REQUEST FOR DETERMINATION OF APPLICABILITY April 2021

Centennial Water Treatment Plant Pelham, MA



Request for Determination of Applicability Centennial Water Treatment Plant Town of Pelham, Massachusetts



Prepared by



April 2021



April 14, 2021

Mr. Dana MacDonald, Chair Pelham Conservation Commission 351 Amherst Road Pelham, MA 01002

Subject: Request for Determination of Applicability

Centennial Water Treatment Plant

Pelham, Massachusetts

T&H No. 5136

Dear Mr. MacDonald,

On behalf of the Amherst Public Works Department (DPW), we are pleased to submit seven (7) copies of the Request for Determination of Applicability (RDA) for construction of the Centennial Water Treatment Plant in Pelham, Massachusetts. The existing Centennial water treatment facility located on the project site was used to treat surface water from the Pelham Reservoir System, but is no longer operational due to its age, damaged equipment and electrical systems, and difficulty in providing optimal water treatment. The project includes demolition of the existing water treatment facility, and the proposed WTP will be located on the same property owned by the Town of Amherst, largely within the footprint of the existing building.

The Amherst DPW kindly requests a determination from the Pelham Conservation Commission as discussed in Section 2 – Narrative of the RDA. We trust that the documentation enclosed herein, including the proposed mitigation measures and alternatives analysis, is sufficient for the Commission's review of the proposed project.

As always, we are available should you have any questions or require additional information be provided. We appreciate your assistance with this important project.

Sincerely,

TATA & HOWARD, INC.

Ryan P. Neyland

Ryan P. Neyland, P.E.

Vice President

TABLE OF CONTENTS

Letter of Transmittal

Section	Description	
SECTION 1	I – MassDEP Transmittal Form and WPA Form 1	1
SECTION 2	2 – Project Narrative	6
2.1 WPA	Form 1 – Section C.1a Project Description	6
2.2 WPA	Form 1 – Section C.1b Area Description	6
2.3 WPA	Form 1 – Section C.2a Work Description	7
2.4 Mitiga	ation	7
2.5 Alterr	natives Analysis	8
2.6 Concl	lusion	8

LIST OF APPENDICES

Appendix	Description
A	Figure No. 1 – Locus Map
В	Drawing C-1 – Existing Conditions Drawing C-2 – Proposed Site Plan and Erosion Control Details
С	Certified Abutters List
D	Wetlands Delineation Report



MassDEP

Enter your transmittal number -

Transmittal Number

Your unique Transmittal Number can be accessed online: https://www.mass.gov/service-details/transmittal-form-number-for-massdep-permit-application-payment

Massachusetts Department of Environmental Protection Transmittal Form for Permit Application and Payment

1. Please type or	<u>A.</u>	Permit Information					
print. A separate Transmittal Form				Request for Determination of Applicability			
must be completed for each permit		Permit Code: 4-to-7-character code from permit ins	tructions	2. Name of Permit		ability	
application.		3. Type of Project or Activity					
2. Make your check payable to	В.	Applicant Information – Firm or	Individua	al			
the Commonwealth		Amherst Public Works Department					
of Massachusetts and mail it with a		Name of Firm - Or, if party needing this approva	l is an individu	al enter name below	: :		
copy of this form to:		2, 12, 3, 12, 11, 12					
MassDEP, P.O.		2. Last Name of Individual	3. First	t Name of Individual		4. MI	
Box 4062, Boston, MA 02211.		586 South Pleasant Street					
IVIA UZZTT.		5. Street Address					
3. Three copies of		Amherst	MA	01002	413-259-3050		
this form will be		6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #	
needed.		Amy Rusiecki, P.E.		rusieckia@amh	nerstma.gov		
Copy 1 - the		11. Contact Person		12. e-mail address			
original must accompany your	C	Facility, Site or Individual Requi	rina Ann	roval			
permit application.	٠.	•	•	· • · · ·			
Copy 2 must		Amherst Centennial Water Treatment Pla	ant				
accompany your fee payment.		Name of Facility, Site or Individual Amherst Road					
Copy 3 should be		2. Street Address					
retained for your		Pelham	MA	01002			
records		3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #	
4. Both fee-paying		o. City, . Cit	Claic	o. <u>-</u> .p ocac	or releptions in	/	
and exempt applicants must		8. DEP Facility Number (if Known)	9. Federa	al I.D. Number (if Kno	own) 10. BWSC Track	ing # (if Known	
mail a copy of this transmittal form to:							
		Tata & Howard, Inc.					
MassDEP		Name of Firm or Individual					
P.O. Box 4062 Boston, MA		67 Forest Street					
02211		2. Address					
		Marlborough	MA	01752	508-232-6337		
* NI - 1 -		3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #	
* Note: For BWSC Permits.		Ryan Neyland, P.E.		0.100.11 (0)	MOO D '' 1)		
enter the LSP.	8. Contact Person 9. LSP Number (BWSC Permits only)						
	Ε.	Permit - Project Coordination					
	1.	Is this project subject to MEPA review?	ves ⊠ no				
	•	If yes, enter the project's EOEA file number -		nen an			
		Environmental Notification Form is submitted	-				
				EOEA	File Number		
	F.	Amount Due					
DEP Use Only	Sn	ecial Provisions:					
•	1.	Fee Exempt: city, town, county, or district of the	Commonwea	lth: federally recogni	zed Indian tribe housing a	uthority:	
Permit No:	•	municipal housing authority; the MBTA; or state ag			-		
		permits, regardless of applicant status.	,		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Rec'd Date:	2.	☐ Hardship Request - payment extensions accord	ling to 310 CM	IR 4.04(3)(c).			
	 In hardship Request - payment extensions according to 310 CMR 4.04(3)(c). Alternative Schedule Project (according to 310 CMR 4.05 and 4.10). 						
	4.	☐ Homeowner (according to 310 CMR 4.02).		•			
. .							
Reviewer							

