

Conservation Commission

Notice of Intent Application Checklist – Sturbridge Wetland Bylaw (Section 3.50)

cant / Property Owner 123 KIDS LLC		
esentative DC ENGINEERING & SURVEY , INC.		
ect Location 59 New Boston Pd.		
essor's Information Map 455 - 02521 - 059	RECEIVED	
NOI filed with Conservation July 31, 2019	101 1 2010	
Complete most recent NOI Form (Notice of Intent Application) and nece	essary attachments (2 copies))
Plans and calculations clearly describing the location and nature of the Stormwater documents if applicable (2 copies)	work including all necessary	
An 8.5 x 11 color section of the USGS Quadrangle (topo) identifying the	locus and with a scale	
An 8.5 \times 11 copy of the most recent Natural Heritage Map with WH, PH and with a scale	and VP data identifying the lo	ocus
An 8.5 x 11 copy of the FIRM Map identifying the locus and with a scale)	
Copy of the Certified Abutters List (to include all abutters within 200-fee copy of the completed Abutter Certification Form	t of the subject property) and	а
Signed Affidavit of Service for Abutter Notification		
Filing fee check -made out to the Town of Sturbridge (See Local Filing	Fee Worksheet)	
Tax Form signed by the Sturbridge Tax Collector, notifying the Conservaxes are paid-to-date (1 copy)	ration Commission that the pr	operty
This Check list is to be filled out and submitted to the Sturbridge Conse filing the Notice of Intent Application.	rvation Commission at the tin	ne of
9	esentative DC ENGINEERING T SURVEY. INC. ct Location 59 New Bos Ton 2d. esor's Information Map 455 - 02521 - 059 NOI filed with Conservation July 31, 2019 Complete most recent NOI Form (Notice of Intent Application) and necessary describing the location and nature of the Stormwater documents if applicable (2 copies) An 8.5 x 11 color section of the USGS Quadrangle (topo) identifying the An 8.5 x 11 copy of the most recent Natural Heritage Map with WH, PH and with a scale An 8.5 x 11 copy of the FIRM Map identifying the locus and with a scale Copy of the Certified Abutters List (to include all abutters within 200-fee copy of the completed Abutter Certification Form Signed Affidavit of Service for Abutter Notification Filing fee check -made out to the Town of Sturbridge (See Local Filing Tax Form signed by the Sturbridge Tax Collector, notifying the Conservatives are paid-to-date (1 copy) This Check list is to be filled out and submitted to the Sturbridge Conservatives.	esentative OC ENGINEERING T SURVEY INC. ct Location 59 New BOSTON Pd. ssor's Information Map 455 - 0.2521 - 0.59 NOI filed with Conservation July 31, 2019 Complete most recent NOI Form (Notice of Intent Application) and necessary attachments (2 copies) Plans and calculations clearly describing the location and nature of the work including all necessary Stormwater documents if applicable (2 copies) An 8.5 x 11 color section of the USGS Quadrangle (topo) identifying the locus and with a scale An 8.5 x 11 copy of the most recent Natural Heritage Map with WH, PH and VP data identifying the locus with a scale An 8.5 x 11 copy of the FIRM Map identifying the locus and with a scale Copy of the Certified Abutters List (to include all abutters within 200-feet of the subject property) and copy of the completed Abutter Certification Form Signed Affidavit of Service for Abutter Notification Filing fee check –made out to the Town of Sturbridge (See Local Filing Fee Worksheet) Tax Form signed by the Sturbridge Tax Collector, notifying the Conservation Commission that the properties of the subject property and copy of the Certification form Signed by the Sturbridge Tax Collector, notifying the Conservation Commission at the time of the Certification Cer

Please contact the Conservation Department if you have any questions (508)-347-2506.



