LEC

WETLANDS WILDLIFE WATERWAYS

Dual Expanded Environmental Notification Form and Proposed Environmental Impact Report

October 15, 2026



Project

Amesbury Former MGP Site

Remediation Project

Powwow River

Amesbury, Massachusetts

Proponent

Boston Gas Company

170 Data Drive

Waltham, MA 02451

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October 15, 2026

MEPA Portal Filing

Secretary Rebecca Tepper
Massachusetts Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Dual Expanded Environmental Notification Form and Proposed Environmental Impact Report
Amesbury Former MGP Site Remediation Project
Amesbury, Massachusetts
[LEC Project #: GEIC\13-162.01]

Dear Secretary Tepper:

On behalf of the Project Proponent, Boston Gas Company (BGC), LEC Environmental Consultants, Inc. (LEC), in collaboration with GEI Consultants, Inc. (GEI), is filing the enclosed Dual Expanded Environmental Notification Form (EENF) and Proposed Environmental Impact Report (EIR) for the *Amesbury Former Manufactured Gas Plant (MGP) Site Remediation Project* in accordance with the *Massachusetts Environmental Policy Act* (M.G.L. c 30, s. 61-62H, MEPA) and the *MEPA Regulations* (301 CMR 11.00), specifically 301 CMR 11.05(9) and 11.06 (13) which allows a Proponent to file a Dual EENF and a Proposed EIR requesting a Rollover EIR.

The proposed project is an environmental remediation project that must be undertaken under the Massachusetts Contingency Plan Regulations (310 CMR 40.0000, MCP). The project involves primarily dredging and excavating up to approximately 13,000 cubic yards of contaminated sediment from the Powwow River and adjacent wetlands. Impacts to Wetland Resource Areas are unavoidable due to the location of the contaminated sediment within these areas; however, the purpose of the project is remediation to improve environmental conditions, and all impacts have been avoided, minimized and mitigated to the extent practical given the project purpose and MCP requirements.

MEPA jurisdiction is triggered because the project requires a state permit (401 Water Quality Certification and Chapter 91 License(s)) and exceeds the following review thresholds for an ENF:

- Alteration of 5,000 or more square feet of BVW [11.03(3)(b)(1)(d)]
- Alteration of ½ or more acres of any other wetland. [11.03(3)(b)(1)(f)]
- Dredging of 10,000 or more cy of material [11.03(3)(b)(3)]
- Disposal of 10,000 or more cy of dredged material [11.03(3)(b)(4)]

The project does not exceed any mandatory EIR review thresholds related to impacts; however, it is located within one mile of an Environmental Justice Population; therefore, an EIR is required. As noted above, the Proponent is requesting a Rollover EIR. If the Rollover EIR is not granted, the Proponent requests that the Secretary grant a Single EIR.

The proposed project is described in the following report and in the attached supporting figures and plans:

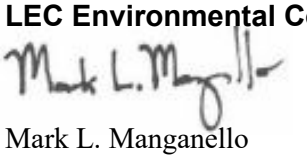
- *GEI Figures,* prepared by GEI, dated October 2026 (Appendix D)
- *Amesbury Former MGP Remediation Site Plans*, prepared by GEI, dated October 15, 2026 (Appendix E)
- *Environmental Resources Map*, prepared by LEC, dated September 17, 2026 (Appendix F)

In accordance with 301 CMR 11.16, a copy of this Dual EENF and Proposed EIR has been circulated to the required agencies/reviewers (refer to Distribution List included herein). Public Notice of Environmental Review will be published in the *Newburyport Daily News* on or before the date notice will appear in the Environmental Monitor, October 23, 2026, as required by 301 CMR 11.15 (l) of the MEPA Regulations.

Thank you for your consideration of this Dual EENF and Proposed EIR. If you have any questions, please do not hesitate to contact me at 508-746-9491 or at mmanganello@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.



Mark L. Manganello
Assistant Director of Ecological Services

cc: Ryan Hoffman, GEI Consultants, Inc.
Kenneth Lento, Boston Gas Company
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Public Notice

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Appendix H
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Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Information

Project Name: **Amesbury Former MGP Site Remediation Project**	Street Address: **Powwow River between Water Street and Noel Street**
Municipality: **Amesbury**	Watershed: **Merrimack River**
Universal Transverse Mercator Coordinates:	Latitude: 42º 51' 20" Longitude: 70º 55' 29"
Estimated commencement date: **May 2028**	Estimated completion date: **2029**
Project Type: **Remediation**	Status of project design: 3**5% complete**
Proponent: **Boston Gas Company**	Street Address: **170 Data Drive**
Municipality: **Waltham**	State: **MA** Zip Code: **02451**
Name of Contact Person: **Mark Manganello**	Firm/Agency: **LEC Environmental Consultants, Inc.**
Street Address: **12 Resnik Road, Suite 1**	Municipality: **Plymouth**
State: **MA**	Zip Code: **02360**
Phone: **508-746-9491** Fax:	E-mail: mark@lecenvironmental.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☐Yes ☒No

Is there an Environmental Justice (EJ) population within Designated Geographic Area (DGA)? (see 301 CMR 11.02)? ☒Yes ☐No

What is the DGA for the project? ☒1 mile ☐5 miles ☐N.A.

If required, when was Advanced Notification sent to the EJ Reference List (see 301 CMR 11.05(4))?
July 22, 2026

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))	☒Yes ☐No (if a Rollover is not granted)
b Rollover EIR? (see 301 CMR 11.06(13))	☒Yes ☐No
c Special Review Procedure? (see 301CMR 11.09)	☐Yes ☐No
d Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes ☐No
e Phase I Waiver? (see 301 CMR 11.11)	☐Yes ☐No

Are you otherwise requesting:
f Qualifying housing criteria? (see 301 CMR 11.01(2)(c)1. & 2.) ☐Yes ☒No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF, if required by applicable MEPA protocols.)

