ADDENDUM NO. 1

TO

BIDDING AND CONTRACT REQUIREMENTS AND SPECIFICATIONS

FOR THE

LITTLE BAY SUBAQUEOUS WATER TRANSMISSION MAIN

WP PROJECT NO. 14202

8/16/2023

PREPARED BY:

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LITTLE BAY SUBAQUEOUS WATER TRANSMISSION MAIN

ADDENDUM NO. 1

WP PROJECT NO. 14202

As a point of clarification, it should be understood that the Contract Documents govern all aspects of the project. Discussions held during the Pre-Bid Conference or over phone or email are informal and informational only. All official changes to the Contract Documents are made only by addenda. The following changes and additional information are hereby made a part of the Contract Documents:

A mandatory pre-bid conference was held on August 7, 2023, at 10:00 am at the Madbury Water Treatment Plant. As part of the pre-bid meeting, attendees participated in a site walk at the project sites in Durham and Newington. The attendance sign-in sheet and meeting agenda are attached to this addendum.

SPECIFICATIONS

1. Division 0 Section A – Advertisement for Bids. **REPLACE** the first paragraph with the following:
   "Separate sealed BIDS for the construction of: Little Bay Subaqueous Drinking Water Transmission Main including connection to existing PCCP water main and site restoration will be received by City of Portsmouth at the office of the Finance Department, 1 Junkins Avenue, Portsmouth, NH 03801 until 2:00 PM Local Time on **September 5, 2023**, and then at said office publicly opened and read aloud."

2. Division 0 Section A – Advertisement for Bids. **REPLACE** the first sentence of the second to last paragraph with the following:
   "Questions shall be directed to purchasing@cityofportsmouth.com no later than **August 28, 2023**, at 4:30 PM.

3. Division 0 Section D – DBE Subcontractor Participating Form NHDES W-09-057 and DBE Subcontractor Performance Form NHDES W-09-058 printed incorrectly in the Contract Documents. Revised forms are attached.

DRAWINGS

1. Drawing C-19, **DELETE,** "EROSION CONTROL - WETLAND NOTES, NOTE 3."

2. Drawing C- 20, **DELETE,** "EROSION CONTROL - WETLAND NOTES, NOTE 3."

QUESTIONS AND ANSWERS

Questions Received During the Bidding Period

1. Q: A contractor voiced concerns that the scheduled start date does not provide adequate time to submit and review submittals, purchase material, and have it delivered, or coordinate with suppliers and contractors. They requested a later start date.
   A: The contract's start date is under review and will be addressed in a following addendum.

2. Q: A contractor voiced concerns regarding the five-month work window being insufficient to complete the required work and requested that the current work window be extended to 8 months.
   A: The five month in-water work window is a permitting requirement and not the overall contract time requirement. The in-water work window limitations are under review and discussion with the statutory permitting authorities.

3. Q: Specification 02628, 2.3A.4. There are no manufacturers of SS gland rings, let alone domestic manufacturers. We can get domestic conventional rings. Supplemental wrapping or mastic can be added after installation if concerned about corrosion. SS T-bolts can be obtained.
   A: Conventional DI gland rings with epoxy coating are acceptable. Connection gland rings shall be fully wrapped with polyethylene encasement the same as the DI pipe. Stainless steel t-bolts are acceptable.

4. Q: Drawing C-9 Between approx. station 106+50 AND 106+75 there is a vertical offset where the pipe comes upgrade. Is it your intent to have elbows for this offset or for the contractor to dig it down? I measured an angle of approx. 25 degrees. The pipe will not bend that much in that short distance.
   A: The intent is for the contractor to excavate the trench with sufficient depth that no fittings will be required in the HDPE pipeline and that the required vertical offset will be limited to less than the maximum bending radius of the pipe.

5. Q: When does the contract duration start? Does it start at the Notice to Proceed?
   A: The contract time starts on the date indicated on the Notice to Proceed when it is issued.

6. Q: Will there be a limited Notice to Proceed for submittal to be approval?
   A: If timing dictates, a limited Notice to Proceed can be issued.

