



89 Crawford Street  
Leominster, Massachusetts 01453  
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www.lrt-llc.net

February 21, 2018

U.S. Environmental Protection Agency-Region 1  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, Massachusetts 02109-3912  
Attn.: Dewatering General Permit NOI Processing

**Reference: Notice of Intent (NOI)  
Dewatering General Permit (DGP)  
Whitla Drive Pump Station Replacement  
37 Whitla Drive  
Worcester, Massachusetts**

To Whom It May Concern:

On behalf of Methuen Construction (Methuen), Lockwood Remediation Technologies, LLC (LRT) has prepared this Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (DGP) (MAG070000). This NOI was prepared in accordance with the general requirements of the NPDES and related guidance documentation provided by the US Environmental Protection Agency (EPA). The completed NOI form is provided in Appendix A.

### **Site Information**

This NOI has been prepared for the management of water generated during the Pump Station Replacement located in Worcester, Massachusetts (the Site); please refer to Figure 1 for a locus map and an overview of the immediate area surrounding the Site. The work area, located at 37 Whitla Drive, Worcester, MA, is depicted in Figure 2 along with the proposed treated water discharge location.

### **Work Summary**

The work scope at the site includes the replacement of the pump station and building. In order to complete portions of this work, dewatering is required. All water generated from the dewatering of the excavations will be pumped to a water treatment system, depicted in Figure 4, prior to discharge to an onsite drainage system which ultimately discharges to Lake Quinsigamond. Refer to Figure 3 for the outfall location. To characterize water from the excavation, LRT collected a representative groundwater sample from an onsite deep well located within the excavation area on February 15, 2018. This sample was analyzed for the parameters in accordance with the NPDES DGP, Appendix VIII. Laboratory data reports for this sample are provided in Appendix B.

### **Discharge and Receiving Surface Water Information**

A groundwater sample collected by LRT on February 15, 2018, was submitted for the following analyses: total suspended solids (TSS), selected metals, hardness, pH and chloride. The results of this sampling indicated detectable concentrations of iron above discharge standards; however, these concentrations can be treated with settlement within the tank and bag filtration in order achieve concentrations below discharge standards. Refer to Figure 4 for the water treatment system layout.

### **Consultation with Federal Services**

LRT reviewed online electronic data viewers and databases from the Massachusetts Geographical Information System (MassGIS), the Massachusetts Division of Fisheries and Wildlife (MassWildlife; Natural Heritage and Endangered Species Program), and the U.S. National Parks Service Natural Historic Places (NPS). The Site and the proposed discharge point are not located within an Area of Critical Environmental Concern (ACEC), Habitats of Rare Wetland Wildlife, Habitats of Rare Species, Estimated Habitats of Rare Wildlife, or listed as a National Historic Place.

### **Coverage under NPDES DGP**

It is our opinion that the proposed discharge is eligible for coverage under the NPDES DGP. On behalf of Methuen, we are requesting coverage under the NPDES DGP for the discharge of wastewater during construction activities to the Whitla Drive Pump Station.

The enclosed NOI form provides required information on the general site conditions, discharge, treatment system, receiving water, and consultation with federal services. For this project, Methuen is the operator that has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications.

Please feel free to contact us at 774-450-7177 if you have any questions or if you require additional information.