Is the project proposed as an Ecological Restoration Project or Ecological Restoration Limited Project under Wetlands Protection Act regulations at 310 CMR 10.00? ☐Yes ☒No

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?
Alteration of 5,000 or more square feet of BVW [11.03(3)(b)(1)(d)]
Alteration of ½ or more acres of any other wetland. [11.03(3)(b)(1)(f)]
Dredging of 10,000 or more cy of material [11.03(3)(b)(3)]
Disposal of 10,000 or more cy of dredged material [11.03(3)(b)(4)

Which Agency Permits will the project require? **MassDEP Water Quality Certification and Chapter 91 Waterways Licenses**

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

Summary of Project Size & Environmental Impacts	**Existing**	**Change**	**Total**
Land			
Total site acreage	15.65		
New acres of land altered[1]		15.65	
Acres of impervious area	0	0	0
Square feet of new bordering vegetated wetlands alteration		16,394	
Square feet of new other wetland alteration		310,624	
Acres of new non-water dependent use of tidelands or waterways		0	
Structures			
Gross square footage	0	0	0
Number of housing units	0	0	0
Maximum height (feet)	0	0	0
Greenhouse Gas (GHG) emissions (tpy)[2]		0	
Transportation			
Vehicle trips per day	0	0	0
Parking spaces	0	0	0
Wastewater			
Water Use (Gallons per day)	0	0	0
Water withdrawal (GPD)	0	0	0
Wastewater generation/treatment (GPD)	0	0	0

[1] All land alteration, as well as all wetlands alteration and tidelands use, should be reported in this table, even if the project site is previously developed and/or the project is considered "redevelopment."
[2] The estimate of GHG emissions can be generated by inserting building type and square footage into the MEPA Emissions Footprint Estimation Tool, available here. This is intended to be an estimate based on conservative assumptions for fuel usage, and should be updated if full GHG analysis is provided for the project.

Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0	0

Is the project located within a mapped FEMA floodplain (100-year or 500-year)?
☒Yes ☐No

1. What flood zone(s) is the project located in? **Zone AE**

2. Has a base flood elevation(s) (BFE) been determined by FEMA? **X** Yes No If yes, list the elevation(s): **10.8 and 11.0**

3. What is the FEMA FIRM Panel number(s) and effective date(s) for the project site? 05009C0106G, July 8, 2025 (print and attach, as part of required attachment #4, a FEMA FIRMette from the FEMA Flood Map Service Center website)

Has this project been filed with MEPA before?
☐ Yes (EEA #_____) ☒No

Has any project on this site been filed with MEPA before?
☒ Yes (EEA #14651) ☐No

General Project Information

All proponents must fill out this section

Project Description:

Describe the existing conditions and land uses on the project site:

The Project Site is coincident with the proposed project footprint of disturbance which includes portions of multiple privately owned properties along the Powwow River as well as property owned by National Grid and the City of Amesbury. The Project Site includes portions of 39 Water Street, 39A Water Street, 33R Oakland Street, 35 Oakland Street, 37 Oakland Street, 39 Oakland Street, 41 Oakland Street, 43 Oakland Street, 4 Oakland Court, 24 Oak Street, 26 Oak Street, 28 Oak Street, 3 River Street, 1 Field Street, 7 Noel Street, and 8 Noel Street.

Although property uses vary within the properties that constitute the Project site, there are no buildings or developed areas within the Project site. As described above, the Project site includes undeveloped vegetated uplands, vegetated wetlands, and the Powwow River. There are electric distribution/transmission lines within easements within the Project site, including an overhead distribution/transmission line extending along the western bank of the Powwow River. Municipal sewer lines extend within easements within the property at 1 Field Street and at 8 Noel Street. The property at 8 Noel Street also contains a large overgrown man-made stormwater management basin, a portion of which is within the Project site.

Upland conditions within the project footprint and adjacent areas include mature, forested uplands within historically disturbed areas as well as meadow and thicket conditions, also within historically disturbed areas. There are electric transmission lines within easements within the Project site, including an overhead transmission line extending along the western bank of the Powwow River. Municipal sewer lines extend within easements within the property at 1 Field Street. The property at 8 Noel Street contains a large overgrown man-made stormwater management basin, a portion of which is within the Project site.

The preceding discussion of the Project site describes the properties that constitute the Project site on which the proposed project activities will occur. Sections of this report also refer to the "Site" which is a larger area that includes the extent of contamination identified under the MCP and established in the Supplemental Phase II CSA Report submitted to MassDEP in November 2025. The upstream boundary of the Site extends to a point in the river near 35 Water Street/1 Field Street and continues downstream to Route 495 as shown on Figure 2 in the attached report. The Project site is a smaller area within the Site. Sections of the attached report also refer to the "Upper River" which contains the Project site and the "Lower River" which extends south from the Project site to Route 495 within the Site. No activities are proposed or required in the Lower River.

See attached Dual Expanded Environmental Notification Form and Proposed Environmental Impact Report for additional information.

Describe the proposed project and its programmatic and physical elements:

The Project involves implementing a contaminated sediment remediation plan within a portion of the Powwow River and adjacent wetlands in accordance with requirements of the Massachusetts Contingency Plan Regulations (310 CMR 40.0000; "MCP"). The Project involves the following activities:

- **Dredging contaminated sediment from the Powwow River to a depth of up two feet and installation of a subaqueous cap to restore the dredge area and match existing grades.**
- **Dredging contaminated sediment from a mudflat within the Powwow River to depths of generally two to three feet, and backfilling with imported, clean silt, sand, and gravel to match existing grades and existing sediment grain-size distribution.**
- **Excavation of contaminated sediment from a wetland located adjacent to the river to a depth of three feet and backfilling with wetland topsoil to match existing grades.**
- **Construction of two (2) laydown/staging areas for construction equipment and material management and processing, one on the north side of the Project at 39 Water Street and the other on the south side of the Project at 8 Noel Street.**
- **Construction of temporary equipment access/haul roads extending from each of the laydown/staging areas to the excavation and dredging areas.**

- **Off-site disposal of contaminated sediment at a treatment facility or landfill after dewatering.**
- **Comprehensive restoration of all disturbed areas, including the dredge footprint in the Powwow River, the wetland excavation footprint, laydown/staging areas and access/haul roads. Restoration will consist of importing clean, compatible soils where necessary, re-establishing pre-existing grades, and planting native species to restore and improve conditions in all temporarily disturbed areas.**
- **Implementing property use restrictions (e.g. "Activity and Use Limitations" or "AULs") within portions of the river.**

In total, approximately 13,000 cubic yards of sediment will be removed from a 3.5-acre dredging and excavation footprint. While not part of the project site for the purposes of environmental permitting, achieving a condition of No Significant Risk (NSR) under the MCP includes leaving the natural sediment located downstream of the project site (referenced as the Lower River) in place. This so-called "natural cap" has been deemed sufficient to achieve NSR under the MCP. No work is proposed in the Lower River; however, an AUL will be implemented on this area under the MCP.