Sturbridge Conservation Commission Notice of Intent

Sturbridge Wetland Bylaw Section 3.50



A. General Information	Λ.	
Project Location:		
59 NEW BOSTON Rd.	STURBELDGE	01566
a. Street Address	b. City/Town	c. Zip Code
455 - 02521 - 059		
d. Assessors Map/Plat Number	e. Parcel /Lot Number	
Applicant:		
a. First Name	b. Last Name	-
123 KIDS LIC	<u> </u>	
c. Organization 71 HILLSVILLE Pd.	Parker Mary	
d. Street Address	The second second	
NORTH BROKFIELD	f. State	0/5.35
e. City/Town	1. State / JUL 2 1 n.s.	a-mp Ode
508-479 · 378 7 h. Phone Number i. Fax Number	j. Email Address	9 / / / / / / / / / / / / / / / / / / /
Property owner (required if different from a	pplicant): Check if more the	lan one owner
a. First Name	b. East Name	
c. Organization		
d. Street Address		
e. City/Town	f. State	g. Zip Code
h. Phone Number i. Fax Number	j. Email address	
Representative (if any):		
Jason	DUBOIS	
a. First Name	b. Last Name	
DC ENGINEERING SURVEY	NC.	
c. Company		
32 CRANBERRY MEADOW Rd. Street Address	P	
	MA	01507
CHARLTON e.	f. State	g. Zip Code
508.769.6659	jdu 6862001@ ya	hoorcom
	1 Planta II malalanana	-
h. Phone Number i. Fax Number	j. Emaii address	
h. Phone Number i. Fax Number Total Fee Paid (Attach with submittal from	n Filing Fee Worksheet):	



Sturbridge Conservation Commission

Notice of Intent

Sturbridge Wetland Bylaw Section 3.50



CONSTRUCTION OF A SINGLE FAMI	WITHIN THE 200'FT BULFER ZONE.
	WITH TO THE COURT DUPLE CO. T.
7. Project Type Checklist:	
1. Single Family Home	2. Residential Subdivision
3. Commercial/Industrial	4. Dock/Pier
5. Utilities	6. Coastal engineering Structure
7. Agriculture (e.g., cranberries, forestry)	8. Transportation
9. Other:	
8. Property recorded at the Registry of Deeds for:	
a. County	b. Certificate # (if registered land)
•	·
(00)2	368
c. Book D. Signatures and Submittal Requirements and any supporting documentation and what Boot Market Boot Marke	on describing how the project will protect the jurisdictional
D. Signatures and Submittal Requires ource areas during construction and what Best Mawill be no long-term impacts to the Resource Areas. In 2. On a separate sheet, list the titles and dates for all pithis NOI. 3. If there is more than one property owner, please atton this form. 4. Include the Town of Sturbridge Notice of Intent App Signatures and Submittal Requirements 5. I hereby certify under the penalties of perjury that the documents, and supporting data are true and completely legal advertisement to the applicant and it is the applicant and it	d. Page Number uirements on describing how the project will protect the jurisdictional inagement Practices have been incorporated to ensure the indicate distance to Resource Areas. In olans and other materials submitted with each a list of these property owners not listed distance Checklist one foregoing Notice of Intent and accompanying plans, the to the best of my knowledge. The Commission will provide cants requirement to post in accordance to the applicable over certify under penalties of perjury that all abutters were
D. Signatures and Submittal Requires ource areas during construction and what Best Mawill be no long-term impacts to the Resource Areas. In 2. On a separate sheet, list the titles and dates for all pithis NOI. 3. If there is more than one property owner, please atton this form. 4. Include the Town of Sturbridge Notice of Intent App Signatures and Submittal Requirements 5. I hereby certify under the penalties of perjury that the documents, and supporting data are true and completely legal advertisement to the applicant and it is the applicant and it	uirements on describing how the project will protect the jurisdictional imagement Practices have been incorporated to ensure the indicate distance to Resource Areas. In plans and other materials submitted with each a list of these property owners not listed elication Checklist The foregoing Notice of Intent and accompanying plans, the to the best of my knowledge. The Commission will provide cants requirement to post in accordance to the applicable there certify under penalties of perjury that all abutters were certificate of Mailing or in writing by hand delivery or certified to feet of the property line of the project location.
D. Signatures and Submittal Req 1. Attach a narrative and any supporting documentation resource areas during construction and what Best Mawill be no long-term impacts to the Resource Areas. In 2. On a separate sheet, list the titles and dates for all paths NOI. 3. If there is more than one property owner, please attorn this form. 4. Include the Town of Sturbridge Notice of Intent App Signatures and Submittal Requirements 5. I hereby certify under the penalties of perjury that the documents, and supporting data are true and completed advertisement to the applicant and it is the application of this application. Notice must be made by Contracting of this application.	uirements on describing how the project will protect the jurisdictional imagement Practices have been incorporated to ensure the indicate distance to Resource Areas. In old other materials submitted with each a list of these property owners not listed distance Checklist The foregoing Notice of Intent and accompanying plans, we to the best of my knowledge. The Commission will provide cants requirement to post in accordance to the applicable of the certificate of Mailing or in writing by hand delivery or certified.



