OHI Engineering, Inc.
Engineers & Environmental Scientists

44 Wood Avenue
Mansfield, MA 02048
Tel (508) 339 – 3929
Fax (508) 339 – 3140

January 14, 2021

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-1
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd floor
Worcester, MA 01608

RE: Notice of Intent for Construction Dewatering Discharge
under Massachusetts Remediation General Permit MAG910000
CT River Sewer Force Mains and Interceptor Crossing Project
250 M Street Ext
Agawam, Massachusetts

To Whom it May Concern

On behalf of Daniel O'Connell's Sons, Inc. (DOCS), OHI Engineering, Inc (OHI) has prepared this letter report, which provides a summary of the Site and groundwater quality information in support of an application for permission from the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) for the temporary discharge of construction dewatering effluent into the Connecticut River from dredge dewatering at the project Site on M Street in Agawam, Massachusetts. The temporary construction dewatering discharge of dredge dewatering will occur during removal of sediments from the bottom of the Connecticut River associated with the installation of sewer force mains and interceptor at the above referenced site. Refer to **Figure 1** for a general site locus, **Figure 2** for a Site Scoring Map, and **Figures 3, 3B,** and **4** for proposed project plans.

The purpose for this project is to install new redundant sewer crossings to the Springfield Regional Wastewater Treatment Facility on Bondi's Island. This project is a part of the EPA – mandated and approved Combined Sewer Overflow Long Term Control Plan.

The entire limits of disturbance, including the upriver angled sturgeon exclusion barrier area is approximately 10.66 acres. Approximately 3.38 acres comprise the primary construction corridor where the dredging and pipe laydown will occur. Drainage water from the dredged material will be treated and discharged to the Connecticut River. It is estimated that discharge during the dewatering will be on the order of 500 gallons per minute (GPM) at peak flow.

A completed and signed *Notice of Intent* form is attached as **Appendix A**. A Site-Specific Stormwater Pollution Prevention Plan will be utilized in place of a *Best Management Practice Plan (BMPP)*.

Site History and MCP Regulatory Status

The former Springfield Gas Works Site is regulated by the MassDEP due to historical releases of manufactured gas plant tars to the environment, including into the Connecticut River. The river portion of the "Disposal Site" (Release Tracking Number 1-0204), as defined by the Massachusetts Contingency Plan (MCP), is delineated by the extent of coal tar in sediment, which is generally along the eastern bank of the Connecticut River. The nature and extent of coal tar in the Connecticut River has been characterized pursuant to the MCP. Columbia Gas of Massachusetts is responsible for MCP response actions at the Springfield Gas Works Disposal Site.

Project Narrative

The Springfield Water and Sewer Commission (SWSC) has undertaken a dredging and construction project to install new sewer lines across the river. Along the eastern margin of the river the construction work zone passes through the above-referenced Disposal Site.

This project includes the installation of one 72-inch sewer siphon and two 42-inch sewer force mains. DOCS and SWSC plan to install a temporary pile-supported 160-foot long by 40-foot wide work trestle extending into the Connecticut River from the Agawam shore line so that barges, construction materials, and dredged materials can be on-loaded and off-loaded. This temporary work trestle will extend approximately 86 linear feet into the Connecticut River and will be removed post-construction. The dredging contractor will dredge and maintain a sewer pipeline trench as well as a barge channel throughout the construction phase of this project. An estimated 26,500 cubic yards of dredged material will be removed and dewatered/treated (as necessary) at the Bondi's Island dredged material containment site. Water drained from this material will be treated before it is discharged into the Connecticut River.

The dredging of the tar-impacted sediments will proceed from east to west and is expected to take one full week implemented on a 24 hour per day, 7 day per week schedule in accordance with permits. Dredged sediments will be placed into water-tight sediment barges and will be transferred by the dredging contractor to an offloading area along the eastern shoreline of the SWSC property.

Sediment Analytical Results

Wood Environment & Infrastructure Solutions, Inc. (Wood) collected a series of sediment samples from shallow sediment borings, located beneath the Connecticut River in the general vicinity of coal tar impacts within the dredging area. The laboratory summary data is attached as **Table 1**. Sample locations are shown on the map following the table. Several Polycyclic Aromatic Hydrocarbons (PAHs) were detected at levels below the Massachusetts Department of Environmental Protection (MassDEP) background levels for Concentrations in "Natural" Soil. A representative receiving water sample from the Connecticut River was obtained from a surface

water sampling event conducted by OHI and attached as **Table 2**. Laboratory Data sheets are attached as **Appendix B**.

Treatment System Information

In order to maintain the concentrations of volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) below Appendix V effluent limits, dredge water will be pumped into two weir tanks with oil/water separation capabilities to allow for settlement, passed through bag filtration units and activated carbon vessels.

Two bag filtration units, each rated at 1,000 GPM, with progressively smaller filter mesh will filter solids and total metals that remain suspended. One bag filter will have a 10-micron filter prior to the carbon vessels and the second will be post carbon vessels with a 1-micron filter. Four 5,000-pound granular activated carbon vessels will be used to remove VOCs, including petroleum constituents. Effluent will be piped directly into the Connecticut River post treatment. Refer to **Figure 5** for a line diagram of the treatment system.

In order to document the effectiveness of the dredge water treatment, samples of post-treatment discharge water will be obtained and analyzed for Group II PAHs and Total Petroleum Hydrocarbons. Should the results of testing indicate an exceedance of the RGP effluent limits, appropriate treatment steps will be implemented to address the exceedances.

Calculation sheets for establishing effluent limitations and MassDEP's approval of 7Q10 are included as **Appendix C**.

Historic and Archaeological Properties

Based on a review of the Massachusetts Cultural Resource Information System database, it has been determined that the proposed work will not impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfill requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process. Please refer to **Appendix D** for documentation.

Endangered Species Habitat

This project will impact over 4 acres of Essential Fish habitat (EFH). This habitat consists of sandy or cobble dominated sediment. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer for the U.S. Army Corps of Engineers (The Corps) has made a preliminary determination that the site-specific adverse effect will not be substantial. The Corps has reviewed the application for the potential impact on Federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act as amended. It is their preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. Further

consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

Pursuant to the NPDES Remediation General Permit requirements documentation received from the NHESP and USFWS are provided as **Appendix E**.

Conclusions

Sampling and analysis of the effluent will be carried out in accordance with the terms of the RGP. In conclusion, it is our opinion that treated dredge water at the project site is acceptable for discharge into the Connecticut River under an RGP.

Please do not hesitate to contact us if you have any questions or concerns.