Sincerely,  
Lockwood Remediation Technologies, LLC

*Kim Gravelle*

Kim Gravelle, P.G.  
Project Manager

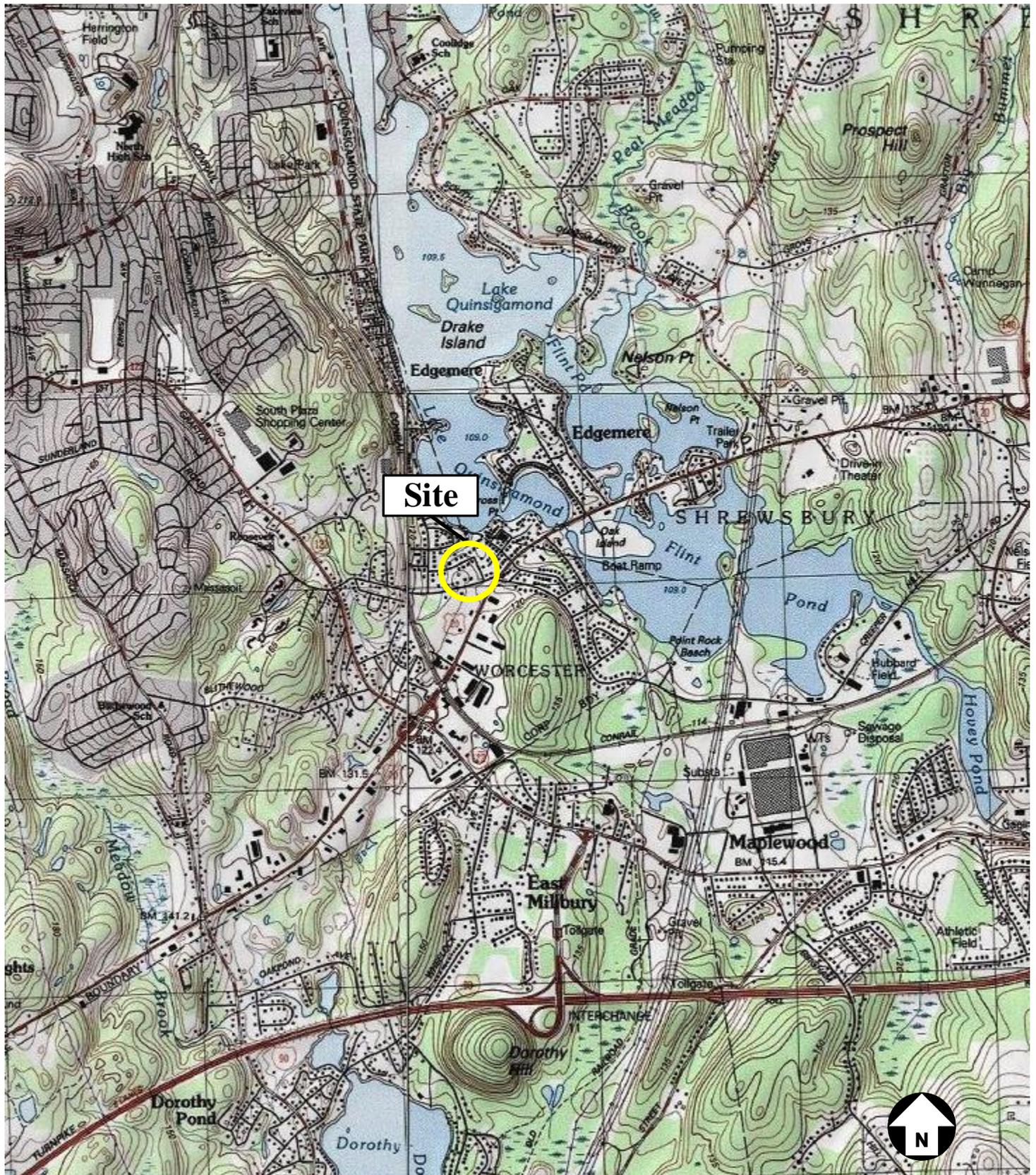
*Paul Lockwood*

Paul Lockwood  
President

### **Attachments:**

- Figure 1 Locus Plan
- Figure 2 Discharge Location
- Figure 3 Outfall Location
- Figure 4 Water Treatment System Layout
- Appendix A – NOI Form
- Appendix B – Laboratory Data
