NOTICE OF INTENT BAY STATE ROAD WATER MAIN LOOP

Wakefield Department of Public Works Town of Lynnfield, MA

June 2022









June 29, 2022

Emilie Cademartori
Director of Planning & Conservation
Lynnfield Conservation Commission
Town Hall
55 Summer Street
Lynnfield, MA 01940

RE: Wetlands Protection Act Notice of Intent Bay State Road Water Main Loop MassDEP Transmittal No. X289164

Dear Ms. Cademartori:

On behalf of the Wakefield Department of Public Works, Environmental Partners (EP) has prepared this cover letter and attachments for a Notice of Intent (NOI) regarding the proposed Bay State Road Water Main Loop Project in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40), the Massachusetts Wetlands Protection Regulations (310 CMR 10.00), and Lynnfield Wetland Protection Bylaw.

Proof of Notice of this NOI filing to MassDEP in the form of mail delivery confirmation will be provided to the Conservation Commission prior to the scheduled public hearing.

The NOI includes the following appendices:

- Appendix A: Massachusetts Department of Environmental Protection (MassDEP) WPA Form 3
- Appendix B: Wetland Resource Area Analysis Report
- Appendix C: Project Maps and Site Photographs
- Appendix D: Permitting Design Plans
- Appendix E: Abutter's Information
- Appendix F: Stormwater Report

Project Description

The aim of this project is to loop the two dead ends of the Wakefield water system on Vernon Street and Bay State Road to increase available fire flows and improve water quality. The loop will also provide a location for a future interconnection with the Lynnfield Center Water District (LCWD). The work includes installing new 8-inch water main on Bay State Road from the Town line to Main Street in Lynnfield and along Main Street to the intersection of Vernon Street and Indian Road. The total length of installation is approximately 2,250 LF. Approximately 1,910 LF of installation occur within Town of Lynnfield limits (790 LF on Main Street and 1120 LF on Bay State Road).

The water main alignment and environmental resource areas are included on the locus map within Attachment B and shown on the design plans. Trenches will be backfilled or plated at the end of each day and paved on a weekly basis.

Construction is expected to commence in September 2022.

Impacts to Resource Areas

Pine Brook Consulting completed a wetland delineation report in June 2021 for EP, which is included in Appendix B. The report found that bordering vegetated wetlands were in the proximity of the project. In 310 CMR 10.55 "Bordering Vegetated Wetland" is defined as "freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. In these locations, the proposed work falls within the 100-foot buffer zone, the 50-foot no build buffer zone, and/or the 25-foot no disturb buffer zone. Descriptions of these areas are provided below and are depicted in Attachment D.

- Sheet C-1 The proposed water main falls within the three buffer zones mentioned above in several locations. However, the construction on this sheet remains within the Town's right-of-way and shall not affect wetland vegetation.
- Sheet C-2 The proposed water main falls within the 100-foot buffer zone and the 50-foot no build buffer zone in several locations. However, the construction on this sheet remains within the Town's right-of-way and shall not affect wetland vegetation.
- Sheet C-3 The proposed water main falls within the three buffer zones mentioned above in several locations. In all locations except one, the construction on this sheet remains within the Town's right-of-way and shall not affect wetland vegetation. As the water main approaches the Saugus River Bridge from the north and south, it crosses through the wetland resource area as part of the proposed bridge crossing. The design for the bridge crossing requires the water main to daylight within the wetland resource area. Approximately 50 square feet of wetland resource area will be temporarily disturbed.

On behalf of the Wakefield Department of Public Works, Environmental Partners is requesting a variance to the 25 foot no disturb buffer zone in accordance with Lynnfield Wetland Protection Bylaw, Section 320-3A, which states the no-disturb and no-build setbacks shall apply ""unless the applicant convinces the Commission that the area or part of it [within such setbacks] may be disturbed without harm to the values protected by the [bylaw]." The proposed work will not have a long-term or permanent effect on the health of the wetland resource area.

The proposed work is within a land subject to flooding. In 310 CMR 10.57 "Land Subject to Flooding" is defined as "an area which floods from a rise in a bordering waterway or water body" or " an isolated depression or a closed basin which serves as a ponding area for run-off or high ground water which has risen above the ground surface". A description of this area is provided below and is depicted in the design plans in Appendix D.

• Sheet C-3 – The proposed water main will be installed within the land subject to flooding in the vicinity of the Saugus River Bridge. The majority of the water main located within the land subject to flooding will be affixed to the side of the Saugus River Bridge.

The proposed work is within a riverfront area. In 310 CMR 10.58 "Riverfront Area" is defined as "the area of land between a river's mean annual high water line and a parallel line measured horizontally. A description of this area is provided below and is depicted in the design plans in Appendix D.

• Sheet C-3 – The proposed water main will be installed within the riverfront area. There will be no permanent impacts to the riverfront area.

Filter sock and catch basin protection shall be required and maintained around environmental resource areas during construction activities as called out on the plans. The above project erosion and environmental controls will be installed and maintained during construction. All staging areas soil stockpiles shall be outside of the 100-foot wetland buffer and the 200-foot Riverfront Area and the flood zone.

Proposed Environmental Protection Measures

In order to mitigate impacts to bordering vegetated and isolated wetlands buffer zones during construction activities, the following environmental protection measures will be provided.

- Erosion and sedimentation control devices (i.e. filter sock) will be installed along the roadways
 adjacent to wetland resources as shown on the environmental control plans. These control
 devices will control sedimentation and erosion from the upland areas and also serve to define
 the upland limits of work. Erosion and sedimentation control devices will be inspected daily
 during the construction period. The filter sock will be installed wherever work is performed
 within a buffer zone.
- Silt sacks will be installed in each catch basin to avoid transmission of sediment to downstream wetland resource areas.
- Stockpiles of aggregate materials (sand, gravel, and stone) will not be maintained on-site. Materials will be delivered on an as-needed basis.

Alternatives Analysis

Per 310 CMR 10.58 (4), any project that impacts Riverfront Area must be accompanied by an alternatives analysis providing evidence that there are no practical and substantially equivalent economic alternatives to the proposed project with less adverse environmental and ecological effects. In the following section, the alternatives considered in order to increase water quality within the system are discussed.

Alternative 1 - No Build

The no-build alternative will result in no increase in the system's water quality nor will it provide increased fire flow to the area. Critically, without the installation of the proposed water main, the potential interconnection between the towns of Lynnfield and Wakefield will not be possible. This leaves the Town of Lynnfield with a system that is vulnerable to failure in the event of source water contamination.

Alternative 2A - Bay State Road Water Main Improvement

The proposed project involves the installation of approximately 2,250 LF of 8-inch DI water main along Bay State Road, Main Street, and Vernon Street. The project will connect two sections of the Town of Wakefield's existing water system, creating a loop that will increase water quality and allow for flushing of the system. In addition, the project will replace all existing hydrants along the route and provide fire protection at the intersection of Indian Lane and Vernon Street where there previously was none. This project will also provide a connection point for the proposed interconnection between the towns of Lynnfield and Wakefield. The crossing of the Saugus River will utilize the existing bridge as a support for the water main which minimizes disturbance to the resource area and provides long term access to the pipe for maintenance.

Alternative 2B - Bay State Road Water Main Improvement with open cut Saugus River Crossing

The proposed project involves the installation of approximately 2,250 LF of 8-inch DI water main along Bay State Road, Main Street, and Vernon Street. The project will connect two sections of the Town of Wakefield's existing water system, creating a loop that will increase water quality and allow for flushing of the system. In addition, the project will replace all existing hydrants along the route and provide fire protection at the intersection of Indian Lane and Vernon Street where there previously was none. This project will also provide a connection point for the proposed interconnection between the towns of Lynnfield and Wakefield. The crossing of the Saugus River will utilize open cut excavation to cross the Saugus River. Open cut excavation would result in significant disturbance to the resource area include bypass of the river around the trench via sandbags and temporary pumps. Significant dewatering of the pipe trench is also required. The long term accessibility of the pipe under the river bed will be limited and create risk of future disturbance under an emergency basis for a water main break.