7. Q: What permits will the contractor be responsible for obtaining?
   A: The Contractor will be responsible for obtaining permits required for temporary facilities installed to support the construction project and for obtaining coverage under the NPDES Construction General Permit (CGP) for Stormwater Discharges from Construction Activities.

8. Q: What permits has the owner already applied for and what stage are these permits in?
A: The following permits have been applied for:
    1. NHDES Wetland Permit – A permit approval has been issued. The permit will be issued once Governor & Council approves the permit.
    2. NHDES Shoreland Permit – A permit application has not yet been submitted.
    3. US Army Corps of Engineers Individual Permit – An application has been submitted and is under review and pending issuance of Water Quality Certificate and Federal Consistency Review
    4. NHDES Water Quality Certification – An application has been submitted and is under review.
    5. Coastal Zone Management Federal Consistency Review – An application has been submitted and is under review.
    6. NH Dept. of Energy License – An application has been submitted and is under review.

9. Q: Will alternate construction sequencing be considered after the job has been awarded?
A: Alternate construction sequencing will be considered. The construction sequence in 01010 is a framework for the contractor's review. Actual construction sequencing will be the responsibility of the contractor with review by the engineer and the owner.

10. Q: Will there be any cost to the contractor for the owner's on-site representatives, if the job works weekends or over 40 hours a week?
A: It is not anticipated that additional inspection services would be the responsibility of the contractor per the contract documents. Onsite inspection is anticipated to average approximately 50 hours per week.

11. Q: What is the MBE/DBE participation requirements for this project?
A: A fair share objective has not been established for this project. Contractors are required to make good faith efforts whenever procuring construction, equipment, services, and supplies as described in Section D of the Contract Documents.

12. Q: Is the coffer dam constrained to a width of 25' or can it be expanded into the trestle footprint? Will the permits allow this?
A: The permits will allow a wider cofferdam up to the total width of the cofferdam and trestle footprint, however, any change to the overall footprint of the expected construction would need to be reviewed by NHDES as part of the permit conditions. Also, the overall footprint could not be increased without authorization from the permitting agencies.

13. Q: Will the owner be supplying the on-site certified wetland scientist, or qualified professional? This is outlined in the Construction Monitoring section of the NHDES permit application?
A: Yes, the Owner will supply the on-site certified wetland scientist or qualified professional required by the NHDES permit conditions.

14. Q: A not to exceed of 5% of the total bid amount on mobilization for a heavy marine project like this is very low. Would the owner consider splitting the Mobilization/Demobilization into a Mobilization Item at a not to exceed of 7.5% and a Demobilization Item a 2.5% or increasing the Mobilization/Demobilization item to 10%.
A: The City is amenable to revising the overall mobilization/demobilization item to 10% as requested. A revised bid form will be supplied in a following addendum.

15. Q: Would the owner consider extending the proposal by 2 weeks. A due date two weeks from the pre-bid meeting is an extremely tight timeline to properly prepare a comprehensive proposal of this kind.
A: The bid due date is being extended to September 5, 2023, by this addendum.

16. Q: Good Faith Efforts section b. states "This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date." We did not receive the solicitation with a minimum of 30 days. Can we post solicitation for bids now and still be compliant?
A: Extension of the bid date with this addendum should allow for the minimum of 30 days of posting solicitations for proposals. Contractors should make their best effort to achieve this requirement, whenever possible.

17. Q: In the Special Conditions it states: "The Contractors work hours shall be from 7:00 AM to 4:30 PM, Monday thru Friday, unless authorized by the City of Portsmouth." All holidays also appear excluded. Considering the aggressive schedule of the project, tide cycles, and the winter season, we may need to work well outside these hours, is this a firm stance from the City of Portsmouth and should we price the project based on these minimal work hours? Can you request longer working hours from the City pre-bid such as sunrise to sunset or 24 hours/day seven days per week?
A: Work hours in the contract documents are general hours per the agreements with the Towns of Newington and Durham, primarily for the consideration of the neighbors and residents of the towns. Additional longer work hours may be requested for critical construction items that would require continuous linear construction work.