Although deeper contaminated sediment within the Upper and Lower River will be left in place at depth, the exposure pathways to future ecological and human receptors will be restricted by a subaqueous cap (Upper River) or the existing sediment acting as a natural cap (Lower River).

The Property use restrictions will be utilized as need to prohibit the relocation or disturbance of deeper sediment, maintain a designated sediment elevation, require repair of cap if disturbed, and require preparation of a sediment management plan and health and safety plan if the sediment were dredged or otherwise handled during future work.

After remediation, all disturbed areas associated with this project will be fully restored, resulting in a significant improvement over existing conditions. Once the work is complete, a condition of NSR and a Permanent Solution will be achieved at the site under the MCP.

Impacts from the various aspects of the project have been evaluated, with a focus on analyzing impacts to Wetland Resource Areas and upland/Buffer Zone areas, and construction-related impacts.

See attached Dual Expanded Environmental Notification Form and Proposed Environmental Impact Report for additional information.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

The objective of the proposed Project is to implement a hazardous material remediation project in accordance with the requirements of the MCP. The goal is to execute a practicable, site-specific, focused remedial action that will achieve a condition of No Significant Risk and a Permanent Solution, as defined and required by the MCP. The interests of the MCP broadly align with the interests of other environmental regulations in Massachusetts, including those that regulate wetlands and waterways, in that the analysis of remediation action alternatives focuses on measures that eliminate and/or mitigate risk to human health and the environment.

Since remediation projects focus on cleanup of specific contaminated sites, off-site project alternatives are not feasible and have not been considered and the "No Action Alternative" is not feasible since it would not achieve the MCP requirements of site cleanup.

Extensive evaluation of on-site remediation alternatives is mandated by the MCP and involves a careful analysis of the extent and nature of the contamination and potential options for remediation that will achieve the objectives of the MCP. Field research/sampling and evaluation of methods and design for completing the cleanup under the MCP has been ongoing for many years for the Site.

GEI's alternatives analysis under the MCP identified four remediation options referred to as Remedial Action Alternatives (RAAs), as follows: objective of the proposed project is to implement a hazardous material remediation project in accordance with the requirements of the MCP. The goal is to execute a practicable, site-specific, focused remedial action that will achieve a condition of NSR and a Permanent Solution, as defined and required by the MCP. The interests of the MCP broadly align with the interests of other environmental regulations in Massachusetts, including those that regulate wetlands and waterways, in that the analysis of remediation action alternatives focuses on measures that eliminate and/or mitigate risk to human health and the environment.

Since remediation projects focus on cleanup of specific contaminated sites, off-site project alternatives have not been considered and are not pertinent to this analysis, and the "No Action Alternative" is not practicable since it would not achieve the MCP requirements of site cleanup.

Extensive evaluation of on-site remediation alternatives is mandated by the MCP and involves a careful analysis of the extent and nature of the contamination and potential options for remediation that will achieve the objectives of the MCP. Field research/sampling and evaluation of methods and design for completing the cleanup under the MCP has been ongoing for many years.

GEI's alternatives analysis identified four remediation options referred to as Remedial Action Alternatives (RAA), as follows:

- **RAA1: Excavate Wetland, Dredge Mudflat, Upper and Lower River, and Restoration.**
- **RAA2: Excavate Wetland, Dredge Mudflat, Deep Dredge Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Lower River Only).**
- **RAA3 (the Project): Excavate Wetland, Dredge Mudflat, Shallow Dredge Upper River, Subaqueous Cap in Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Upper and Lower River).**
- **RAA4: Targeted Excavation in Wetland, Targeted Shallow Dredge in Mudflat and Isolated Areas in River to Eliminate RAH (Readily Apparent Harm), Subaqueous Cap Placed in Targeted Dredge Areas, and Temporary Solution.**

A graphic depiction of each RAA is provided in the GEI Figures, prepared by GEI (Appendix D, Figures 2-5). Each Figure depicts the footprint of construction activities that would be involved in each RAA scope of work.

The RAAs consist of technologies, or a combination of technologies, that are likely to reduce, mitigate, or eliminate risks at the Site to achieve a Permanent Solution or, if necessary, a Temporary Solution under the MCP. The RAAs were evaluated in accordance with eight specific criteria established by the MCP. The eight criteria include effectiveness, short-and long-term reliability, implement ability, cost, risks, benefits, timeliness, non-pecuniary interests. While all eight criteria are relevant to MEPA review of alternatives, the benefits criterion is particularly important as it includes the "benefit of restoring natural resources." Based on these criteria, RAA3 – the Project – was selected as the preferred alternative.

In summary, the Project is the alternative that most effectively and efficiently reduces, mitigates and eliminates risk to human health and the environment. RAA1 would involve a substantially larger dredge footprint and volume thereby increasing Wetland Resource Area and and would have substantially greater construction-related impacts due to greater duration and complexity. Thus, impacts to the environment and surrounding community would be greater without significantly improving risk reduction compared to the Project. RAA2 is similar to the Project in terms of footprint, but would involve a substantially larger dredge volume, longer duration and greater complexity than the Project thereby increasing Wetland Resource Area and construction impacts without significantly improving risk reduction compared to the Project. RAA4 involves a reduced dredge footprint by focusing on areas with the highest concentration of contamination; however, this alternative would not achieve a Permanent Solution and would require further remediation in the future which would result in additional impacts due to a second mobilization of construction activities and associated disturbances.

