riser, tread
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Eskers, kames, outwash plains, outwash terraces, moraines, stream terraces
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

34C—Merrimac fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2tyqt
Elevation: 0 to 1,030 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Merrimac

Setting

Landform: Eskers, kames, outwash plains, outwash terraces, moraines
Landform position (two-dimensional): Backslope, footslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw1 - 10 to 22 inches: fine sandy loam
Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand
2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 8 to 15 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Sudbury

Percent of map unit: 5 percent
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Hinckley

Percent of map unit: 5 percent
Landform: Deltas, eskers, kames, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Windsor

Percent of map unit: 5 percent
Landform: Deltas, dunes, outwash plains, outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser, tread
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

36A—Windsor loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svkg

Elevation: 0 to 990 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor, loamy sand, and similar soils: 85 percent

Minor components: 15 percent

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

Description of Windsor, Loamy Sand

Setting

Landform: Deltas, dunes, outwash plains, outwash terraces

Landform position (three-dimensional): Riser, tread

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

O - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loamy sand

Bw - 3 to 25 inches: loamy sand

C - 25 to 65 inches: sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Deerfield, loamy sand

Percent of map unit: 10 percent
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hinckley, loamy sand

Percent of map unit: 5 percent
Landform: Deltas, eskers, kames, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

36B—Windsor loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svkf
Elevation: 0 to 1,210 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Windsor, Loamy Sand

Setting

Landform: Deltas, dunes, outwash plains, outwash terraces
Landform position (three-dimensional): Riser, tread
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

O - 0 to 1 inches: moderately decomposed plant material

Custom Soil Resource Report

A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hinckley, loamy sand

Percent of map unit: 10 percent
Landform: Deltas, eskers, kames, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Deerfield, loamy sand

Percent of map unit: 5 percent
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

36C—Windsor loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svkq
Elevation: 0 to 1,260 feet
Mean annual precipitation: 36 to 71 inches

Custom Soil Resource Report

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor and similar soils: 85 percent

Minor components: 15 percent

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

Description of Windsor

Setting

Landform: — error in exists on —

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

Landform position (three-dimensional): Side slope, riser

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

Ap - 1 to 11 inches: loamy sand

Bw - 11 to 31 inches: loamy sand

C - 31 to 65 inches: sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 10 percent

Landform: Deltas, eskers, kames, outwash plains

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

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise

Down-slope shape: Convex

Across-slope shape: Convex, linear

Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent

Landform: Deltas, outwash plains, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, tal

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

37C—Manchester gravelly sandy loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9In6

Elevation: 0 to 1,200 feet

Mean annual precipitation: 43 to 54 inches

Mean annual air temperature: 45 to 55 degrees F

Frost-free period: 140 to 185 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Manchester and similar soils: 80 percent

Minor components: 20 percent

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

Description of Manchester

Setting

Landform: Eskers, kames, outwash plains, terraces

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy and gravelly glaciofluvial deposits derived from sandstone and shale and/or basalt

Typical profile

Ap - 0 to 9 inches: gravelly sandy loam

Bw - 9 to 18 inches: gravelly loamy sand

C - 18 to 65 inches: stratified extremely gravelly coarse sand to very gravelly loamy sand

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Penwood

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

Hartford

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Branford

Percent of map unit: 3 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Ellington

Percent of map unit: 3 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Unnamed, nongravelly surface

Percent of map unit: 2 percent

Hydric soil rating: No

Unnamed, gravelly loamy sand surface

Percent of map unit: 2 percent

Hydric soil rating: No

37E—Manchester gravelly sandy loam, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 9ln7

Elevation: 0 to 1,200 feet

Mean annual precipitation: 43 to 54 inches

Custom Soil Resource Report

Mean annual air temperature: 45 to 55 degrees F

Frost-free period: 140 to 185 days

Farmland classification: Not prime farmland

Map Unit Composition

Manchester and similar soils: 80 percent

Minor components: 20 percent

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

Description of Manchester

Setting

Landform: Eskers, kames, outwash plains, terraces

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy and gravelly glaciofluvial deposits derived from sandstone and shale and/or basalt

Typical profile

Ap - 0 to 9 inches: gravelly sandy loam

Bw - 9 to 18 inches: gravelly loamy sand

C - 18 to 65 inches: stratified extremely gravelly coarse sand to very gravelly loamy sand

Properties and qualities

Slope: 15 to 45 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Penwood

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

Hartford

Percent of map unit: 5 percent

Landform: Outwash plains, terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Branford

Percent of map unit: 5 percent
Landform: Outwash plains, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Walpole

Percent of map unit: 3 percent
Landform: Depressions on terraces, drainageways on terraces
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Scitico

Percent of map unit: 2 percent
Landform: Depressions, terraces, drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

38A—Hinckley loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svm7
Elevation: 0 to 1,420 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Hinckley

Setting

Landform: Kame terraces, outwash plains, outwash terraces, outwash deltas
Landform position (three-dimensional): Tread
Down-slope shape: Concave, linear, convex
Across-slope shape: Linear, concave, convex
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand

Custom Soil Resource Report

Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent
Landform: Kame terraces, outwash terraces, outwash deltas
Landform position (three-dimensional): Tread
Down-slope shape: Convex, concave, linear
Across-slope shape: Linear, convex, concave
Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent
Landform: Kame terraces, outwash terraces, outwash deltas
Landform position (three-dimensional): Tread
Down-slope shape: Convex, concave, linear
Across-slope shape: Linear, convex, concave
Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent
Landform: Kame terraces, outwash terraces, outwash deltas
Landform position (three-dimensional): Tread
Down-slope shape: Convex, concave, linear
Across-slope shape: Linear, convex, concave
Hydric soil rating: No

38C—Hinckley loamy sand, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svmb

Elevation: 0 to 1,290 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

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

Description of Hinckley

Setting

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Footslope, toeslope, shoulder, backslope, summit

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser, tread

Down-slope shape: Convex, concave, linear

Across-slope shape: Concave, linear, convex

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Custom Soil Resource Report

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope, summit

Landform position (three-dimensional): Crest, head slope, nose slope, side slope, riser, tread

Down-slope shape: Convex, concave, linear

Across-slope shape: Concave, linear, convex

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Eskers, kames, outwash plains, outwash terraces, moraines

Landform position (two-dimensional): Shoulder, toeslope, backslope, footslope, summit

Landform position (three-dimensional): Side slope, head slope, nose slope, crest, riser, tread

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Agawam

Percent of map unit: 3 percent

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Shoulder, backslope, toeslope, summit, footslope

Landform position (three-dimensional): Crest, head slope, nose slope, side slope, tread, riser

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent

Landform: Kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: No

38E—Hinckley loamy sand, 15 to 45 percent slopes

Map Unit Setting

National map unit symbol: 2svmj
Elevation: 0 to 1,280 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Hinckley

Setting

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser
Down-slope shape: Linear, convex, concave
Across-slope shape: Linear, concave, convex
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 15 to 45 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 5 percent

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Concave, convex, linear

Across-slope shape: Linear, concave, convex

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Eskers, kames, outwash plains, outwash terraces, moraines

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, head slope, nose slope, crest, riser

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Agawam

Percent of map unit: 3 percent

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent

Landform: Eskers, kames, kame terraces, outwash plains, outwash terraces, moraines, outwash deltas

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Hydric soil rating: No

109—Fluvaquents-Udifuvents complex, frequently flooded

Map Unit Setting

National map unit symbol: 9ljw
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Fluvaquents, frequently flooded, and similar soils: 50 percent
Udifuvents, frequently flooded, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fluvaquents, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

A - 0 to 4 inches: silt loam
Cg1 - 4 to 14 inches: fine sand
Cg2 - 14 to 21 inches: very fine sand
Ab1 - 21 to 38 inches: silt loam
Ab2 - 38 to 45 inches: fine sandy loam
C'g3 - 45 to 55 inches: sand
A'b3 - 55 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Description of Udifluvents, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 2 inches: fine sandy loam
C - 2 to 4 inches: loamy fine sand
Ap - 4 to 12 inches: fine sandy loam
AC - 12 to 18 inches: fine sandy loam
C1 - 18 to 35 inches: loamy sand
C2 - 35 to 38 inches: very gravelly loamy sand
C3 - 38 to 60 inches: very gravelly coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (0.57 to 35.99 in/hr)
Depth to water table: About 72 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: Low (about 4.0 inches)

Interpretive groups

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

Minor Components

Riverwash

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

Saco

Percent of map unit: 3 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Rippowam

Percent of map unit: 3 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Pootatuck

Percent of map unit: 2 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Occum

Percent of map unit: 2 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

305—Udorthents-Pits complex, gravelly

Map Unit Setting

National map unit symbol: 9lmf
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 54 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 65 percent
Pits: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Gravelly outwash

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)

Custom Soil Resource Report

Depth to water table: About 24 to 54 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Pits

Typical profile

C - 0 to 65 inches: very gravelly sand

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: Unranked

Minor Components

Hinckley

Percent of map unit: 2 percent
Landform: Eskers, kames, outwash plains, terraces
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Windsor

Percent of map unit: 2 percent
Landform: Kames, outwash plains, terraces
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Merrimac

Percent of map unit: 2 percent
Landform: Kames, outwash plains, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Gloucester

Percent of map unit: 2 percent
Landform: Hills
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ninigret

Percent of map unit: 1 percent
Landform: Outwash plains, terraces
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Sudbury

Percent of map unit: 1 percent
Landform: Outwash plains, terraces
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

306—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lmg
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Udorthents

Setting

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Drift

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 54 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

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Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Urban Land

Typical profile

H - 0 to 6 inches: material

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Unnamed, undisturbed soils

Percent of map unit: 8 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

308—Udorthents, smoothed

Map Unit Setting

National map unit symbol: 9lmj
Elevation: 0 to 2,000 feet
Mean annual precipitation: 43 to 56 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 120 to 185 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

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

Typical profile

A - 0 to 5 inches: loam
C1 - 5 to 21 inches: gravelly loam
C2 - 21 to 80 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 24 to 54 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Udorthents, wet substratum

Percent of map unit: 7 percent
Hydric soil rating: No

Unnamed, undisturbed soils

Percent of map unit: 7 percent
Hydric soil rating: No

Urban land

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

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: No

W—Water

Map Unit Composition

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

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