18. Q: The drawings state: "3. Any wetland crossing work shall be completed between the period of May 1 and September 30" is this accurate?
A: This note will be deleted from plan sheets C-19 and C-20. Wetland crossing work in freshwater wetlands is not subject to time of year requirements. Work in tidal waters is subject to time of year restrictions stipulated in the wetland permit (Nov. 15 to Mar. 15).

19. Q: Will intermediate fittings be allowed for the HDPE pipe crossing, at least a 45* EL is appropriate on the Durham side. There may be a similar issue in the vertical plane on the Newington side where there is a steep connection between DI & HDPE suggesting the HDPE pipe will be "bent" up to meet the MJ adapter.
*A: Intermediate fittings **will not** be allowed in the HDPE portion of the pipeline. Any vertical change in grade will be constructed in the DI portion of the project with*

restrained vertical bends or by natural deflection of the HDPE pipeline. Revised profiles will be provided detailing the vertical bends required for the steep shorelines on both sides.

20. Q: Will other fittings be considered if using SS backing rings and hardware. This may also be useful in complying with intermediate hydrostatic testing requirements, i.e., test every 1,000 ft of mainline.
*A: Intermediate fittings **will not** be allowed in the HDPE portion of the pipeline. Contractors may consider testing the HDPE pipeline on shore prior to placement across the bay.*

21. Q: Spec section 02050 refers to explosives in spec section 01546. There is no spec section 01546 in the bid documents. Note the unit price item for subaqueous rock removal (100 CY). Asking the engineer to clarify where they think this could be as OSI did a multi-beam survey ahead of the project.
A: Use of explosives is prohibited. The subaqueous rock removal bid item is intended to be used to compensate Contractor for relocating underwater boulders interfering with placement of the proposed water main if encountered.

22. Q: Water quality certificate is pending; however, language refers to a turbidity monitoring plan submitted in 2021. Spec section 02270 indicates there will be multiple monitoring stations with active reporting requirements. I suggest requesting a copy of the 2021 plan be provided for review as this will likely be the minimum monitoring expected.
A: The turbidity monitoring plan prepared in 2021 is attached to this addendum. Turbidity monitoring requirements are subject to approval of the water quality certificate.

END OF ADDENDUM NO. 1

Attachments Follow:

A. Pre-Bid Conference Meeting Minutes.
B. Pre-Bid Conference Sign-In Sheet.
C. DBE Subcontractor Participating Form NHDES W-09-057(Formerly EPA Form 6100-2).
D. DBE Subcontractor Performance Form NHDES W-09-058(Formerly EPA Form 6100-3).
E. Turbidity Monitoring Plan.

Date: **8/7/2023**

Project Name: **Little Bay Subaqueous Water Transmission Main – City of Portsmouth, Portsmouth, NH**

Document: **Minutes**

The following are meeting minutes for the pre-bid conference held at the City of Portsmouth Water Treatment Facility in Madbury on August 7, 2023. These minutes are based on the pre-bid conference agenda distributed at the meeting and information presented at the meeting is detailed in italics.

1.1 Identifications:

Meeting lead by Wright-Pierce Project Manager, Darrin Lary PE. Introduction of the project provided by City of Portsmouth Director of Water Resources Brian Goetz and Water Supply Operations Manager Al Pratt.

Owner:	Name:	City of Portsmouth
	Address:	City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 Department of Public Works, 680 Peverly Hill Road, Portsmouth, NH 03801
	Contacts:	
	Director of Water Resources	Brian Goetz 603-766-1420 bfgoetz@cityofportsmouth.com
	Water Supply Operations Manager	Albert Pratt, PE 603-520-0622 anpratt@cityofportsmouth.com
Engineer:	Name:	Wright-Pierce
	Address:	230 Commerce Way, Suite 302, Portsmouth, NH 03801
	Contacts:	
	Project Manager	Darrin D. Lary, PE 207-798-3761 Darrin.lary@wright-pierce.com
	Permitting	Britt Eckstrom, PE 603-570-7126 Britt.eckstrom@wright-pierce.com

1.2 Objectives:

A. The purpose of the Pre-Bid Conference is to answer questions from potential bidders relating to the contract documents.

