

June 18, 2020



BY ELECTRONIC AND HAND DELIVERY

Newburyport Conservation Commission
City Hall
60 Pleasant Street, 1st Floor
Newburyport, MA 01950

167 Main Street
P. O. Box 716
Rowley Massachusetts
USA

978.948.7717 Office

derosaenvironmental.com

Attn: Ms. Julia Godtfredsen, Conservation Administrator
Phone: (978) 465-4400 ext. 6
jgodtfredsen@cityofnewburyport.com

**RE: Request for a Determination of Applicability
for Commercial Drainage Swale Maintenance**

7 Opportunity Way | Newburyport, MA 01950

Dear Ms. Godtfredsen and Members of the Commission,

Our office has prepared the following Request for Determination of Applicability (RDA) Application to meet the requirements of the Massachusetts Wetlands Protection Act (MGL Ch. 131 Sec. 40) and its Regulations (310 CMR 10.00, et seq.) and the Newburyport Code of Ordinances, Chapter 6.5, Article II (the Ordinance). We were authorized to prepare this filing at the request of Jim Laverdiere, owner of property at 7 Opportunity Way, in Newburyport, MA, known as assessor's map 82A, parcel 18.

The proposed project includes a Phragmites management plan within a drainage basin (Figure 2a & 2b). Since drainage basins are protected under the Ordinance, and are not a wetland protected under the Act, (See attached WPA Form 1, Section C, paragraph 2.b. for explanation of non-jurisdictional area) the Phragmites management plan should not require a Notice of Intent Filing. Accordingly, we request that a Negative Determination (No. 4) be issued by the Newburyport Conservation Commission for the proposed activities.

WPA Form 2 | Negative Determination No. 4:

4. The work described in the Request is not within an Area subject to protection under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent

Site Description

The project site is located within a large business park at 7 Opportunity Way in Newburyport, MA (the "Site" – Figure 1). The Site consists of 2.46 acres and has a commercial building, paved parking lot and driveway, and a barely functional drainage swale due to inundation by the invasive Phragmites. . The Site is bordered by other commercial properties to the east, west and south and a man-made drainage pond to the north.

Existing Conditions

The stand of Phragmites is so thick and dense in the swale that water is unable to flow as intended. As a result, the standing water overflows the swale and has caused damage to the adjacent paved parking area and driveway. By removing the Phragmites and planting native wetland species, hydrology will be improved and water will flow again and properly infiltrate as it was designed to do.



View of Phragmites invasion and damage to the adjacent driveway



Examples of the driveway damage caused by water overflow from the drainage swale as a result of the Phragmites

Phragmites Management Plan

The project proposes to manage the Phragmites stand within the drainage swale by a repeat cutting regime. In this way, the surface of the drainage basin will remain unaltered. Subsequently, native plantings of native wetland species adapted to drainage basin conditions will be installed to re-occupy the drainage swale from the Phragmites. All work will be overseen by wetland specialists and conducted by hand.

Repeat cutting of common reed

We have had excellent success with the control of Phragmites by the repeat cutting of the standing portions of the plant during the growing season. This technique continually stresses the plant by forcing the stored energy in the root systems to produce more living shoots without the benefit of creating new energy from new leaf shoots. Therefore, the plant continually is using its own stored energy and eventually reaches a point of diminishing returns and ultimately expires. The key is repeat cuttings during the growing season before the leaves of the plant emerge from the new shoots.



View of dense stand of Phragmites occupying the drainage swale. Phragmites to be cut and replaced with native species once the population is stressed

Typically the initial cutting is conducted in the fall and winter, or early spring, before the ground freezes and requires additional

hand pulling of newly sprouted seed material during the following spring and summer months. Summer work can also be effective especially when the season is dry and reduced impact to soils is achievable.

At the point where the Phragmites reaches approximately 20 to 30% cover within the restoration area we typically treat with an organic herbicide (Nature's Avenger) by cutting and wiping the stems. This further stresses the plants and typically results in complete elimination of the Phragmites.

Final disposition of removed plant material

Once the invasive plant material is harvested, we plan to either burn the material onsite or chip and remove it from the site for composting. If the harvest occurs during the burning season there are several reasons to burn the majority of the material on site. First, burning on site reduces costs of chipping and offsite transport of harvested material. Second, the burning of woody material returns valuable nutrients to the soil structure, principally phosphorous, which in many systems has been depleted by plant growth and microbial activity. If possible, we prefer to burn the harvested material in small manageable brush piles to facilitate these benefits to the local ecosystem.