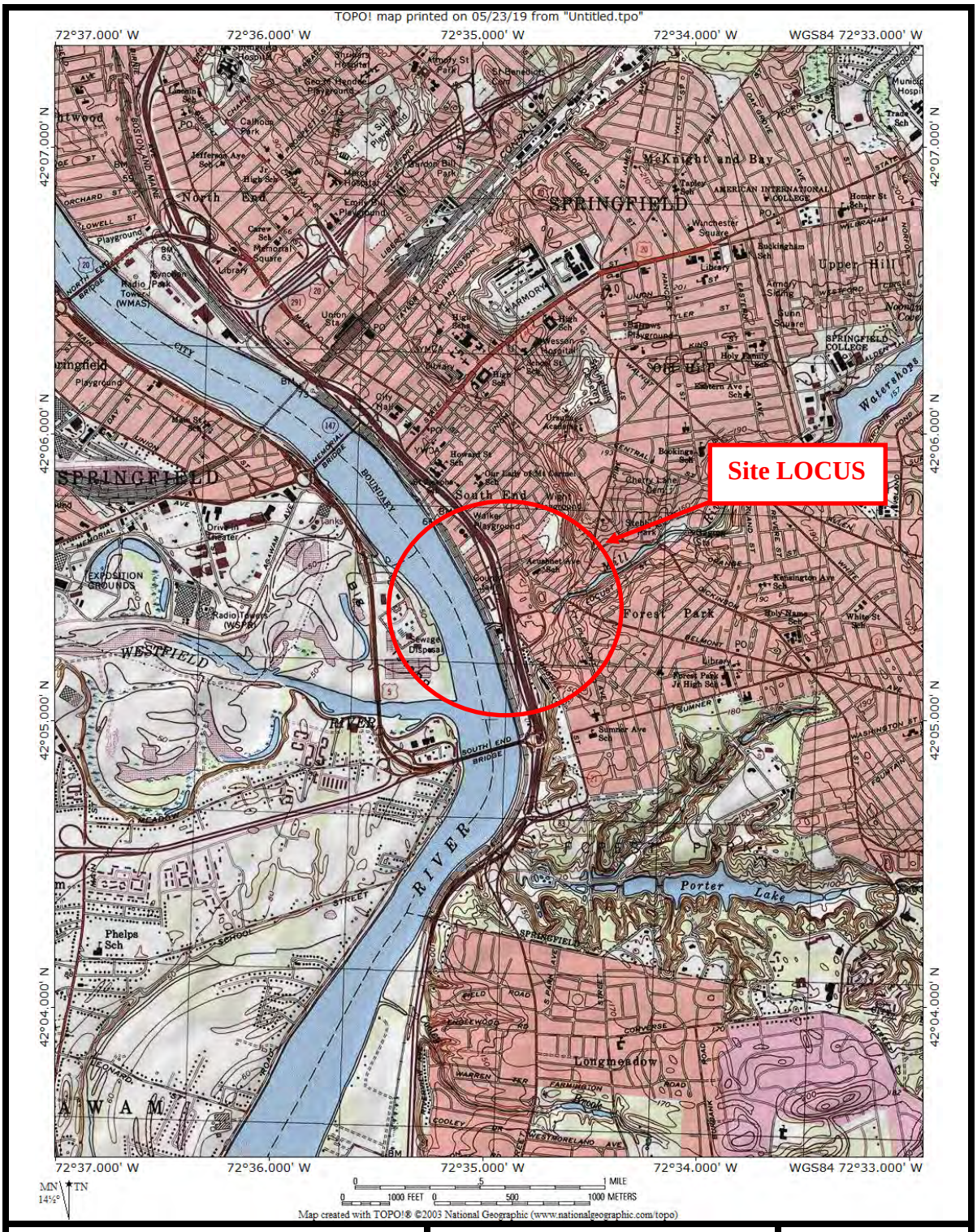
Sincerely,

James R. Borrebach, P.E., L.S.P.
Principal
(508) 339-3929

Jared J. Kelly
Project Engineer

OHI Engineering, Inc.
Engineers & Environmental Scientists

FIGURES



Site LOCUS

Figure 1

CT River Crossing
Agawam - Springfield, Massachusetts

DOC

N
W
E
S

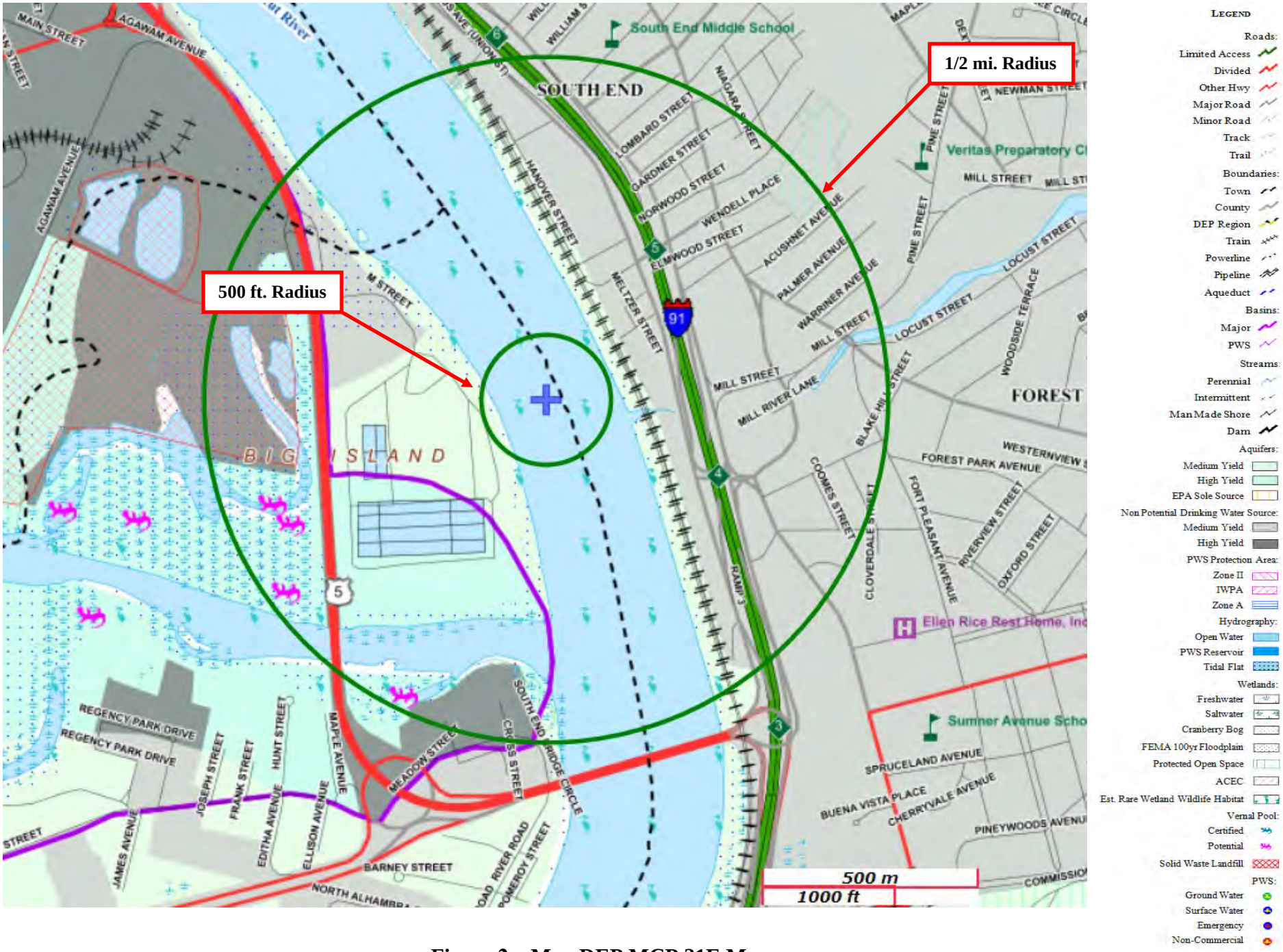


Figure 2 – MassDEP MCP 21E Map
CT River Crossing
Agawam – Springfield, Massachusetts

US-5

SWSC ADMINISTRATION BUILDING

CONTRACTOR TO MAINTAIN PLANT DRIVEWAY OPEN AT ALL TIMES

OPERATOR'S ADMINISTRATION BUILDING

PRIMARY SEDIMENTATION BASINS

100' WETLAND BUFFER

RIVER FRONT BUFFER ZONE (200')

GRIT SCREENINGS FACILITY

24" PCCP STORM DRAIN FM

SURVEY CONTROL POINT SEE SURVEY NOTE 9 (TYP.)