Alternative 2C - Bay State Road Water Main Improvement with directional drill Saugus River Crossing

The proposed project involves the installation of approximately 2,250 LF of 8-inch DI water main along Bay State Road, Main Street, and Vernon Street. The project will connect two sections of the Town of Wakefield's existing water system, creating a loop that will increase water quality and allow for flushing of the system. In addition, the project will replace all existing hydrants along the route and provide fire protection at the intersection of Indian Lane and Vernon Street where there previously was none. This project will also provide a connection point for the proposed interconnection between the towns of Lynnfield and Wakefield. The crossing of the Saugus River will utilize directional drilling to cross the Saugus River. Soil exploration shows that the existing bridge footings are bearing on ledge and as a result any directional drilling of the water main would require drilling through ledge and is not feasible.

Stormwater Management

This NOI submission includes a Stormwater Report (Appendix F)

Public Notification

Copies of the Certified Abutter's list are included. Notification to Abutters forms will be sent once a meeting date has been finalized.

If you have any questions or need any additional information, please do not hesitate to contact me at 617-657-0281 or by email at <u>rja@envpartners.com</u>

Sincerely,

Environmental Partners Group

Project Manager

P: 617.657.0281

E: rja@envpartners.com

CC: Joseph Conway, Director, Wakefield Department of Public Works

William Renault, P.E., Town Engineer, Town of Wakefield

APPENDIX A MassDEP WPA Form 3



WPA Form 3 - Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Lynnfield City/Town

Important:

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



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

۱.	Project Location	(Note: electronic file	rs will click or	button to locate	project site)
----	------------------	------------------------	------------------	------------------	---------------

Bay State Rd., Main St., and Vernon St. ROW
a. Street Address
b. City/Town
01940
Latitude and Longitude:
42.526700
d. Latitude
-71.066205
e. Longitude

N/A

f. Assessors Map/Plat Number g. Parcel /Lot Number

2. Applicant:

Joseph Conway
a. First Name b. Last Name

Town of Wakefield

- c. Organization
- 1 Lafayette Street
- d. Street Address

Wakefield MA 01880 e. City/Town f. State g. Zip Code

781-246-6307 781-246-6266 jconway@wakefield.ma.us

h. Phone Number i. Fax Number j. Email Address

3.	Property owner (required if different from applicant):	Check if more than one owner

a. First Name b. Last Name

c. Organization

d. Street Address

e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email address

4. Representative (if any):

Ryan Allgrove a. First Name b. Last Name

Environmental Partners Group, LLC

c. Company

18 Commerce Way

d. Street Address

MA 01801 e. f. State g. Zip Code

617-657-0281 rja@envpartners.com

h. Phone Number i. Fax Number j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$0 \$0

a. Total Fee Paid b. State Fee Paid c. City/Town Fee Paid



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A. General Information (continued)

6.	6. General Project Description:				
	See attached cover letter.				
_					
7a.	Project Type Checklist: (Limited Project Types see	Section A. 7b.)			
	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				
7b.	Is any portion of the proposed activity eligible to be				
	Restoration Limited Project) subject to 310 CMR 10	.24 (coastal) or 310 CMR 10.53 (inland)? ed project applies to this project. (See 310 CMR			
	10.24 and 10.53 for a comp	plete list and description of limited project types)			
	310 CMR 10.24.7.b Construction of an undergrou 2. Limited Project Type	nd utility			
	If the proposed activity is eligible to be treated as ar				
	CMR10.24(8), 310 CMR 10.53(4)), complete and at Project Checklist and Signed Certification.	tach Appendix A: Ecological Restoration Limited			
8.	Property recorded at the Registry of Deeds for:				
	Bay State Rd., Main St., and Vernon St. ROW	N/A			
	a. County N/A	b. Certificate # (if registered land) N/A			
	c. Book	d. Page Number			
В.	Buffer Zone & Resource Area Impa	acts (temporary & permanent)			
1.	☐ Buffer Zone Only – Check if the project is located				
2.	Vegetated Wetland, Inland Bank, or Coastal Re ☐ Inland Resource Areas (see 310 CMR 10.54-10				
۷.	Coastal Resource Areas).				
	Check all that apply below. Attach narrative and any				
	project will meet all performance standards for each standards requiring consideration of alternative proj				

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For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Resource Area		Size of Proposed Alteration	Proposed Replacement (if any)	
b. 🛛 Bo	ank ordering Vegetated etland	 linear feet square feet 	2. linear feet502. square feet	
c. ☐ La Wa	and Under aterbodies and aterways	square feet scubic yards dredged	2. square feet	
Resource A	rea	Size of Proposed Alteration	Proposed Replacement (if any)	
d. 🛛 Bo	ordering Land ubject to Flooding	230 1. square feet 0 3. cubic feet of flood storage lost	230 2. square feet 0 4. cubic feet replaced	
	plated Land ubject to Flooding	square feet	4. cubic feet feplaced	
f. 🛛 Riv	verfront Area	cubic feet of flood storage lost Saugus River Name of Waterway (if available) - speci	3. cubic feet replaced	
2. Wi	idth of Riverfront Area (c	heck one):		
	25 ft Designated Der	nsely Developed Areas only		
	100 ft New agricultur	ral projects only		
	200 ft All other project	cts		
з. Tota	al area of Riverfront Area	on the site of the proposed project	· square feet	
4. Prop	posed alteration of the Ri	iverfront Area:	·	
1,700 a. total s	square feet	.,	370 c. square feet between 100 ft. and 200 ft.	
5. Has	an alternatives analysis	been done and is it attached to this	s NOI? ⊠ Yes □ No	
6. Was	the lot where the activity	y is proposed created prior to Augu	st 1, 1996? ⊠ Yes □ No	
3. Coasta	l Resource Areas: (See	310 CMR 10.25-10.35)		

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Note: for coastal riverfront areas, please complete Section B.2.f. above.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area		Size of Proposed Alteration	Proposed Replacement (if any)			
а. 🗌	Designated Port Areas	Indicate size under Land Under	the Ocean, below			
b. 🗌	Land Under the Ocean	1. square feet				
		2. cubic yards dredged				
с. 🗌	Barrier Beach	Indicate size under Coastal Beac	hes and/or Coastal Dunes below			
d. 🗌	Coastal Beaches	1. square feet	2. cubic yards beach nourishment			
е. 🗌	Coastal Dunes	1. square feet	2. cubic yards dune nourishment			
		Size of Proposed Alteration	Proposed Replacement (if any)			
f	Coastal Banks	1. linear feet				
g. 📙	Rocky Intertidal Shores	1. square feet				
h. 🗌	Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation			
i. 🗌	Land Under Salt Ponds	1. square feet				
		2. cubic yards dredged				
j. 🗌	Land Containing Shellfish	1. square feet				
k. 🗌	Fish Runs	Indicate size under Coastal Bank Ocean, and/or inland Land Under above				
		1. cubic yards dredged				
I. 🗌	Land Subject to Coastal Storm Flowage	1. square feet				
If the p	Restoration/Enhancement If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.					
a. squar	e feet of BVW	b. square feet of Sa	alt Marsh			
☐ Pro	oject Involves Stream Cross	sings				
a. numb	er of new stream crossings	b. number of replac	cement stream crossings			

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4.

5.



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			City/ I OWII
C.	Other App	olicable Standards and	Requirements
		pendix A: Ecological Restoration	tion Limited Project. Skip Section C and on Limited Project Checklists – Required Actions
Str	eamlined Ma	ssachusetts Endangered Spe	ecies Act/Wetlands Protection Act Review
1.	the most recer Natural Herita Massachusett	nt Estimated Habitat Map of State-	Estimated Habitat of Rare Wildlife as indicated on Listed Rare Wetland Wildlife published by the ram (NHESP)? To view habitat maps, see the Syviewer.htm.
	a. 🗌 Yes 🗵	No If yes, include proof of	f mailing or hand delivery of NOI to:
	8/1/2021 b. Date of map	Natural Heritage and Division of Fisheries 1 Rabbit Hill Road Westborough, MA 0	
	CMR 10.18). I complete Sect complete Sect by completing	o qualify for a streamlined, 30-dation C.1.c, and include requested rion C.2.f, if applicable. <i>If MESA</i> su	tts Endangered Species Act (MESA) review (321 y, MESA/Wetlands Protection Act review, please materials with this Notice of Intent (NOI); OR applemental information is not included with the NOI, will require a separate MESA filing which may take in Section 2 apply, see below).
	c. Submit Sup	olemental Information for Endange	ered Species Review*
	1. 🗌 Pe	rcentage/acreage of property to b	e altered:
	(a) with	nin wetland Resource Area	percentage/acreage
	(b) out	side Resource Area	percentage/acreage
	2. As	sessor's Map or right-of-way plan	of site
2.	wetlands juriso		g wetland resource areas and areas outside of osed conditions, existing and proposed eated limits of work **
		oject description (including descri	ption of impacts outside of wetland resource area &
	(b) 🛛 Ph	notographs representative of the s	ite

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^{*} Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/maendangered-species-act-mesa-regulatory-review).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

^{**} MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



3.