- Appendix C – Supplemental Information

## Figures



City of Worcester, MassGIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | Copyright: © 2013 National Geographic Society, i-cubed



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 Office: 774-450-7177

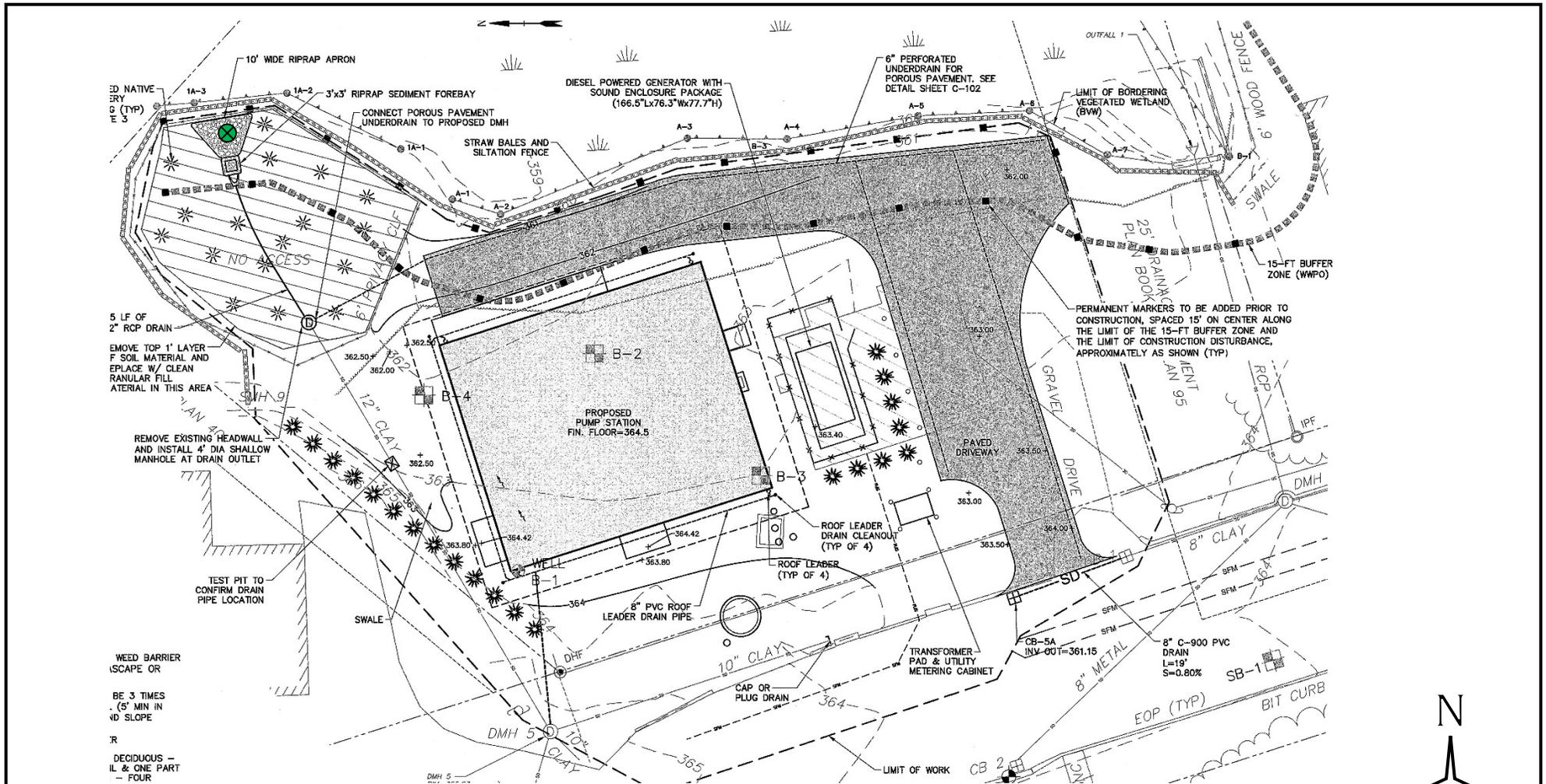
DESIGNED BY: DRAWN BY: BAW  
 CHECKED BY: KG DATE: 12/8/17