GARAGE

66" PCCP PLANT INTERCEPTOR

66" PCCP PLANT INTERCEPTOR

66" PCCP PLANT INTERCEPTOR

66" PCCP PLANT INTERCEPTOR

EXISTING SPRINGFIELD REGIONAL WATER POLLUTION CONTROL FACILITY

AERATION BASINS

INFLUENT STRUCTURE EXPANSION (BY OTHERS)

CHLORINE BUILDING

CLARIFIERS

CONTRACTOR LAY DOWN AREA 206,000 SF (BY OTHERS) SEE NOTE 1

60" RCP SPRINGFIELD PLANT INFLUENT

36" PCCP WEST SPRINGFIELD PLANT INFLUENT

24" PCCP WEST SPRINGFIELD PLANT INFLUENT

SHEET C-02

SHEET C-03

SHEET C-04

EXISTING 42" C.I. YORK CROSSING

ABANDONED 48" SUBMERGED OUTFALL

TOP OF LEVEE

TOP OF BANK / MAHW EL 41.7

MALW EL 39

100+00

101+00

102+00

103+00

104+00

105+00

106+00

107+00

108+00

109+00

110+00

111+00

112+00

113+00

114+00

115+00

116+00

117+00

117+65

TEMPORARY BENCHMARK SEE SURVEY NOTE 6

RIVERINE LIMIT OF WORK

UPLAND LIMIT OF WORK STA 102+00

EXISTING 60" PCCP SPRINGFIELD PLANT OVERFLOW

EXISTING 66" MAIN INTERCEPTOR SEWER

EXISTING INFLUENT STRUCTURE

16" PCCP AGAWAM PLANT INFLUENT

36" PCCP AGAWAM PLANT INFLUENT

24" PCCP AGAWAM PLANT INFLUENT

18" DI FM TANK DRAIN

6" PVC CHLORINE SOLUTION

8" CI FM S

6" PVC U

(2) PROPOSED 42" HDPE FORCE MAINS

PROPOSED 72" PCCP SIPHON

EXISTING CONNECTICUT RIVER INTERCEPTOR

EXISTING MELTZER STREET SEWER

EXISTING YORK STREET PUMP STATION

EXISTING CSO 016 REGULATOR

EXISTING CSO 016

WEST ELMWOOD STREET

WEST YORK STREET

YORK STREET PUMP STATION BUILDING FOOTPRINT (BY OTHERS)

100' WETLAND BUFFER

MALW EL 39

TOP OF BANK / MAHW EL 41.7

25' RIVERFRONT AREA

EXISTING 48" RCP PRESSURE PIPE

RAIL CORRIDOR

MASSDOT POINT ID 1136 SEE SURVEY NOTE 5

EXISTING 66" PCCP MAIN INTERCEPTOR SIPHON CROSSING

WEST COLUMBUS AVENUE

ROUTE 91 SOUTHBOUND

ROUTE 91 NORTHBOUND

CONNECTICUT RIVER

FLOW DIRECTION OF THE RIVER

AGAWAM, MA

SPRINGFIELD, MA

PLAN

0 100 200

SCALE: 1" = 100' SCALE IN FEET

GENERAL SHEET NOTE

1. CONTRACTOR LAY DOWN AREA SET UP AND DISMANTLED BY OTHERS. CONTRACTOR TO COORDINATE USE OF LAY DOWN AREA WITH CONSTRUCTION MANAGER.

ISSUED FOR BID OCTOBER 10, 2019

KLEINFELDER Bright People. Right Solutions.

Stantec

COMMONWEALTH OF MASSACHUSETTS ANGUS J. O'LEARY CIVIL No. 51135 REGISTERED PROFESSIONAL ENGINEER

SCALE	1" = 100'			
DATE	OCTOBER 2019			
JOB NO.	20161801.058			
DESIGNED BY	D CHENG			
DRAWN BY	A SILVERI			
CHECKED BY	S SHEA	No.	Description	Date
APPROVED BY	G O'LEARY	REVISIONS		

Client: SPRINGFIELD WATER AND SEWER COMMISSION
SWSC PROJECT NO. CA-1807-18/CWSRF-4455

Project: CONNECTICUT RIVER SEWER FORCE MAINS AND INTERCEPTOR CROSSING

Drawing: GENERAL KEY PLAN

Sheet: G-03

LEGEND

- LAND UNDER WATER ASSOCIATED WITH THE CONNECTICUT RIVER
- TEMPORARY EXCAVATION AND IN SITU RESTORATION LANDWARD OF THE OHWM
- FOOTPRINT OF ARTICULATED CONCRETE BLOCK REVETMENT MAT
- FIELD-CONFIRMED EXTENT OF COAL TAR DEPOSITS
- COBBLE AREAS
- OHWM-1 — GEOREFERENCED POSITION OF OHWM NUMBERED FLAGS
- MUNICIPAL BOUNDARY
- LOW — LOW — LIMIT OF WORK
- LOD — LOD — LIMIT OF DISTURBANCE
- — 30 — BATHYMETRIC COUNTOUR INTERVALS EXPRESSED AS FEET (NAVD88)
- ORDINARY HIGH WATER MARK (OHWM), HIGH WATER MARK AND MEAN ANNUAL HIGH WATER LINE
- MAXIMUM EXTENT OF DREDGING, INCLUDING TRENCH EXCAVATION WITH SIDE SLOPES AND TRENCH EXCAVATION FOR BARGE DRAFT
- MAXIMUM EXTENT OF TRENCH EXCAVATION FOR PIPE INSTALLATION
- DEEPEST LEVEL OF TRENCH EXCAVATION
- 25-FOOT RIVERFRONT AREA (SPRINGFIELD)
- BORDERING LAND SUBJECT TO FLOODING (ELEVATION 60)
- 105+00 — CENTERLINE OF PIPE ALIGNMENT
- TEMPORARY SUPPORT OF EXCAVATION
- TEMPORARY RAMP AND TRESTLE
- — S — S — EXISTING SEWER PIPELINE
- STURGEON EXCLUSION BARRIER AND TURBIDITY CURTAIN WITH PILINGS SPACED A MAXIMUM OF 50-FEET APART ON CENTER
- STURGEON EXCLUSION BARRIER AND TURBIDITY CURTAIN WITH INTERIOR BUBBLE CURTAIN CONTAINED WITHIN STURGEON EXCLUSION BARRIER AND TURBIDITY CURTAIN AND PILINGS SPACED A MAXIMUM OF 50-FEET APART ON CENTER
- 200-FOOT CLEAR NAVIGABLE PASSAGEWAY FOR BOAT TRAFFIC, LIGHTED AND MARKED IN ACCORDANCE WITH US COAST GUARD REQUIREMENTS.
- 1 — 40' X 60' DREDGING BARGE FOR EXCAVATOR AND SUPPORT
- 2 — 40' X 60' MATERIAL BARGE, LINED FOR CONTAMINATED SPOIL HANDLING
- 3 — CREW BOAT FOR CREW TRANSPORTATION
- 4 — 40' X 60' EQUIPMENT BARGE WITH EQUIPMENT FOR INSTALLATION OF PILES, STURGEON BARRIERS AND SUPPORT OF EXCAVATION
- 5 — 40' X 50' WATER TREATMENT BARGE
- ENVIRONMENTAL DREDGE AREA
- OIL BOOM