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C. Other Applicable Standards and Requirements (cont'd)

(c)	(c) MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-						
Make o	a-project-review). check payable to "Commonwealth of Masaddress	sachusetts - NHESP" and	d <i>mail to NHESP</i> at				
Projects	s altering 10 or more acres of land, also subn	nit:					
(d)	Vegetation cover type map of site						
(e)	Project plans showing Priority & Estimate	ted Habitat boundaries					
(f) OR	R Check One of the Following						
1. 🗌	1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat ; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)						
2. 🗌	Separate MESA review ongoing.	a. NHESP Tracking #	b. Date submitted to NHESP				
3.	Separate MESA review completed. Include copy of NHESP "no Take" deter Permit with approved plan.	mination or valid Conser	vation & Management				
For coastal line or in a	projects only, is any portion of the propo fish run?	sed project located belov	v the mean high water				
a. Not a	applicable – project is in inland resource a	area only b. Yes	☐ No				
If yes, inclu	de proof of mailing, hand delivery, or elec	ctronic delivery of NOI to	either:				
South Shore the Cape &	e - Cohasset to Rhode Island border, and Islands:	North Shore - Hull to New	Hampshire border:				
Southeast M Attn: Enviror 836 South R New Bedford	Marine Fisheries - Marine Fisheries Station Marine Reviewer Modney French Blvd. Marine	Division of Marine Fisherie North Shore Office Attn: Environmental Revie 30 Emerson Avenue Gloucester, MA 01930 Email: dmf.envreview-r	wer				
please con	Also if yes, the project 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.						
c. 🗌 🛮 Is t	his an aquaculture project?	d. 🗌 Yes 📗 No					
If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).							

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Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

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C. Other Applicable Standards and Requirements (cont'd)

4.	Is any	portio	n of th	he pro	posed project wi	thin an Area	a of Critic	al Environ	mental Co	oncern (AC	CEC)?
	а. 🗌 Ү	es	⊠N	lo	If yes, provide n Website for ACE						
	b. ACEC										
5.					posed project win the Massachus						
	а. 🗌 Ү	es	⊠ N	lo							
6.					subject to a We c. 131, § 40A) or						
	а. 🗌 Ү	es	⊠ N	lo							
7.	Is this	orojec	t subj	ject to	provisions of the	MassDEP	Stormwa	ater Manaç	gement St	andards?	
	a. 🔀				opy of the Storm				e Stormw	ater Manaç	gement
	1. [Apply	ing fo	Low Impact De Management H	velopment ((LID) site	design cre	edits (as d	lescribed ir	า
	2. [] ,	A port	tion of	the site constitu	tes redevel	opment				
	3. [Propri	ietary	BMPs are includ	led in the S	tormwate	r Manage	ment Syst	em.	
	b. 🗌	No.	Checl	k why	the project is ex	empt:					
	1. [] ;	Single	e-famil	ly house						
	2. [Emer	gency	road repair						
	3. [dential Subdivisio 4 units in multi-fa						
D.	Add	itio	nal I	Infor	rmation						
		:A xib			n Ecological Rest Restoration Noti						
	Applica	ants m	iust ir	nclude	the following wit	h this Notic	e of Inter	nt (NOI). S	ee instruc	tions for de	etails.
					ne document tran			vided on y	our recei	pt page) fo	r any of
	1. 🗌	suffi	cient i	inform	map of the area ation for the Cor may omit this it	servation (• ,	_
	2. 🗌	a Bo	rderir	ng Ve	g the location of getated Wetlandes of each affect	[BVW] repl	ication ar				



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Attach Stormwater Report, if needed.

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

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D.	Additional	Information	(cont'd)
	/ waitional	IIII OI III atioi	(OOIIL G

3.	Identify the method for BVW and other resource area boundary delineations (MassDEP I Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, and attach documentation of the methodology.			
4. 🛛	List the titles and dates for all plans and oth	er materials submitted with this NOI.		
	y State Road Water Main Loop Plan Title			
b. P	vironmental Partners Group, LLC Prepared By ne 2022	Ryan J. Allgrove c. Signed and Stamped by 1" = 20'		
d. F	inal Revision Date	e. Scale		
f. Ad	dditional Plan or Document Title	g. Date		
5. 🗌	If there is more than one property owner, pl listed on this form.	ease attach a list of these property owners no	t	
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.			
8. 🛛	Attach NOI Wetland Fee Transmittal Form			

E. Fees

9.

1. Example: 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 3. Check date

4. State Check Number 5. Check date

6. Payor name on check: First Name 7. Payor name on check: Last Name



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Provided by MassDEP: MassDEP File Number **Document Transaction Number** Lynnfield

City/Town

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.

S. Commel	6-28-22
1. Signature of Applicant	2. Date
3. Signature of Property Owner (if different)	4. Date 6/28/22
5. Signature of Representative (if any)	6. Date

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.

If the applicant has checked the "yes" box in any part of Section C, Item 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.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

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





Α.	Applicant Info	ormation				
1.	Location of Project:					
	Bay State Rd., Main St., and Vernon St. ROW		Wakefield/Lynnfield			
	a. Street Address		b. City/Town			
	N/A		N/A			
	c. Check number		d. Fee amount			
2.	Applicant Mailing Ad	Applicant Mailing Address:				
	Joseph		Conway			
	a. First Name		b. Last Name			
	Town of Wakefield					
	c. Organization					
	1 Lafayette Street					
	d. Mailing Address					
	Wakefield		MA	01880		
	e. City/Town		f. State g. Zip Code			
	781-246-6307	781-246-6266	jconway@wakefield.ma.us			
	h. Phone Number	i. Fax Number	j. Email Address			
3.	Property Owner (if o	lifferent):				
	a. First Name		b. Last Name			
	c. Organization					
	d. Mailing Address					
	e. City/Town		f. State	g. Zip Code		
	h. Phone Number	i. Fax Number	j. Email Address			

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

B. Fees

Fee should be calculated using the following process & worksheet. *Please see Instructions before filling out worksheet.*

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)			
Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2	1	N/A	N/A
	Step 5/T	otal Project Fee	:
	Step 6	/Fee Payments:	
	Total	Project Fee:	N/A a. Total Fee from Step 5
	State share	e of filing Fee:	b. 1/2 Total Fee less \$ 12.50
	City/Town shar	e of filling Fee:	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection Box 4062 Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

APPENDIX BWetland Resource Analysis Report

September 9, 2021

ENVIRONMENTAL PARTNERS GROUP 18 Commerce Way, Suite 2000 Woburn, Massachusetts 01801 Attention: Sabrina Castaneda, Project Engineer

RE: Wetland Delineation for Lynnfield Water District Interconnection Project Main Street/Bay State Road, Wakefield, Massachusetts

Dear Sabrina:

On June 8, 2021; at your request; I identified/delineated the wetland resource areas; as defined under the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131, Section 40) and the associated regulations, 310 CMR 10.00 (Regulations) and the Town of Wakefield Wetlands Protection By-law (By-law); in the vicinity of the above-referenced roadways (Project Area). Specifically, the stretch of Main Street from Vernon Street in Wakefield into Lynnfield to Bay State Road and into Wakefield (Project Area). The purpose of the delineation was to identify the wetland resource areas within the jurisdictional 100 and 200-foot riverfront area and the 100-foot buffer zone of the work to be conducted for the Lynnfield Water District Interconnection Project proposed by the Town of Wakefield Water Department (Project). The following provides a description of my findings.