# Locus Plan

Whittla Drive Pump Station  
 Worcester, Massachusetts

PROJECT No.  
 2-1571

FIGURE No. 1



Source: Proposed Grading and Drainage Plan by Tighe & Bond dated May 2017

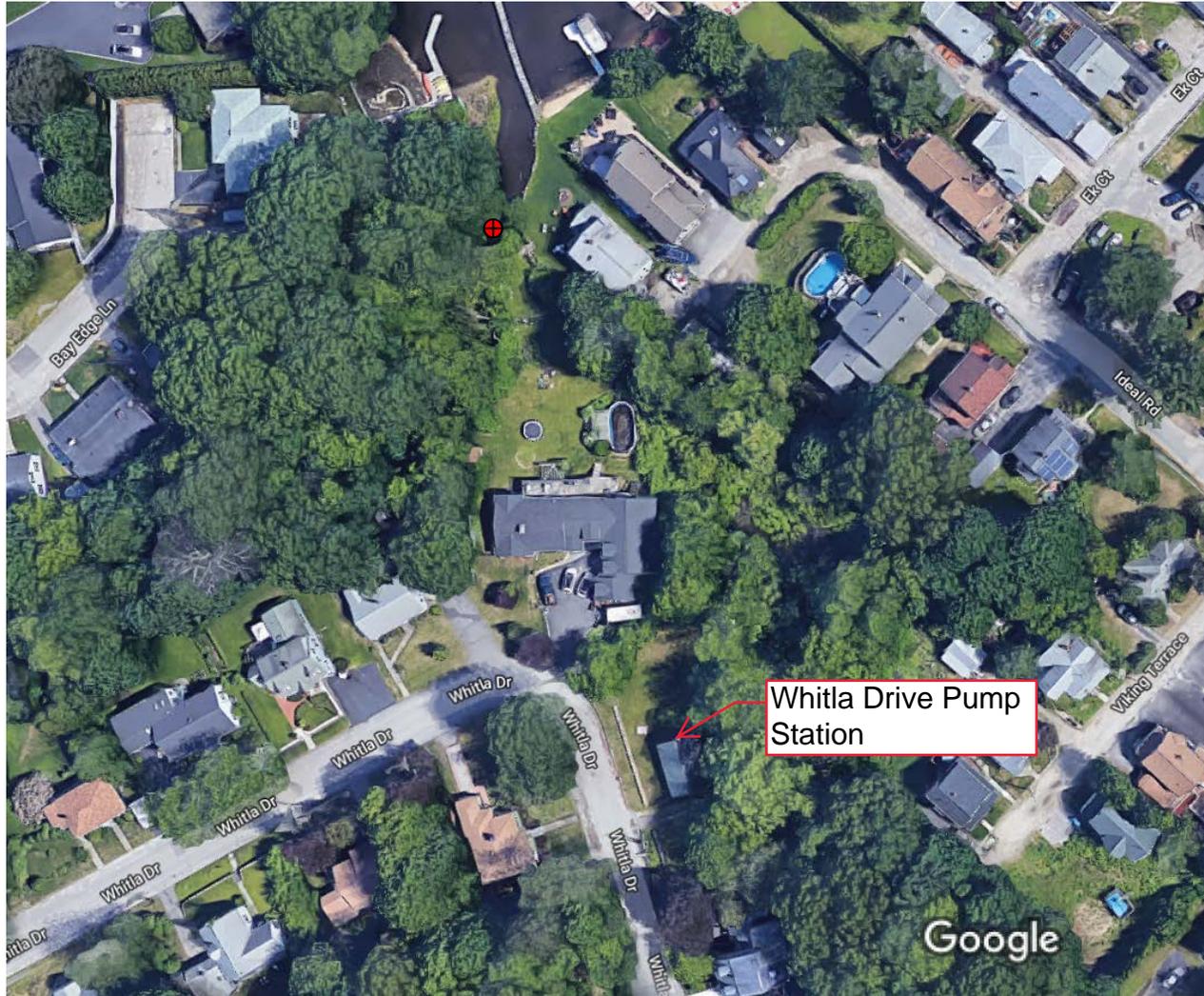
**KEY**

Discharge Location 



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**Figure 2 – Discharge Location**  
 Whitla Drive Pump Station  
 37 Whitla Drive  
 Worcester, Massachusetts



**KEY**  
Outfall

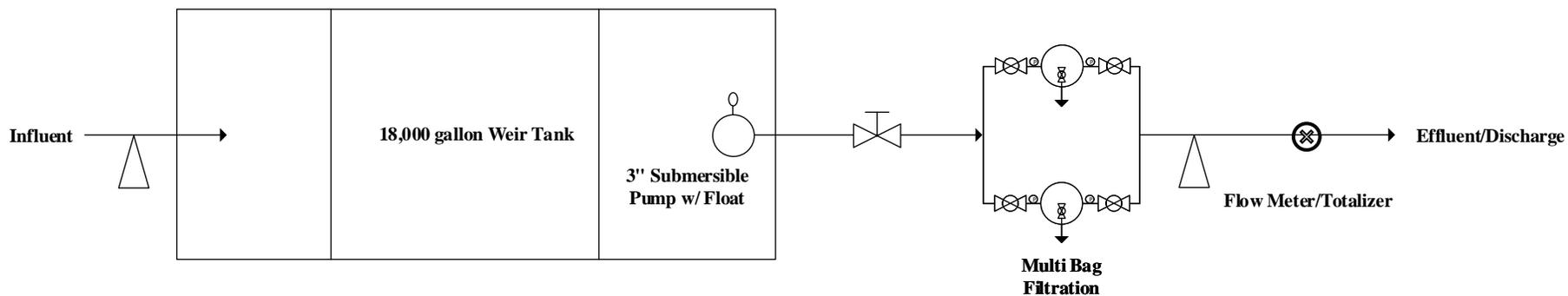


Source: Google Maps



89 Crawford Street  
Leominster, Massachusetts 01453  
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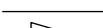
**Figure 3 – Outfall Location**  
Whitla Drive Pump Station  
37 Whitla Drive  
Worcester, Massachusetts



**Notes:**

- 1.) Figure is not to scale
- 2.) System rated for 300 GPM

**Key:**

Piping/Hose   
 Sample Port 



Lockwood Remediation Technologies, LLC  
 89 Crawford Street  
 Leominster, MA 01453  
 Office: 774-450-7177

DESIGNED BY: LRT  
 CHECKED BY: KG

DRAWN BY: BAW  
 DATE:

## Water Treatment System Detail

Whitla Drive Pump Station  
 Worcester, Massachusetts

PROJECT No.  
 2-1571

FIGURE No.  
 4

**Appendix A**  
**NOI Form**

## II. Suggested Notice of Intent (NOI) Format

### 1. General facility information. Please provide the following information about the facility.

a) Name of facility:	Mailing Address for the Facility:	
b) Location Address of the Facility (if different from mailing address):	Facility Location	Type of Business:
	longitude: _____ latitude: _____	Facility SIC codes:
c) Name of facility owner: _____ Owner's email: _____ Owner's Tel #: _____ Owner's Fax #: _____ Address of owner (if different from facility address) Attn: Mark Elbag City of Worcester, Department of Public Works 20 East Worcester Street Worcester, MA 01604 Owner is (check one): 1. Federal _____ 2. State _____ 3. Private _____ 4. Other _____ (Describe) _____		
Legal name of Operator, if not owner: _____ Operator Contact Name: _____ Operator Tel Number: _____ Fax Number: _____ Operator's email: _____ Operator Address (if different from owner) _____		
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? _____		
e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes _____ No _____ If Yes, Permit Number: _____ 2. Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes _____ No _____ 3. Is the facility covered by an individual NPDES permit? Yes _____ No _____ If Yes, Permit Number _____ 4. Is there a pending application on file with EPA for this discharge? Yes _____ No _____ If Yes, date of submittal: _____		

**2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)**

a) Name of receiving water into which discharge will occur: \_\_\_\_\_  
State Water Quality Classification: \_\_\_\_\_ Freshwater: \_\_\_\_\_ Marine Water: \_\_\_\_\_