If the work is conducted out of the burning season the harvested material will be chipped on site and removed to an offsite composting operation for composting and subsequent use as a soil amendment. Chipping the plant material before it develops seeds or flowers renders the plant unviable, especially once the material has completely dried. Then, composting the chipped woody plants becomes a sustainable use for the harvested material. Once composted, this material will return valuable nutrients to the soil, which will eventually be used by other plants for growth.

Installation of Native Plant Species

A number of native herbaceous and shrub species have been selected for planting within the drainage swale. The shrub layer will contain winterberry (*Ilex verticillata*), spice bush (*Lindera benzoin*), sweet pepperbush (*Clethra alnifolia*), and bayberry (*Morella pensylvanica*). The herbaceous community will include joe-pye weed (*Eutrochium purpureum*), smooth goldenrod (*Solidago gigantea*), blue vervain (*Verbena hastata*), soft rush (*Juncus effesus*), and wool grass (*Scirpus cyperinus*). All plant material will be installed by hand as 1-3 gallon containers and/or seed. Seeding will occur after plantings have been installed.

Irrigation During Establishment

Given that the proposed plantings are to occur within a drainage swale, it is unlikely that irrigation will be necessary for plants to successfully establish. That being said, if necessary, the plantings will be irrigated by the building manager's designee for up to two years or until plantings become established.

Construction Oversight, Follow-up Observations, & Maintenance Plantings

Construction oversight, follow-up observations, and all plant installation work will be overseen by a competent professional in the field of landscape ecology, landscape architecture, a qualified engineer, or other qualified professional.

Any plant material that has failed to establish itself and has impaired the drainage swale from functioning and from providing the necessary plant species functions will be replaced in kind or substituted for a species that establishes more efficiently. These species will be chosen based on the judgment of the wetland professional and success of other plantings installed in the restoration areas.

Jurisdiction and Procedural Matters

Forms and Fees

Fee calculation sheets and photocopies of payment are attached. A single (1) copy of this application has been forwarded to the MADEP/NERO.

Request for Issuance of a Negative Determination of Applicability (No. 4)

The proposed project has been designed to avoid and minimize impacts to existing wetland resource areas as defined under the Massachusetts Wetlands Protection Act (MGL CH. 131 Sec. 40, et seq.) and Newburyport Code of Ordinances, Chapter 6.5, Article II. Since the interests of the Act and Ordinance have been addressed as part of this application, we request that the Newburyport Conservation Commission issue a negative determination of applicability, determining that the drainage swale and proposed work are non-jurisdictional, so that Mr. Laverdiere may commence with the needed maintenance of the drainage swale on site.

Should you have any questions, or would like to arrange a site walk to review the project, please don't hesitate to call us at (978) 948-7717.

Respectfully submitted,

DeRosa Environmental Consulting, Inc.



Evin Guvendiren
Natural Resource Economist



Michael J. DeRosa, Principal
Wetland Ecologist, LSP, LEED AP, PWS



MJD/eeg

cc: MADEP/NERO, Wetlands Division, 205B Lowell Street, Wilmington, MA, 01877
Mr. Laverdiere (By email)

Forms

Request for a Determination of Applicability WPA Form 1

Copy of Filing Fee Check



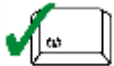
WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Name _____		E-Mail Address _____	
Mailing Address _____			
City/Town _____		State _____	Zip Code _____
Phone Number _____		Fax Number (if applicable) _____	

2. Representative (if any):

Firm _____			
Contact Name _____		E-Mail Address _____	
Mailing Address _____			
City/Town _____		State _____	Zip Code _____
Phone Number _____		Fax Number (if applicable) _____	

B. Determinations

1. I request the _____ make the following determination(s). Check any that apply:
Conservation Commission

- a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Name of Municipality

- e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).



WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Street Address

City/Town

Assessors Map/Plat Number

Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

- c. Plan and/or Map Reference(s):

Title

Date

Title

Date

Title

Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):



WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

(c) Notwithstanding the provisions of 310 CMR 10.02(1) and (2)(a) and (b), stormwater management systems designed, constructed, installed, operated, maintained, and/or improved as defined in 310 CMR 10.04 in accordance with the *Stormwater Management Standards* as provided in the *Stormwater Management Policy (1996)* or 310 CMR 10.05(6)(k) through (q) do not by themselves constitute Areas Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone provided that:

1. the system was designed, constructed, installed, and/or improved as defined in 310 CMR 10.04 on or after November 18, 1996; and
2. if the system was constructed in an Area Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone, the system was designed, constructed, and installed in accordance with all applicable provisions in 310 CMR 10.00.