Four resource areas; defined under Section 10.54, 10.56, 10.58 and 10.55 of the Regulations and under the By-law as bank, land under a waterbody/waterway (intermittent stream), riverfront and bordering vegetated wetland (BVW), respectively were identified within the Project Area. The Saugus River (River); a perennial stream; flows in an easterly direction under Main Street and was identified with orange flags labeled MHWA-1 thru MHWA-6; MHWA-100 thru MHWA-105; MHWB-1 thru MHWB-6; and MHW B-100 thru MHWB-103. In this instance the River is well-defined by top of the bank(s) which is the location from which the 100 and 200-foot riverfront is measured onto the Project Area. The BVW's located at different locations within the Project Area were identified with pink flags labeled WFA-1 thru WFA-4; WFA-100 thru WFA-105; WFB-1 thru WFB-4; WFB-100 thru WFB-104; WFC-1 thru WFC-8; WFD-1 thru WFD-7; WFE-1 thru WFE-14; WFF-1 thru WFF-9; WFG-1 thru WFG-18; and WFH-1 thru WFH-7. The intermittent stream; located on Bay State Road; flows into the WFE series BVW. The stream is a drainage channel that conveys water during rainfall events and is identified by the first few WFE series flags (see the attached sketches for the location of the wetland flags). The boundary of the BVW's is fairly well-defined by

Page 2. Lynnfield Water Interconnection Project, Wakefield, MA

the slope and/or the presence of wetland and transitional plant species such as: red maple (Acer rubrum), white pine (Pinus strobus), grey birch (Betula populifolia), black cherry (Prunus serotina) and white oak (Quercus alba) trees/saplings; arrow-wood (Viburnum denatatum), elder (Sambucus canadensis), red osier dogwood (Cornus stolonifera), green brier (Smilax glauca), common buckthorn (Rhamnus frangula), highbush blueberry (Vaccinium corymbosum), grape (Vitus, spp.), multiflora rose (Rosa multiflora) honeysuckle (Lonicera, spp.) and bittersweet (Celastrus orbiculata) in the shrub/vine layer; and cinnamon fern (Osmunda cinnamomea), sensitive fern (Onoclea sensibilis), poison ivy (Toxicodendron radicans), Japanese knotweed (Polygonum cuspidatum), dewberry (Rubus hispidus), spotted jewelweed (Impatiens capensis), skunk cabbage (Symplocarpus foetidus) and cattails (Typha, spp.) in the herbaceous layer. The BVW's are also characterized by other hydrological indicators such as stained/matted leaves, buttressed roots and saturated/hydric soils. It is my understanding that the wetland flags are to be surveyed in the field and put onto a Plan to be submitted with a Notice of Intent (NOI) for the proposed work.

According to the most recent Massachusetts Natural Heritage Atlas (NHESP 14th Edition) dated August 1, 2017, it appears that a portion of the Project Area is mapped as estimated and priority habitat for rare wildlife/species. If this is the case, the presence of estimated/priority habitat within the Project Area requires that a copy of the NOI and accompanying Plans be sent to NHESP for their review.

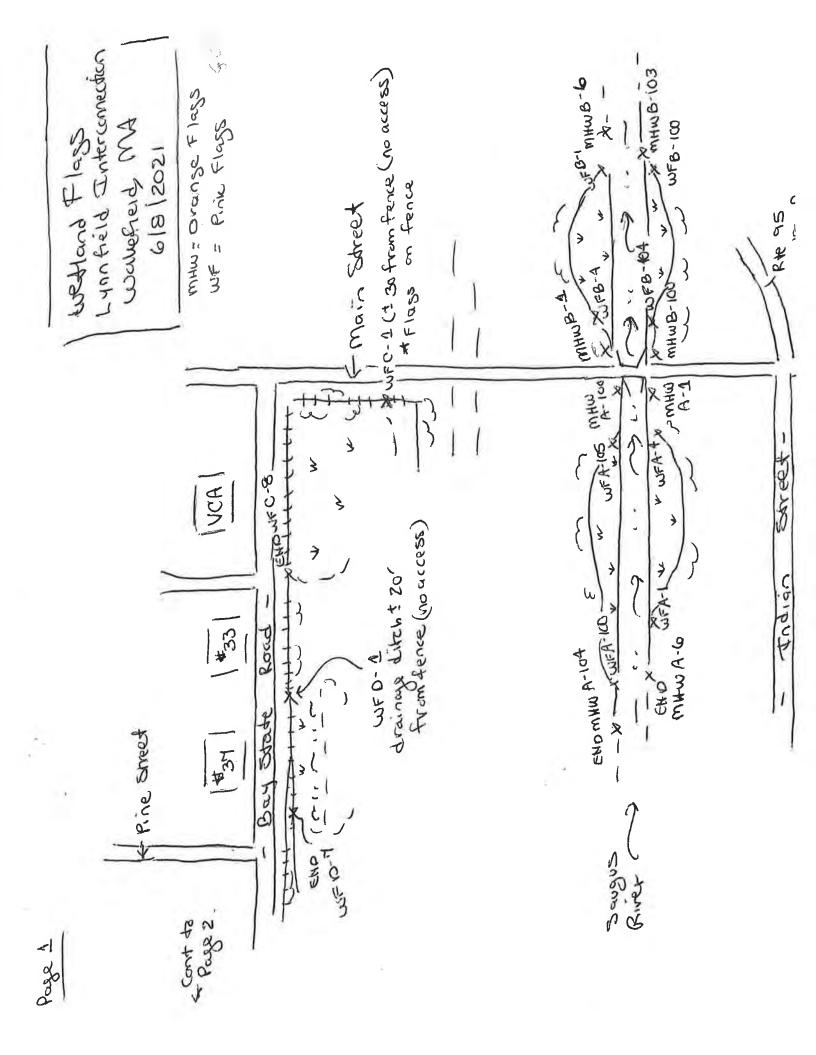
If you have any questions regarding these findings and/or you need additional information, please feel free to call me at any time. I am glad I could assist you with this project and let me know if I can be of any help in the future.