- b) Describe the discharge activities for which the owner/applicant is seeking coverage:
1. Construction dewatering of groundwater intrusion and/or storm water accumulation.
  2. Short-term or long-term dewatering of foundation sumps.
  3. Other.

c) Number of outfalls \_\_\_\_\_

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow \_\_\_\_\_ GPD  
Average Monthly Flow \_\_\_\_\_ GPD

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH \_\_\_\_\_ Min pH \_\_\_\_\_

f.) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. Groundwater - see attached laboratory analytical report.

g.) What treatment does the wastewater receive prior to discharge? Weir tank and Bag Filters

h.) Is the discharge continuous? Yes \_\_\_\_\_ No \_\_\_\_\_ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) \_\_\_\_\_  
If (P), number of days or months per year of the discharge \_\_\_\_\_ and the specific months of discharge \_\_\_\_\_ ;  
If (I), number of days/year there is a discharge \_\_\_\_\_  
Is the discharge temporary? Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, approximate start date of dewatering \_\_\_\_\_ approximate end date of dewatering \_\_\_\_\_

i.) Latitude and longitude of each discharge within 100 feet (See [http://www.epa.gov/tri/report/siting\\_tool](http://www.epa.gov/tri/report/siting_tool)): Outfall 1: long. \_\_\_\_\_ lat. \_\_\_\_\_ ; Outfall 2: long. \_\_\_\_\_ lat. \_\_\_\_\_ ; Outfall 3: long. \_\_\_\_\_ lat. \_\_\_\_\_ .

j.) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations \_\_\_\_\_ cfs  
(See Appendix VII for equations and additional information)

<b>MASSACHUSETTS FACILITIES:</b> See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):
k.) Does the discharge occur in an ACEC? Yes _____ No _____ If yes, provide the name of the ACEC: _____

**3. Contaminant Information**

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC <sub>50</sub> in percent for aquatic organism(s)). N/A
b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge.

**4. Determination of Endangered Species Act Eligibility:** Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? _____
b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

**5. Documentation of National Historic Preservation Act requirements:** Please respond to the following questions:

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes _____ No _____ ; Question 2: No _____ Yes _____
b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No _____ If yes, attach the results of the consultation(s).
c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? _____
d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes _____ or No _____ If yes, provide that name of the Indian Tribe associated with the property. _____

**6. Supplemental Information:** Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

**7. Signature Requirements:** The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Whitla Drive Pump Station

Operator signature: *[Handwritten Signature]*

Print Full Name and Title: MATTHEW MUZZINA PROJECT MANAGER

Date: 2.1.18

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

**Appendix B**  
**Laboratory Data**

**TABLE 1**  
 Data Summary Table  
 37 Whitla Srive  
 Worcester, Massachusetts

	Sample Date	2/15/2018
Analysis	Discharge Standard	--
	Sample ID	Sample 1
pH	6.5-8.3	7.2
Total Suspended Solids (TSS)	30	5.7
Hardness	Monitor Only	28
Chloride	Monitor Only	38.9
<b>Total Metals</b>		
Arsenic	104	2.2
Cadmium	0.25	<0.20
Chromium	74	<10
Copper	9.0	<1.0
Iron	1,000	<50
Mercury	0.74	<0.1
Nickel	52	<5.0
Lead	2.5	<0.50
Antimony	206	<1.0
Silver	3.2	<0.20
Zinc	120	<20
Hexavalent Chromium	11	4.0

Note:

Discharge Standards are NPDES RGP Standards

Highlighted value indicates concentration is above RGP Standards

Concentrations for TSS, Hardness and Chloride reported as mg/L, all other data reported as ug/L.

February 20, 2018

Kim Gravelle  
Lockwood Remediation Technologies, LLC  
89 Crawford Street  
Leominster, MA 01453

Project Location: Worcester, MA  
Client Job Number:  
Project Number: 2-1571  
Laboratory Work Order Number: 18B0575

Enclosed are results of analyses for samples received by the laboratory on February 15, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kerry K. McGee". The signature is written in a cursive style with a large, prominent 'K' and 'M'.

Kerry K. McGee  
Project Manager

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Lockwood Remediation Technologies, LLC  
 89 Crawford Street  
 Leominster, MA 01453  
 ATTN: Kim Gravelle

REPORT DATE: 2/20/2018

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 2-1571

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18B0575

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Worcester, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Sample 1	18B0575-01	Ground Water		EPA 200.7 EPA 200.8 EPA 245.1 EPA 300.0 SM21-22 2540D SM21-22 3500 Cr B	NY11393/MA-MAI138/M A1110

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Lisa A. Worthington", is written over a light gray rectangular background.