The types of construction-related impacts associated with the staging areas and access areas are generally consistent between the four alternatives since dredging and wetland excavation in each scenario would require similar operations, landside laydown and access. The preceding discussion focuses on the alternatives considered for remediation specifically under the MCP, but does not include construction related impacts. Construction related impacts associated with the staging areas and access areas are generally consistent between the four alternatives since dredging and wetland excavation in each scenario would require similar landside laydown and access. However, it is worth noting that National Grid considered alternatives for design of the laydown area on the 8 Noel Street property, with a focus on avoiding environmental impacts while maximizing construction efficiency. Various configurations and designs for the 8 Noel Street laydown area were considered, including direct access to the river from its nearest point in an effort to avoid the temporary BVW disturbance associated with a long-haul road to the shoreline. Unfortunately, site topography along the shoreline prevented access.

The remediation alternatives and construction related alternatives are described in greater detail below in Section 3.0 of the attached Dual Expanded Environmental Notification Form and Proposed Environmental

Impact Report.

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

The purpose of the Project is itself a form of mitigation in that the purpose is to remove contaminated sediment from the Powwow River and adjacent wetland through remediation. Remediation of contamination in the Powwow River will mitigate the current condition by removing shallow contaminated sediment and replacing it with clean sand and gravel as a cap, and native vegetation where appropriate and creating a condition of No Significant Risk for human health and the environment. Mitigation for the Wetland Resource Area disturbances caused by dredging and excavation of contaminated sediment is achieved through restoration of the affected resource areas. These measures include restoring the dredge footprint with clean sand and gravel, similar in grain size to the existing sediment, and capping underlying sediment to prevent access. The excavated wetland area will be fully restored with hydric soil and a native plant community.

Mitigation is also provided for construction-period impacts to Wetland Resource Areas and Buffer Zones associated with construction laydown/staging area and access/haul road impacts. These disturbances will be fully restored with appropriate topsoil and native plantings, as necessary, that will result in an overall improvement over existing conditions, as discussed in Section 4.6.

Construction period impacts to air quality and generation of turbidity and sheen during the dredging work will be mitigated through monitoring control measures while the remedy is being performed. A turbidity curtain and absorbent booms will be deployed to manage turbidity during construction, with associated turbidity monitoring equipment in the water column. Construction period monitoring and erosion and sediment control measures are discussed in Section 4.7.

Mitigation is also provided for construction impacts through noise and dust control measures, truck traffic routing away from residential areas, emissions restrictions, and notifications prior to construction. See Appendix J for a comprehensive list of mitigation commitments.

If the project is proposed to be constructed in phases, please describe each phase:

The project will not be constructed in phases. It will be constructed in single approximately 11-month mobilization.

_____

Areas of Critical Environmental Concern:

Is the project within or adjacent to an Area of Critical Environmental Concern?
☐Yes (Specify_____)
☒No
if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;
If yes, describe how the project complies with this plan.
_____
Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes ___ No;
If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.
_____

Rare Species:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)
☐Yes (Specify_____) ☒No

Historical/Archeological Resources:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?
☐Yes (Specify_____) ☒No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? ☐Yes (Specify_____) ☐No

Water Resources:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? ___Yes _X_No; if yes, identify the ORW and its location. _____
(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? _X_Yes ___No; if yes, identify the water body and pollutant(s) causing the impairment: Powwow River.

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? ___Yes _X_No

Stormwater Management:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

No new structures or impervious surfaces are proposed; all stormwater measures are focused on construction period erosion and sediment control measures, including silt fence/silt sock at limit of work, use of timber swamp mats, turbidity curtains, and erosion control matting as necessary. A SWPPP will be prepared by the contractor prior to construction.

Massachusetts Contingency Plan:

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan?
Yes _X_ No __; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification):
RTN 3-24070; Phase III RAP in process.

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes _X_ No ___; if yes, describe which portion of the site and how the project will be consistent with the AUL:

There is an AUL on a small river portion of 34-40 Water Street upstream of the proposed dredge areas. No intrusive activities are planned in this AUL area; only watercraft passage in the river is anticipated.

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN?
Yes ___ No _X_ ; if yes, please describe:_____

Soil and Hazardous Waste:

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

Solid waste generated by the project, primarily from the laydown areas and sediment and erosion controls, will be disposed of as non-banned construction waste in accordance with waste facility management regulations at 310 CMR 19.017. Waste will be properly managed and disposed of, pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban).

Will your project disturb asbestos containing materials? Yes ___ No _X_ ;
if yes, please consult state asbestos requirements at http://mass.gov/MassDEP/air/asbhom01.htm

Describe anti-idling and other measures to limit emissions from construction equipment:

Massachusetts Idling Regulation will be followed to prevent unnecessary idling (i.e., in excess of five minutes). With limited exception, idling beyond 5-minutes will not be permitted during construction as per 310 CMR 7.11. Typical methods of reducing idling will be implemented, including driver training, periodic inspections by site supervisors, and posting signage.

Designated Wild and Scenic River:

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes ___ No _X_ ;
if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River? Yes ___ No ___ ; if yes, specify name of river and designation: _____;
if yes, will the project will result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River.
Yes ___ No ___;
if yes, describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

Attachments:

1. List of all attachments to this document
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.
3. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
4. Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts. For all projects, attach FEMA FIRMette from the FEMA Flood Map Service Center website.
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
7. List of municipal and federal permits and reviews required by the project, as applicable.
8. Printout of output report from RMAT Climate Resilience Design Standards Tool.
9. Printout from the EEA EJ Maps Viewer showing the project location relative to Environmental Justice (EJ) Populations located in whole or in part within a 1-mile and 5-mile radius of the project site.