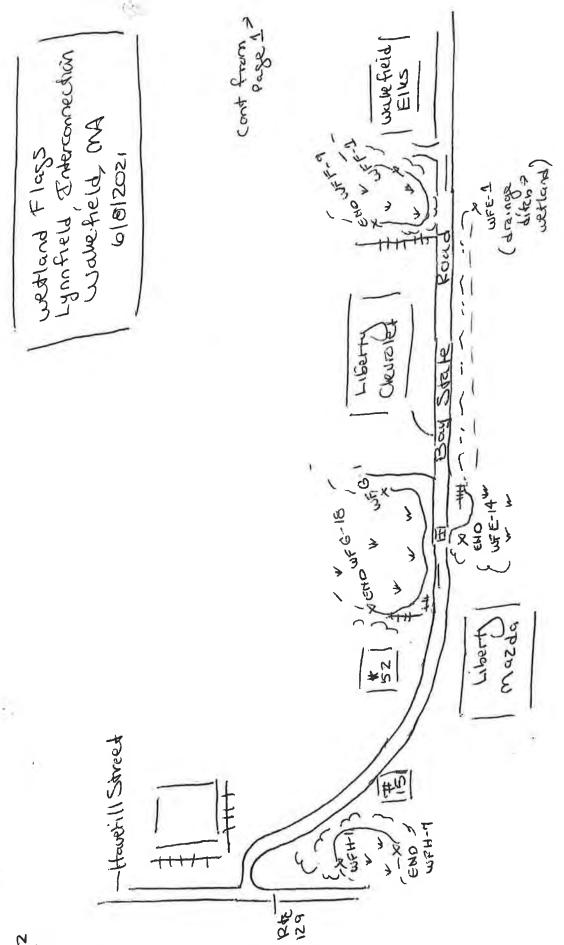
Sincerely,

PINEBROOK CONSULTING

Brooke Monroe

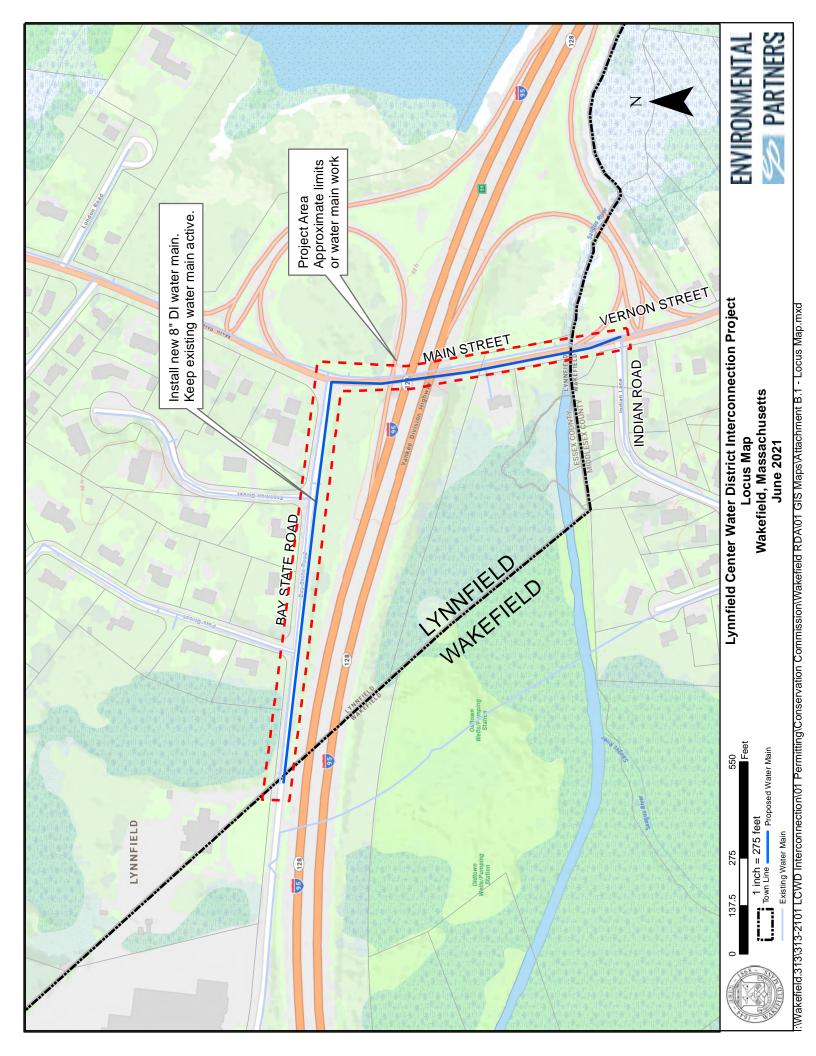
Environmental Scientist

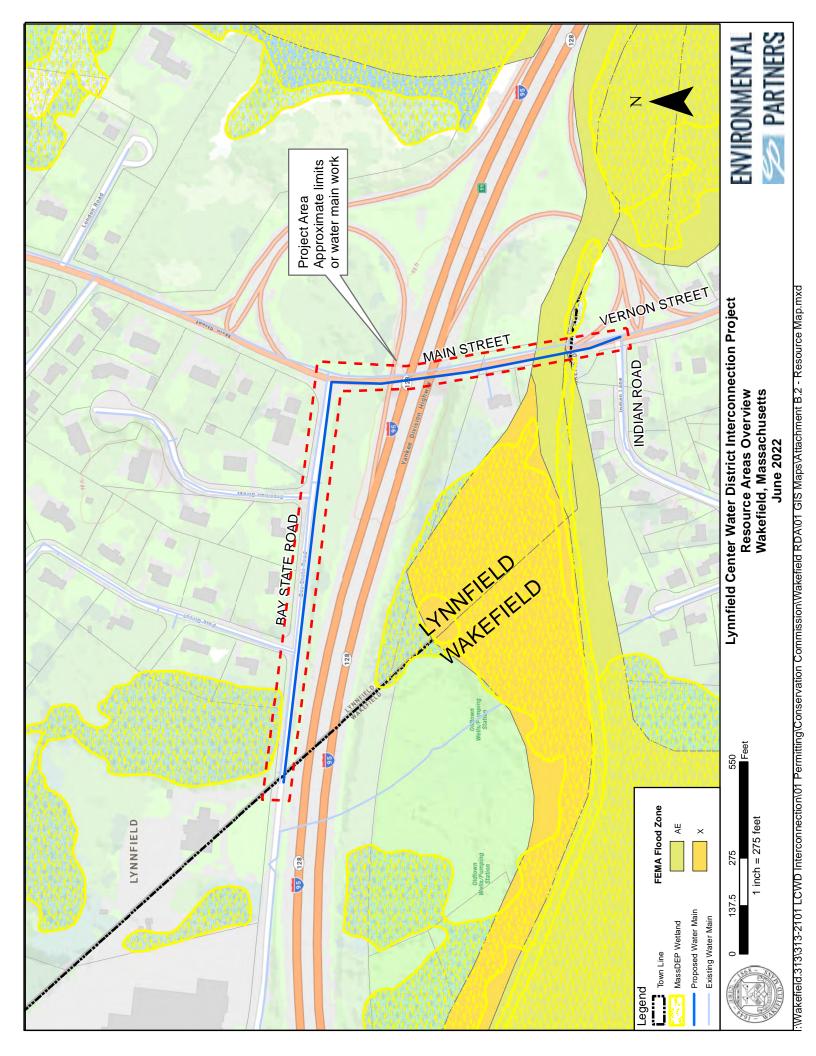


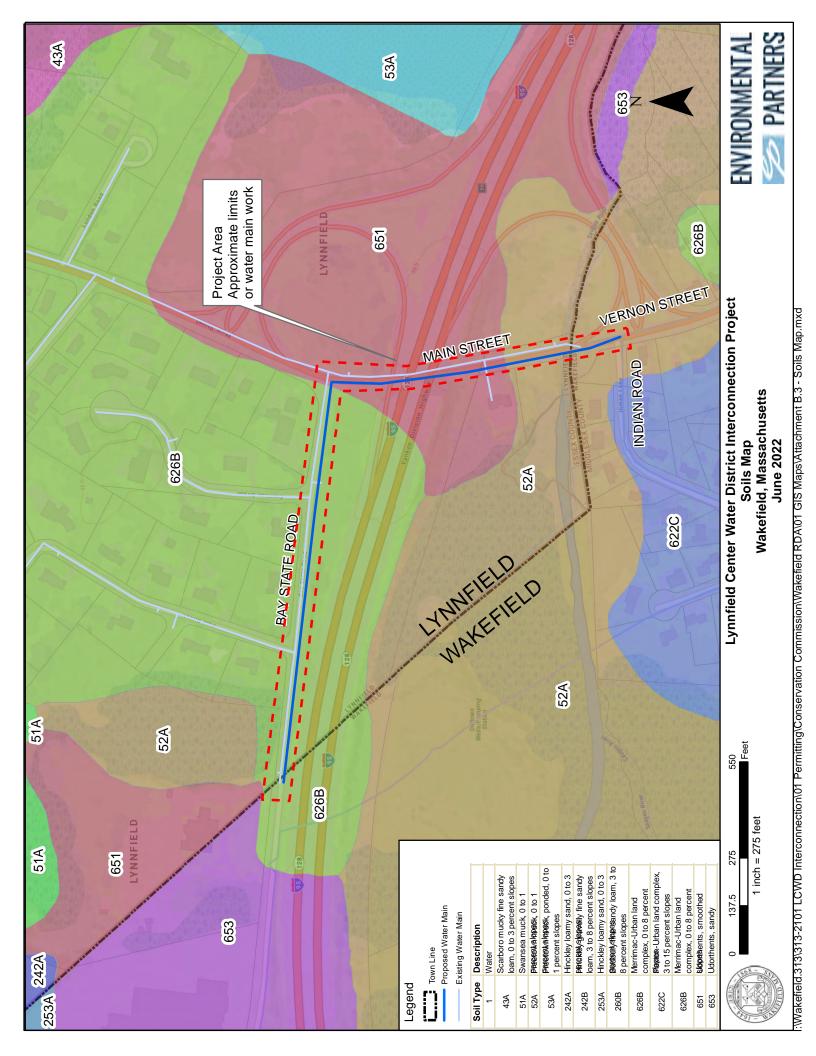


fage 2

APPENDIX CProject Maps and Site Photographs







NOTES TO USERS

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management. This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

oastal Base Flood Elevations shown on this map apply only landward of 0 National North American Vertical Datum of 1988 (NAVD 88). Users of this IRM should be aware that coastal flood elevations are also provided in the ummary of Stillwater Elevations tables in the Flood Insurance Study report for this risdiction. Elevations shown in the Summary of Stillwater Elevations tables should a used for construction and/or floodplain management purposes when they are gher than the elevations shown on this FIRM.

undaries of the **floodways** were computed at cross sections and interpolated ween cross sections. The floodways were based on hydraulic considerations in regard to requirements of the National Flood Insurance Program. Floodway this and other pertinent floodway data are provided in the Flood Insurance Insu ertain areas not in Special Flood Hazard Areas may be protected by ontrol structures. Refer to Section 2.4 "Flood Protection Measures" lood Insurance Study report for information on flood control structures frisdiction.