Lisa A. Worthington  
Project Manager

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: Worcester, MA

Sample Description:

Work Order: 18B0575

Date Received: 2/15/2018

Field Sample #: Sample 1

Sampled: 2/15/2018 00:00

Sample ID: 18B0575-01

Sample Matrix: Ground Water

**Metals Analyses (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Arsenic	2.2	1.0	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Cadmium	ND	0.20	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Chromium	ND	10	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Copper	ND	1.0	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Iron	ND	0.050	mg/L	1		EPA 200.7	2/16/18	2/19/18 12:45	QNW
Lead	ND	0.50	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Mercury	ND	0.00010	mg/L	1		EPA 245.1	2/16/18	2/19/18 13:27	EJB
Nickel	ND	5.0	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Silver	ND	0.20	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Zinc	ND	20	µg/L	1		EPA 200.8	2/16/18	2/19/18 12:03	WSD
Hardness	28		mg/L	1		EPA 200.7	2/16/18	2/19/18 13:04	QNW

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Project Location: Worcester, MA

Sample Description:

Work Order: 18B0575

Date Received: 2/15/2018

Field Sample #: Sample 1

Sampled: 2/15/2018 00:00

Sample ID: 18B0575-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	2/15/18	2/15/18 22:00	LL
Total Suspended Solids	5.7	3.6	mg/L	1		SM21-22 2540D	2/16/18	2/16/18 13:30	LL

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Project Location: Worcester, MA

Sample Description:

Work Order: 18B0575

Date Received: 2/15/2018

Sampled: 2/15/2018 00:00

Field Sample #: Sample 1

Sample ID: 18B0575-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chloride	38.9	1	mg/L	1		EPA 300.0		2/16/18 0:00	EUROF

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**Sample Extraction Data**

**Prep Method: EPA 200.7-EPA 200.7**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197074	50.0	50.0	02/16/18

**Prep Method: EPA 200.7-EPA 200.7**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197075	50.0	50.0	02/16/18

**Prep Method: EPA 200.8-EPA 200.8**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197073	50.0	50.0	02/16/18

**Prep Method: EPA 245.1-EPA 245.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197077	6.00	6.00	02/16/18

**SM21-22 2540D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197028	140		02/16/18

**SM21-22 3500 Cr B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18B0575-01 [Sample 1]	B197009	50.0	50.0	02/15/18

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B197073 - EPA 200.8**

**Blank (B197073-BLK1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Antimony	ND	1.0	µg/L							
Arsenic	ND	1.0	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	10	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	20	µg/L							

**LCS (B197073-BS1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Antimony	524	10	µg/L	500		105	85-115			
Arsenic	529	10	µg/L	500		106	85-115			
Cadmium	543	2.0	µg/L	500		109	85-115			
Chromium	497	100	µg/L	500		99.4	85-115			
Copper	998	10	µg/L	1000		99.8	85-115			
Lead	518	5.0	µg/L	500		104	85-115			
Nickel	494	50	µg/L	500		98.7	85-115			
Silver	506	2.0	µg/L	500		101	85-115			
Zinc	1110	200	µg/L	1000		111	85-115			

**LCS Dup (B197073-BSD1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Antimony	518	10	µg/L	500		104	85-115	1.16	20	
Arsenic	532	10	µg/L	500		106	85-115	0.619	20	
Cadmium	543	2.0	µg/L	500		109	85-115	0.123	20	
Chromium	501	100	µg/L	500		100	85-115	0.765	20	
Copper	1010	10	µg/L	1000		101	85-115	0.735	20	
Lead	512	5.0	µg/L	500		102	85-115	1.17	20	
Nickel	496	50	µg/L	500		99.1	85-115	0.376	20	
Silver	502	2.0	µg/L	500		100	85-115	0.870	20	
Zinc	1120	200	µg/L	1000		112	85-115	1.05	20	

**Batch B197074 - EPA 200.7**

**Blank (B197074-BLK1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Iron	ND	0.050	mg/L							
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**LCS (B197074-BS1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Iron	4.20	0.050	mg/L	4.00		105	85-115			
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**LCS Dup (B197074-BSD1)**

Prepared: 02/16/18 Analyzed: 02/19/18

Iron	4.26	0.050	mg/L	4.00		106	85-115	1.48	20	
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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B197077 - EPA 245.1</b>										
<b>Blank (B197077-BLK1)</b>				Prepared: 02/16/18 Analyzed: 02/19/18						
Mercury	ND	0.00010	mg/L							
<b>LCS (B197077-BS1)</b>				Prepared: 02/16/18 Analyzed: 02/19/18						
Mercury	0.00203	0.00010	mg/L	0.00200		101	85-115			
<b>LCS Dup (B197077-BSD1)</b>				Prepared: 02/16/18 Analyzed: 02/19/18						
Mercury	0.00206	0.00010	mg/L	0.00200		103	85-115	1.60	20	
<b>Duplicate (B197077-DUP1)</b>				<b>Source: 18B0575-01</b>			Prepared: 02/16/18 Analyzed: 02/19/18			
Mercury	ND	0.00010	mg/L		ND			NC	30	
<b>Matrix Spike (B197077-MS1)</b>				<b>Source: 18B0575-01</b>			Prepared: 02/16/18 Analyzed: 02/19/18			
Mercury	0.00211	0.00010	mg/L	0.00200	0.0000811	102	75-125			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