PHASE 2: ENVIRONMENTAL DREDGE LOGISTICS PLAN

SEPTEMBER 2020 - OCTOBER 2020

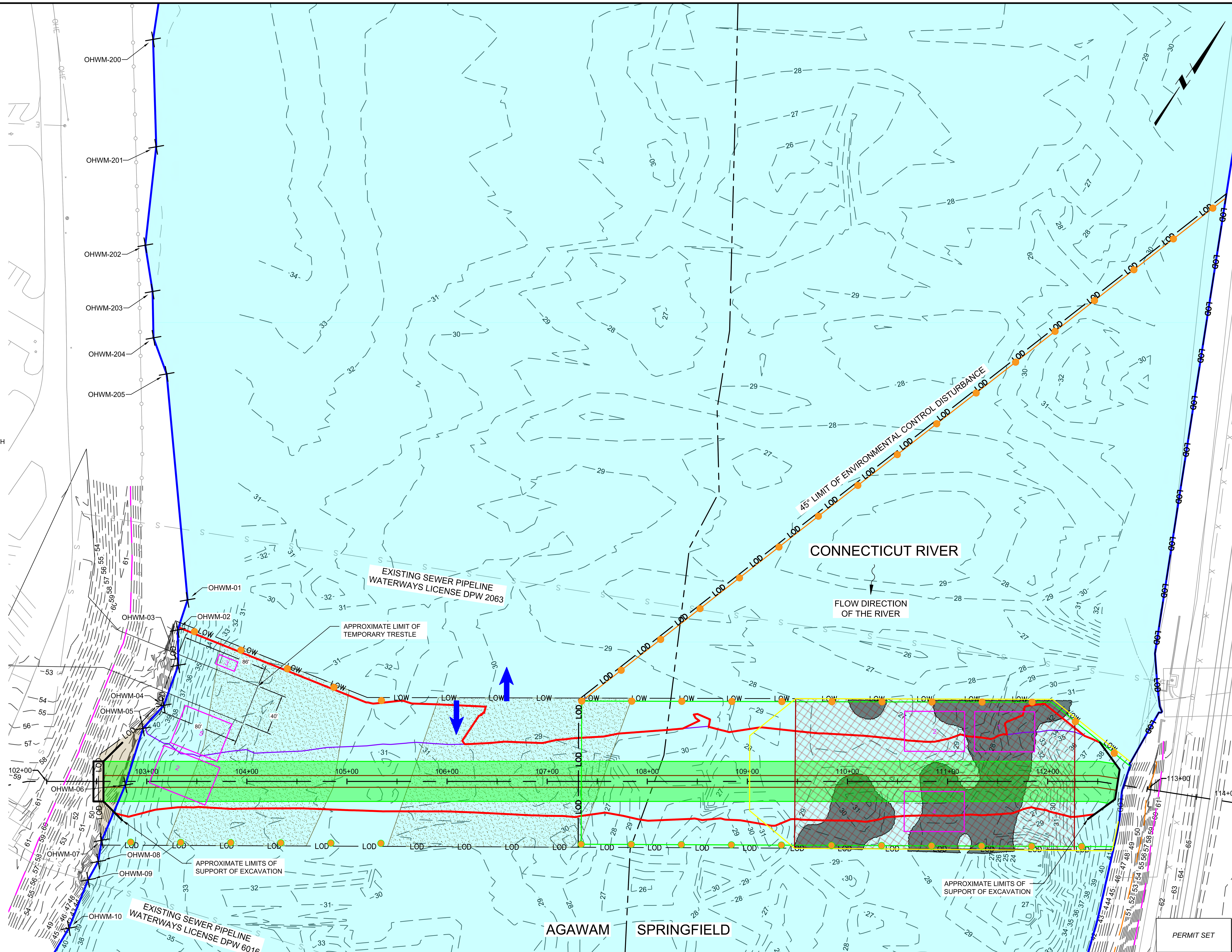
1. PERFORM MUSSEL SWEEP IN AREAS OF EAST SIDE SUPPORT OF EXCAVATION AND PHASE 2 DREDGE AREA
2. REPOSITION TURBIDITY BARRIERS, NAVIGATIONAL AIDS, EXPAND/ADJUST STURGEON PROTECTION MEASURES.
3. INSTALL OIL BOOMS DOWNSTREAM OF DREDGE AREA.
4. INSTALL ENVIRONMENTAL CONTAINMENT ON MATERIAL SCOW.
5. MOBILIZE WATER TREATMENT BARGE.
6. INSTALL SKID PLATE AND ENVIRONMENTAL CONTAINMENT MEASURES ON TRESTLE.
7. COMMENCE DREDGING UTILIZING ENVIRONMENTAL BUCKET.
8. DREDGE SPOILS TO BE TRANSPORTED ON CONTAINMENT BARGE TO TRESTLE.
9. DEWATER DREDGE SPOILS INTO WATER TREATMENT BARGE.
10. LOAD DEWATERED SPOILS INTO LINED CONTAINERS FOR TRANSPORT ON UPLAND ROADS TO THE CONTAINMENT AREA ON BONDI'S ISLAND.
11. UPON COMPLETION OF ENVIRONMENTAL DREDGE, CLEAN ALL EQUIPMENT AND BREAKDOWN CONTAINMENT AREAS.

GENERAL NOTES

1. RIVERBED SUBSTRATE CHARACTERIZATION AND DELINEATION PERFORMED 09/08/17 BY SWCA. HABITAT SURVEY DIVE TEAM OBTAINED GPS COORDINATES TO IDENTIFY SUBSTRATE, SUBSTRATE TRANSITIONS AND OBSERVATIONS OF RARE SPECIES.
2. EXISTING UTILITIES TO BE MARKED WITH LIGHTED BUOYS, GPS MARKERS.
3. ALL TEMPORARY STRUCTURES, VESSELS, BUOYS TO BE MARKED AND LIGHTED IN ACCORDANCE WITH US COAST GUARD REQUIREMENTS.
4. PROPOSED TEMPORARY PILES ANTICIPATED TO BE 12" STEEL. APPROXIMATELY 90 PILES ANTICIPATED.

PLAN

0 50 100 SCALE IN FEET



CAD FILE: C:\pwworking\kleinfelderpw01\asilveri\d0196804\C-Phasing Plans.dwg LAYOUT: RIVER CROSSING - PLAN ENVIRONMENTAL CONTROLS - PHASE 2 PLOTTED: 3/23/2020 1:08 PM BY: alex silveri

KLEINFELDER — Bright People. Right Solutions.

Stantec

SCALE	AS NOTED
DATE	MARCH 2020
JOB NO.	20161801.058
DESIGNED BY	D CHENG
DRAWN BY	A SILVERI
CHECKED BY	B FREDERICK
APPROVED BY	G O'LEARY

No.	Description	Date
	REVISIONS	

Client: SPRINGFIELD WATER AND SEWER COMMISSION
SWSC PROJECT NO. CA-1807-18/CWSRF-4455

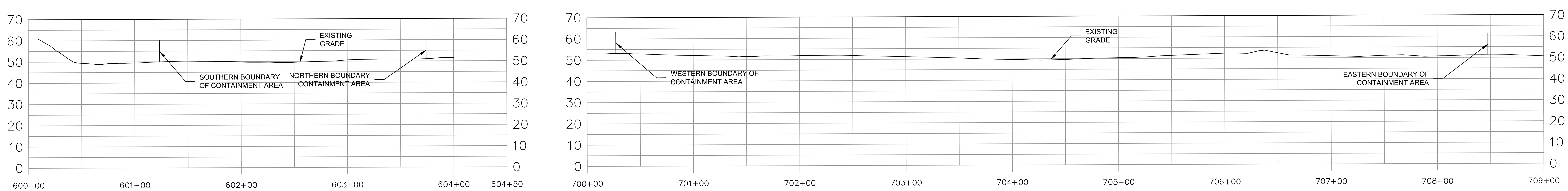
Project: CONNECTICUT RIVER SEWER FORCE MAINS AND INTERCEPTOR CROSSING

Drawing: RIVER CROSSING - PLAN ENVIRONMENTAL CONTROLS - PHASE 2

Sheet: 3B

PLAN

SCALE IN FEET: 0, 50, 100



PROFILE

H: 1" = 50'
V: 1" = 25'

HORZ 0, 50, 100
VERT 0, 25, 50
SCALE IN FEET

GENERAL NOTES

1. WETLAND DELINEATION WAS PERFORMED IN THE FIELD USING A MULTIPLE PARAMETER METHOD APPROACH FOLLOWING THE MASSACHUSETTS WETLANDS PROTECTION ACT REGULATIONS AT 310 CMR 10.00 AND THE CORPS OF ENGINEERS WETLAND MANUAL (TECHNICAL REPORT Y-87-1).

PERMIT SET

KLEINFELDER — Bright People. Right Solutions.