(c) said work utilizes best practical measures to avoid and minimize impacts to wetland resource area outside the footprint of the stormwater management system.

Notwithstanding the provisions of 310 CMR 10.02(1) and (2), any bordering vegetated wetland, bank, land under water, land subject to flooding, or riverfront area created solely for the purpose of stormwater management shall not require the filing of a Notice of Intent to maintain the stormwater management system, provided that:

1. the work to maintain the stormwater management system is limited to the maintenance of a stormwater management system as defined in 310 CMR 10.04;
2. the stormwater management system was proposed in a Notice of Intent filed before January 2, 2008, and conforms to an Order of Conditions issued after April 1, 1983;
3. the area is not altered for other purposes; and
4. said work utilizes best practical measures to avoid and minimize impacts to wetland resource areas outside the footprint of the stormwater management system.

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

City/Town _____

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Name JAMES LAVRODIERE

Mailing Address 7 OPPORTUNITY WAY.

City/Town Newburyport MA State MA Zip Code 01950

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

[Signature] Date June 9, 2020

Signature of Applicant

Michael DeRosa Date _____

Signature of Representative (if any)

DEROSA ENVIRONMENTAL CONSULTING, INC

PO BOX 716
167 MAIN STREET
ROWLEY, MA 01969

53-7094/2113

CHECK ABOVE
HAND-POSTED

6/19/2020

PAY TO THE ORDER OF City of Newburyport \$ 250.00
Two hundred fifty dollars and 00/100 DOLLARS

