**Massachusetts Department of Environmental** Provided by MassDEP: MassDEP File #: Protection cDEP Transaction #:1279482 Bureau of Resource Protection - Wetlands City/Town:WARE WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 **A.General Information** I. Project Location: a. Street Address 67 OLD POOR FARM RD b. City/Town WARE c. Zip Code 01082 d. Latitude 42.29687N e. Longitude 72.27580W f. Map/Plat # 39 g Parcel/Lot # 5&6 2. Applicant: Individual Corganization a. First Name BRANDI b.Last Name ESTRIDGE c. Organization d. Mailing Address 67 OLD POOR FARM RD e. City/Town WARE f. State MA g. Zip Code 01082 h. Phone Number 912-432-8664 i. Fax j Email BRANDI.ESTRIDGE@GMAIL.COM 3. Property Owner: There than one owner a. First Name BRANDI b. Last Name ESTRIDGE c. Organization 67 OLD POOR FARM RD d. Mailing Address c. City/Town WARE EState MA g. Zip Code 01082 h. Phone Number 912-432-8664 i. Fax j.Email BRANDI.ESTRIDGE@,GMAIL.COM 4.Representative: a. First Name DiPinto MaryAnn b. Last Name THREE OAKS ENVIRONMENTAL c. Organization d. Mailing Address **PO BOX 404** e. City/Town Hubbardston f. State g. Zip Code 01452 h.Phone Number 197-885-5318 i.Fax j.Email threeoaksenvironmental@gmail.com 5. Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form): a. Total Fee Paid **b.State Fee Paid** c.City/Town Fee Paid 6.General Project Description: RESTORE ALTERED WETLAND AREA AND CREATE LAWN IN THE BUFFER ZONE FOR CHILDREN'S PLAY AREA AND CHICKEN COOP 7a.Project Type: 1.1 Single Family Home 2. C Residential Subdivision 4. Commercial/Industrial 3. Limited Project Driveway Crossing 5. C Dock/Pier 6. F Utilities 7.1<sup>-</sup> Coastal Engineering Structure 8. Agriculture (eg., cranberries, forestry) 9. Transportation 10. F Other 7b.ls any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310

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**Massachusetts Department of Environmental** Provided by MassDEP: MassDEP File #: Protection cDEP Transaction #:1279482 Bureau of Resource Protection - Wetlands City/Town:WARE WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 CMR 10.53 (inland)? 1. TYEST No If yes, describe which limited project applies to this project: 2. Limited Project 8 Property recorded at the Registry of Deeds for: **b.Certificate:** a.County: c.Book: d.Page: HAMPSHIRE 13905 239 B. Buffer Zone & Resource Area Impacts (temporary & permanent) 1.Buffer Zone & Resource Area Impacts (temporary & permanent): This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area. 2.Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas) Resource Area Size of Proposed Alteration Proposed Replacement (if any) a. Bank 1. linear feet 2. linear feet b.₽ Bordering Vegetated Wetland 0 4000 L square feet 2, square feet c. □ Land under Waterbodies and Waterways 1. Square feet 2. square feet 3. cubic yards dredged d. □ Bordering Land Subject to Flooding 1. square feet 2. square feet 3. cubic feet of flood storage lost 4. cubic feet replaced e. [7] Isolated Land Subject to Flooding 1. square feet 2. cubic feet of flood storage lost 3. cubic feet replaced f.□ Riverfront Area I. Name of Waterway (if any) 2. Width of Riverfront Area (check one) 7 25 ft. - Designated Densely Developed Areas only 100 ft. - New agricultural projects only 200 ft. - All other projects 3. Total area of Riverfront Area on the site of the proposed project square feet Proposed Alteration of the Riverfront Area: a, total square feet b. square feet within 100 ft. c. square feet between 100 ft. and 200 ft. Page 2 of 7 \* ELECTRONIC COPY Massachusetts Department of EnvironmentalPProtectionMBureau of Resource Protection - WetlandsCWPA Form 3 - Notice of IntentCMassachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: cDEP Transaction #:1279482 City/Town:WARE

5. Has an alternatives analysis been done and is it attached to this NOI?	□ Yes  No
6. Was the lot where the activity is proposed created prior to August 1, 1996?	Γ YesΓ No