Land Section

All proponents must fill out this section

I. Thresholds / Permit

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1)
___ Yes _X_ No; if yes, specify each threshold:

II. Impacts and Permits

A. Describe, in acres, the current and proposed character of the project site, as follows:

Land Impacts	Existing	Change	Total
Footprint of buildings	0	0	0
Internal roadways	0	SF	SF
Parking and other paved areas	0	0	0
Other altered areas	0	SF	SF
Undeveloped areas	SF	SF	SF
Total: Project Site Acreage			

B. Has any part of the project site been in active agricultural use in the last five years?
___ Yes _X_ No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to non-agricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use?
___ Yes _X_ No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97?
___ Yes _X_ No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction?
___ Yes_X_ No; if yes, does the project involve the release or modification of such restriction? ___ Yes ___ No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A?
___ Yes _X_ No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B?

H. Yes ___ No _X_; if yes, describe

III. Consistency

A. Identify the current municipal comprehensive land use plan
Title: **Amesbury 2030 Master Plan** Date: **April 22, 2024**

B. Describe the project's consistency with that plan with regard to:
i) Economic development: **consistent with objectives by improving environmental conditions near downtown Amesbury**
ii) Adequacy of infrastructure: **N/A project does not affect infrastructure**.
iii) Open space impacts: **N/A project does not change or permanently affect open space.**

iv) Compatibility with adjacent land uses: **improvements to environmental conditions may benefit adjacent properties and land uses.**

C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)
RPA: **Merrimack Valley Planning Commission**

Title: **Merrimack Valley 2025 Priority Growth Strategy** Date: **October 2025**

D. Describe the project's consistency with that plan with regard to:
i) Economic development: **consistent with objectives by improving environmental conditions near downtown Amesbury.**
ii) Adequacy of infrastructure: **N/A project does not affect infrastructure**.
iii) Open space impacts: **N/A project does not affect open space as all disturbances will be fully restored.**

Rare Species Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? ___ Yes _X_ No; if yes, specify, in quantitative terms: Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1) ___ Yes X__ No; if yes, specify each threshold:

B. Does the project require any state permits related to **rare species or habitat**?
___ Yes _X_ No

C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)?
___ Yes _X_ No

D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? ___ Yes _X_ No. If yes,

i) Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? ___Yes ___No; if yes, have you received a determination as to whether the project will result in the “take” of a rare species? ___ Yes ___ No; if yes, attach the letter of determination to this submission.

ii) Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ___ Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts.

iii) Which rare species are known to occur within the Priority or Estimated Habitat?

iv) Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? ___ Yes ___ No

v) If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ___ Yes ___ No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ___ Yes ___ No

B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? ___ Yes X__ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

Wetlands, Waterways, and Tidelands Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? _X_ Yes ___ No; if yes, specify, in quantitative terms:

Alteration of 5,000 or more square feet of BVW [11.03(3)(b)(1)(d)]
Alteration of ½ or more acres of any other wetland. [11.03(3)(b)(1)(f)]
Dredging of 10,000 or more cy of material [11.03(3)(b)(3)]
Disposal of 10,000 or more cy of dredged material [11.03(3)(b)(4)

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? _X_ Yes ___ No; if yes, specify which permit:

Chapter 91 Waterways Licenses
401 Water Quality Certification Dredge/Fill

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? _X_ Yes ___ No; if yes, has a Notice of Intent been filed? ___ Yes _X_ No; if yes, list the date and MassDEP file number: _____; if yes, has a local Order of Conditions been issued? ___ Yes ___ No; Was the Order of Conditions appealed? ___ Yes ___ No. Will the project require a Variance from the Wetlands regulations? ___ Yes _X_ No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

The project involves permanent and temporary Wetland Resource Area impacts, as listed below, resulting from dredging/excavation, construction laydown/staging areas, and access/haul roads. The project is designed to remove contaminated sediment and restore all disturbed areas in accordance with the MCP.

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

Wetlands Impacts	Area (square feet) or Length (linear feet)	Temporary or Permanent Impact?
Coastal Wetlands		
Land Under the Ocean		
Designated Port Areas		
Coastal Beaches		
Coastal Dunes		
Barrier Beaches		
Coastal Banks		
Rocky Intertidal Shores		
Salt Marshes		
Land Under Salt Ponds		
Land Containing Shellfish		
Fish Runs		

Land Subject to Coastal Storm Flowage		
Inland Wetlands		
Bank (lf)	1,164	Temporary
Bordering Vegetated Wetlands	16,394	Temporary
Isolated Vegetated Wetlands		
Land Under Water	192,962	Temporary
Isolated Land Subject to Flooding		
Bordering Land Subject to Flooding	2,825	Temporary
Riverfront Area	114,837	Temporary

D. Is any part of the project:
   i) proposed as a **limited project**? _X_ Yes ___ No; if yes, what is the area: **327,018 sf.**
   ii) the construction or alteration of a **dam**? ___ Yes _X_ No; if yes, describe:
   iii) fill or structure in a **velocity zone** or **regulatory floodway**? _X_ Yes ___ No
   iv) dredging or disposal of dredged material? _X_ Yes ___ No; if yes, describe the volume of dredged material and the proposed disposal site: **Approximately 13,000 cubic yards**. Disposal site is**: Thermal treatment facility or landfill; specific locations to be determined at time of construction.**
   v) a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? ___ Yes _X_ No
   vi) subject to a wetlands restriction order? ___ Yes _X_ No; if yes, identify the area (in sf):
   vii) located in buffer zones? _X_Yes ___No; if yes, how much: **51,709 sf.**

E. Will the project:
   i) Be subject to a local wetlands ordinance or bylaw? _X_ Yes ___ No
   ii) Alter any federally-protected wetlands not regulated under state law? ___ Yes _X_ No; if yes, what is the area (sf)? _____

III. Waterways and Tidelands Impacts and Permits

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? _X_ Yes ___ No; if yes, is there a current Chapter 91 License or Permit affecting the project site? ___ Yes _X_ No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

B. Does the project require a new or modified license or permit under M.G.L.c.91? _X_ Yes ___ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current __0__ Change _0__ Total _0__; if yes, how many square feet of solid fill or pile-supported structures (in sf)? 0_____