tr-formw.docx • rev. 2/21 Page 1 of 1

Dollar Amount

Date

Check Number



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

depicted on referenced plan(s).

Pelham City/Town

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





1.	Applicant:						
	Amherst Department of Public Works	rusieckia@a	rusieckia@amherstma.gov				
	Name		E-Mail Address				
	586 South Pleasant Street						
	Mailing Address						
	Amherst	MA	01002				
	City/Town	State	Zip Code				
	413-259-3050						
	Phone Number	Fax Number (if	applicable)				
2.	Representative (if any):						
	Tata & Howard, Inc.						
	Firm						
	Ryan Neyland, P.E.		ataandhoward.com				
	Contact Name	E-Mail Address	3				
	67 Forest Street						
	Mailing Address						
	Marlborough	MA	01752				
	City/Town	State	Zip Code				
	508-232-6337	508-449-940					
	Phone Number	Phone Number Fax Number (if applicable)					
R	. Determinations						
υ.	eterminations						
1.	I request the Pelham make the follow	wing determination(s). Check any that apply:				
	Conservation Commission						
	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.						
	of any municipal wetlands ordinance or bylaw of:						
	Town of Pelham						
	Name of Municipality						
	a whether the following scope of alternatives is add	equate for work in the	e Riverfront Δrea as				



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 1- Request for Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Pelham City/Town

C. Project Description

	6 Amherst Road	Pelham
S	treet Address	City/Town
3		18.A
Α	ssessors Map/Plat Number	Parcel/Lot Number
b	. Area Description (use additional paper, if necessary	v):
S	ee attached Section 2 - Narrative	
С	Plan and/or Map Reference(s):	
F	igure No. 1 - Locus Map (Appendix A)	April 2021
	tle	Date
C	-1 Existing Conditions Site Plan (Appendix B)	April 2021
Т	tle	Date
_	 -2 Proposed Site Plan and Erosion Control Details (Applead of the Proposed Site Plan and Erosion Control Details) 	· · ·
	tle	Date
Т		
т: 2. а	. Work Description (use additional paper and/or provi	ide plan(s) of work, if necessary):



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Pelham City/Town

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
fror	m having to file a Notice of Intent for all or part of the described work (use additional paper, if
nec	cessary).

See attached Section 2 - Narrative

3.	If this application is a Request for Determination of Scope of Alternatives for work in the erfront 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.
	Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification ove (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Name and address of the property owner:

Pelham 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.

Town of Amherst	A REMAIN WASHINGTON
Name	
586 South Pleasant Street	
Mailing Address	
Amherst	
City/Town	
MA	01002
State	Zip Code
accordance with Section 10.05(3)(b)(1) of the W	will be placed in a local newspaper at my expense /etlands Protection Act regulations.
Complesed Signature of Applicant	4/14/2021 Dale
Ryan P. negland	4/14/2021
Signature of Representative (if any)	Date

SECTION 2 – PROJECT NARRATIVE

2.1 WPA Form 1 – Section C.1a Project Description

The Town of Amherst Public Works Department (DPW) proposes to construct a new 1.5 million gallon per day (mgd) capacity water treatment plant (WTP) located at 86 Amherst Road in Pelham, Massachusetts, to replace the existing water treatment facility. The existing Centennial Water Treatment Facility located on the project site was used to treat surface water from the Pelham Reservoir System, but is no longer operational due to its age, equipment condition, and difficulty in providing optimal water treatment for compliance with State and Federal drinking water regulations. The existing water treatment facility will be demolished, and the proposed WTP will be constructed in its place. The WTP site location is shown in Figure No. 1 attached in Appendix A.

The treatment process for the proposed Centennial WTP will include coagulation, rapid mixing, flocculation, dissolved air flotation (DAF) clarification, dual media filtration with sand and granular activated carbon (GAC), and chemical addition including chlorine for disinfection, ammonia for monochloramine formation for secondary disinfection in the distribution system, sodium hydroxide for pH adjustment and corrosion control, and fluoridation to prevent tooth decay. These processes are necessary to meet regulatory water quality standards set by the Massachusetts Department of Environmental Protection (MassDEP) and the goals established by the Amherst DPW to improve water quality delivered to its customers.