**QUALITY CONTROL**

**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B197009 - SM21-22 3500 Cr B</b>										
<b>Blank (B197009-BLK1)</b>				Prepared & Analyzed: 02/15/18						
Hexavalent Chromium	ND	0.0040	mg/L							
<b>LCS (B197009-BS1)</b>				Prepared & Analyzed: 02/15/18						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		104	86.6-115			
<b>LCS Dup (B197009-BSD1)</b>				Prepared & Analyzed: 02/15/18						
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		106	86.6-115	1.23	6.61	
<b>Matrix Spike (B197009-MS1)</b>				<b>Source: 18B0575-01</b>		Prepared & Analyzed: 02/15/18				
Hexavalent Chromium	0.098	0.0040	mg/L	0.100	ND	97.8	23.5-142			
<b>Matrix Spike Dup (B197009-MSD1)</b>				<b>Source: 18B0575-01</b>		Prepared & Analyzed: 02/15/18				
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	100	23.5-142	2.61	7.59	
<b>Batch B197028 - SM21-22 2540D</b>										
<b>Blank (B197028-BLK1)</b>				Prepared & Analyzed: 02/16/18						
Total Suspended Solids	ND	2.5	mg/L							
<b>LCS (B197028-BS1)</b>				Prepared & Analyzed: 02/16/18						
Total Suspended Solids	164	20	mg/L	200		82.0	66.7-117			

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**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

**CERTIFICATIONS**

**Certified Analyses included in this Report**

Analyte	Certifications
<b>EPA 200.7 in Water</b>	
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Hardness	CT,MA,NH,NY,RI,VA
<b>EPA 200.8 in Water</b>	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
<b>EPA 245.1 in Water</b>	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
<b>EPA 300.0 in Water</b>	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
<b>SM21-22 2540D in Water</b>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<b>SM21-22 3500 Cr B in Water</b>	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Public Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2018
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2018
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018





**con-test**  
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

Client Lake Waga Remediation

Received By ESD Date 2-15-18 Time 17:30

How were the samples received? In Cooler T No Cooler \_\_\_\_\_ On Ice T No Ice \_\_\_\_\_  
Direct from Sampling \_\_\_\_\_ Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_

Were samples within Temperature? 2-6°C T By Gun # 550 Actual Temp - 20  
By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_

Was Custody Seal Intact? NA Were Samples Tampered with? NA  
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T  
Did COC include all pertinent Information? Client T Analysis T Sampler Name F  
Project T ID's T Collection Dates/Times F

Are Sample labels filled out and legible? T

Are there Lab to Filters? F

Are there Rushes? T

Are there Short Holds? F

Is there enough Volume? T

Is there Headspace where applicable? F

Proper Media/Containers Used? T

Were trip blanks received? F

Do all samples have the proper pH? T

Who was notified? \_\_\_\_\_

Who was notified? WIKR

Who was notified? \_\_\_\_\_

MS/MSD? F

Is splitting samples required? F

On COC? F

Acid pH 2 Base \_\_\_\_\_

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic	<u>4</u>	4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

**Unused Media**

Vials	#	Containers:	#	#	#	#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear
DI-		Other Plastic		Other Glass		Encore
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:
Sulfuric-		Perchlorate		Ziplock		

Comments:

**Appendix C**  
**Supplemental Information**

# MassDEP - Bureau of Waste Site Cleanup

## Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

### Site Information:

WHITLA DRIVE PUMP STATION  
37 WHITLA DRIVE WORCESTER, MA

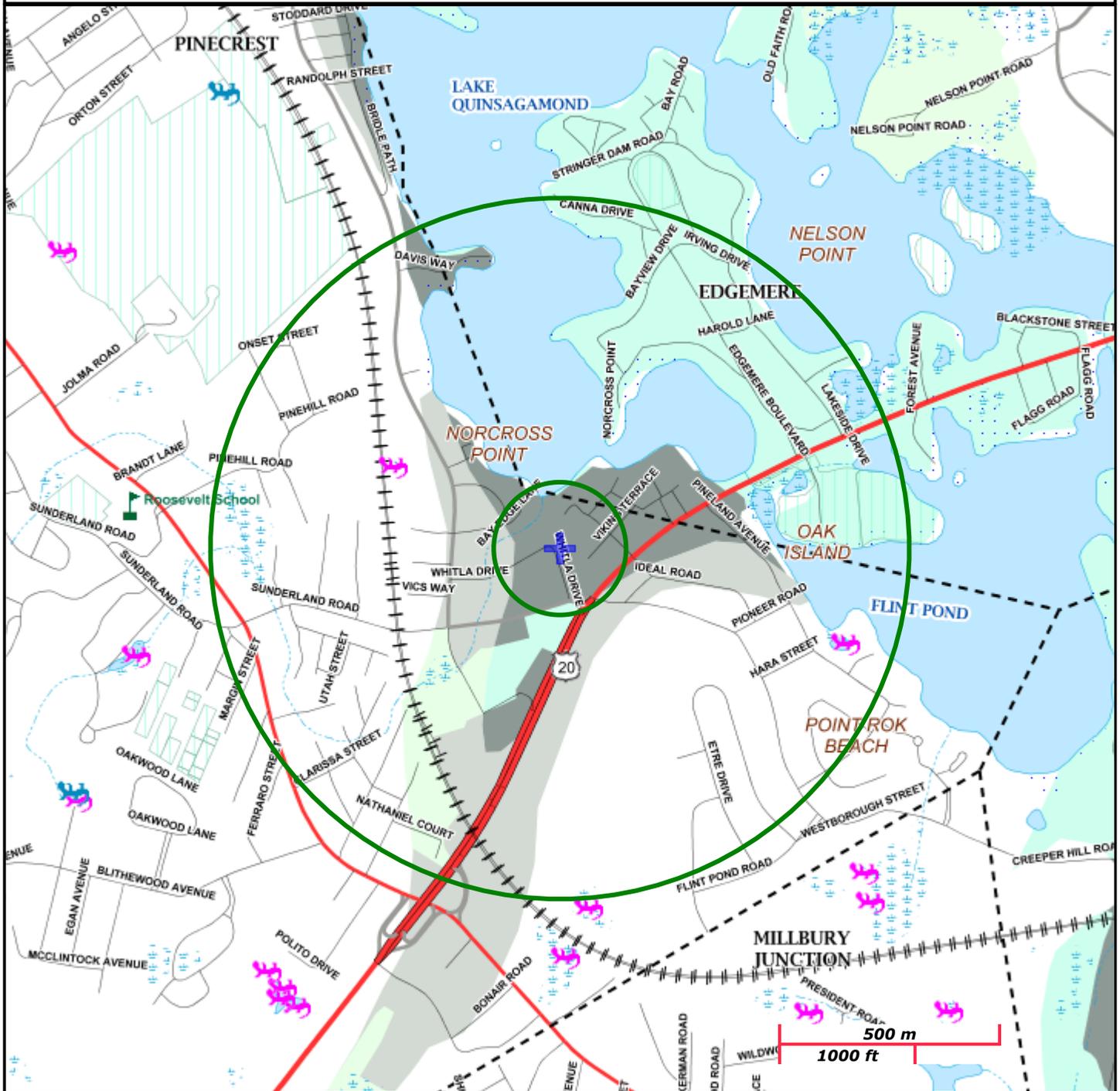
**NAD83 UTM Meters:**  
4680365mN , 273513mE (Zone: 19)  
January 9, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at:  
<http://www.mass.gov/mqis/>.



# MassDEP

Commonwealth of Massachusetts  
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A		
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat		
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog		
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC		
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential		
	Solid Waste Landfill; PWS: Com. GW, SW, Emerg., Non-Com.		



#### Documentation of the Results of the ESA Eligibility Determination:

Using information in Appendix IV of the NPDES DGP, the Pump Station replacement project in Worcester project is eligible for coverage under this general permit under FWS Criterion B. This project is located in Bristol County. No designated critical habitats were listed in the project area.

An Endangered Species Consultation was conducted on the U.S. Fish & Wildlife Service New England Field Office ECOS IPaC webpage for the Site:

- The Northern long-eared bat was listed as “Threatened” in Worcester County

Based upon a discussion with the U.S. Fish & Wildlife Service (USFWS), temporary dewatering activities at the site are not expected to impact the Northern Long-eared Bat.

Northern long-eared bats spend winter hibernating in caves and mines. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). There are no caves and mines located at the site. There are trees in the immediate vicinity of the site; however, tree removal is not part of the scope of work related to this Notice of Intent. Therefore, temporary dewatering activities will have “no impact” to the Northern Long-eared Bat.



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104  
<http://www.fws.gov/newengland>

In Reply Refer To:

January 09, 2018

Consultation Code: 05E1NE00-2018-SLI-0631

Event Code: 05E1NE00-2018-E-01469

Project Name: Whitla Drive Pump Station

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New England Ecological Services Field Office**

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

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## Project Summary

Consultation Code: 05E1NE00-2018-SLI-0631

Event Code: 05E1NE00-2018-E-01469

Project Name: Whitla Drive Pump Station

Project Type: \*\* OTHER \*\*

Project Description: Construction Dewatering

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.2426528021789N71.74489136944764W>



Counties: Worcester, MA

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## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

### Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



Documentation of the National Historic Preservation Act Eligibility Determination:

As part of this permit, a determination was made as to whether there were any historic properties or places listed on the national register in the path of the discharge or in the vicinity of the construction of treatment systems or BMPs related to the discharge. A search on the Massachusetts Cultural Resource Information System Database did not list any potential properties on or near the project site in the database. Therefore, the proposed discharge will not have the potential to cause effects on historical properties.

# Massachusetts Cultural Resource Information System

## MACRIS

### MACRIS Search Results

Search Criteria: Town(s): Worcester; Street No: 37; Street Name: Whitla Dr; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
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