Conservation Commission

Filing Fee Worksheet

Under M.G.L. c 131, § 40 and the Town of Sturbridge Wetland Bylaw

Applicant 123 KIDS LLC
Applicant Representative DC ENGINEERING & SURNEY WE.
Project location 59 NEW BOSTON Rd.
TOTAL STATE FEE REQUIRED FOR PROJECT (Only subject to NOI and ANRAD filings—See Wetland Fee Transmittal Form):
State Fee Category(s) Total State Fee for project (include Riverfront Area adjustment if applicable)
State share of State Fee
Local share of State Fee
TOTAL ADDITIONAL LOCAL FEE REQUIRED FOR PROJECT*:
(See Sturbridge Wetland Bylaw Regulations Section 4.17) Standard NOI Fee = \$50.00 (check if applicable)
Standard RDA Fee = \$25.00 (check if applicable)
☐ Standard ANRAD Fee = \$00.10 per foot for resource area delineation (check if applicable).
feet x \$00.10 = \$ Standard DELINEATION Fee = \$00.10 per foot for resource area delineation (for all projects).
feet 163 x $$00.10 = 16.30 (for all projects that do not include an approved wetland delineation boundary by the Commission within 3 years prior to application submittal)
REPLICATION Monitoring Fee = \$200.00 (check if applicable) (for all projects that include wetland alteration and wetland replication)
CUMULATIVE TOTAL FEES:
Total State Fee: N/H
Total Town Share of State Fee: N/A
Total Local Fee:
*Please Note:
For each NOI and ANRAD filing, please submit two (2) checks to the Town of Sturbridge, one for the town's portion of the state fee and one for the local fee(s). RDA filings only have a Local Fee at this time.
The advertising fee is not included in the calculation. The Applicant will pay the Southbridge News directly.

F:\Home\CONSERVATION\Forms\Local Filing Fees Worksheet.doc



Conservation Commission

STURBRIDGE CONSERVATION COMMISSION AFFIDAVIT OF SERVICE

Under the Town of Sturbridge Wetland Bylaw, I JASON DUBOLS	, hereby certify
under the pains and penalties of perjury that on (date) 8 5 2019	, I gave notification to
abutters, in compliance with this Bylaw and Regulations, in connection with a	Notice of Intent filed under
this Bylaw. This Notice of Intent was filed with the Sturbridge Conservation C	ommission on (date)
C 41 www.marty-leasted.at	
7 31 2019 for the property located at	
59 NEW BOSTON Rd.	•
The form of the Notification and a list of abutters to whom it was given and the included in the application file.	eir addresses are
(Signature of applicant) (Date)	
(Name of applicant-printed or typed)	



Conservation Commission

Notification to Abutters

under the Town of Sturbridge Wetland Bylaw and Regulations

In accordance the Town of Sturbridge Wetland Bylaw and Regulations, you are hereby notified of the following permit application for work within the 200-foot buffer zone to a resource area:

A. The name of the applicant is: 123 KIDS LLC
B. The address of the lot(s) where the activity is proposed is: 59 New Boston R.
C. The nature of the activity proposed includes: Construction of SNOLE FAMILY HOUSE
D. This applicant has submitted a Notice of Intent application with the Sturbridge Conservation Commission, seeking permission to conduct work within the 200 foot buffer zone of a resource area.
 E. This application may be examined prior to the hearing: At the Sturbridge Conservation Department, 301 Main Street, Center Office Building, Monday, Wednesday, Thursday 8:00am-4:00 pm, Tuesday 8:00am-7:00pm or Friday 8:00am-12:00pm, or call for an appointment. Online at the Town of Sturbridge website under Conservation Commission, Recent Filings.
F. Copies of the application may also be obtained from the applicant or the applicant's representative: DC FNGINEFRING SURVEY WE, by calling telephone # 508.769.6659 between the hours of 8:00 - 4:00 on these days of the week:
This hearing is scheduled for (Date and Time): If the schedule is not determined at the time of this mailing, Abutters may call or email this office, or see our website
Public Hearings are held in the Center Office Building, 301 Main Street, 2nd Floor.
 PLEASE NOTE: Notice of this Public Hearing will be published as follows: In The Southbridge Evening News at least five business days in advance of the hearing. In the Sturbridge Town Hall at the Town Clerks office, not less than 48 hours in advance of the hearing. On the Town website Meeting Calendar not less than 48 hours in advance of the hearing. On the Conservation Commission webpage not less than 48 hours in advance of the hearing.
Please Note: Since you are receiving this notice, <u>you</u> may also have wetland resource areas or wetland buffers on or near your property. Therefore, any work including construction, cutting, clearing, or grading may require a permit.
For clarification or for more information, call the Conservation office 508-347-2506 or visit our web site www.town.sturbridge.ma.us (click on Government, Conservation).