The **projection** used in the preparation of this map was Massachusetts State Plane Mainland zone (FIPSZONE 2001), meters. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

ood elevations on this map are referenced to the North American Vertical Datum 1988. These flood elevations must be compared to structure and ground evations referenced to the same **vertical datum**. For information regarding niversion between the National Geodetic Vertical Datum of 1929 and the orth American Vertical Datum of 1988, visit the National Geodetic Survey as besite at http://www.ngs.noaa.gov or contact the National Geodetic Survey at \$\frac{1}{2}\$ following address:

NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202

SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for **bench** marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at

Base map information shown on this FIRM was provided in digital format by the Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs. This information was derived from digital orthophotos produced at a scale of 1:5,000 from aerial photography dated April 2005.

This map reflects more detailed and up-to-date **stream channel configurat** than those shown on the previous FIRM for this jurisdiction. The floodplains floodways that were transferred from the previous FIRM may have been adjute conform to these new stream channel configurations. As a result, the Forefles and Floodway Data tables in the Flood Insurance Study Report (we contains authoritative hydraulic data) may reflect stream channel distances differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

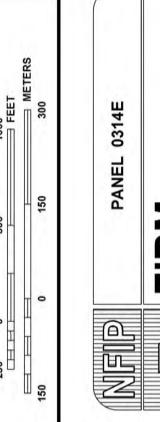
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

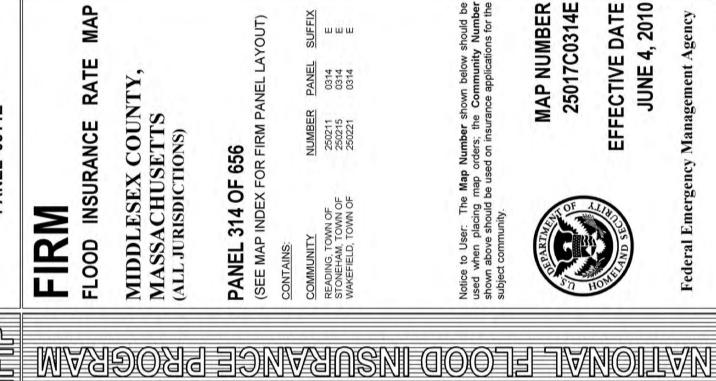
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

you have **questions about this map** or questions concerning the National Flood surance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or sit the FEMA website at http://www.fema.gov.

JOINS PANEL 0318 ОПТГООК ВОАР JOINS PANEL 0313 LAWNDALE ROAD ZONE AE ZONE X ZONE X STREET ZONE X Town of Stoneham 250215

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS Flood depths of 1 to 3 feet (usually sheet flow on sloping te depths determined. For areas of alluvial fan flooding, determined. OTHERWISE PROTECTED AREAS (OPAS) EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP June 4, 2010 Base Flood Elevations determined. Flood depths of 1 to 3 feet (usu: Elevations determined. LEGEND FLOODWAY AREAS IN ZONE AE MAP SCALE 1" Area to be protected from 1% protection system under con determined. OTHER FLOOD AREAS OTHER AREAS (3) - - - - - - (2) 87°07'45", 32°22'3(6000000 FT DX5510 x ~ 513 ~ (EL 987) • M1.5





Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the

MAP NUMBER 25017C0314E

EFFECTIVE DATE JUNE 4, 2010

Federal Emergency Management Agency



Figure 1. Intersection of Main Street and Indian Lane



Figure 2. Main Street from the Intersection of Main Street and Indian Lane



Figure 3. Saugus Bridge (Eastern Side)



Figure 4. Saugus Bridge (Eastern Side)



Figure 5. Main Street



Figure 6. Intersection of Bay State Road and Main Street



Figure 7. Bay State Road

APPENDIX D

Permitting Design Plans (Bound Separately)

APPENDIX E Abutter's Information



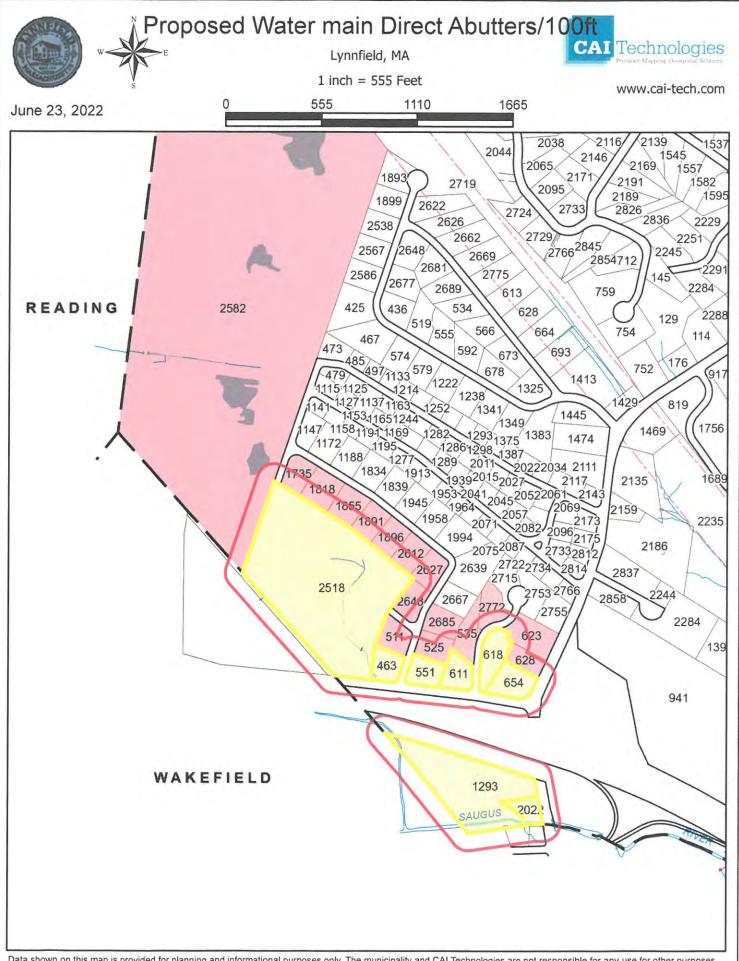
TOWN OF LYNNFIELD

ASSESSORS OFFICE

55 Summer Street, Lynnfield, MA 01940 781-334-9450 www.town.lynnfield.ma.us

REQUEST FOR CERTIFIED ABUTTERS LIST **CERTIFIED LIST WILL BE PROVIDED WITHIN TEN WORKING DAYS **

PROPERTY LOCATION: Multiple - See Attached	d ASSESSORS MAP#: LOT #:
OWNER NAME: Multiple - See Attached	
REASON FOR ABUTTERS LIST: Notice of I	ntent Filing
FEE: \$15.00 for first five pages, \$	1.00 after each consecutive page.
X CONSERVATION COMMISSION Within 100 ft.	PLANNING BOARD Within 300 ft.
BOARD OF APPEALS Within 300 ft.	BOARD OF HEALTH Immediate abutter and directly across the street
LIQUOR LICENCE Direct Abutters & Any School, Church or Hospital within 500 ft.	HISTORICAL COMMISSION Within 300 ft.
Requested By: Sabrina Castaneda	Date:
Phone Number: 617-657-0291 email:	
Assessors Use C	Only
CERTIFIED BY: 1 Klary	DATE: 423/24
DATE PAID: CASH \$/Amt:	onlehe confitt2022062150788 CHECK #/Amt.