MEMO 7 Opportunity Way - RPA Filing Fee

[Handwritten Signature]
AUTHORIZED SIGNATURE

⑈010701⑈ ⑆211370943⑆8801417⑈

Figures

Figure 1. USGS Locus Map

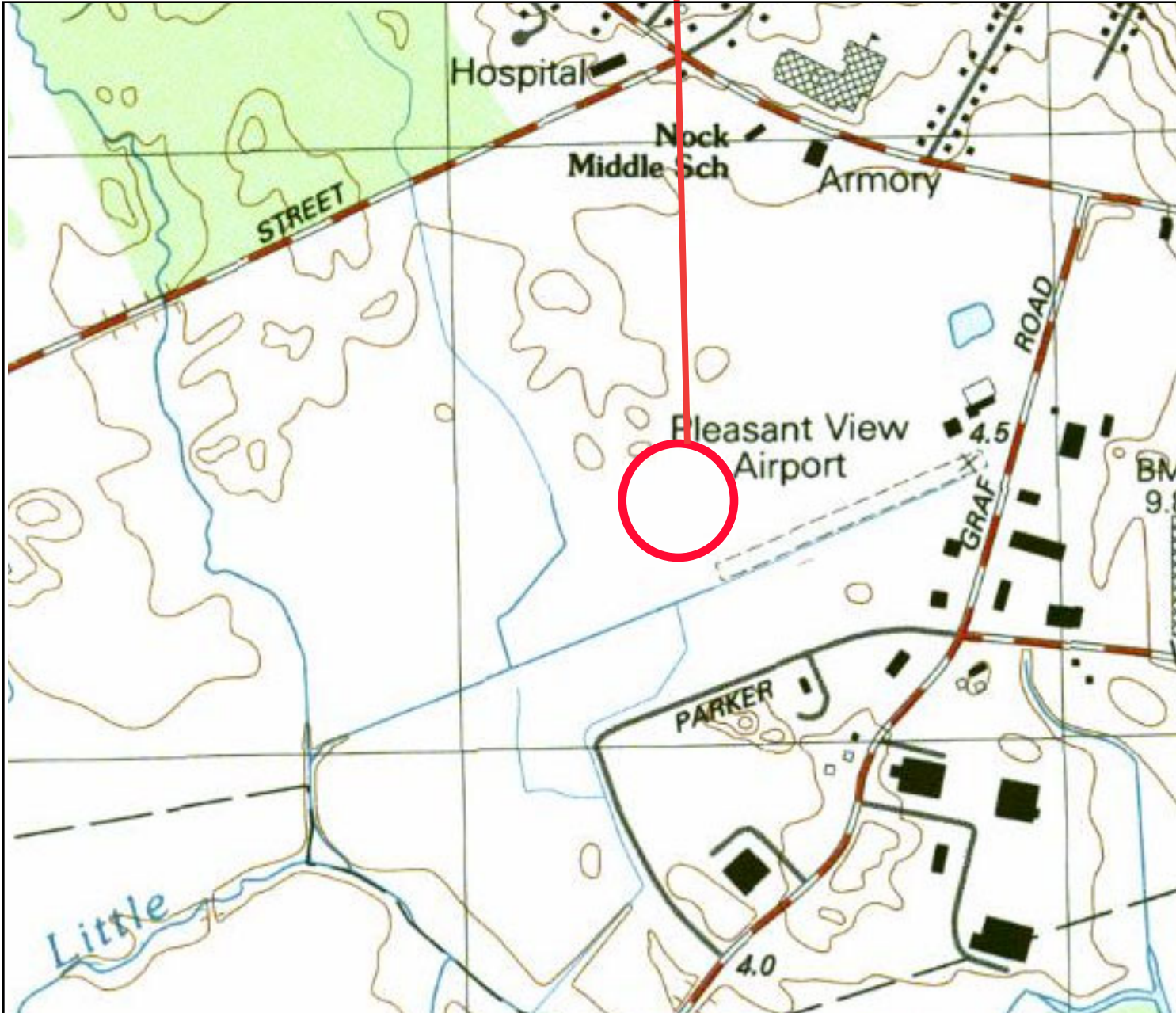
Figure 2. Project Elements Plan

Figure 3. FEMA Flood Insurance Rate Map

Notice of Intent

7 Opportunity Way, Newburyport, MA

Figure 1. Topographic Map



USGS Topographic Maps



DEROSA
Environmental
CONSULTING, INC.

167 Main Street, PO Box 716, Rowley Massachusetts 01969 USA
978 948-7717 Office - 978 948-7718 Fax

Notice of Intent

7 Opportunity Way, Newburyport, MA

Figure 2. Project Elements Plan



Drainage swale inundated with Phragmites and unable to function properly.

Phragmites to be cut repeatedly until population is depleted. Subsequent plantings of native species adapted to wet conditions will be installed to re-occupy the area and improve the function of the drainage swale.

all work to be done by hand and overseen by a wetland specialist

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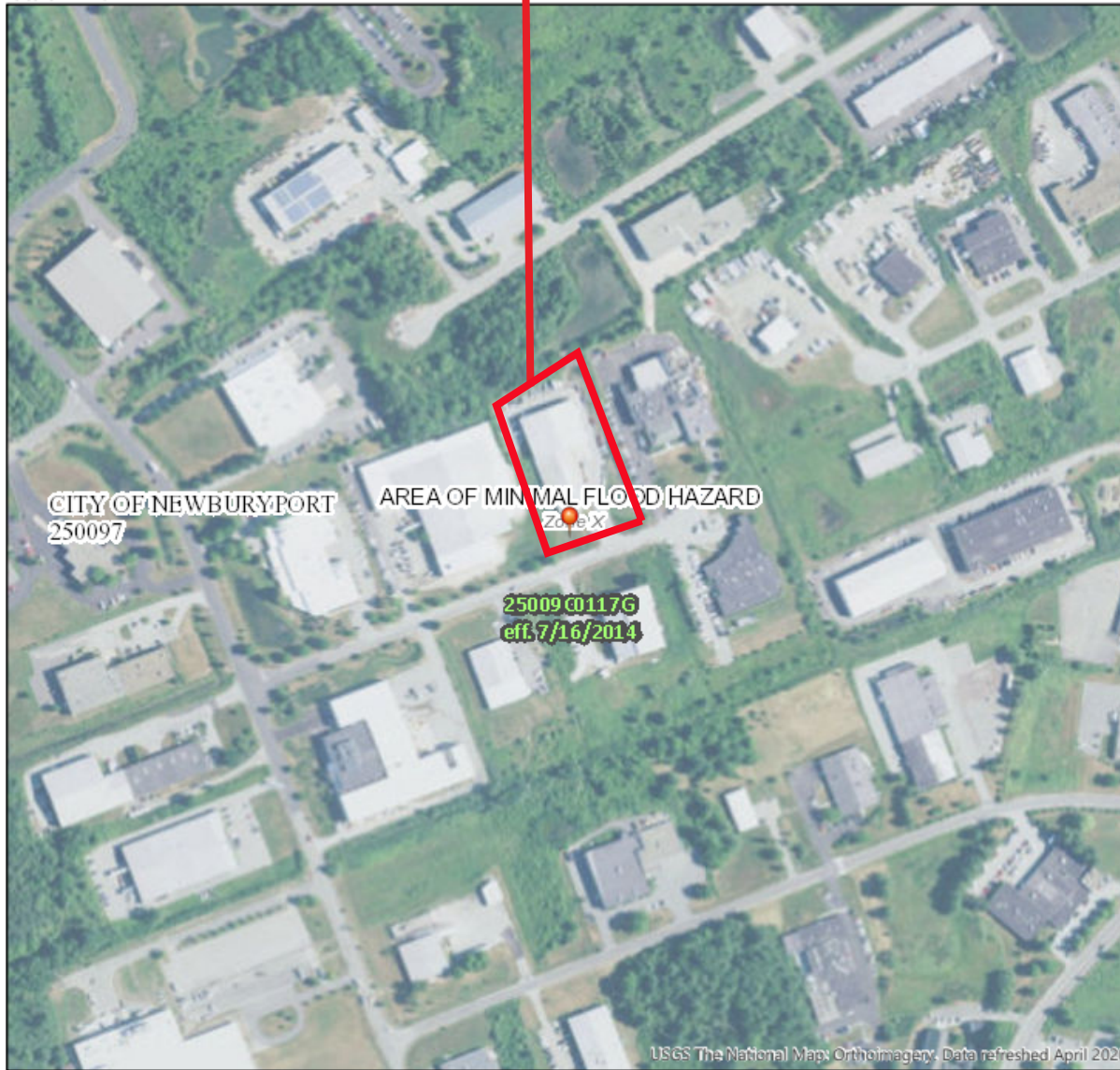
6/17/2020
MJD/eeg