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address	
455-02523-66A	BIRRI STEVEN A	66A NEW BOSTON ROAD	STURBRIDGE	MA	01566	01566 66A NEW BOSTON ROAD	
455-02513-068	DAWSON MARTIN H II	68 NEW BOSTON ROAD	STURBRIDGE	MA	01566	01566 68 NEW BOSTON ROAD	
105-02521-021	DOW CYNTHIA M TRUSTEE	26 ADAMS ROAD	STURBRIDGE	MA	01566	01566 21 ADAMS ROAD	
455-02521-063	GOESS CHRISTIAN A	112 MASHAPAUG ROAD	STURBRIDGE	MA	01566	01566 63 NEW BOSTON ROAD	
455-02523-058	GRIFFIN BARBARA J	58 NEW BOSTON ROAD	STURBRIDGE	MA	01566	01566 58 NEW BOSTON ROAD	-
455-02521-061	LAFORTUNE RYAN M	43 DRAPER WOODS ROAD	FISKDALE	MA	01518	01518 61 NEW BOSTON ROAD	
455-02521-055	LULU SUZANNE E	114 DAVIS HILL ROAD	PAXTON	MA	01612	01612 55 NEW BOSTON ROAD	
455-02521-057	LULU SUZANNE E	114 DAVIS HILL ROAD	PAXTON	MA	01612	01612 57 NEW BOSTON ROAD	
455-02523-066	MANBECK JEANNE E	PO BOX 162	STURBRIDGE	MA	01566	01566 66 NEW BOSTON ROAD	
455-02523-064	MANNERS HAROLD E	64 NEW BOSTON RD	STURBRIDGE	MA	01566	01566 64 NEW BOSTON ROAD	
105-02522-026	105-02522-026 MOOSEY CYNTHIA DOW	26 ADAMS ROAD	STURBRIDGE	MA	01566	01566 26 ADAMS ROAD	
455-02523-062	455-02523-062 MULLEN STEPHEN P	62 NEW BOSTON RD	STURBRIDGE	MA	01566	01566 62 NEW BOSTON ROAD	
105-02521-017	TEMPLE RUSSELL J	17 ADAMS ROAD	STURBRIDGE	MA	01566	01566 17 ADAMS ROAD	
	BOARD OF ASSESSORS						,
Above persons li	Above persons listed are record owners as they appear on the	y appear on the most recent a	most recent applicable tax list.	st.			
Assessors are no	Assessors are not responsible for errors or omissions. RE: M.G.L.	ssions. RE: M.G.L Chapter 4	- Chapter 40A, Section 11				
Abutters List -	Conservation Commission - 200'	20,					
RE: 59 NEW BOSTON ROAD	TON ROAD						
Certified Copy							
Assessor:	1. 11. 11. 11. 11. 11. 11. 11. 11. 11.						
Date:	7-50-19						
				٠,			
			1				
					,		



Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation Commission
Please verify outstanding tax/fee status for the following property owner:
Property Owner: 123 Kins LLC
Property Location: 59 NEW BOSTON Pd.
·
The license/permit may be released.
☐ The license/permit may not be released.
Finance Director The Date of

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES 102 Grove Street

Worcester, MA 01605-2629 508-752-9666 – Fax: 508-752-9494

July 29, 2019

Jason Dubois, PE DC Engineering & Survey, Inc. 32 Cranberry Meadow Road Charlton, MA 01507

RE: Wetland Resource Evaluation, Lot 4 New Boston Road, Sturbridge, Massachusetts

Dear Mr. Dubois:

On July 9, 2019, EcoTec, Inc. inspected the above-referenced property for the presence of wetland resources as defined by: (1) the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the "Act") and its implementing regulations (310 CMR 10.00 *et seq.*; the "Regulations"); and (2) the U.S. Clean Water Act (i.e., Section 404 and 401 wetlands). Scott Morrison., PWS conducted the inspection.

The subject site consists of a 1.38-acre parcel located to the west of New Boston Road just northerly of Adams Road in Sturbridge. The upland portions of the site consist of undeveloped forest. Plant species observed include northern red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), and white ash (*Fraxinus americana*) trees and/or saplings; poison ivy (*Toxicodendron radicans*), and Virginia creeper (*Parthenocissus quinquefolia*) climbing woody vines; American witch-hazel (*Hamamelis virginiana*), highbush blueberry (*Vaccinium corymbosum*), mountain laurel (*Kalmia latifolia*), eastern red cedar (*Juniperus virginiana*), and black huckleberry (*Gaylussacia baccata*) shrubs; and sheep-laurel (*Kalmia angustifolia*), lowbush blueberry (*Vaccinium angustifolium*), bracken fern (*Pteridium aquilinum*), and wild-lily-of-the-valley (*Maianthemum canadense*) ground cover. The wetland resources observed on the site are described below.