B. This Pre-Bid Conference is mandatory; prospective Bidders shall sign the attendance sheet if they want their bid to be accepted. This attendance sheet will be attached to the next issued addenda.

C. It is extremely important to note that bids must be based solely on information contained in the contract documents, including any addenda. Nothing stated in this meeting modifies the contract documents unless it is followed up in the context of an Addendum to the contract documents. Oral statements may not be relied upon and will not be binding or legally effective.

1.3 There have been no addenda issued to date for this project. An addendum is expected to follow this meeting.

1.4 The location of this project is a pipe crossing across the Little Bay between Wagon Hill Farm in Durham and Fox Point in Newington, NH along the existing transmission pipeline easement. The work is summarized in Section 01010 of the specifications.

1.5 The project is expected to be funded in part by grants/loans through Congressional Directed Spending (CDS) which is in part funded by the US EPA or the State of New Hampshire. All work must be performed in accordance with Federal and State Law, and requirements of the funding agency. Requirements related to CDS funding include; Build America Buy America, Davis-Bacon Wage Rates, American Iron and Steel and DBE/MBE/WBE goals. Refer to Division 0.

1.6 Bids shall be submitted in accordance with the Instructions to Bidders and shall include the following attachments:

A. Confirmation of all addenda (Contractor is responsible for ensuring that all addenda have been reviewed.)
B. Completed Bid Form
C. Bid Security (5% of total bid in the form of a bid bond or certified bank check)
D. DBE Subcontractor Performance Forms #NHDES-W-09-058 (Formerly EPA Form 6100-3) (submit one per DBE subcontractor)
E. DBE Subcontractor Utilization Form #NHDES-W-09-059 (Formerly EPA Form 6100-4)
F. Bidder's American Iron and Steel Acknowledgement (Public Law 113-76)
G. Bidder's Build America, Buy America (BABA) Acknowledgement (Public Law 117-58)

1.7 Bid Opening:

A. General Contractor bid opening is scheduled for Monday, August 21, 2023, at 2:00 pm local time.
B. Sealed bids will be received at City of Portsmouth Finance Department, 1 Junkins Ave, Portsmouth, NH 03801. **Bids will be publicly opened and read aloud.**
C. Bids will only be accepted from those General Contractors who have attended the mandatory pre-bid meeting.

1.8 The Bid Form includes 19 Bid Items. All Bid Items must be included in the Bid. The Basis for Award is the Total Base Bid.

1.9 The contract, if awarded, will be awarded to the lowest responsible bidder within 60 days of the Bid Opening. The Owner has the right to refuse any and all bids. Notice of Intent to Award will be sent to the low bidder following review of the Contractor's bids, qualifications, and banking standings. Performance and Payment Bonds, Insurance Certificates and Agreement must be submitted for approval within 10 days after the Notice of Award is issued. The Owner, within 10 days of receipt of acceptable Performance Bond, Payment Bond and Agreement signed by the party to whom the agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Notice to Proceed will be issued within 10 days of the execution of Agreement by Owner.

1.10 Contractor shall be responsible for obtaining all necessary construction permits (building, plumbing, electrical, etc.).

1.11 Bidders wishing to complete any additional site visits and/or subsurface exploration(s) should coordinate with the City of Portsmouth:

Albert Pratt, PE., Water Supply Operations Manager,
mobile: 603-520-0622, email anpratt@cityofportsmouth.com

1.12 Bidders should familiarize themselves with coordination requirements. Refer to Section 00800-SC-8.01 and Section 01050.

A. City or Portsmouth
B. Town of Newington
C. Town of Durham
D. Unitil
E. Eversource
F. Metrocast Cable Vision
G. Fairpoint Communications

1.13 Bidders should familiarize themselves with the project scope and sequencing requirements. General restrictions related to construction sequencing are discussed in Section 01010 - Summary of Work, Section 01050 - Coordination, and Section 01150 - Measurement and Payment. A construction-sequencing plan must be prepared by the Contractor for review and approval of the Owner and Engineer. *A proposed sequence has been described in Section 01010 Summary of Work. Alternative sequences will be considered.* The Contractor must maintain operation of the existing pipeline at all times during construction.