The Request for Determination of Applicability (RDA) summarizes the proposed construction of the new Centennial WTP including the site design and stormwater management controls, and the RDA identifies the mitigating measures that will be used to minimize environmental impacts during construction. It is anticipated that a Notice of Intent (NOI) filing will not be required for this project since the site does not include MassDEP identified wetland resource areas, certified vernal pools, or areas of critical concern. The project does include some work in previously disturbed areas within a 100-foot buffer zone of an existing stormwater drainage swale and subsequent wetland area which were flagged by the Amherst DPW and shown on Drawing C-1, Existing Conditions, and Drawing C-2, Proposed Site Plan and Erosion Control Details, in Appendix B. The Wetland Delineation Report summarizing the drainage swale area as prepared by the Amherst DPW is included in Appendix D.

2.2 WPA Form 1 - Section C.1b Area description

The proposed WTP site is identified as Property ID No. 003.0/0000/0018.A under Lands of the Town of Amherst Deed Book 2203 and Page 242. The parcel is approximately 1.63 acres in size, including land designated as forestry and low density residential. The parcel is bound by private property to the east, Western Massachusetts Electric Company (Eversource) property to the west, and Amherst Road to the South. There is a stormwater drainage swale along the southwest corner of the parcel. The site does not include MassDEP identified wetland resource areas, certified vernal pools, or areas of critical concern, and is located outside the flood zone as identified by FEMA. The southwestern portion of the site does include an outfall of the drainage swale and subsequent wetland area which was flagged by the Amherst DPW staff during a site visit with the



Pelham Conservation Commission to be protected during construction. The work is not located within estimated or priority habitats of rare species identified by the National Heritage & Endangered Species Program (NHESP). The extent of work will be limited to only what is necessary to complete construction of the proposed WTP and appurtenances to minimize potential impact to the surrounding areas, and construction will be entirely within previously disturbed areas.

2.3 WPA Form 1 - Section C.2a Work description

The work generally consists of the demolition of the existing water treatment facility, driveway, and associated site structures, and the construction of a new 98'x72' pre-engineered metal building WTP including interior masonry, water treatment and chemical feed equipment necessary to treat water for supplying the Amherst water distribution system, pumping equipment, bathrooms, laboratory, office/control room, storage room, electrical, heating, ventilation, and air conditioning (HVAC), plumbing, and instrumentation and controls. Site work consists of grading, asphalt driveway, chain link fence, stormwater controls, buried propane tank, ductile iron water mains and overflow piping, and a PVC sewer connection. Containment measures will be implemented for all liquid chemical storage areas within the proposed WTP according to guidelines established by the MassDEP. No clearing or disturbance of previously undisturbed land is proposed. Residuals from the treatment process will be discharged to the Amherst sewer collection system, and will no longer be stored and handled on the site.

The project will include conversion of the existing residuals handling basins on the project site to a sediment forebay and an infiltration basin for stormwater management. The stormwater controls will be sized to pretreat and infiltrate stormwater runoff from the new building, as well as a portion of the proposed driveway and grassed area upstream. Stormwater runoff from the remaining portion of the driveway will run off to the western portion of the site, which matches the current stormwater management at the existing site. The collection and infiltration of stormwater in the proposed sediment forebay and infiltration basin will offset the modified impervious area and improve the stormwater management on the project site. The peak discharge rate from the site will be less post-development than it was pre-development.

2.4 Mitigation

The Town of Amherst intends to minimize the amount of disturbance necessary to construct the proposed WTP and maintain as much of the natural vegetation as possible. Stormwater runoff from the building roof and part of the paved driveway will be directed to the stormwater sediment forebay and infiltration basin, so that the post-development stormwater discharge rate from the site will be less than the pre-development stormwater discharge rate. Erosion controls will be installed to protect the stormwater drainage swale and subsequent wetland area as shown on Drawing C-2, Proposed Site Plan and Erosion Control Details, in Appendix B. The erosion controls will be maintained for the duration of construction.



2.5 Alternatives Analysis

Alternatives were evaluated with respect to cost, ease of implementation, environmental impacts, and ability to meet future projected demands and water quality regulations. After evaluating the alternatives, the Amherst DPW is proposing to replace the Centennial WTP at the existing site. The alternate options identified include no action and alternate location.

The existing treatment facility is no longer operational due to its age, damaged equipment and electrical systems, and difficulty in providing optimal water treatment. If no action is taken, the Amherst DPW will not be able to utilize the permitted surface water source as part of its water supply which may lead to a supply deficit.

The project includes constructing a WTP building in the approximate same location as the existing building. Installing a new building elsewhere on the parcel would cause more site disturbance, and the parcel owned by the Town of Amherst is unable to accommodate a second building of this size. The location of the existing building, which is no longer a functioning treatment facility, also minimizes the disturbance of previously undeveloped areas. Based on the property layout, the proposed location of the WTP is the most practical location.