Methodology

The site was inspected, and areas suspected to qualify as wetland resources were identified. The boundary of Bordering Vegetated Wetlands was delineated in the field in accordance with the definition set forth in the regulations at 310 CMR 10.55(2)(c). Section 10.55(2)(c) states that "The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist." The methodology used to delineate Bordering Vegetated Wetlands is further described in: (1) the BVW Policy "BVW: Bordering Vegetated Wetlands Delineation Criteria and

Lot 4 New Boston Road, Sturbridge July 29, 2019 Page 2.

Methodology," issued March 1, 1995; and (2) "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act: A Handbook," produced by the Massachusetts Department of Environmental Protection, dated March 1995. The plant taxonomy used in this report is based on the National List of Plant Species that Occur in Wetlands: Massachusetts (Fish and Wildlife Service, U.S. Department of the Interior, 1988). Federal wetlands were presumed to have boundaries conterminous with the delineated Bordering Vegetated Wetlands. One set of DEP Bordering Vegetated Wetland Delineation Field Data Forms completed for observation plots located in the wetlands and uplands near flag __ is attached. The table below provides the Flag Numbers, Flag Type, and Wetland Types and Locations for the delineated wetland resources.

Flag Numbers	Flag Type	Wetland Types and Locations
Start A1 to A10 Stop	Blue Flags	Boundary of Bordering Vegetated Wetlands located in the western portion of the site that is associated with an off-site intermittent stream.
Start B1 to B15 Stop	Blue Flags	Boundary of Bordering Vegetated Wetlands located in the western portion of the site that is associated with an off-site intermittent stream.

Findings

Wetland A and B (i.e., flags A1 to A10 & B1 to B15) consists of a forested swamp located in the west-central portion of the site that is associated with an intermittent stream. Plant species observed include red maple (Acer rubrum), yellow birch (Betula alleghaniensis), and American elm (Ulmus americana) trees and/or saplings; poison ivy (Toxicodendron radicans) climbing woody vines; highbush blueberry (Vaccinium corymbosum), common winterberry (Ilex verticillata), arrow-wood (Viburnum dentatum), speckled alder (Alnus rugosa), silky dogwood (Cornus amomum), sweet pepper-bush (Clethra alnifolia), and swamp azalea (Rhododendron viscosum) shrubs; and bristly blackberry (Rubus hispidus), cinnamon fern (Osmunda cinnamomea), royal fern (Osmunda regalis), sensitive fern (Onoclea sensibilis), skunk-cabbage (Symplocarpus foetidus), swamp Jack-in-the-pulpit (Arisaema triphyllum), Alaska goldthread (Coptis trifolia), spotted touch-me-not (Impatiens capensis), shining clubmoss (Lycopodium lucidulum), and sphagnum moss (Sphagnum sp.) ground cover. Evidence of wetland hydrology, including hydric soils, high groundwater, saturated soils, evidence of flooding, and drainage patterns, was observed within the delineated wetland. This vegetated wetland borders an intermittent stream; accordingly, the vegetated wetlands would be regulated as Bordering Vegetated Wetlands and the intermittent stream would be regulated as Bank under the Act and Bylaw. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands under the Act and a 200-foot Buffer Zone extends outward under the Bylaw.

Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of

Lot 4 New Boston Road, Sturbridge July 29, 2019 Page 3.

Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that "The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm." Based upon a review of the Flood Insurance Rate Map, Worcester County, Massachusetts, Map Number 25027C0927E, Effective Date July 4, 2011, the site is mapped as Other Areas: Zone X, which is defined as areas located outside of the 0.2% annual chance flood (i.e., outside of 500-year floodplain). The project engineer should evaluate the most recent National Flood Insurance Program flood profile data to confirm that Bordering Land Subject to Flooding does not occur on the site. Bordering Land Subject to Flooding would occur in areas where the 100-year flood elevation is located outside of or upgradient of the delineated Bordering Vegetated Wetlands boundary. Bordering Land Subject to Flooding does not have a Buffer Zone under the Act.

The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Southbridge Quadrangle, dated 1982, attached) and observations made during the site inspection, there are no mapped or unmapped streams located within 200 feet of the site. Accordingly, Riverfront Area would not occur on the site. Riverfront Area does not have a Buffer Zone under the Act.

The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 14th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2017, and Certified Vernal Pools from MassGIS, there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the site. A copy of this map is attached.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities. A brief description of my experience and qualifications is attached. If you have any questions, please feel free to contact me at any time.