C. For non-water-dependent use projects; indicate the following:
   i) Area of filled tidelines on the site: _____
   ii) Area of filled tidelines covered by buildings: _____
   iii) For portions of the site on filled tidelands, list ground floor uses and area of each use: _____
   iv) Does the project include new non-water-dependent uses located over flowed tidelands? Yes ___ No ___
   v) Height of building on filled tidelands: _____

D. Is the project located on landlocked tidelands? ___ Yes _X_ No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? ___Yes _X_ No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? _X_ Yes __ No; *Note: If yes, then the project will be subject to Public Benefit Review and Determination.)*

G. Does the project include dredging? _X_ Yes ___ No; if yes, answer the following questions:
   i) What type of dredging? Improvement _X (remediation)_ Maintenance ___ Both ____
   ii) What is the proposed dredge volume, in cubic yards**: approximately 13,000 cy.**
   iii) What is the proposed dredge footprint **1,600** length (ft) **100-150** width (ft) **2-3** depth (ft)
   iv) Will dredging impact the following resource areas?
      (1) Intertidal _X_ Yes ___ No; if yes, **192,962 sq. ft.**
      (2) Outstanding Resource Waters ___ Yes _X_ No; if yes, ___ sq ft
      (3) Other resource area (i.e. shellfish beds, eel grass beds) ___Yes _X_ No; if yes, ___ *sq ft*

      If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?

      Scope of dredging is driven by MCP requirements and a robust alternatives analysis which focuses on avoidance and minimization to the extent practicable given the goal of removing contaminated material and establishing conditions that meet the MCP criteria for No Significant Risk (NSR).

      If no to any of the above, what information or documentation was used to support this determination?

      The Project is water-dependent because it consists entirely of "facilities and activities undertaken or required by a public agency for purposes of decontamination, capping, or disposal of polluted aquatic sediments" per 310 CMR 9.12(2)(a)14.

      Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.

      A comprehensive alternatives analysis completed in accordance with the requirements of the MCP is included in the EENF and Proposed EIR Report narrative.

      Sediment Characterization:
      Existing gradation analysis results? __Yes ___No: if yes, provide results.
      Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? ___Yes ____No; if yes, provide results.
      Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

      The dredged sediment requires disposal in accordance with the MCP and cannot be used for any other purposes.

      Beach Nourishment ___
      Unconfined Ocean Disposal ___
      Confined Disposal:
      Confined Aquatic Disposal (CAD) ___

Confined Disposal Facility (CDF) ___
Landfill Reuse in accordance with COMM-97-001 ___
Shoreline Placement ___
Upland Material Reuse____
In-State landfill disposal____
Out-of-state landfill disposal ____
(NOTE: This information is required for a 401 Water Quality Certification.)

IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? __ Yes _X_ No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? ___ Yes _X_ No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

Water Supply Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

Water Supply Impacts	Existing	Change	Total
Municipal or regional water supply			
Withdrawal from groundwater			
Withdrawal from surface water			
Interbasin transfer			

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ___ Yes ___ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? ___ Yes ___ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. _____

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? _____Will the project require an increase in that withdrawal? ___Yes ___No; if yes, then how much of an increase (gpd)? _____

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ___ Yes ___No. If yes, describe existing and proposed water supply facilities at the project site:

Existing/Proposed Water Supply Facilities	Permitted Flow	Existing Avg Daily Flow	Project Flow	Total
Capacity of water supply well(s) (gpd)				
Capacity of water treatment plant (gpd)				

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:
   i) New water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? ___ Yes ___ No
   ii) A Watershed Protection Act variance? ___ Yes ___ No; if yes, how many acres of alteration? ____
   iii) A non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? ___ Yes ___ No

III. Consistency

A. Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

Wastewater Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe the volume in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

Wastewater Impacts	Existing	Change	Total
Discharge of sanitary wastewater			
Discharge of industrial wastewater			
Total			
Discharge to groundwater			
Discharge to outstanding resource water			
Discharge to surface water			
Discharge to municipal or regional wastewater facility			
Total			

B. Is the existing collection system at or near its capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? ___ Yes___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ___ Yes ___ No; if yes, describe as follows:

Existing/Proposed Wastewater Facility	Permitted	Existing Avg Daily Flow	Project Flow	Total
Capacity of wastewater treatment plant (gpd)				

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? ___ Yes ___ No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? ___ Yes ___ No; if yes, what is the capacity (tons per day):

Existing/Proposed Wastewater Residuals Facility	Existing	Change	Total
Storage			
Treatment			
Processing			
Combustion			
Disposal			

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

III. Consistency

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ___ Yes ___ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

Transportation Section

Traffic Generation:

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to traffic generation (see 301 CMR 11.03(6))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to state-controlled roadways? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

Traffic Impacts	Existing	Change	Total
Number of parking spaces:			
Number of vehicle trips per day:			
ITE Land Use Code(s):			

B. What is the estimated average daily traffic on roadways serving the site?

Roadway	Existing	Change	Total
1. _____			
2. _____			
3. _____			

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

E. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? ____ Yes ____ No; if yes, describe if and how will the project will participate in the TMA:

F. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? ____ Yes ____ No; if yes, generally describe:

G. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)?

H. If the project is located near Boston Logan International Airport (BOS), Worcester Regional Airport (ORH) or Hanscom Field (BED) and may penetrate arrival or departure airspace, has the proponent contacted the Massachusetts Port Authority to conduct a review of the project and to inform the proponent's filing of a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (forms 7460-1 and 7460-2)?