Notice of Intent

7 Opportunity Way, Newburyport, MA
National Flood Hazard Layer FIRMette

Figure 3. FIRMette Map

70°53'45"W 42°48'22"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

70°53'7"W 42°47'56"N

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/18/2020 at 4:00 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or 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, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



167 Main Street, PO Box 716, Rowley Massachusetts 01969 USA
978 948-7717 Office - 978 948-7718 Fax

Appendix A

Professional Qualifications

Evin Guvendiren

Michael J. DeRosa



Evin Guvendiren, BS

Natural Resource Economist

Evin graduated from the University of Massachusetts Amherst with a Bachelor of Science in Natural Resource Economics and minors in Environmental Science, Economics, and Natural Resource Conservation. Her studies focused on sustainability, econometrics, land conservation, environmental policy and natural resource management.

Evin joined DeRosa Environmental Consulting in the Summer of 2017 and is currently holding the position as Environmental Scientist.

During her bachelor's studies, Evin spent a semester abroad with the School for Field Studies in Costa Rica. There, she lived on a sustainable farm and implemented an integrated pest management system. Her classes consisted of field experience and course work on sustainable development, tropical ecology, and resource management in a developing country. She also participated in environmental stewardship and spent one month conducting a Socio-economic directed research project with a national park.

Evin also spent a semester researching the Colony Collapse Disorder as an independent study. She helped a professor with a grant from the USDA to determine consumers' willingness to pay for native bee pollination on cranberries. This research was funded to help find an alternative to commercial honeybee pollination to support the agriculture industry and economy.

Having grown up near beaches and ocean, marshes, rivers, vernal pools, and national parks, Evin has a strong love and passion for the environment. She spends most of her time outdoors and camps, hikes and kayaks whenever she can.

EDUCATION

BS, Natural Resource Economics | 2014
University of Massachusetts, Amherst, MA

PROFESSIONAL EXPERIENCE

Environmental Scientist | 2017 – Present

DeRosa Environmental Consulting Inc

Student Researcher | January – May 2014

University of Massachusetts Amherst-Resource Economics department

Student Researcher | January – May 2013

The SFS Center for Sustainable Development Studies, Atenas, Costa Rica

REPRESENTATIVE PROJECTS

Private Residence | Dune Grass Restoration
Manchester, MA

Private Residence | Dune Grass Restoration
Ipswich, MA

Commercial Property | Wetland Restoration
Rowley, MA

Private Residence | Reconstruction of a Single Family Home
Ipswich, MA

Invasive Plant Management | Restoration Project
Ipswich, MA

Sally's Meadow | Butterfly Meadow Restoration
Ipswich, MA

Town Wide Beach and Road Management Plans
Manchester, MA

Wetland Restoration | MassDEP ACOP
Rockport, MA

Wetland Restoration | MassDEP ACOP
Essex, MA

CERTIFICATION

40 Hour Hazardous Waste Site Worker (OSHA)

Adult and Pediatric First Aid/CPR/AED



Michael J. DeRosa

Principal, LSP, LEED AP BC&D

Michael J. DeRosa, Principal and project manager specializing in habitat restoration and wetland restoration projects. He has more than 24 years experience working with ecological systems focused on restoration and rehabilitation of damaged landscapes. Ecological principles inform his design and restoration practices.