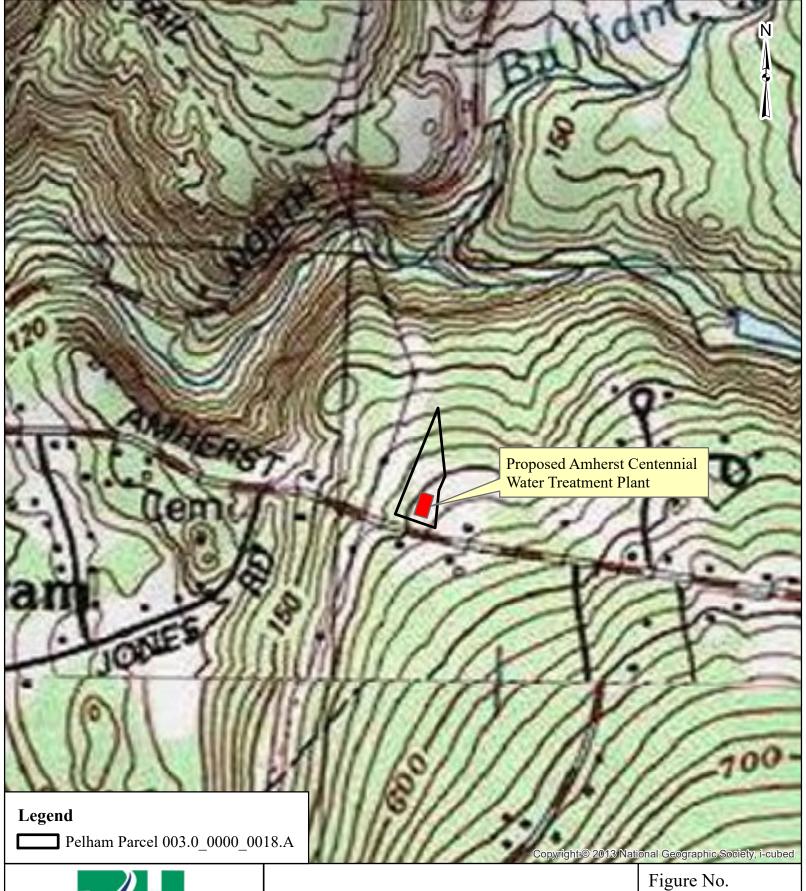
2.6 Conclusion

The proposed environmental disturbances will largely be temporary in nature. Construction will result in minor modifications to the impervious areas, mainly associated with the paved driveway around the proposed WTP. Erosion controls will protect the drainage swale and the area north of the drainage swale identified by the flagged wetland points by the Amherst DPW. The addition of stormwater controls, including the sediment forebay and infiltration basin, will control the stormwater discharge rates and improve the quality of stormwater runoff from the site. The work will occur within an existing site that is currently operated and maintained by the Amherst DPW. It is in the DPW's interest to protect the site during construction activities since the source and facilities will continue to be operated and maintained following construction for water utility purposes. No negative impacts to the drainage swale and subsequent wetland area to the north of the swale are anticipated as a result of this project.



Appendix A







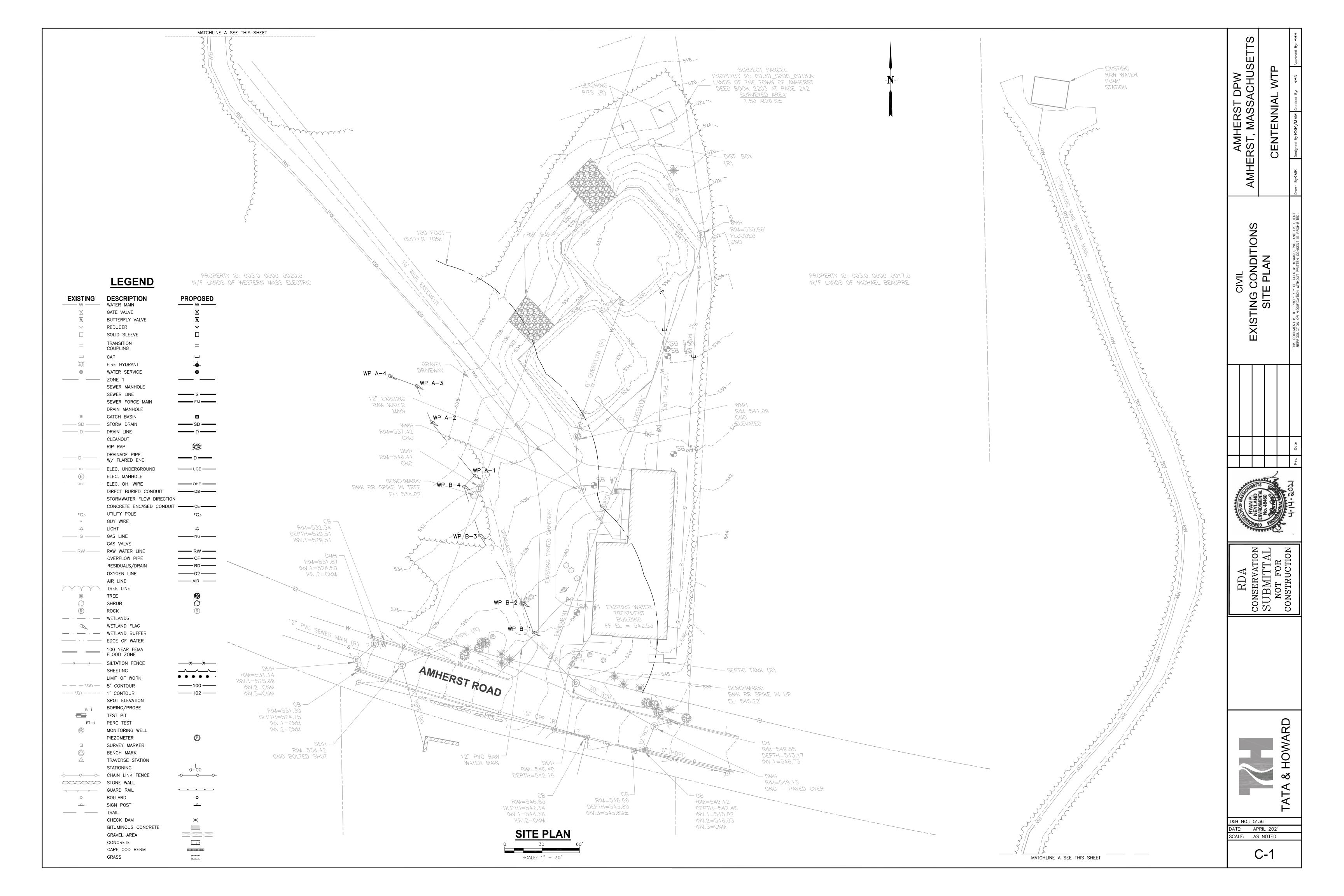
Date: April 2021 Approximate Scale: 1" = 500' Locus Map