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.



Subject Properties:

Parcel Number: 0032-0000-2518

CAMA Number: 0032-0000-2518 Property Address: 63 BAY STATE RD Mailing Address: WAKEFIELD ELKS HOME ASSOC

63 BAY STATE RD LYNNFIELD, MA 01940

Parcel Number: 0038-0000-0463

0038-0000-0463 CAMA Number: Property Address: 2 PINE ST

Mailing Address: TRAVAGLIONE JASON

2 PINE STREET LYNNFIELD, MA 01940

Parcel Number: CAMA Number:

0038-0000-0551 0038-0000-0551 Property Address: 37 BAY STATE RD

Mailing Address: MOORE FRANCIS L/E MOORE, FRANCIS

E, JR, T/I/C MO 37 BAY STATE RD LYNNFIELD, MA 01940

Parcel Number:

0038-0000-0611 0038-0000-0611

Mailing Address: MITCHELL DEBRA J MITCHELL RALPH G

CAMA Number: Property Address: 33 BAY STATE RD 33 BAY STATE RD LYNNFIELD, MA 01940

Parcel Number:

0038-0000-0618 0038-0000-0618

Mailing Address: MYTEBERI ALDI, T/E MYTEBERI ALDA,

T/E

CAMA Number: Property Address: 1 FREEMAN ST

1 FREEMAN ST LYNNFIELD, MA 01940

Parcel Number: CAMA Number:

0038-0000-0654 0038-0000-0654 Property Address: 70 MAIN ST

Mailing Address: COX FARM LLC

70 MAIN ST

LYNNFIELD, MA 01940

Parcel Number: CAMA Number:

0038-0000-1293 0038-0000-1293A Property Address: 26 MAIN ST A

Mailing Address: MAIN LF REALTY SERVICES

12 HURON DRIVE NATICK, MA 01760

Parcel Number: CAMA Number:

Property Address: 26 MAIN ST B

0038-0000-1293 0038-0000-1293B

Mailing Address: MAIN LF REALTY SERVICES

12 HURON DRIVE NATICK, MA 01760

Parcel Number: CAMA Number:

0038-0000-1293 0038-0000-1293C Property Address: 26 MAIN ST C

Mailing Address: MAIN LF REALTY SERVICES

12 HURON DRIVE NATICK, MA 01760

Parcel Number: CAMA Number:

Property Address: MAIN ST

0038-0000-2022 0038-0000-2022

Mailing Address: LYNNFIELD TOWN OF FREEMAN PARK

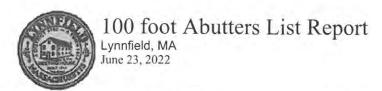
TOWN HALL

LYNNFIELD, MA 01940



Abutters:			
Parcel Number: CAMA Number: Property Address:	0018-0000-2582 0018-0000-2582 BAY STATE RD	Mailing Address:	CAMP CURTIS GUILD MA ARMY NATL GUARD ADJUTANT GENERAL 25 HAVERHILL ST READING, MA 01867
Parcel Number: CAMA Number: Property Address:	0032-0000-1735 0032-0000-1735 22 PINE ST	Mailing Address:	MARKEY FAMILY TRUST MARKEY ERNEST J, TR 22 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-1818 0032-0000-1818 20 PINE ST	Mailing Address:	DIETZ KAREN M DIETZ ROBERT 20 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-1855 0032-0000-1855 18 PINE ST	Mailing Address:	ANDERSON PHILIP W, T/E ANDERSON ASHLEY M, T/E 18 PINE STREET LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-1891 0032-0000-1891 16 PINE ST	Mailing Address:	VEYTSER IGOR ALEKSANDROVICH, T HUNT ANNA ALEYSE, T/E 16 PINE STREET LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-1896 0032-0000-1896 14 PINE ST	Mailing Address:	MAGANZINI CRAIG, T/E MAGANZINI HANNAH MURRAY, T/E 14 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-2612 0032-0000-2612 12 PINE ST	Mailing Address:	ZHANG LI CHEN, J/T/R/S GODFREY JOHN, J/T/R/S 12 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-2627 0032-0000-2627 8 PINE ST	Mailing Address:	SGROI JAMES A, T/E SGROI JULIE T, T/E 8 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-2648 0032-0000-2648 6 PINE ST	Mailing Address:	CEDRONE JOANNE M CEDRONE RONALD A 6 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-2685 0032-0000-2685 5 PINE ST	Mailing Address:	HURLEY EDWARD 5 PINE ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0032-0000-2772 0032-0000-2772 3 FREEMAN ST	Mailing Address:	ANJOORIAN LINA, J/T BELL CHRISTOPHER, J/T 3 FREEMAN ST LYNNFIELD, MA 01940
Parcel Number: CAMA Number: Property Address:	0038-0000-0511 0038-0000-0511 4 PINE ST	Mailing Address:	DELUCA JOHN D-CARMELLA CO DELUCA JOHN CARMELLA RLTY 4 PINE ST LYNNFIELD, MA 01940





Parcel Number: CAMA Number:

0038-0000-0525 0038-0000-0525

Property Address: 3 PINE ST

Mailing Address: DEROCHE DAWN E DEROCHE JOHN W

3 PINE ST

LYNNFIELD, MA 01940

Parcel Number: CAMA Number: 0038-0000-0535 0038-0000-0535

Property Address: 2 FREEMAN ST

0038-0000-0623

Parcel Number: 0038-0000-0623
CAMA Number: 0038-0000-0623
Property Address: 88 MAIN ST

Parcel Number: 0038-0000-0628
CAMA Number: 0038-0000-0628
Property Address: 82 MAIN ST

Mailing Address: LAFAUCI NICHOLAS, T/E LAFAUCI

PATRICE, T/E 2 FREEMAN STREET LYNNFIELD, MA 01940

Mailing Address: BHATIA-YADAV NIRU, T/E YADAV

VIVEK, T/E 88 MAIN STREET LYNNFIELD, MA 01940

Mailing Address: MGV LLC PO BOX 361

LYNNFIELD, MA 01940

APPENDIX F Stormwater Report



STORMWATER REPORT

To Town of Lynnfield Conservation Commission

From Ryan J. Allgrove, P.E., EPG

CC Joseph Conway, Director, Wakefield Department of Public Works

Date: June 29, 2022

Subject Bay State Road Water Main Loop Stormwater Report

Town of Wakefield, MA

WPA Form 3 – Notice of Intent

Environmental Partners Group, LLC (Environmental Partners) has prepared this stormwater report on behalf of the Town of Wakefield for the Wetlands Protection Act Notice of Intent for the Bay State Road Water Main Loop project. This report has been prepared in accordance with the requirements of 310 CMR 10.00 and 310 CMR 21.00, and the guidelines of the Massachusetts Stormwater Handbook.

Project Description

The aim of this project is to loop the two dead ends of the Wakefield water system on Vernon Street and Bay State Road to increase available fire flows and improve water quality. The loop will also provide a location for a future interconnection with the Lynnfield Center Water District (LCWD). The work includes installing new 8-inch water main on Bay State Road from the Town line to Main Street in Lynnfield and along Main Street to the intersection of Vernon Street and Indian Road. The total length of installation is approximately 2,250 LF.

Checklist for Stormwater Report

The MassDEP Checklist for Stormwater Report has been included. The Checklist has been stamped and signed by a certified Professional Engineer in the State of Massachusetts.

Stormwater Standard 1: No Untreated Discharges or Erosion to Wetlands

No New Untreated Discharges

No new untreated discharges are proposed.

Erosion to Wetlands from Discharges

There will be no increase in peak runoff. Therefore, no velocity calculations at the discharges have been completed.

Stormwater Standard 2: Peak Rate Attenuation

Stormwater Model

No stormwater models were developed for this analysis. The post peak rate runoff will not increase from pre-existing conditions.

Stormwater Standard 3: Stormwater Recharge

Standard 3 does not apply. The installation of the water main will not result in an increase in impervious area.

Stormwater Standard 4: Water Quality

Standard 4 does not apply. The proposed installation of the water main will not result in a change to stormwater quality.

Stormwater Standard 5: Land Uses with Higher Potential Pollutant Loads

Standard 5 is not applicable.