Stantec

SCALE	AS NOTED
DATE	MARCH 2020
JOB NO.	20161801.058
DESIGNED BY	D CHENG
DRAWN BY	A SILVERI
CHECKED BY	S SHEA
APPROVED BY	G O'LEARY

No.	Description	Date

REVISIONS

Client: SPRINGFIELD WATER AND SEWER COMMISSION
SWSC PROJECT NO. CA-1807-18/CWSRF-4455

Project: CONNECTICUT RIVER SEWER FORCE MAINS AND INTERCEPTOR CROSSING

Drawing: BONDI'S ISLAND DREDGE MATERIAL CONTAINMENT AREA PLAN AND PROFILE

Sheet 4

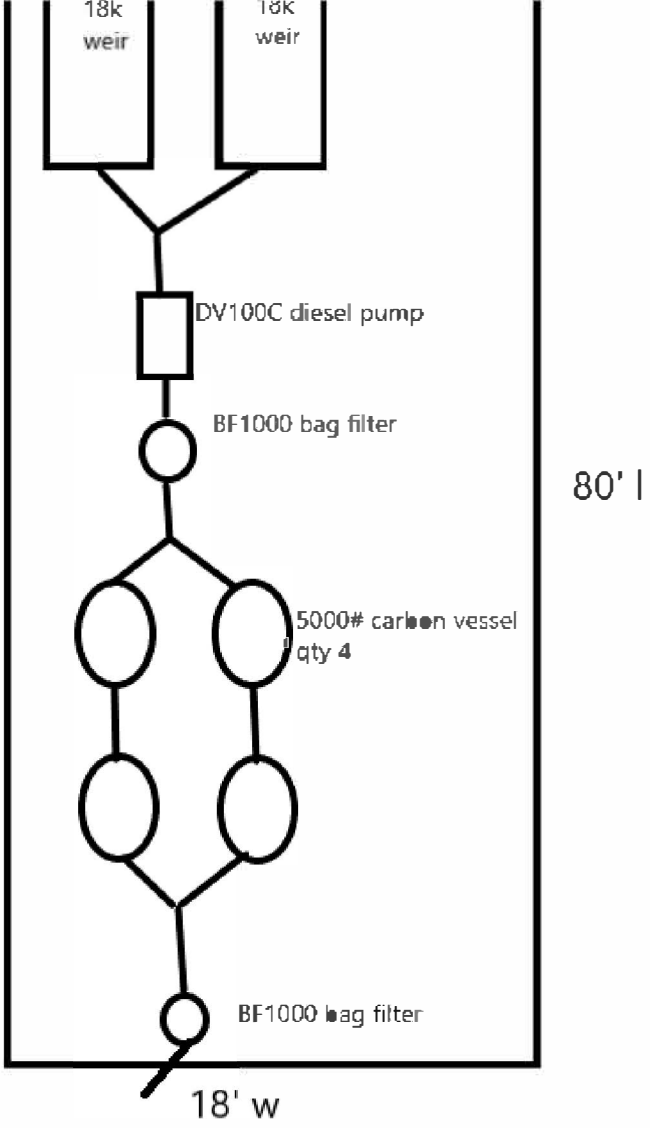


FIGURE 5 - Treatment System Line Drawing

OHI Engineering, Inc.
Engineers & Environmental Scientists

TABLES

Table 1: Coal Tar Sediment Sampling Summary

SAMPLE ID			SD-950AA*	SD-959AA*	SD-960AA*	SD-979AA*
SAMPLE DEPTH			2 - 4'	2 - 2.6'	2 - 4'	2 - 2.9'
SAMPLE DATE			7/19/2019	7/18/2019	7/19/2019	7/18/2019
ANALYTE						
	Concentration in "Natural" Soil	Units	Conc	Conc	Conc	Conc
Semivolatile Organics by GC/MS-SIM						
Acenaphthene	0.5	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Acenaphthylene	0.5	mg/kg	*0.19*	*0.19*	**0.19**	*0.21*
Anthracene	1	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Benzo(a)anthracene	2	mg/kg	*0.19*	*0.19*	**1.3**	*0.21*
Benzo(a)pyrene	2	mg/kg	*0.19*	**0.41**	**1.1**	*0.21*
Benzo(b)fluoranthene	2	mg/kg	*0.19*	**0.41**	**1.3**	*0.21*
Benzo(ghi)perylene	1	mg/kg	*0.19*	*0.19*	**0.41**	*0.21*
Chrysene	2	mg/kg	*0.19*	*0.19*	**1.1**	*0.21*
Dibenzo(a,h)anthracene	0.5	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Fluoranthene	4	mg/kg	*0.19*	**0.31**	**2.9**	*0.21*
Fluorene	1	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Indeno(1,2,3-cd)pyrene	1	mg/kg	*0.19*	*0.19*	**0.42**	*0.21*
Naphthalene	0.5	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
2-Methylnaphthalene	0.5	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Phenanthrene	3	mg/kg	*0.19*	*0.19*	*0.19*	*0.21*
Pyrene	4	mg/kg	*0.19*	**0.37**	**2.1**	**0.22**
Total SVOCs		mg/kg	*ND*	**1.5**	**10.82**	**0.22**

*Sample collected by Wood Environment & Infrastructure Solutions, Inc.

H:\BayState\Springfield_MA\Task53\MXD\RiverineLOW.mxd July 15, 2019 DWN: emily.gardiner CHKD: RAJ

Table 2: Receiving Water Sample Summary

CT River Crossing

Agawam - Springfield, Massachusetts

SAMPLE ID		RGP-INITIAL
SAMPLING DATE		29-Dec-20
	Units	
General Chemistry		
Chromium, Trivalent	mg/l	*0.01*
pH (H)	SU	7.1
Nitrogen, Ammonia	mg/l	0.14
Chromium, Hexavalent	mg/l	*0.01*
Total Hardness by SM 2340B		
Hardness	mg/l	36.5
Total Metals		
Antimony, Total	mg/l	*0.004*
Arsenic, Total	mg/l	0.00239
Cadmium, Total	mg/l	0.00021
Chromium, Total	mg/l	0.00932
Copper, Total	mg/l	0.01588
Iron, Total	mg/l	9.81
Lead, Total	mg/l	0.01084
Mercury, Total	mg/l	*0.0002*
Nickel, Total	mg/l	0.01341
Selenium, Total	mg/l	*0.005*
Silver, Total	mg/l	*0.0004*
Zinc, Total	mg/l	0.05078

OHI Engineering, Inc.
Engineers & Environmental Scientists

APPENDIX A

Notice of Intent

II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Connecticut River Sewer Force Mains and Interceptor Crossing</td><td colspan="3">Site address:
Street: 93 West Broad Street</td></tr>
<tr><td>City: Springfield</td><td>State: MA</td><td>Zip: 01105</td></tr>
<tr><td rowspan="4">2. Site owner
Springfield Water and Sewer Commission

Owner is (check one): ☐ Federal ☐ State/Tribal ☐ Private
■ Other; if so, specify: Municipality</td><td colspan="3">Contact Person:</td></tr>
<tr><td colspan="2">Telephone: 413-452-1300</td><td>Email:</td></tr>
<tr><td colspan="3">Mailing address:
Street: 250 M Street Ext</td></tr>
<tr><td>City: Agawam</td><td>State: MA</td><td>Zip: 01001</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Daniel O'Connell's Sons, Inc.</td><td colspan="3">Contact Person: Matt Giovino</td></tr>
<tr><td colspan="2">Telephone: 617-595-7089</td><td>Email: mgiovino@oconnells.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 1000 Franklin Village Drive, #205</td></tr>
<tr><td>City: Franklin</td><td>State: MA</td><td>Zip: 02038</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
N/A

NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s): 1-204
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
■ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Connecticut River	MA34-05	B(C50)

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ■ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ■ No
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Impaired for aesthetic value, recreation, and shellfishing. Impaired with algae, fecal coliform, nutrients (phosphorus), and turbidity.