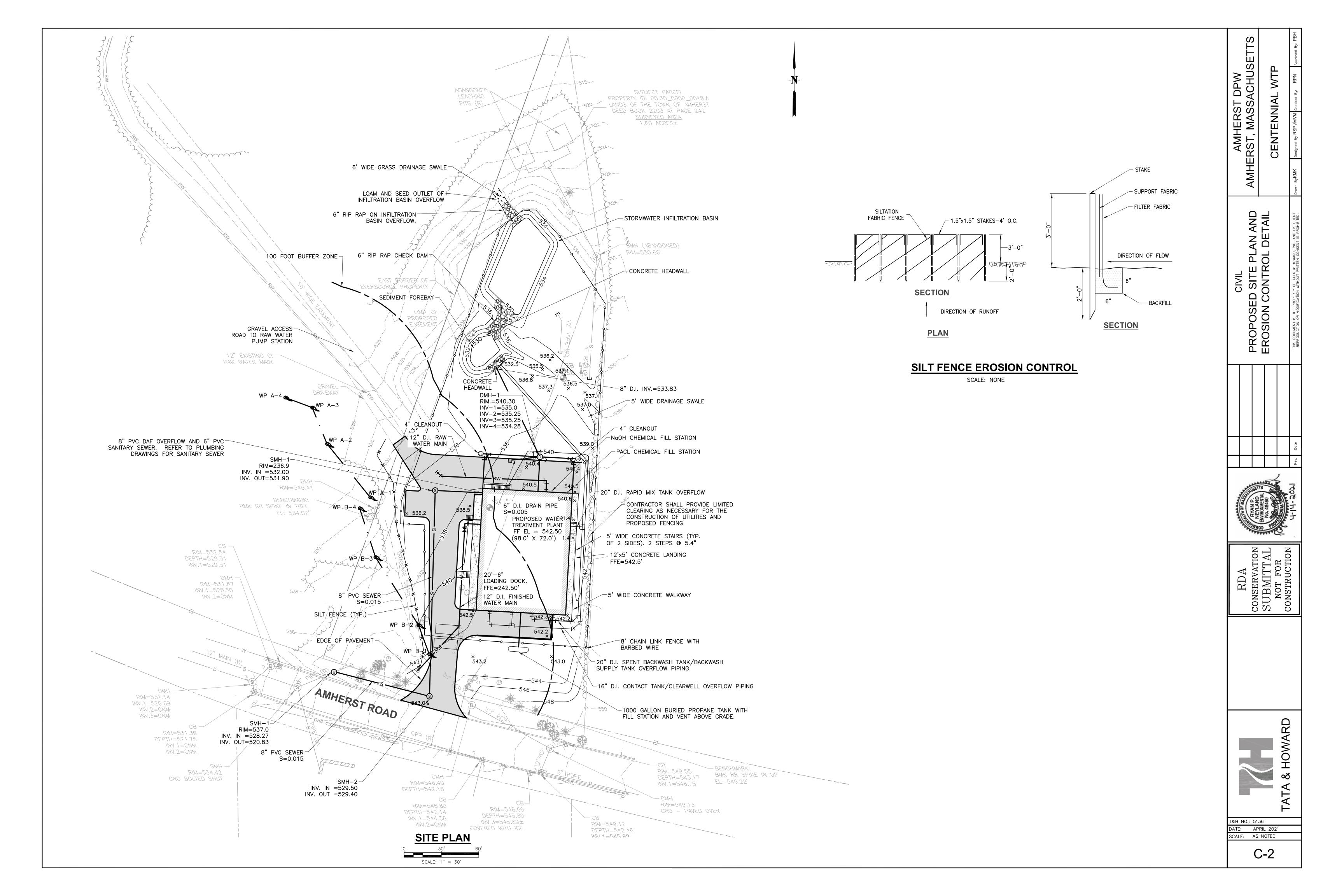
Amherst Centennial Water Treatment Plant