Mike was the principal wetland permitting leader for the Turner Hill Resort Center in Ipswich Massachusetts. He has consulted with the Archdiocese of Boston since 1989 in all environmental areas. His firm is known for their expertise in wetland and wildlife habitat restoration and rehabilitation and invasive species control and management.

Mike incorporated DeRosa Environmental Consulting, Inc., in May 1994 after spending 8 years working in the environmental consulting industry as technical director and project manager. Prior to his consulting career he was a researcher at the Harvard School of Tropical Public Health working with infectious diseases and tick transmitted Lyme disease, in particular.

Mike has been involved with many projects associated with MGL Ch. 21e and Massachusetts Contingency Plan (MCP) projects. He received his Licensed Site Professional (LSP Lic. 3452) registration in 1993. Mike is uniquely credentialed in hazardous waste site assessment and remediation and has over 24 years experience in wetland permitting, habitat restoration and mitigation. Mike has permitted projects with all federal, state and local environmental agencies. Mike is on the Practice Faculty at The Boston Architectural College. His new passion is the incorporation of urban agriculture and food justice initiatives in mixed use community based projects.

EDUCATION

MA, Boston University, 1993

North Carolina State University, 1986

Harvard University, 1985

BA, University of Denver, 1982

REPRESENTATIVE PROJECTS

Ipswich River Watershed Association
Ipswich MA

**Miles River Task Force |
Watershed Restoration**
Beverly Wenham Hamilton Ipswich MA

**Paumier Residence |
Dune Restoration**
Manchester MA

**Matignon High School Athletic Fields |
Landfill Cap Remediation**
Cambridge/Somerville MA

**Turner Hill Golf Course |
Wetland Mitigation & Pond Design**
Ipswich MA

**Saint Aidan's Church |
UST Remediation**
Brookline MA

**Saint Kevin's School |
AST Remediation**
Dorchester MA

**Saint Joseph's School |
UST Remediation**
Salem MA

**Ipswich Country Club |
Wetland Restoration**
Ipswich MA

**Ould Newbury Golf Club |
LID Runoff Design**
Newbury MA

**Ferncroft Country Club |
Pond Restoration**
Topsfield/Middleton MA

PROFESSIONAL EXPERIENCES

Principal, LSP, LEED AP BC&D

DeRosa Environmental Consulting, Inc. | 1994-Present

Technical director, Environmental Engineering Division

Web Engineering Associates, Inc. | 1990-1994

Project manager/Environmental Scientist,

Dennison Environmental, Inc. | 1988-1989

Population Ecologist & Wetlands Specialist,

Lelito Environmental Consultants, LLC | 1987-1988

Research Assistant,

North Carolina State University | 1985-1987

Air Pollution Analyst

Entropy Environmentalists, Inc. | 1985-1987

Senior Research Assistant

Harvard University | 1983-1985

Naturalist

The Trustees of Reservations | 1983-1985

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

New England Wildflower Society

USGBC | United States Green Building Council

NGWA | National Ground Water Association

AMWS | Association of Massachusetts Wetland Scientists

LSPA | Licensed Site Professional Association

SWS | Society of Wetland Scientists

MACC | Massachusetts Association of Conversation Commissioners

CERTIFICATIONS AND SPECIAL TRAINING

Licensed Site Professional (LSP), Lic. No. 3452

Professional Wetland Scientist (PWS)

LEED Accredited Professional | 10342989

Certified Ecologist, The Ecological Society of America |

June 2002 – May 2007

CERCLA 40 Hour Hazardous Materials Safety Training |

OSHA 29 CFR 1910.120

Confined Space Entry Training | OSHA 29 CFR 1910.146

Management Training Workshop | Dun and Bradstreet

Hazardous Materials Chemistry Seminar | University of Toledo

Unmanned Aircraft License | FAA | Exp. 2/28/2019