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	1464
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	2034

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 12-03-2020

7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No

C. Source water information:

1. Source water(s) is (check any that apply):

☐ Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ■ No	☐ Contaminated surface water Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	■ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ■ Other; if so, specify: Sediment Samples

2. Source water contaminants: Coal Tar Deposits	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ☐ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): ☐ Yes ☐ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ■ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): Dewatering through treatment system directly from dredging barge	Outfall location(s): (Latitude, Longitude) In Connecticut River (barge)
Discharges enter the receiving water(s) via (check any that apply): ■ Direct discharge to the receiving water ☐ Indirect discharge, if so, specify: Through filtration system to Connecticut River. ☐ A private storm sewer system ☐ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ■ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission: Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ■ Yes ☐ No	
Provide the expected start and end dates of discharge(s) (month/year): Spring/Summer 2021 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="5">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
☐ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
■ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>☐ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
■ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✔	1	4500NH3	140	140	140	Report mg/L	---
Chloride	✔		0	300.0	12500	<12500	0	Report µg/l	---
Total Residual Chlorine	✔		0	4500CL-D	20	<20	0	0.2 mg/L	
Total Suspended Solids	✔		0	2540D	50000	<50000	50000	30 mg/L	---
Antimony	✔		1	3200.8	4	<4	0	206 µg/L	
Arsenic		✔	1	3200.8	2.39	2.39	2.39	104 µg/L	
Cadmium		✔	1	3200.8	0.21	0.21	0.21	10.2 µg/L	
Chromium III	✔		1		10	<10	0	323 µg/L	
Chromium VI	✔		1	7196A	10	<10	0	323 µg/L	
Copper		✔	1	3200.8	15.88	15.88	15.88	242 µg/L	
Iron		✔	1	19,200.7	9810	9810	9810	5,000 µg/L	
Lead		✔	1	3200.8	10.84	10.84	10.84	160 µg/L	
Mercury	✔		1	3200.8	0.2	<0.2	0	0.739 µg/L	
Nickel		✔	1	3200.8	13.41	13.41	13.41	1,450 µg/L	
Selenium	✔		1	3200.8	5	<5	0	235.8 µg/L	
Silver	✔		1	3200.8	0.4	<0.4	0	35.1 µg/L	
Zinc		✔	1	3200.8	50.78	50.78	50.78	420 µg/L	
Cyanide	✔		0	4500CN	5	<5	0	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✔		0	624.1	1	<1	0	100 µg/L	---
Benzene	✔		0	624.1	1	<1	0	5.0 µg/L	---
1,4 Dioxane	✔		0	624.1-SIM	50	<50	0	200 µg/L	---
Acetone	✔		0	624.1	10	<10	0	7.97 mg/L	---
Phenol	✔		0	420.1	30	<30	0	1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✔		0	624.1	1	<1	0	4.4 µg/L	
1,2 Dichlorobenzene	✔		0	624.1	5	<5	0	600 µg/L	---
1,3 Dichlorobenzene	✔		0	624.1	5	<5	0	320 µg/L	---
1,4 Dichlorobenzene	✔		0	624.1	5	<5	0	5.0 µg/L	---
Total dichlorobenzene	✔		0	624.1	5	<5	0	763 µg/L in NH	---
1,1 Dichloroethane	✔		0	624.1	1.5	<1.5	0	70 µg/L	---
1,2 Dichloroethane	✔		0	624.1	1.5	<1.5	0	5.0 µg/L	---
1,1 Dichloroethylene	✔		0	624.1	1	<1	0	3.2 µg/L	---
Ethylene Dibromide	✔		0	624.1	0.01	<0.01	0	0.05 µg/L	---
Methylene Chloride	✔		0	624.1	1	<1	0	4.6 µg/L	---
1,1,1 Trichloroethane	✔		0	624.1	2	<2	0	200 µg/L	---
1,1,2 Trichloroethane	✔		0	624.1	1.5	<1.5	0	5.0 µg/L	---
Trichloroethylene	✔		0	624.1	1	<1	0	5.0 µg/L	---
Tetrachloroethylene	✔		0	624.1	1	<1	0	5.0 µg/L	
cis-1,2 Dichloroethylene	✔		0	624.1	1	<1	0	70 µg/L	---
Vinyl Chloride	✔		0	624.1	1	<1	0	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔		1	625.1	5	<5	0	190 µg/L	
Diethylhexyl phthalate	✔		1	625.1	2.2	<2.2	0	101 µg/L	
Total Group I PAHs		✔	1	625.1	10.82	10.82	10.82	1.0 µg/L	---
Benzo(a)anthracene		✔	1	625.1-SIM	1300	1300	1300	As Total PAHs	
Benzo(a)pyrene		✔	1	625.1-SIM	1100	1100	1100		
Benzo(b)fluoranthene		✔	1	625.1-SIM	1300	1300	1300		
Benzo(k)fluoranthene	✔		1	625.1-SIM	0.19	<0.19	0		
Chrysene		✔	1	625.1-SIM	1100	1100	1100		
Dibenzo(a,h)anthracene	✔		1	625.1-SIM	0.19	<0.19	0		
Indeno(1,2,3-cd)pyrene		✔	1	625.1-SIM	420	420	420		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✔		1	625.1	5	<5	0	100 µg/L	---
Naphthalene	✔		1	625.1-SIM	0.19	<0.19	0	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔		0	608.3	0.25	<0.25	0	0.000064 µg/L	---
Pentachlorophenol	✔		0	625.1-SIM	1	<1	0	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		0	1664A	4000	<4000	0	5.0 mg/L	---
Ethanol	✔		0					Report mg/L	---
Methyl-tert-Butyl Ether	✔		0	624.1	10	<10	0	70 µg/L	
tert-Butyl Alcohol	✔		0	624.1	100	<100	0	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		0	624.1	20	<20	0	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH		✔	1		7.1	7.1	7.1		
Hardness		✔	1		36.5	36.5	36.5		

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)

☐ Adsorption/Absorption ☐ Advanced Oxidation Processes ☐ Air Stripping ■ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
☐ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ■ Separation/Filtration ☐ Other; if so, specify:

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Bag filters and carbon vessels will be attached to the discharge hose in order to filter Total Suspended Solids, Total Metals, and VOCs prior to discharge to the river.

Identify each major treatment component (check any that apply):
■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ■ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ☐ Other; if so, specify:

Indicate if either of the following will occur (check any that apply):
☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: 1450 gpm pump limitation Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	500 gpm
Provide the proposed maximum effluent flow in gpm.	500 gpm
Provide the average effluent flow in gpm.	500 gpm
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes ☐ No

F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No

G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

☐ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

■ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ☐ the operator ■ EPA ☐ Other; if so, specify:

■ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ■ Yes ☐ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ☐ Yes ■ No; if yes, attach.

H. National Historic Preservation Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **Criterion A**: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.

☐ **Criterion B**: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.

☐ **Criterion C**: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): ☐ Yes ■ No

I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

N/A

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement:	A BMPP has been developed in accordance with good engineering practices following Part 2.5 of the RGP and shall be implemented upon initiation of discharge. A Site-Specific SWPPP will be adhered to.
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ☐ No ☐ NA ■
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ☐ NA ■
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ☐ NA ■
Signature:	Date: 1/13/21
Print Name and Title: Joshua Schimmel, Executive Director	

OHI Engineering, Inc.
Engineers & Environmental Scientists

APPENDIX B

Laboratory Data Sheets

ANALYTICAL REPORT

Lab Number:	L2057896
Client:	OHI Engineering Incorporated 44 Wood Avenue Mansfield, MA 02048
ATTN:	Jared Kelly
Phone:	(508) 339-3929
Project Name:	DOCS-RGP
Project Number:	20-2073
Report Date:	01/06/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2057896-01	RGP-INITIAL	WATER	AGAWAM ,MA	12/29/20 12:00	12/29/20

Project Name:	DOCS-RGP	**Lab Number:**	L2057896
Project Number:	20-2073	**Report Date:**	01/06/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Case Narrative (continued)

Sample Receipt

L2057896-01: A sample container for Total Cyanide analysis was received for the "RGP-INITIAL" sample, but was not listed on the chain of custody. At the client's request, the analysis was not performed.