3 Coastal Resource Areas: (See 310 CMR 10.25 - 10.35)

Resource Area		Size of Proposed Alteration	Proposed Replacement (if any)
a. Designated Port Areas	Indicate size under	Land under the ocean b	pelow,
b. □ Land Under the Ocean	1. square feet		
	2. cubic yards dredged		
c. T Barrier Beaches	Indicate size under Coastal I	Beaches and/or Coatstal Dunes, bel	ow
d. □ Coastal Beaches	1. square fect	2. cubic yards beach no	ourishment
e. Coastal Dunes	1. square feet	2. cubic yards dune not	urishment
£⊤ Coastal Banks	1. linear feet		
g. TRocky Intertidal Shores	1. square feet		
h. □ Salt Marshes	L square feet	2. sq ft restoration, reh	ab, crea.
i.□ Land Under Salt Ponds	1. square feet		
	2. cubic yards dredged		
j. T Land Containing Shellfish	1. square feet		
k. □ Fish Runs	Indicate size under Coastal I Under Waterbodies and Waterbodies	Banks, Inland Bank, Land Under th terways, above	e Ocean, and/or inland Land
	1. cubic yards dredged		
L Land Subject to Coastal Storm Flowage	L square feet		
4.Restoration/Enhancement			
Restoration Replacement			
	c of restoring or enhancing a w 3.h above, please entered the ac	etland resource area in addition to t dditional amount here.	the square footage that has been

4000

a, square feet of BVW

b. square feet of Salt Marsh

5. Projects Involves Stream Crossings

Project Involves Streams Crossings

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Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Provided by MassDEP: MassDEP File #: cDEP Transaction #:1279482 City/Town:WARE

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings b. number

b. number of replacement stream crossings

#### C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

 Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

a. 🔽 Yes 🖓 No

If yes, include proof of mailing or hand delivery of NOI to: Natural Heritage and Endangered Species Program Division of Fisheries and Wildlife 1 Rabbit Hill Road Westborough, MA 01581

b. Date of map:From Map Viewer

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18) .....

c. Submit Supplemental Information for Endangered Species Review \* (Check boxes as they apply)

1. Percentage/acreage of property to be altered;

(a) within Wetland Resource Area

(b) outside Resource Area

percentage/acreage

percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

3. Project plans for entire project site, including wetland resource areas and areas outside of wetland jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*

a. T Project description (including description of impacts outside of wetland resource area & buffer zone)

b. Photographs representative of the site

c. MESA filing fee (fee information available at: http://www.mass.gov/cea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html.)

Make check payable to "Natural Heritage & Endangered Species Fund" and mail to NHESP at above address Projects altering 10 or more acres of land, also submit:

d. □ Vegetation cover type map of site

e. Project plans showing Priority & Estimated Habitat boundaries

#### d. OR Check One of the following

1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <u>http://www.mass.gov/cca.agencies/dfg/dfw/laws-regulations/cmr 321-cmr-1000-massachusetts-endangered-species-act.html#10.14</u>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

Separate MESA review ongoing.

a. NHESP Tracking Number

b. Date submitted to NHESP

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Massachusetts Department of Environmental Protection Burcau of Resource Protection - Wetlands WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP: MassDEP File #: cDEP Transaction #:1279482 City/Town:WARE

3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

- \* Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review ....
- For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?
  a. ♥ Not applicable project is in inland resource area only

b. □Yes □No

If yes, include proof of mailing or hand delivery of NOI to either: South Shore - Cohasset to Rhode Island, and the Cape & Islands:

Division of Marine Fisheries -Southeast Marine Fisheries Station Attn: Environmental Reviewer 836 S. Rodney French Blvd New Bedford, MA 02744 North Shore - Hull to New Hampshire:

Division of Marine Fisheries -North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930

If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a. □Yes ₽No

If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). Note: electronic filers click on Website.

b. ACEC Name

- 4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
  - a. 🗆 🗆 Yes 🗟 No
- 5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?

a. TYes TNo

- 6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
  - a. Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
    - 1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook
    - Vol.2, Chapter 3)
    - A portion of the site constitutes redevelopment
    - 3. Proprietary BMPs are included in the Stormwater Management System
  - b. No, Explain why the project is exempt:
    - Single Family Home

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Massachusetts Department of Environmental Protection Burcau of Resource Protection - Wetlands WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Provided by MassDEP: MassDEP File #: cDEP Transaction #:1279482 City/Town:WARE

2. Emergency Road Repair

3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

#### **D. Additional Information**

Applicants must include the following with this Notice of Intent (NOI). See instructions for details,

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

- 1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the
- ✓ Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland
- If [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
- 3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).
- Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date: e. Scale:
PLOT PLAN	MARYANN DIPINTO		5/14/21
WETLANDS REPORT	THREE OAKS ENVIRONMENTAL	MARYANN DIPINTO, PWS	5/14/21

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

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8. Attach NOI Wetland Fee Transmittal Form.