Cordially,

ECOTEC, INC.

Scott M. Morrison, PWS

Senior Environmental Scientist

Attachments (6, 8 pages)

17/E/SturbridgeNewBostonRdReport

EcoTec, Inc.

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street Worcester, MA 01605-2629 508-752-9666 - Fax: 508-752-9494

Scott M. Morrison, PWS, RPSS, SE Senior Environmental Scientist

Scott Morrison is a Senior Environmental Scientist with EcoTec, Inc. Since joining EcoTec in 2000, Mr. Morrison's project experience include wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, monitoring, and certification; wetland replacement, replication, and restoration area design, construction, and monitoring; soil evaluations to determine infiltration rates and seasonal high groundwater elevations for detention basin construction; environmental sampling and analysis tasks, including soil and groundwater sample collection and handling; and expert testimony preparation. He has conducted rare species habitat assessments for the eastern box turtle, wood turtle, Blanding's turtle, spotted turtle, and marbled salamander. He has participated in rare species studies for rare species including the marbled salamander, piping plover, eastern box turtle, and northern diamondback terrapin and developed mitigation strategies for the marbled salamander, spotted turtle, eastern box turtle and wood turtle. He has participated in visual preconstruction sweeps for the wood turtle and both preconstruction and research projects for the eastern box turtle. He has served as a consultant to municipalities, conservation commissions, engineering and survey firms. He has completed numerous wetland related projects including environmental impact assessments for proposed development, erosion control and environmental monitoring for subdivisions, commercial developments, golf courses and landfills. He has prepared Massachusetts Environmental Policy Act (MEPA) documentation, including Environmental Notification Forms (ENFs), Notice of Project Changes (NPCs), and Draft and Final Environmental Impact Reports (EIRs) including Green House Gas Assessments for various projects including subdivisions, commercial buildings, and dredging projects. Prior to joining EcoTec, Inc. Mr. Morrison worked for the Massachusetts Department of Environmental Management (currently the Department of Conservation and Recreation) where he was involved with the monitoring and protection of endangered species and rare old growth forest. He was an active member of the Spencer Conservation Commission from 1998 to 2000 where he provided oversight of proposed wetland replication projects and review of projects submitted for wetland permitting. His educational background includes courses in forestry, ecology, chemistry, soils, and natural resource policy. His prior research experience includes research on forest succession and field research on nesting piping plovers, an endangered coastal shore bird.

Education: Graduate Soil Science Certificate Program

University of Massachusetts at Amherst, 2006

Bachelor of Science: Natural Resource Studies

University of Massachusetts at Amherst, 1998

Associate of Science: Business Administration

Quinsigamond Community College, 1996

Registered Professional Soil Scientist, Society of Soil Scientists of **Professional Affiliations:**

Southern New England (SSSSNE)

Massachusetts Association of Conservation Commissioners

Association of Massachusetts Wetland Scientists

Society of Wetland Scientists

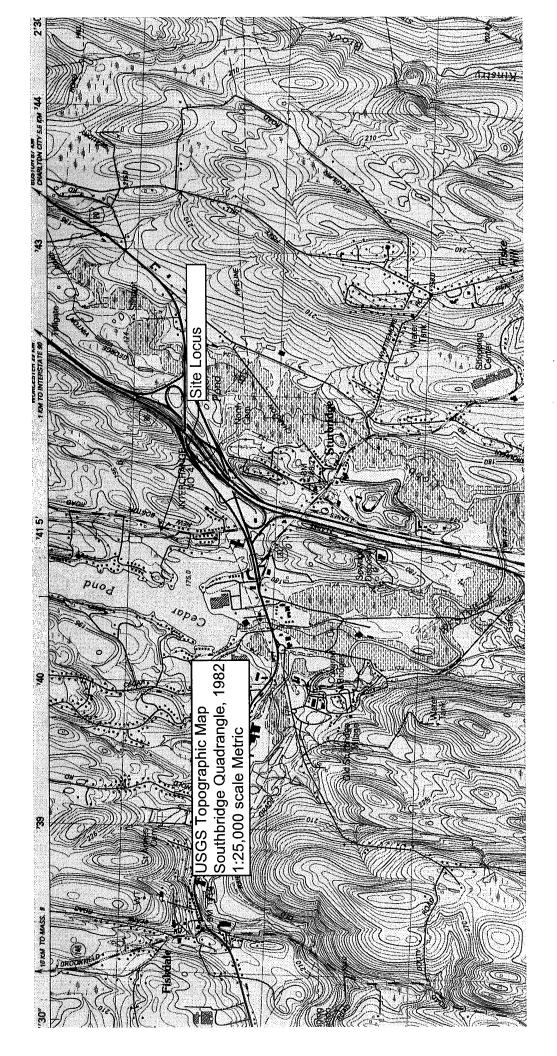
Certifications: Society of Wetlands Scientists Professional Wetland Scientist,