Total Metals

The WG1451166-3 MS recovery for iron (49%), performed on L2057896-01, does not apply because the sample concentration is greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Jennifer L Clements

Title: Technical Director/Representative Date: 01/06/21

METALS

Project Name: DOCS-RGP
Lab Number: L2057896
Project Number: 20-2073
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2057896-01
Client ID: RGP-INITIAL
Sample Location: AGAWAM ,MA
Date Collected: 12/29/20 12:00
Date Received: 12/29/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Arsenic, Total	0.00239		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Cadmium, Total	0.00021		mg/l	0.00020	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Chromium, Total	0.00932		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Copper, Total	0.01588		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Iron, Total	9.81		mg/l	0.050	--	1	01/04/21 09:52	01/04/21 23:30	EPA 3005A	19,200.7	BV
Lead, Total	0.01084		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	01/04/21 09:55	01/04/21 16:52	EPA 245.1	3,245.1	VW
Nickel, Total	0.01341		mg/l	0.00200	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Zinc, Total	0.05078		mg/l	0.01000	--	1	01/04/21 09:52	01/04/21 14:17	EPA 3005A	3,200.8	AM
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	36.5		mg/l	0.660	NA	1	01/04/21 09:52	01/04/21 23:30	EPA 3005A	19,200.7	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		01/04/21 14:17	NA	107,-	

Project Name: DOCS-RGP
Project Number: 20-2073
Lab Number: L2057896
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1451166-1										
Iron, Total	ND		mg/l	0.050	--	1	01/04/21 09:52	01/04/21 23:20	19,200.7	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01 Batch: WG1451166-1										
Hardness	ND		mg/l	0.660	NA	1	01/04/21 09:52	01/04/21 23:20	19,200.7	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1451208-1										
Antimony, Total	ND		mg/l	0.00400	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Lead, Total	ND		mg/l	0.00100	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Nickel, Total	ND		mg/l	0.00200	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	01/04/21 09:52	01/04/21 13:59	3,200.8	AM

Prep Information

Digestion Method: EPA 3005A

Project Name: DOCS-RGP
Project Number: 20-2073
Lab Number: L2057896
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1451209-1										
Mercury, Total	ND		mg/l	0.00020	--	1	01/04/21 09:55	01/04/21 16:38	3,245.1	VW

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: DOCS-RGP

Project Number: 20-2073

Lab Number: L2057896

Report Date: 01/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451166-2								
Iron, Total	98		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1451166-2								
Hardness	103		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451208-2								
Antimony, Total	89		-		85-115	-		
Arsenic, Total	96		-		85-115	-		
Cadmium, Total	98		-		85-115	-		
Chromium, Total	94		-		85-115	-		
Copper, Total	96		-		85-115	-		
Lead, Total	101		-		85-115	-		
Nickel, Total	89		-		85-115	-		
Selenium, Total	101		-		85-115	-		
Silver, Total	96		-		85-115	-		
Zinc, Total	104		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451209-2								
Mercury, Total	94		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451166-3 QC Sample: L2057896-01 Client ID: RGP-INITIAL												
Iron, Total	9.81	1	10.3	**49**	Q	-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451166-3 QC Sample: L2057896-01 Client ID: RGP-INITIAL												
Hardness	36.5	66.2	103	100		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451208-3 QC Sample: L2057896-01 Client ID: RGP-INITIAL												
Antimony, Total	ND	0.5	0.4723	94		-	-		70-130	-		20
Arsenic, Total	0.00239	0.12	0.1290	106		-	-		70-130	-		20
Cadmium, Total	0.00021	0.051	0.05684	111		-	-		70-130	-		20
Chromium, Total	0.00932	0.2	0.1775	84		-	-		70-130	-		20
Copper, Total	0.01588	0.25	0.2825	107		-	-		70-130	-		20
Lead, Total	0.01084	0.51	0.5980	115		-	-		70-130	-		20
Nickel, Total	0.01341	0.5	0.5090	99		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1256	105		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04562	91		-	-		70-130	-		20
Zinc, Total	0.05078	0.5	0.6332	116		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451209-3 QC Sample: L2057896-01 Client ID: RGP-INITIAL												
Mercury, Total	ND	0.005	0.00431	86		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451166-4 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
Iron, Total	9.81	8.88	mg/l	10		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451166-4 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
Hardness	36.5	35.0	mg/l	4		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451208-4 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00239	0.00218	mg/l	9		20
Cadmium, Total	0.00021	0.00021	mg/l	0		20
Chromium, Total	0.00932	0.00846	mg/l	10		20
Copper, Total	0.01588	0.01500	mg/l	6		20
Lead, Total	0.01084	0.01050	mg/l	3		20
Nickel, Total	0.01341	0.01216	mg/l	10		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.05078	0.04844	mg/l	5		20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451209-4 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2057896-01
Client ID: RGP-INITIAL
Sample Location: AGAWAM ,MA

Date Collected: 12/29/20 12:00
Date Received: 12/29/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.1		SU	-	NA	1	-	12/29/20 20:51	1,9040C	AS
Nitrogen, Ammonia	0.140		mg/l	0.075	--	1	12/31/20 17:00	01/04/21 20:27	121,4500NH3-BH	AT
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/30/20 04:50	12/30/20 05:19	1,7196A	AW

Project Name: DOCS-RGP
Project Number: 20-2073
Lab Number: L2057896
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1450193-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/30/20 04:50	12/30/20 05:17	1,7196A	AW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1450567-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	12/31/20 17:00	01/04/21 20:18	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: DOCS-RGP

Project Number: 20-2073

Lab Number: L2057896

Report Date: 01/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1450108-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1450193-2								
Chromium, Hexavalent	102		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1450567-2								
Nitrogen, Ammonia	103		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1450193-4 QC Sample: L2057896-01 Client ID: RGP-INITIAL												
Chromium, Hexavalent	ND	0.1	0.101	101		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1450567-4 QC Sample: L2058073-02 Client ID: MS Sample												
Nitrogen, Ammonia	0.080	4	2.25	**54**	Q	-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: DOCS-RGP
Project Number: 20-2073

Lab Number: L2057896
Report Date: 01/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1450108-2 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
pH (H)	7.1	7.2	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1450193-3 QC Sample: L2057896-01 Client ID: RGP-INITIAL						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1450567-3 QC Sample: L2058073-02 Client ID: DUP Sample						
Nitrogen, Ammonia	0.080	0.098	mg/l	**21**	Q	20

Project Name: DOCS-RGP
Project Number: 20-2073

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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2057896-01A	Plastic 250ml HNO3 preserved	A	<2	<2	2.7	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),HARDU(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L2057896-01B	Amber 1000ml HCl preserved	A	N/A	N/A	2.7	Y	Absent		HOLD-PETRO(7)
L2057896-01C	Amber 1000ml HCl preserved	A	N/A	N/A	2.7	Y	Absent		HOLD-PETRO(7)
L2057896-01D	Amber 1000ml Na2S2O3	A	7	7	2.7	Y	Absent		HOLD-8270(7)
L2057896-01E	Amber 1000ml Na2S2O3	A	7	7	2.7	Y	Absent		HOLD-8270(7)
L2057896-01F	Plastic 250ml unpreserved	A	7	7	2.7	Y	Absent		HEXCR-7196(1),PH-9040(1)
L2057896-01G	Plastic 500ml H2SO4 preserved	A	<2	<2	2.7	Y	Absent		NH3-4500(28)
L2057896-01X	Plastic 250ml NaOH preserved	A	>12	>12	2.7	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

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Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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Project Name:	DOCS-RGP	**Lab Number:**	L2057896
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REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/29/20

ALPHA Job #: L2057896

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: OHI Engineering
Address: 44 Wood Ave
Mansfield, MA
Phone:
Email:

Project Information

Project Name: DOCS - RGP
Project Location: Agawam, MA
Project #: 20-2073
Project Manager: Jared Kelly
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☑ ADEx ☑ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☑ No MA MCP Analytical Methods ☐ Yes ☑ No CT RCP Analytical Methods
☐ Yes ☑ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☑ No GW1 Standards (Info Required for Metals & EPH with Targets)
☑ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

Hold TPH ; PAHs

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☑ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☑ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☑ Quant Only ☐ Fingerprint	pH	IRON	Hex Cr / TRI CR	Hardness	Ammonia	Sample Comments	TOTAL # BOTTLES
57896-01	RGP-Initial	12/29/20	1200	SW	HK		X		X				X	X	X	X	X	X	Hold TPH ; PAH	

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

Container Type																				
Preservative																				

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	12/24/20 1435		12/29/20 1430 14:35
			12/29/20 1521
	12/29/20 1618		12/29/20

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

OHI Engineering, Inc.
Engineers & Environmental Scientists

APPENDIX C

WQBEL and 7Q10 Calculation Sheets

Enter number values in green boxes below

Enter values in the units specified

↓

1464	Q_R = Enter upstream flow in **MGD**
0.72	Q_P = Enter discharge flow in **MGD**
	Downstream 7Q10

Notes:

Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved

Saltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry

Discharge flow is equal to the design flow or 1 MGD, whichever is less

Only if approved by State as the entry for Q_R; leave 0 if no entry

Enter a dilution factor, if other than zero

↓

2034

Saltwater (estuarine and marine): only if approved by the State

Leave 0 if no entry

Enter values in the units specified

↓

36.4	C_d = Enter influent hardness in **mg/L** $CaCO_3$
36.5	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$

Freshwater only

Enter **receiving water** concentrations in the units specified

↓

7.1	pH in **Standard Units**
3	Temperature in **°C**
0.14	Ammonia in **mg/L**
36.5	Hardness in **mg/L** $CaCO_3$
0	Salinity in **ppt**
0	Antimony in **µg/L**
2.39	Arsenic in **µg/L**
0.21	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
15.88	Copper in **µg/L**
9810	Iron in **µg/L**
10.84	Lead in **µg/L**
0	Mercury in **µg/L**
13.41	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
50.78	Zinc in **µg/L**

pH, temperature, and ammonia required for all discharges

Hardness required for freshwater

Salinity required for saltwater (estuarine and marine)

Metals required for all discharges if present and if dilution factor is > 1

Enter 0 if non-detect or testing not required

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**

if >1 sample, enter maximum

if >10 samples, may enter 95th percentile

Enter 0 if non-detect or testing not required

0	Ammonia in **mg/L**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
0	Copper in **µg/L**
0	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
0	Zinc in **µg/L**
0	Cyanide in **µg/L**
0	Phenol in **µg/L**
0	Carbon Tetrachloride in **µg/L**
0	Tetrachloroethylene in **µg/L**
0	Total Phthalates in **µg/L**
0	Diethylhexylphthalate in **µg/L**
1300	Benzo(a)anthracene in **µg/L**
1100	Benzo(a)pyrene in **µg/L**
1300	Benzo(b)fluoranthene in **µg/L**
0	Benzo(k)fluoranthene in **µg/L**
1100	Chrysene in **µg/L**
0	Dibenzo(a,h)anthracene in **µg/L**
420	Indeno(1,2,3-cd)pyrene in **µg/L**
0	Methyl-tert butyl ether in **µg/L**

I. Dilution Factor Calculation Method

A. 7Q10

Refer to Appendix V for determining critical low flow; must be approved by State before use in calculations.

B. Dilution Factor

Calculated as follows:

$$Df = \frac{Q_R + Q_P}{Q_P}$$

Q_R = 7Q10 in MGD

Q_P = Discharge flow, in MGD

II. Effluent Limitation Calculation Method

A. Calculate Water Quality Criterion:

Step 1. Downstream hardness, calculated as follows:

$$C_r = \frac{Q_dC_d + Q_sC_s}{Q_r}$$

C_r = Downstream hardness in mg/L

Q_d = Discharge flow in MGD

C_d = Discharge hardness in mg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) hardness in mg/L

Q_r = Downstream receiving water flow in MGD

Step 2. Total recoverable water quality criteria for hardness-dependent metals, calculated as follows:

Total Recoverable Criteria = $\exp\{m_c [\ln(h)] + b_c\}$

m_c = Pollutant-specific coefficient (m_a for silver)

b_c = Pollutant-specific coefficient (b_a for silver)

ln = Natural logarithm

h = Hardness calculated in Step 1

Step 3. Total recoverable water quality criteria for non-hardness-dependent metals, calculated as follows:

$$\text{WQC in µg/L} = \frac{\text{dissolved WQC in µg/L}}{\text{dissolved to total recoverable factor}}$$

B. Calculate WQBEL:

Step 1. WQBEL calculated as follows for parameter sampled in and detected in the receiving water:

$$C_d = \frac{Q_r C_r - Q_s C_s}{Q_d}$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

C_d = WQBEL in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Ustream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

Step 2. WQBEL calculated as follows for parameter not sampled in or not detected in receiving water:

$$C_d = (Q_r/Q_d) \times C_r$$

C_r = Water quality criterion in µg/L

Q_d = Discharge flow in MGD

Q_r = Downstream receiving water flow in MGD

C. Determine if a WQBEL applies:

Step 1. For parameter sampled in and detected in receiving water, downstream concentrations calculated as fc

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_r}$$

C_r = Downstream concentration in µg/L

Q_d = Discharge flow in MGD

C_d = Influent concentration in µg/L

Q_s = Upstream flow (7Q10) in MGD

C_s = Upstream (receiving water) concentration in µg/L

Q_r = Downstream receiving water flow in MGD

The WQBEL applies if:

1) the projected downstream concentration calculated in accordance with St
and the discharge concentration of a parameter are greater than the WQC ca
that parameter in accordance with II.A, above

AND

2) the WQBEL determined for that parameter in accordance with II.B, abov
the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise, the TBEL

of the RGP for that parameter applies.

Step 2. For a parameter not sampled in or not detected in receiving water, the WQBEL applies if:

1) the discharge concentration of a parameter is greater than the WQBEL de
that parameter in accordance with II.A or II.B, above;

AND

2) the WQBEL determined for that parameter in accordance with II.A or II.
less than the TBEL in Part 2.1.1 of the RGP for that parameter. Otherwise, t

Part 2.1.1 of the RGP for that parameter applies.

Dilution Factor	2034.3					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	**0.2**	mg/L	22378	µg/L	---	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	1301973	µg/L		
Arsenic	**104**	µg/L	15484	µg/L		
Cadmium	**10.2**	µg/L	0.1283	µg/L		
Chromium III	**323**	µg/L	76797.0	µg/L		
Chromium VI	**323**	µg/L	23261.6	µg/L		
Copper	**242**	µg/L	3.9	µg/L		
Iron	**5000**	µg/L	1000	µg/L		
Lead	**160**	µg/L	0.88	µg/L		
Mercury	**0.739**	µg/L	1842.87	µg/L		
Nickel	**1450**	µg/L	17969.0	µg/L		
Selenium	**235.8**	µg/L	10171.7	µg/L		
Silver	**35.1**	µg/L	1360.1	µg/L		
Zinc	**420**	µg/L	516.6	µg/L		
Cyanide	**178**	mg/L	10578.5	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7970**	µg/L	---			
Phenol	**1,080**	µg/L	610300	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**	µg/L	3254.9	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
1,1 Dichloroethane	**70**	µg/L	---			
1,2 Dichloroethane	**5.0**	µg/L	---			
1,1 Dichloroethylene	**3.2**	µg/L	---			
Ethylene Dibromide	**0.05**	µg/L	---			
Methylene Chloride	**4.6**	µg/L	---			
1,1,1 Trichloroethane	**200**	µg/L	---			
1,1,2 Trichloroethane	**5.0**	µg/L	---			
Trichloroethylene	**5.0**	µg/L	---			
Tetrachloroethylene	**5.0**	µg/L	6713.3	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			
D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	4475.5	µg/L		

Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	7.7305	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	µg/L
Pentachlorophenol	**1.0**	µg/L	---			
F. Fuels Parameters						
Total Petroleum Hydrocarbons	**5.0**	mg/L	---			
Ethanol	**Report**	mg/L	---			
Methyl-tert-Butyl Ether	**70**	µg/L	40687	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

OHI Engineering, Inc.
Engineers & Environmental Scientists

APPENDIX D

Historic and Archaeological Property Documentation

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Springfield; Street Name: west york; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
SPR.186	Hampden County Jail and House of Correction	West York St	Springfield	c 1886
SPR.2805	York Street Pumping Station	West York St	Springfield	1938

OHI Engineering, Inc.
Engineers & Environmental Scientists

APPENDIX E

Endangered Species Documentation

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:
Consultation Code: 05E1NE00-2019-SLI-1769
Event Code: 05E1NE00-2019-E-04327
Project Name: York St Pump Station

May 22, 2019

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). 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

Project Summary

Consultation Code: 05E1NE00-2019-SLI-1769

Event Code: 05E1NE00-2019-E-04327

Project Name: York St Pump Station

Project Type: WASTEWATER FACILITY

Project Description: The site of the proposed pump station is currently a vacant field but was previously developed as the York Street Jail. The project includes installation of 72-inch pipe along the eastern and southern sides of the pump station.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.090217356362636N72.582895926256W

Counties: Hampden, MA

Endangered Species Act Species

There is a total of 0 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

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