- 9
- 9. Attach Stormwater Report, if needed.

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Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 3 - Notice of Intent Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Provided by MassDEP: MassDEP File #: cDEP Transaction #:1279482 City/Town:WARE

#### E. Fees

1.0

Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number	Pain	electroni	cally	3. Check date	
4. State Check Number	301	HKS	cany	5. Check date	
6. Payer name on check: First Na	me			7. Payer name on check: Last Name	<u> </u>

#### **F. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

2. Date

3. Signature of Property Owner(if different)

5. Signature (if any)

4. Date

812

#### For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

#### For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

#### Other:

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent

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W S-M Lot 1 6751d Poor Firm Rd 1111 98 Road 50 107 21 21 Ret. 50 32' 44' W9 W8 W1042 60 20 35' is only wet 60'x 80 in 80' Wet lands Butis Dry now its only zux 35' Lot 2 not in wet lands. Road 135' 100' 1 135'

MassDEP's Online Filing System			Usemame:30/	AKS	
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Your submission is complete. T system. You can select "My eD					

DEP Transaction ID: 1279482 Date and Time Submitted: 8/2/2021 6:52:25 PM Other Email :

Form Name: WPA Form 3 - NOI

Project Location City/Town Name: WARE location: 67 OLD POOR FARM RD General Description: RESTORE ALTERED WETLAND AREA AND CREATE LAWN FOR CHILDREN'S PLAY AREA AND CHICKEN COOP

Applicant Information Name: BRANDI ESTRIDGE Company Address: 67 OLD POOR FARM RD, WARE, MA, 01082

Payment Information Your fee for the state share is \$: 42.50

\$ 67.50 due to Ware

If you have paid by credit card or ACH, thank you for your payment. If you are paying by check or money order, please send your check (payable to the Commonwealth of Massachusetts) to MassDEP, Box 4062, Boston, MA 02211

Additional Forms Submitted WPA Form 3 - NOI (Fee Transmittal)(ONLINE ONLY)

Ancillary Document Uploaded/Mailed WETLANDS REPORT site sketch 67 Old Poor Farm

My eDEP

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# Three Oaks Environmental P.O. Box 404 Hubbardston, MA 01452 (978) 855-3180

July 10, 2021

Brandi Estridge 67 Old Poor Farm Rd. brandi.estridge@gmail.com Re: Wetlands delineation for an after-the-fact Notice of Intent site visits 5/12/21 and 7/8/21

I delineated the Bordering Vegetated Wetland at the above-referenced property after work had commenced within the 100-foot Buffer Zone and a portion of the BVW. Trees had been cleared and minor grading occurred that removed some of the herbaceous layer. The Conservation Commission issued a cease and desist and required that a Notice of Intent be submitted.

I returned on July 8 and observed a significant amount of regrowth. I was able to determine the wetland line based on my observations of the remaining herbaceous layer and verification with soil augering. Since the trees were cut it appears that the additional sunlight and higher groundwater levels have caused some wetland plants to sprout in the upland. It is clear that groundwater seeping out at the surface below the retaining wall has resulted in an abundance of wetland plant species. The water leaves the backyard through a narrow swale which drains into a larger wetland system. This causes the wetland area to be bordering and therefore jurisdictional under the Wetlands Protection Act, MGL Ch. 131 §40. MassGIS wetlands data layer indicates that the wetland is much further down the hill than observed in the field.



Area where trees were cut with little disturbance to the herbaceous layer



The skunk cabbage was removed from the surface in this area where a future yard is proposed



View of lot adjacent to the house. Trees were cleared with some ground disturbance

I delineated the wetland primarily based upon the dominant vegetation present. Though there has been some alteration to the site, the overall plant community was readily discernible. I returned on July 8, 2021 to verify the boundary after more vegetation had grown in and matured. The intent is to create a backyard for the children to play in and create some lawn and agricultural area in the Buffer Zone on the adjacent parcel to the north. Though the trees had been cut on that parcel, I was able to flag the wetland boundary based on the understory and verification using soils. A Notice of Intent will be filed to allow for a small backyard with approximately 1500 square feet of wetland to be replicated on the adjoining parcel. I used pink flags W1 through W15 where the wetland boundary continues away from the site beyond the well.

- <u>Vegetation observed in wetland includes</u>: skunk cabbage, jewelweed,cinnamon fern, cattail, elderberry, horsetail, red maple, jack-in-the-pulpit, sensitive fern and pussy willow.
- <u>Vegetation observed in the upland includes:</u> sarsaparilla, partridgeberry, hawthorn, Chokecherry, canada mayflower, hayscented fern, japanese barberry, raspberry, christmas fern, sweet birch, dandelion, multiflora rose and poison ivy on both sides of the line.