1.14 Engineer is providing at least one full-time Resident Project Representative during construction.

1.15 Owner is paying for material testing. Refer to Section 01400. A materials testing firm has not yet been selected.

1.16 Contractor is responsible for layout of all work. *The Owner's surveyor will layout the easement boundaries.*

1.17 The location and limits of all staging areas, on-site work, and storage areas shall be reviewed/coordinated with, and acceptable to, the Owner and Engineer.

1.18 Contract Time: Completion time for the project will be calculated as calendar days from the date specified in the "Notice to Proceed" as follows:

A. 275 calendar days for substantial completion.
B. 305 calendar days for final completion
C. *In-water work window per permit conditions.*

1.19 Submittals – Refer to Section 01340

A. Engineer will provide web-based software for submittals (FTP file transfer site)
B. Engineer will provide web-based software for Davis-Bacon paperwork (Elation Systems)
C. Submittals will be electronic.

1.20 Permits – Permits to be obtained by the Contractor are identified in General Conditions Item 60. Permits obtained by the Owner are included as appendices or will be provided by addendum. Contractors shall familiarize themselves with all permit conditions detailed in the issued permits.

A. Permits in Appendix D:
    1. NHDES Standard Dredge and Fill Wetlands Permit Application File No. 2020-02959
    2. NHDES Shoreland Permit - PENDING
    3. USACE 404 Individual Permit - PENDING
    4. NHDES Water Quality Certification - PENDING
    5. Coastal Zone Management Federal Consistency Certification - PENDING
    6. NHDOE License - PENDING
    7. NHDOT Driveway Permit 06-133-259
B. Any revisions to the Contract Documents required due to revised permit condition requirements will be included by addendum or negotiated with the selected Contractor after bid award.

1.21 Project access agreements for Durham and Newington

A. The City of Portsmouth is in final negotiations with the Towns of Durham and Newington for requirements for project access at Wagon Hill Farm in Durham and at Fox Point in Newington. Any revisions to the Contract Documents required due to revised access requirements will be included by addendum or negotiated with the selected Contractor after bid award.

B. For 180 Piscataqua, all work will be performed within the acquired permanent and temporary pipeline easement. Easement corners will be located by the Engineer. At no time will any work be allowed outside the easement limits.

1.22 Bid Allowance Items

A. A bid allowance has been included for roadway restoration in Newington. The selected Contractor shall participate in a detailed pre-construction review of the access roads in Newington with the Town of Newington, the Engineer, and the Owner prior to any heavy equipment mobilization to the Newington side of the project.

1.23 Davis-Bacon wages

A. Heavy wages are applicable (Rates issued 04/07/2023 are provided in Special Conditions)

B. Work to be completed in Rockingham and Strafford County. Different wage rates for each county.

1.24 Questions – Cutoff date for questions is August 14, 2023 (7 days prior to bid opening)

1.25 Discussion and Site Tour

Questions received from the Contractors at the Pre-Bid Conference:

1. Q: Does the City have a preferred precast concrete pipe tapping contractor?
   A: Underground Testing and Services has completed pipe tapping on the City's PCCP transmission main. Contact: Sean Campbell, Underground Testing and Services, 809 Back Mountain Road, Goffstown, NH 03045. (603) 497-5549.

2. Q: What is the construction budget?
   A: Engineer's Construction Cost Estimate is $8.8M.

3. Q: What is the in-water work window?
   A: The in-water work window is November 15th to March 15th. Note there are aquaculture sites located near the proposed project.

4. Q: Why is a sheet pile coffer dam required?
   A: The sheet pile coffer dam is intended for siltation control. It is not anticipated the coffer dam would be dewatered. The coffer dam system was proposed on either side of the project to reduce the length of the open crossing. Coffer dams are required to provide siltation control for excavation within the water.