III. Consistency

A. Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

Roadways and Other Transportation Facilities:

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to roadways or other transportation facilities (see 301 CMR 11.03(6))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the Energy Section. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

B. Will the project involve any
   i) Alteration of bank or terrain (in linear feet)? _____
   ii) Cutting of living public shade trees (number)? _____
   iii) Elimination of stone wall (in linear feet)? _____

III. Consistency

A. Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

Energy Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

Energy Impacts	Existing	Change	Total
Capacity of electric generating facility (megawatts)			
Length of fuel line (miles)			
Length of transmission lines (miles)			
Capacity of transmission lines (kilovolts)			

B. If the project involves construction or expansion of an electric generating facility, what are:
   i) The facility's current and proposed fuel source(s)?
   ii) The facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? ___Yes ___No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency

A. Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

Air Quality Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? ___ Yes ___ No; if yes, describe existing and proposed emissions (in tons per day) of:

Air Quality Impacts	Existing	Change	Total
Particulate matter (PM)			
Carbon monoxide			
Sulfur dioxide			
Volatile organic compounds (VOC)			
Oxides of nitrogen (NO_x)			
Lead			
Any hazardous air pollutant			
Carbon dioxide			

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

Solid and Hazardous Waste Section

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes _X_ No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes _X_ No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

Solid Waste Impacts	Existing	Change	Total
Storage			
Treatment/Processing			
Combustion			
Disposal			

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

Haz Waste Impacts	Existing	Change	Total
Storage			
Recycling			
Treatment			
Disposal			

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos? ___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency

A. Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

Historical and Archaeological Resources Section

I. Thresholds / Impacts

A. Have you consulted with the Massachusetts Historical Commission? _X_ Yes ___ No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? __X_Yes ____ No; if yes, attach correspondence

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes _X_ No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes ___ No; if yes, please describe:

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes _X_ No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes ___ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

II. Impacts

A. Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

III. Consistency

A. Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

Climate Change Adaptation and Resiliency Section

All Proponents must complete the following section based on the output report generated by the MA Climate Resilience Design Standards (CRDS) Tool required attachment #8 to the ENF).

I. Project Information

A. What is the useful life (e.g., 50 years, 70 years) and planning horizon (e.g., 2070) identified for the project on the output report?

B. List the exposure score (High / Moderate / Low / Not Exposed) and key scoring rationale (from "Scoring Rationale – Exposure" section) from the CRDS Tool output report as indicated below.

Climate Parameter	Exposure Score (High / Moderate / Low / Not Exposed)	Scoring Rationale
Sea Level Rise/ Storm Surge	High	• Is project located within the predicted mean high water shoreline by 2030? **X**_Y __N • Does the project site have a history of coastal flooding? **X**_Y __N
Extreme Precipitation (Urban/Stormwater Flooding)	High	• Will project result in net increase in impervious area? __Y **X**_N • Is existing impervious area over 50%? __Y **X**_N • Is there historic flooding at the site? **X**_Y __N
Extreme Precipitation (Riverine Flooding)	High	• Is project in current 100-year floodplain? **X**_Y __N • Is project in current 500-year floodplain? **X**_Y __N • Is there historic riverine flooding at the site? **X**_Y __N
Extreme Heat	High	• Is the project removing tree cover? **X**_Y __N • List existing tree cover % (value or range) **60%**__

II. Asset Information

A. List each asset analyzed through the Tool:[3] **Natural Resources (Aquatic Resources, Coastal Resource Area, Forested Ecosystems, Wetland Resource Area – Inland).**

B. List the below from the CRDS Tool output report for at least one representative asset (if the project proposes only natural resource assets, leave blank).

Asset:

Climate Parameter	Asset Risk Rating	Target Planning Horizon	Intermediate Planning Horizon (if applicable)	Recommended Return Period or Design Guideline (##-year storm event or ##-percentile)
Sea Level Rise/ Storm Surge				
Extreme Precipitation (Urban Flooding)				
Extreme Precipitation (Riverine Flooding)				
Extreme Heat				

[3] Guidance from the CRDS Tool should be consulted to determine the appropriate asset and sub-asset types applicable to the project. The Proponent should not enter "Other" for both the "Asset" and "Sub-asset" type, as the Tool will not generate recommended design standards in such instance.

III. Climate Change Adaptation and Resiliency Strategies

A. Is the project anticipated to meet the recommendations of the CRDS Tool for any building/facility or infrastructure asset identified in Section II.A. above? ___Yes ___ No ___

N/A – no buildings or infrastructure associated with project.

i) If yes, explain how the project design is consistent with Tool recommendations (e.g., consistency with planning horizon and return periods with respect to key project components such as building elevation, stormwater sizing, and heat mitigation).

ii) If no or unknown, explain how best available climate change data and projections were otherwise used to inform the design of the project. If the project will contribute to, or is otherwise dependent on, regional adaptation solutions or flexible adaptive strategies, please specify.

B. For all projects, describe how the project design has incorporated climate change adaptation and resilience strategies, or otherwise serves to promote climate resiliency. Discuss whether the project has taken steps to employ nature-based solutions.

As a remediation project that does not involve any proposed structures or permanent changes to existing conditions, and will be complete within 1-year, long-term climate change and resilience measures are not necessary or otherwise applicable to this project. During the 1-year of construction activity, current climate change interactions associated with sea level rise, extreme precipitation, and extreme heat have been addressed.

During construction, the project footprint will be susceptible to impacts from significant precipitation events and associated stormwater flooding and riverine flooding. Stormwater flooding generated within the project area, will be mitigated by construction period erosion and sedimentation controls and further detailed in a Stormwater Pollution Prevention Plan (SWPPP).

Portions of the project site are located within the FEMA 100-year floodplain but outside of the Massachusetts Coast Flood Risk Model (MC-FRM). During construction, the project team will monitor weather forecasts and restrict construction activity accordingly. All construction equipment, material stockpiles and other project-related equipment and materials will be stored above the 100-year floodplain elevation within the construction staging/laydown areas.

Extreme heat may occur during the construction process and removal of existing trees may temporarily exacerbate extreme heat within the construction staging/laydown areas. Given the short duration of the project, and the plan to restore all disturbed areas including re-plant saplings to replace trees that are removed, the project will not change the long-term effects of extreme heat or otherwise exacerbate extreme heat. Extreme heat during construction will be managed by the contractor based on their Health and Safety Plan.