Existing retaining wall and brick walking path. Groundwater seeps out just below the path

The attached copy of the NRCS soil mapping indicates that the site has only upland soil units of Hinckley loamy sand and Woodbridge fine sandy loam present on the entire parcel. Ridgebury hydric soils are often found as a minor component of a Woodbridge soil, which appears to be the case in this location.

I researched MassGIS data layers further and determined that there are no rare species, priority habitats, certified or potential vernal pools on the site or within 100-feet. The wetland area is not considered to be an Outstanding Resource Water nor is it considered to be an Area of Critical Environmental Concern. There is no 100-year floodplain depicted on the site according to the MassGIS FEMA data layer map attached.

Please feel free to contact me if you have any questions regarding this report.

Respectfully submitted, MaryAnn DiPinto, PWS #0227 threeoaksenvironmental@gmail.com

















# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
52A	Freetown muck, 0 to 1 percent slopes	10.2	28.6%
253B	Hinckley loamy sand, 3 to 8 percent stopes	13.6	38.3%
253D	Hinckley loamy sand, 15 to 25 percent slopes	3.1	8.8%
312C	Woodbridge fine sandy loam, 8 to 15 percent slopes, extremely slony	8.6	24.2%
Totals for Area of Interest		35.6	100.0%

# Hampden and Hampshire Counties, Massachusetts, Eastern Part

## 253D—Hinckley loamy sand, 15 to 25 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2svmc Elevation: 0 to 1,460 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: Kame terraces, eskers, kames, outwash plains, moraines, outwash deltas, outwash terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser Down-slope shape: Linear, convex, concave Across-slope shape: Convex, linear, concave 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 25 percent Depth to restrictive feature: More than 80 inches 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

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

Available water capacity: Low (about 3.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6e Hydrologic Soil Group: A Ecological site: F144AY022MA - Dry Outwash Hydric soil rating: No

#### Minor Components

#### Merrimac

Percent of map unit: 8 percent Landform: Eskers, kames, outwash plains, moraines, outwash terraces Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

#### Windsor

Percent of map unit: 5 percent

Landform: Outwash terraces, kame terraces, eskers, kames, outwash plains, moraines, outwash deltas

Landform position (two-dimensional): Backslope

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

*Down-slope shape:* Linear, concave, convex *Across-slope shape:* Convex, linear, concave *Hydric soil rating:* No

#### Sudbury

Percent of map unit: 2 percent Landform: Outwash deltas, outwash terraces, kame terraces, eskers, outwash plains, moraines Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Base slope, tread Down-slope shape: Concave, linear, convex Across-slope shape: Concave, linear, convex Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Hampden and Hampshire Counties, Massachusetts, Eastern Part Survey Area Data: Version 15, Jun 10, 2020

# Hampden and Hampshire Counties, Massachusetts, Eastern Part

## 52A—Freetown muck, 0 to 1 percent slopes

### **Map Unit Setting**

National map unit symbol: 2t2q9 Elevation: 0 to 1,110 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**

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

## **Description of Freetown**

### Setting

Landform: Marshes, depressions, depressions, kettles, swamps, bogs Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread, dip Down-slope shape: Concave Across-slope shape: Concave Parent material: Highly decomposed organic material

### **Typical profile**

Oe - 0 to 2 inches: mucky peat Oa - 2 to 79 inches: muck

## **Properties and qualities**

Slope: 0 to 1 percent Surface area covered with cobbles, stones or boulders: 0.0 percent Depth to restrictive feature: More than 80 inches Drainage class: Very poorly drained Runoff class: Negligible 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 6 inches Frequency of flooding: Rare Frequency of ponding: Frequent Available water capacity: Very high (about 19.2 inches)

### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 5w Hydrologic Soil Group: B/D Ecological site: F144AY043MA - Acidic Organic Wetlands Hydric soil rating: Yes

#### **Minor Components**

#### Swansea

Percent of map unit: 5 percent Landform: Depressions, kettles, swamps, bogs, marshes, depressions Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Tread, dip Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

#### Scarboro

Percent of map unit: 5 percent Landform: Drainageways, depressions Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope, tread, dip Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

#### Whitman

Percent of map unit: 5 percent Landform: Depressions, drainageways Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Base slope Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

# **Data Source Information**

Soil Survey Area: Hampden and Hampshire Counties, Massachusetts, Eastern Part

Survey Area Data: Version 15, Jun 10, 2020

SDA