5. Q: Would horizontal direction drilling (HDD) be considered?
   A: During the design phase it was determined that HDD would not be feasible due to the size of the proposed water main and variability of substrate material. A proposal for HDD would be considered provided there is a plan to control turbidity during installation and the project requirements could be met.

6. Q: *Will Normandeau be involved with construction?*
A: The City intends to engage Wright-Pierce and their subcontractors to provide administrative support and observation during construction.

7. Q: Why is HPDE pipe proposed? Would concrete pipe be considered?
A: HPDE was selected for its salt resistance and flexibility. Concrete pipe may be considered if it can be shown to provide the same resistance to saltwater environment as HDPE pipe and meets the project requirements.

8. Q: Has a floatation study been conducted?
A: A flotation study has not been conducted. Calculations have been completed to size the concrete anchors. An analysis to determine if additional floatation is needed during pipe installation has not been completed. Contractors will be responsible for final determination of anchor weight sizing based on individual contractors proposed installation methods.

9. Q: Does the HDPE pipe need to be continuous? A continuous pipe may take a long time to evacuate air.
A: The design intent is that the HDPE pipe is continuous. Proposals for segmental construction would be considered provided project testing and pipe joining requirements are met. Non-fused intermediate fittings will not be allowed on the HDPE pipe.

LITTLE BAY SUBAQUEOUS TRANSMISSION MAIN– CITY OF PORTSMOUTH, PORTSMOUTH, NH
PRE-BID CONFERENCE SIGN-IN-SHEET
BIDS DUE DATE/ TIME: **8/21/2023** AT: 2:00 PM

Name	Organization Name	Phone Number	Email
Riley Donovan	N. Granese & Sons, Inc.	781 592 8121	RRDonovan@ngranese.com Info@ngranese.com
Eric Chenevert	Bidco Marine Group	716.847.1111	eric@bidcomarine.com
Adam Squatrito	asquatrito@albaneseds.com	617-697-6817	Albane D&S
Sean Milligan	Sargent	207-944-3602	smilligan@sargent.us
Bernie Lee	Severino	603-234-8516	blee@severinotrucking.com
Scotty Linscott	H.B. Fleming	207-749-1187	Scotty@HBFLEMING.com
Katie Rumpf	"	"	KRumpf@HBFLEMING.com
Ronald Meyer	Ballard M.C.	757 264 3514	ron.meyer@ballardmc.com
Mike Williams	Ballard MC	443-995-2756	MIKE.WILLIAMS@BALLARDMC.com
Kevin Wiker	Kokosing Marine	443.864.2551	kwiker@kokosingmarine
Bill Haines	VARI-Tech	978-621-8497	bhaines@varitech.com
Jeremy Boston	Town of Newington	603 436 7640	JBoston@TownofNewingtonnh.com

Please print legibly.

NHDES-W-09-057

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM SUBCONTRACTOR PARTICIPATING FORM

CLEAN WATER AND DRINKING WATER
STATE REVOLVING LOAN FUND

FEDERAL RULE: 40 CFR Part 33

FORMERLY EPA-6100-2

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE[1] subcontractor[2] the opportunity to describe work received and/or report any concerns regarding the EPA-funded project. (e.g., in areas such as termination by prime contractor, late payments, etc.) The DBE subcontractor can as an option, complete and submit this form to other EPA DBE Coordinator at any time during the project period of performance.

Subcontrator Name:	Project Name:	
Bid/Proposal No:	Assistance Agreement ID: (if known)	Point of Contact:
Address: Street # and Name	City/Town	State ZIP
Telephone No:	Email:	
Prime Contractor Name:	Issuing Funding Entity:	

Contract Item Number	Descripton of Work Receive from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature:		Printed Name:	
Title:		Date:	

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from with EPA accepts certifications as described in 40CFR 33.204-33.205. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

NHDES-W-09-058

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM SUBCONTRACTOR PERFORMANCE FORM

NHDES CLEAN WATER AND DRINKING WATERSTATE REVOLVING LOAN FUND

FEDERAL RULE: 40 CFR Part 33

FORMERLY EPA FORM 6100-3

This form is intended to capture the DBE[3] subcontractor's[4] description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package. You will find NHDES bid information in Section A of the front-end documents.