86 Amherst Road Pelham, Massachusetts 1

Appendix B







Appendix C





Town of Pelham

Board of Assessors \$351 Amherst Road \$Pelham MA 01002 Phone-413-253-0734\$Fax 413-253-0847 pelhamassessor@comcast.net

MAP/BLC	OCK/PARCEI	_: <u>3.0-18.A</u>			
APPLICA	NT: <u>Tow</u>	n of Amherst			_
DATE: _	March 31	, 2021			
	BOARD :	CONSERVATION	PLANNING	SELECTBOARD	ZONING

CERTIFIED LIST OF ABUTTORS

The Assessor's Office, Town of Pelham, hereby certifies the attached list of names and addresses. This list reflects the current names and addresses as they appear in our records as of January 1, 2020

This list is only valid for a period of thirty (30) days from the date of certification by the Assessor.

LORI J. TURATI

ADMINSTRATIVE ASSESSOR

APPLICANT
ASSESSORS
CONSERVATION
PLANNING
SELECTBOARD
ZONING

PELHAM BOARD OF ASSESSORS REQUEST FOR CERTIFIED LIST OF ABUTTERS

Note: THE ASSESSORS OFFICE REQUIRES 10 BUSINESS DAYS TO PREPARE AN ABUTTERS LIST. WE THEREFORE ADVISE YOU NOT TO SCHEDULE A HEARING UNTIL YOU HAVE THIS LIST.

Please Print

86 Amherst	t Road REET ADDRESS	$\frac{3}{\text{MAP}}$	18.A PARCEL		
	nherst Department of Public Works NER'S NAME	***************************************	Amherst Water Department APPLICANT'S NAME		
86 Amherst		586 Sout	h Pleasant Street		
	STREET		STREET		
Pelham	MA	Amherst	MA 01002		
CITY	ST	CITY	STATE ZIP		
			enyon, 508-709-0293 CT PERSON & PHONE #		
	note that if requesting abutters lists for to el, you must fill out separate abutters reque				
Please circle	e type of permit or variance requested:				
A:	A: Liquor License — Immediate abutters, also 500' from all borders churches/hospitals/public & private schools.				
В:	B: Planning Board - Subdivision or Special Permit - 300'				
C:	C: Zoning: - Special Permit or Variance Appeals - 300'				
O:	D: Conservation: -Wetland Hearing - 300'				
E:	E: Planning - Site Plan Review 300'				
F:	Selectboard - 300'				
NOTE: THE ABUTTERS LIST IS ONLY OFFICIAL FOR A PERIOD OF 30 DAYS FROM THE DATE OF CERTIFICATION BY THE ASSESSOR. AFTER 30 DAYS, YO WOULD NEED TO REAPPLY FOR A NEW LIST.					
	WOODD HEED TO MAKE A DATE OF THE CO.		RECEIVED		
	•				
(ASO00)2)				

2-82.A PELHAM WESTERN MASS ELECTRIC PO BOX 270 HARTFORD, CT 06141

2-83 PELHAM LIKENS NANCY TRUMAN B JR MARJORIE 277 NORTH EAST ST AMHERST, MA 01002

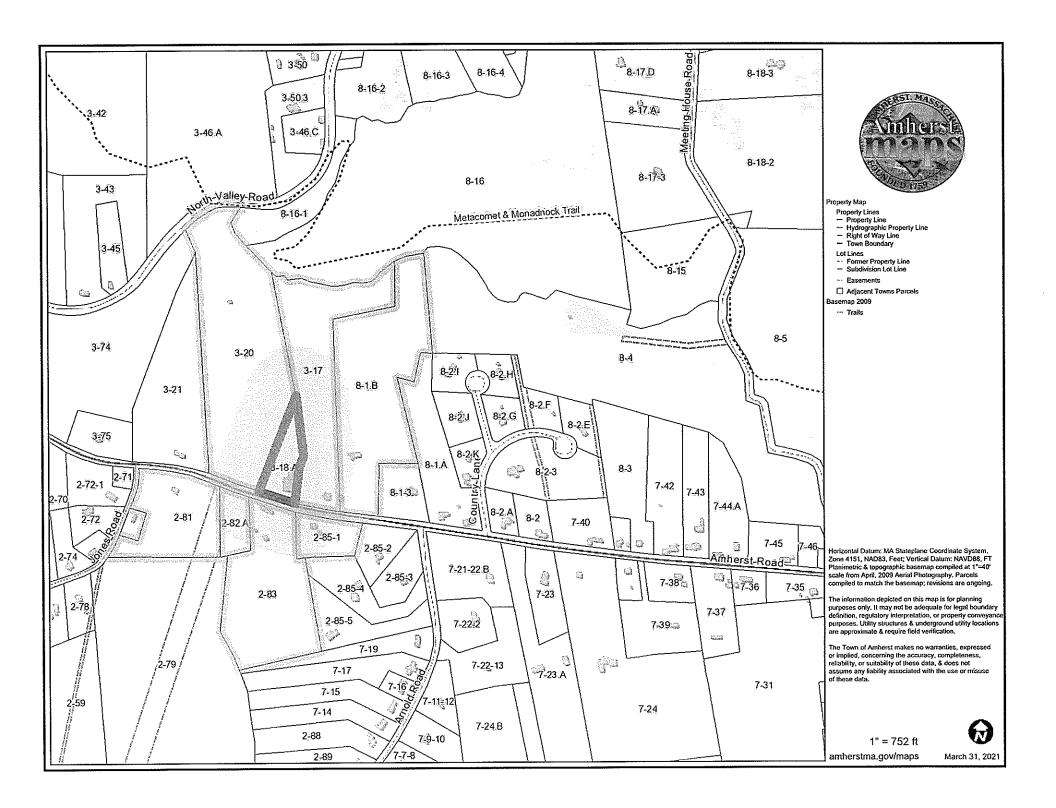
8-1.B PELHAM WOLF STEVEN S & CATHERINE V 94 AMHERST RD PELHAM, MA 01002 2-81
PELHAM
ALTABET, SUSAN & DYDO, JOHN STEVEN
92 Juggler Meadow Rd
Leverett, MA 010 54