Certification Number 2583

Massachusetts Department of Environmental Protection Soil Evaluator,

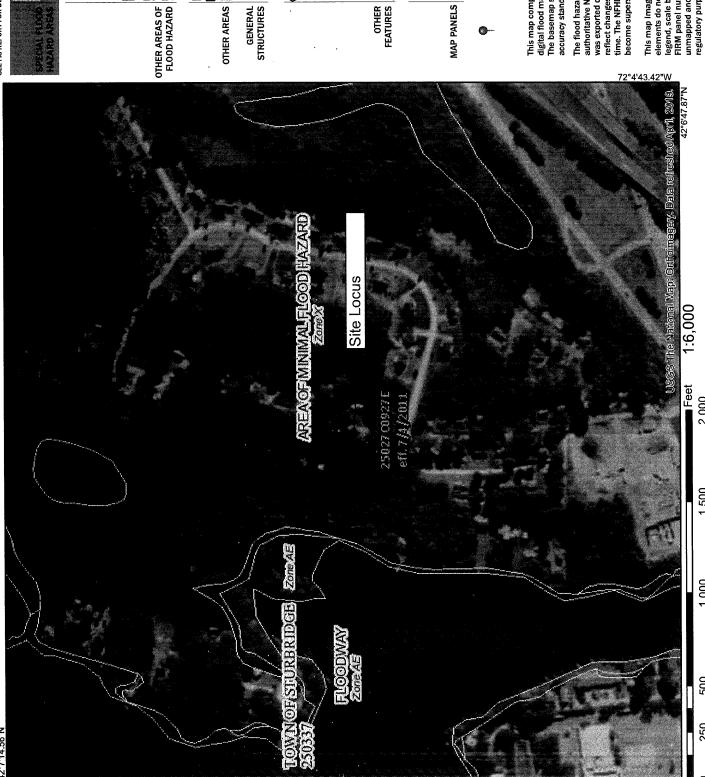
Certification Number SE 13766

OSHA Health and Safety Training, 40-Hour, 29 CFR 1910.120



National Flood Hazard Layer FIRMette





SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

areas of less than one square mile Zone X Future Conditions 1% Annual

depth less than one foot or with drainage

of 1% annual chance flood with average

0.2% Annual Chance Flood Hazard, Areas

Area with Reduced Flood Risk due to Chance Flood Hazard Zone X Levee. See Notes. Zone X

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

☐ Effective LOMRs

Area of Undetermined Flood Hazard Zone D

- -- - Channel, Culvert, or Storm Sewer

STRUCTURES | 1111111 Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance Water Surface Elevation

Base Flood Elevation Line (BFE) Coastal Transect

_____ Limit of Study ----- 513 ----

Jurisdiction Boundary

Coastal Transect Baseline Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped

point selected by the user and does not represent The pin displayed on the map is an approximate an authoritative property location.

This map complies with FEMA's standards for the use of The basemap shown complies with FEMA's basemap digital flood maps if it is not void as described below. accuracy standards

authoritative NFHL web services provided by FEMA. This map reflect changes or amendments subsequent to this date and was exported on 6/18/2019 at 10:48:46 AM and does not time. The NFHL and effective information may change or The flood hazard information is derived directly from the become superseded by new data over time. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, FIRM panel number, and FIRM effective date. Map images for legend, scale bar, map creation date, community Identifiers, unmapped and unmodernized areas cannot be used for regulatory purposes.

Applicar	Applicant	Prepared by: EcoTec, Inc	Project Locatio	Project Location: New Boston Rd, Sturbridge		#	
Section I.	Section I. Vegetation	Number: Upland	Transect # A-8	:# A-8	Date of Deli	Date of Delin: 7/9/2019	
						Wetland	
A. San	Sample layer and plant species		Percent Cover (or		Dominant	Indicator	
(Enter lan	Enter largest to smallest % cover by layer)		basal area)	Percent Dominance	Plant?	Category	
Tree	red oak Quei	Quercus rubra		09	60.0 YES	FACU-	
	white oak Que	Quercus alba	•	20	20.0 YES	FACU-	
Strong and the	eastern hemlock Tsug	Tsuga canadensis	•	20	20.0 YES	Wet*	*
Sapling	eastern hemlock Tsug	Tsuga canadensis	Table Table To Comment and Com	09	100.0 YES	Wet*	*
Shrub	none				Acceptance of the control of the con	The second secon	
2							
Ground	none						
Vine							
				and the second s			
Vegetatic	Vegetation Conclusions						
Number	Number of dominant wetland indicator plants	ts		Number of dominant non-wetland indicator plants	on-wetland indicator p	lants	(%
Is the nur	Is the number of dominant wetland plants equal or greater	equal or greater than the number o	than the number of dominant non-wetland plants?	tiand plants:	YES		