Subcontrator Name:		Project Name:
Bid/Proposal No:	Assistance Agreement ID: (if known)	Point of Contact:
Address: Street # and Name	City/Town	State ZIP
Telephone No:		Email:
Prime Contractor Name:		Issuing Funding Entity:

Contract Item Number	Descripton of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of work submitted to the Prime Contractor

DBE Certified by: ☐ DOT ☐ SBA ☐ Other:	Meets/exceeds EPA Certification Standards? ☐ Yes ☐ No ☐ Unknown

Prime Contractor Signature:		Printed Name:	
Title:		Date:	
Subcontractor Signature:		Printed Name:	
Title:		Date:	

[3] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from with EPA accepts certifications as described in 40CFR 33.204-33.205. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[4] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Turbidity Monitoring Plan

July 2021

Prepared by:
Wright-Pierce
230 Commerce Way, Suite 302
Portsmouth, NH 03801

Turbidity Monitoring Plan

Introduction

Installation of the proposed replacement 24-inch HDPE water main across Little Bay will require excavation within the intertidal zone and within portions of the tidal buffer zone to bury the pipe to protect the pipe from freezing, anchor drag, and tidal currents. The use of a temporary steel cofferdam is proposed to support the excavation in the water and as a means to control sediment in Little Bay during construction. The project has been designed to minimize environmental impacts to the greatest extent practical. However, there is the potential for construction activities to result in exceedance of allowable turbidity increases during construction. The following plan describes how turbidity will be monitored during construction to confirm the compliance with surface water quality standards.

Surface Water Quality Regulations

New Hampshire Surface Water Quality Regulation Env-Wq 1703.11, stipulates that turbidity in Class B waters shall not exceed natural occurring conditions by more than 10 NTUs. The Little Bay is considered a Class B water.

Turbidity Monitoring Locations

Turbidity monitoring shall occur at four locations: 100 ft downcurrent and 100 ft upcurrent from project station 105+00 (on the Durham side) and project station 129+00 (on the Newington side). At each location, turbidity will be measured using a turbidity probe at the near-surface (within 1 foot of the surface), mid-depth, and near-bottom (within 1 foot of the channel floor). The turbidity probe shall be maintained and calibrated according to manufacturer's specifications.

Turbidity Monitoring Procedures

Turbidity monitoring will be the responsibility of the contractor selected to construct the project. Turbidity monitoring will be required when the contractor is working in the waters of Little Bay. The construction contract documents will require the Contractor to comply with the following monitoring program:

- On a daily basis, prior to starting in-water activities, measure turbidity at each of the designated monitoring locations to establish pre-construction turbidity levels.
- Measure upcurrent and downcurrent turbidity at four-hour intervals at each monitoring location during in-water work.
- Average the three turbidity measurements at each location.
- If the average turbidity readings during in-water work is greater than 10 NTUs higher than the average pre-construction turbidity at that location for that day, modify work procedures and inspect, repair, or implement best management practices (BMPs).
- If at the next 4-hour reading, average turbidity readings are greater than 10 NTUs higher than the pre-construction average level, stop all in-water work and repair or implement additional BMPs. Resume in-water only after the reading average at the monitoring locations are less the 5 NTU above the pre-construction average.
- If in-water activities are not occurring on one end of the project, monitoring will not be required at the monitoring locations on that end of the project.

Reporting

The contractor will be required to submit a daily turbidity monitoring report to the Engineer with the following information:

- Date
- Time
- Water depth
- Tide stage
- Weather conditions
- Pre-construction turbidity readings at each monitoring location
- Turbidity measurements taken at the monitoring locations during in-water activities
- If the average reading at a station exceeded 10 NTUs above the pre-construction reading at the station, the actions taken to investigate and remediate the reason for the turbidity exceedance.

Monitoring reports will be reviewed daily by the Engineer. Frequent turbidity exceedances may require an assessment of construction and monitoring practices.