3-17 PELHAM BEAUPRE MICHAEL J 90 AMHERST RD PELHAM, MA 01002

3-20 PELHAM WESTERN MASS ELECTRIC PO BOX 270 HARTFORD, MA 06141 3-18.A PELHAM AMHERST TOWN OF 586 SOUTH PLEASANT ST AMHERST, MA 01002

2-85-1 PELHAM KOSUDA RUSSELL R & MELISSA B 91 AMHERST RD PELHAM, MA 01002

Parcel_ID	Parcel_Address	Owner	OwnerAddress	OwnerCityStZip
2-82.A	AMHERST RD	WESTERN MASS ELECTRIC	PO BOX 270	HARTFORD, CT 06141
2-81	75 AMHERST RD	ALTABET, SUSAN & DYDO, JOHN STEVEN	92 Jungler Mendaura	Leverett, MA 01054
3-18.A	86 AMHERST RD	AMHERST TOWN OF	586 SOUTH PLEASANT ST	AMHERST, MA 01002
2-83	87 AMHERST RD	LIKENS NANCY TRUMAN B JR MARJORIE	277 NORTH EAST ST	AMHERST, MA 01002
3-17	90 AMHERST RD	BEAUPRE MICHAEL J	90 AMHERST RD	PELHAM, MA 01002
2-85-1	91 AMHERST RD	KOSUDA RUSSELL R & MELISSA B	91 AMHERST RD	PELHAM, MA 01002
8-1.B	94 AMHERST RD	WOLF STEVEN S & CATHERINE V	94 AMHERST RD	PELHAM, MA 01002
3-20	SOUTH VALLEY RD	WESTERN MASS ELECTRIC	PO BOX 270	HARTFORD, MA 06141



Appendix D



Centennial Water Treatment Plant

Wetland Delineation

A delineation of wetland areas jurisdictional under the Massachusetts Wetlands Protection Act and the Town of Pelham Wetlands Protection Bylaw was conducted on March 26th, 2021 by Beth Willson, Wetland Professional in Training (WPIT), and Town of Amherst Environmental Scientist. The weather was cloudy with some light rain and temperatures in the upper 50s. A drainage swale was observed to the west of the water treatment plant driveway, and an area of Bordering Vegetated Wetlands (BVW) was observed where the drainage swale discharges. No other wetland resource areas were observed within 100 feet of the proposed project work area.

On March 24th, 2021 Ms. Willson met with Meredith Borenstein, Pelham Conservation Agent, on site to look at the resource areas. Ms. Borenstein indicated that the drainage swale is jurisdictional as an intermittent stream under the Pelham Wetlands Protection Bylaw, but is not jurisdictional under the state Wetlands Protection Act.

Delineation Methodology

All wetland resource areas near the proposed project area were marked with consecutively numbered orange pin flags (stream Bank) or blue flagging tape (BVW). Bank was marked at the first observable break in slope. The methodology used to delineate the BVW followed the state wetland regulations 310 CMR 10.55 and the DEP handbook *Delineating Bordering Vegetated Wetlands under the Massachusetts Wetlands Protection Act* (1995). The delineation was based on vegetation, soils, and hydrology. Hydrophytic vegetation was categorized using the US Fish and Wildlife Service's National List of Plant Species that Occur in Wetlands (1988), as well as all plant species listed in the Wetlands Protection Act. DEP data sheets documenting the delineation are attached.

The eastern bank of the intermittent stream was delineated and points were labelled B1-B4 (B-line). Similarly, the eastern/northeastern side of the BVW was delineated and points were labelled A1-A4 (A-line). See the project plan set for wetland point locations. Soils were assessed and data sheets were completed for point A3. The BVW consisted of a forested wetland with wetland indicator species red maple (*Alnus rugosa*), speckled alder (*Alnus incana*), sensitive fern (*Onoclea sensibilis*), and woolgrass (*Scirpus cyperinus*). A drainage swale was observed to discharge into the eastern side of the wetland, surface water generally drained westerly across the wetland. Saturated soils and pooling water were observed in the observation plot for A3.

The site is not located within an area mapped as Priority or Estimated Habitat for rare or endangered species by the Massachusetts Natural Heritage and Endangered Species Program, or within an Area of Critical Concern (ACEC), and does not include any Certified Vernal Pools (CVPs).