Project Location: New Boston Rd, Sturbridge DEP File #	t # A-8 Date of Delin: 7/9/2019	Other Indicators of hydrology (check all that apply):	Site Inundated Denth to free water in observation hole	Depth to soil saturation in observation hole		osits erns in BVWs	spheres leaves	Recorded data (stream, lake, or tidal gauge; aerial photo; other):			Vegetation and Hydrology Conclusion	Yes No	Number of wetland indicator plants ≥	Wetland hydrology present:	hydrology present	Sample Location is in a BVW
Prepared by: EcoTec, Inc Project Location	Number: Upland Transect # A-8	Other Indicators of h	Site Inundated	Depth to soil 3	Water marks Drift lines	Sediment Deposits Drainage patterns in BVWs	Oxidized rhizospheres Water stained leaves	Recorded dat	Mottle Color		Vegetation		Number of we number of non-	Wetland hydr	Other in	No Sample Locati
Applicant Prepared b	ators of Hydrology	1. Soil Survey	Is there a published soil survey for this site?	map number	soil type mapped hydric soil inclusions	Are field observarions consistent with soil survey?	Remarks:	2. Soil Description	Horizon Depth (inches) Matrix Color	.w 6-12+			Remarks sand		3. Other	Conclusion: Is the soil hydric?

Applicant	nt	Prepared by: EcoTec, Inc	Project Locati	Project Location: New Boston Rd, Sturbridge	dge DEP File#	#	
Section I.	Section I. Vegetation	Number: Wetland	Transe	Transect # A-8	Date of Delir	Date of Delin: 7/9/2019	ı
						Wetland	
A. San	A. Sample layer and plant species		Percent Cover (or	or	Dominant	Indicator	
(Enter lan	Enter largest to smallest % cover by layer)	/er)	basal area)	Percent Dominance	Plant?	Category	
Tree	eastern hemlock	Tsuga canadensis		40	50.0 YES	WET	*
<u> </u>	white ash	Fraxinus americana		20	25.0 YES	FACU	
	red maple	Acer rubrum		20	25.0 YES	FAC	*
Methodologica con a cons							
Sapling	eastern hemlock	Tsuga canadensis		09	100.0 YES	WET	*
Shrub	none						
Ground	none						
Vine							
Vegetatic	Vegetation Conclusions						ĺ
Number (Number of dominant wetland indicator plants	Number of dominant wetland indicator plants 1 Number of dominant wetland plants equal or greater than the number of dominant non-wetland plants?	3 of dominant non-w	Number of dominant non-wetland indicator plants	on-wetland indicator pl YFS	lants	quad quad
ואו בווי גו	חוות בו מסווווומוור אבתמוות אונ	וווט כאממו כו פוכמיבו נוומון נווב וומוווטבו כ					1

Applicant Section II. Indicators of Hydrology	Prepared by: EcoTec, Inc Number: Wetland	Project Location: New Boston Rd, Sturbridge Transect # A-8	DEP File # Date of Delin: 7/9/2019
1. Soil Survey		Other Indicators of hydrology (check all that apply):	
Is there a published soil survey for this site?	s site?	Site Inundated Care Death to food mater in observation hold	osejmis
title/date map number		Depth to soil saturation in observation hole	surface
soil type mapped hydric soil inclusions		☐ Water marks ☐ Driff lines	
Are field observarions consistent with soil survey	ı soil survey?	Sediment Deposits Drainage patterns in BVWs	
Remarks:		Oxidized rhizospheres Water stained leaves	
2. Soil Description		Recorded data (stream, lake, or tidal gauge; aerial photo; other):	al photo; other):
inches)	Matrix Color Mottle Color	U Other:	
8-12 17-16+ 1	10YR 2/1 10VR 4/1		
	Unt/1	Vegetation and Hydrology Conclusion	
		THE PROPERTY OF THE PROPERTY O	Yes No
Remarks sand		Number of wetland indicator plants ≥ number of non-wetland indicator plants	<u> </u>
3. Other		Wetland hydrology present: Hydric soil present Other indicators of hydrology present)))
Conclusion: Is the soil hydric?	dric? Yes	Sample Location is in a BVW	<u> </u>