Stormwater Standard 6: Critical Areas

Standard 6 is not applicable. See GIS figures and the plan set in the NOI.

Stormwater Standard 7: Limited Project

The project is a limited project and is subject to the Stormwater Management Standards only to the Maximum Extent Practical. There will be no change to the existing imperious area.

Stormwater Standard 8: Construction Period Controls

Please refer to the cover letter and the plan set in the NOI for environmental sediment and erosion controls.

Stormwater Standard 9: Operation and Maintenance Plan

The Towns of Wakefield and Lynnfield and MassDOT will continue to provide operation and maintenance of the surrounding stormwater systems before, during, and after construction of this project. No O&M Plan has been included as part of this report.

Stormwater Standard 10: Illicit Discharges to Drainage System

The Towns and MassDOT are covered under the NPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (the MS4 Permit). A copy of the illicit discharge detection and elimination program requirements of the MS4 Permit can be provided upon request.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

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





A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals. This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Massachusetts Department of Environmental Protection

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Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

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A.	an Allgrove	6/30/22
Signature and Date	an congresse	0/00/22
Signature and Date	()	

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?
New development
X Redevelopment
Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

env	Measures: Stormwater Standards require LID measures to be considered. Document what rironmentally sensitive design and LID Techniques were considered during the planning and design of project:
	No disturbance to any Wetland Resource Areas
	Site Design Practices (e.g. clustered development, reduced frontage setbacks)
	Reduced Impervious Area (Redevelopment Only)
X	Minimizing disturbance to existing trees and shrubs
	LID Site Design Credit Requested:
	☐ Credit 1
	☐ Credit 2
	☐ Credit 3
	Use of "country drainage" versus curb and gutter conveyance and pipe
	Bioretention Cells (includes Rain Gardens)
	Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
	Treebox Filter
	Water Quality Swale
	Grass Channel
	Green Roof
	Other (describe):
Sta	ndard 1: No New Untreated Discharges
X	No new untreated discharges
	Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
	$Supporting\ calculations\ specified\ in\ Volume\ 3\ of\ the\ Massachusetts\ Stormwater\ Handbook\ included.$



Checklist for Stormwater Report

Cl	necklist (continu	ued)			
Sta	ındard 2: Peak Rat	e Attenuation	No calculation	included. See Stormwa	ater Report.
	and stormwater disc	charge is to a w	etland subject to	located in land subject to coastal flooding. poding increases during the	_
	development rates flooding increases of	for the 2-year a during the 100-y	nd 10-year 24-ho ear 24-hour stor	nt peak discharge rates do ur storms. If evaluation s m, calculations are also p red pre-development rates	hows that off-site rovided to show that
Sta	ndard 3: Recharge	No calculati	on included. Se	e Stormwater Report.	
	Soil Analysis provid	led.			
	Required Recharge	Volume calcula	ation provided.		
	Required Recharge	volume reduce	ed through use of	the LID site Design Credi	its.
	Sizing the infiltration	n, BMPs is base	ed on the followin	g method: Check the me	thod used.
	Static	☐ Simple Dyr	namic	☐ Dynamic Field ¹	
	Runoff from all impo	ervious areas at	t the site discharç	ging to the infiltration BMP) .
		ng that the drair	nage area contrib	scharging to the infiltration uting runoff to the infiltrati	
	Recharge BMPs ha	we been sized t	o infiltrate the Re	quired Recharge Volume	
	Recharge BMPs ha extent practicable for			quired Recharge Volume	only to the maximum
	☐ Site is comprise	ed solely of C a	nd D soils and/or	bedrock at the land surfa-	ce
	☐ M.G.L. c. 21E s	sites pursuant to	310 CMR 40.00	00	
	☐ Solid Waste La	ndfill pursuant t	o 310 CMR 19.00	00	
	Project is other practicable.	wise subject to	Stormwater Mana	agement Standards only t	o the maximum extent
	Calculations showing	ng that the infiltr	ation BMPs will o	Irain in 72 hours are provi	ded.
	Property includes a	M.G.L. c. 21E	site or a solid wa	ste landfill and a moundin	g analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Cł	necklist (continued)
Sta	ndard 3: Recharge (continued)
	The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
	Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.
Sta	ndard 4: Water Quality No calculation included. See Stormwater Report.
The	E Long-Term Pollution Prevention Plan typically includes the following: Good housekeeping practices; Provisions for storing materials and waste products inside or under cover; Vehicle washing controls; Requirements for routine inspections and maintenance of stormwater BMPs; Spill prevention and response plans; Provisions for maintenance of lawns, gardens, and other landscaped areas; Requirements for storage and use of fertilizers, herbicides, and pesticides; Pet waste management provisions; Provisions for operation and management of septic systems; Provisions for solid waste management; Snow disposal and plowing plans relative to Wetland Resource Areas; Winter Road Salt and/or Sand Use and Storage restrictions; Street sweeping schedules; Provisions for prevention of illicit discharges to the stormwater management system; Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL; Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan; List of Emergency contacts for implementing Long-Term Pollution Prevention Plan. A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an
	attachment to the Wetlands Notice of Intent. Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge: is within the Zone II or Interim Wellhead Protection Area
	is near or to other critical areas
	is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
	involves runoff from land uses with higher potential pollutant loads.
	The Required Water Quality Volume is reduced through use of the LID site Design Credits.
	Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)						
Standard 4: Water Quality (continued)						
	The BMP is sized (and calculations provided) based on:					
	☐ The ½" or 1" Water Quality Volume or					
	☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.					
	The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.					
	A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.					
Sta	Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) No calculation included. See Stormwater Report.					
	The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report. The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted <i>prior to</i> the discharge of stormwater to the post-construction stormwater BMPs.					
	The NPDES Multi-Sector General Permit does <i>not</i> cover the land use.					
	LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.					
	All exposure has been eliminated.					
	All exposure has <i>not</i> been eliminated and all BMPs selected are on MassDEP LUHPPL list.					
	The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.					
Sta	Standard 6: Critical Areas No calculation included. See Stormwater Report.					
	The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.					
	Critical areas and BMPs are identified in the Stormwater Report.					



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

X	The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:				
	 Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area. Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff 				
	☐ Bike Path and/or Foot Path				
	Redevelopment Project				
	Redevelopment portion of mix of new and redevelopment.				
	Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report. The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.				
A C	ndard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control ee Stormwater Report and NOI Erosion and Sedimentation Controls construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the owing information:				
	 Narrative; Construction Period Operation and Maintenance Plan; Names of Persons or Entity Responsible for Plan Compliance; Construction Period Pollution Prevention Measures; Erosion and Sedimentation Control Plan Drawings; Detail drawings and specifications for erosion control BMPs, including sizing calculations; Vegetation Planning; Site Development Plan; Construction Sequencing Plan; Sequencing of Erosion and Sedimentation Controls; Operation and Maintenance of Erosion and Sedimentation Controls; Inspection Schedule; Maintenance Schedule; Inspection and Maintenance Log Form. 				
\Box	A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing				

the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

	andard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control ntinued)					
	The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has <i>not</i> been included in the Stormwater Report but will be submitted <i>before</i> land disturbance begins.					
	The project is <i>not</i> covered by a NPDES Construction General Permit.					
	The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in t Stormwater Report.					
	The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.					
Sta	andard 9: Operation and Maintenance Plan See Stormwater Report.					
	The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:					
	☐ Name of the stormwater management system owners;					
	☐ Party responsible for operation and maintenance;					
	☐ Schedule for implementation of routine and non-routine maintenance tasks;					
	☐ Plan showing the location of all stormwater BMPs maintenance access areas;					
	Description and delineation of public safety features;					
	Estimated operation and maintenance budget; and					
	Operation and Maintenance Log Form.					
	The responsible party is not the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:					
	A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;					
	A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.					
Sta	andard 10: Prohibition of Illicit Discharges Not applicable. See Stormwater Report.					
	The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;					
	An Illicit Discharge Compliance Statement is attached;					
	NO Illicit Discharge Compliance Statement is attached but will be submitted <i>prior to</i> the discharge of any stormwater to post-construction BMPs.					



18 Commerce Way, Suite 2000 Woburn, MA 01801

P: 781.281.2542 F: 781.281.2543