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

relham, MA EN-ENNIA HANGEST Project location: (Prepared by: Seth Willson Applicant: Town of Amherst Check all that apply:

Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only

Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II

Method other than dominance test used (attach additional information)

Date of Delineation: 3/26/2-1	E. Wetland Indicator Category*	TACK	FACE	FAC
Date of Deline	D. Dominant Plant (yes or no)	23	24	58
Transect Number:	C. Percent Dominance	20%	0,09	200
Observation Plot Number: 435 Transect Number:	B. Percent Cover (or basal area)	250%	0/651	200%
Section 1. Vegetation	A. Sample Layer and Plant Species (by common/scientific name)	* Sensitue Fern * Woolgrass Solden Rood	* Speckled alder Muldiflera Rose	* Red Mouple

^{*} Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131. s.40) (includes Canadien hemlock, *Tsuga canadensis*); plants in the genus *Sphagnum*; plants listed as FAC, FACW, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptation, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland Indicator plants:

Number of dominant non-wetland Indicator plants:

yes

20

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

$$1-5=3\%$$
, $6-15=10.5\%$, $16-25=20.5\%$, $26-50=38\%$, $51-75=63\%$, $76-95=85.5\%$, $96-100=98\%$

1	5
-	25
100	3
j	C
3	5
Ca Coccil	25
400	קק
7	2
-	=
_	:
	=

Hydric Soil Interpretation

1. Soil Survey Is there a published soil survey for this site? yes no

MSite inundated: Water puddling in observation plat

[] Depth to soil saturation in observation hole:

[] Water marks:

[] Drift lines:

[] Depth to free water in observation hole:

Other Indicators of Hydrology: (check all that apply and describe)

title/date: Hampolen + Hampshive Counties, Mass, map number: 6/10/20

soil type mapped: 316C + 317C - Sci tuate fine hadrin coil inclusions:

Are field observations consistent with soil survey? yes no

[] Sediment deposits:

[M Drainage patterns in wetland: Stream Flows in to wetland; Arainage generally morthwesterns in wetland.

[] Recorded data (stream, lake, or tidal gauge; aerial photo; other):__

[v] Water-stained leaves:

Remarks: Soil observed to be fine, sandy lam.

2. Soil Description Horizon Dep

Depth

Matrix Color

Mottles Color

[] Other:

61-2011

19-18

Remarks: Both novi cons saturatad,

Conclusion: Is soil hydric?

1		
	S	1
	O	
١	>	

20

Vegetation and Hydrology Conclusion 77 ≥ number of non-wetland indicator plants Number of wetland indicator plants other indicators of hydrology Sample location is in a BVW Wetland hydrology present: hydric soil present present

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Prepared by: Deth Willson Project location: Centennal Water Treatment Plant File #. Applicant: Town of Amhers

Check all that apply

Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only

Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II

Method other than dominance test used (attach additional information)

Category* Indicator E. Wetland Date of Delineation: Dominant Plant (yes or no) (/) ď Dominance (00%) Transect Number: Percent ပ Observation Plot Number: AS N B. Percent Cover (or basal area) 100% Grass/lawn 100% A. Sample Layer and Plant Species (by common/scientific name) Vegetation Ground Gover Shubs Section 1.

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40) (includes Canadien hemlock, *Tsuga canadensis*); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptation, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland Indicator plants:

Number of dominant non-wetland Indicator plants:

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?

00

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

6-15=10.5%, 16-25=20.5%, 26-50=38%, 51-75=63%, 76-95=85.5%, 96-100=98%1 - 5 = 3%

of Hydrology	믕	of Hydrolc
of Hvd	of Hvd	of Hvd
of h	Indicators of P	 II. Indicators of F
	Indicators	II. Indicators

Other Indicators of Hydrology: (check all that apply and describe)

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no

[\] Depth to soil saturation in observation hole.

[] Water marks:_

[] Drift lines:_

[] Depth to free water in observation hole:

[] Site inundated:

title/date: Hampden & Hampshive Counties, Mass.
map number: 6/10/20
soil type mapped: 3/6 C + 3/7 C - Sarbate Fine
hydric soil inclusions:

Are field observations consistent with soil survey? yes no

Remarks: Soil observed to be fine, Sandy foam.

[] Recorded data (stream, lake, or tidal gauge; aerial photo; other):__

[] Drainage patterns in wetland:

[] Sediment deposits:

[] Oxidized rhizospheres:

[] Water-stained leaves:

2. Soil Description

Horizon

Matrix Color

Mottles Color 7.5% Crass, root

[] Other:

Done

Remarks:

3. Other:

Conclusion: Is soil hydric?

1		J.
	0	1
	\subseteq	
,	-	1

yes

Vegetation and Hydrology Conclusion	nclusio
ye Number of wetland indicator plants I mumber of non-wetland indicator plants	yes [] ants
Wetland hydrology present: hydric soil present	
other indicators of hydrology present Sample location is in a BVW	

7

77

0 [

Submit this form with the Request for Determination of Applicability or Notice of Intent.



OFFICE LOCATIONS: MA | NH | CT | ME | VT | AZ

800-366-5760 www.tataandhoward.com