IV. Inland and Coastal Flooding

A. Is the project located in Land Subject to Coastal Storm Flowage (LSCSF) or Bordering Land Subject to Flooding (BLSF) as defined in the Wetlands Protection Act? _X__Yes ____No

B. If yes, describe how/whether proposed changes to the site's topography (including the addition of fill) will result in changes to floodwater flow paths and/or velocities that could impact adjacent properties or the functioning of the floodplain. General guidance on providing this analysis for coastal projects can be found in the CZM/MassDEP Coastal Wetlands Manual.

No changes to site topography are proposed. All excavated/dredged areas will be backfilled or capped to restored pre-existing topography.

Environmental Justice Section

I. Identifying Characteristics of EJ Populations

A. If an Environmental Justice (EJ) population has been identified as located in whole or in part within 5 miles of the project site, describe the characteristics of each EJ populations as identified in the EJ Maps Viewer (i.e., the census block group identification number and EJ characteristics of "Minority," "Minority and Income," etc.). Provide a breakdown of those EJ populations within 1 mile of the project site, and those within 5 miles of the site.

EJ Communities within 1 mile of Project Site (2)		
EJ Block Group	**Municipality**	**Criteria**
BG 1, CT 2663	Amesbury	Income
BG 2, CT 2664	Amesbury	Income

EJ Communities within 5 miles of Project Site (5)		
EJ Block Group	**Municipality**	**Criteria**
BG 1, CT 2663	Amesbury	Income
BG 2, CT 2664	Amesbury	Income
BG 1, CT 2683	Newburyport	Income
BG 3, CT 2683	Newburyport	Income
BG 3, CT 2621	Merrimac	Income

B. Identify all languages identified in the "Languages Spoken in Massachusetts" tab of the EJ Maps Viewer as spoken by 5 percent or more of the EJ population who also identify as not speaking English "very well." The languages should be identified for each census tract located in whole or in part within 1 mile and 5 miles of the project site, regardless of whether such census tract contains any designated EJ populations.

According to the EJ Maps Viewer "Languages Spoken in Massachusetts" tab, there are no communities mapped within one mile of the Project Site with 5% or more not speaking English very well.

C. If the list of languages identified under Section I.B. has been modified with approval of the EEA EJ Director, provide a list of approved languages that the project will use to provide public involvement opportunities during the course of MEPA review. If the list has been expanded by the Proponent (without input from the EEA EJ Director), provide a list of the additional languages that will be used to provide public involvement opportunities during the course of MEPA review as required by Part II of the MEPA Public Involvement Protocol for Environmental Justice Populations ("MEPA EJ Public Involvement Protocol"). If the project is exempt from Part II of the protocol, please specify.

As noted above, no languages are identified within the one-mile radius. The list of languages has not been modified.

II. Potential Effects on EJ Populations

A. If an EJ population has been identified using the EJ Maps Viewer within 1 mile of the project site, describe the likely effects of the project (both adverse and beneficial) on the identified EJ population(s).

Anticipated short-term impacts of the project include temporary Wetland Resource

Impacts, construction-period activities that may result in a temporary increase in airborne dust, temporary constriction-period noise and vibration, minor and intermittent traffic congestion, temporary re-routing of the Amesbury Riverwalk, and restricted access to the Powwow River.

Beneficial impacts includes environmental and public health benefits through remediation of the Powwow River.

B. If an EJ population has been identified using the EJ Maps Viewer within 5 miles of the project site, will the project: (i) meet or exceed MEPA review thresholds under 301 CMR 11.03(8)(a)-(b) __ Yes ☒ **No**; or (ii) generate150 or more new average daily trips (adt) of diesel vehicle traffic, excluding public transit trips, over a duration of 1 year or more. ___ Yes ☒ **No**

C. If you answered "Yes" to either question in Section II.B., describe the likely effects of the project (both adverse and beneficial) on the identified EJ population(s).

N/A

III. Public Involvement Activities

A. Provide a description of activities conducted prior to filing to promote public involvement by EJ populations, in accordance with Part II of the MEPA EJ Public Involvement Protocol. In particular:

i) If advance notification was provided under Part II.A., attach a copy of the Environmental Justice Screening Form and provide list of CBOs/tribes contacted (with dates). Copies of email correspondence can be attached in lieu of a separate list.

The Proponent obtained the Project-Specific EJ Reference List of CBOs/Tribes and subsequently circulated the EJ Screening Form on July 22, 2026. The List and Form are attached to the EENF/Proposed EIR in Appendix C.

ii) State how CBOs and tribes were informed of ways to request a community meeting, and if any meeting was requested. If public meetings were held, describe any issues of concern that were raised at such meetings, and any steps taken (including modifications to the project design) to address such concerns.

The email circulation and EJ Screening Form provided project details, information regarding a public meeting on August 26, 2026, a website with project details and documents, and contact information. To date, the Proponent has not received any comments.

iii) If the project is exempt from Part II of the protocol, please specify.

B. Provide below (or attach) a distribution list (if different from the list in Section III.A. above) of CBOs and tribes, or other individuals or entities the Proponent intends to maintain for the notice of the MEPA Site Visit and circulation of other materials and notices during the course of MEPA review.

A Project Specific EJ Reference List including the CBOs/tribes and other individuals and entities to be informed of the MEPA Site Visit is attached to the EENF.

C. Describe (or submit as a separate document) the Proponent's plan to maintain the same level of community engagement throughout the MEPA review process, as conducted prior to filing.

Community outreach was initiated on July 22, 2026 with circulation of the EJ Screening Form to the parties community stakeholders included in the EJ Reference List for the Project provided by MEPA on July 22, 2026. The email to the EJ Reference List and the EJ Screening Form included notice of the virtual public

meeting held on August 26, 2026. The same notice was posted on the project website (www.amesburymgpsite.com) on July 22, 2026 . The public meeting was also advertised in the Newburyport Daily News on August 19, 2026. Project flyers were posted at public locations throughout the community prior to the public meeting. There were no attendees at the August 26, 2026 public meeting. The meeting was recorded and posted to the Project website and an email was sent to the EJ Reference List notifying stakeholders of the availability of the video and requesting comments or questions prior to the anticipated MEPA filing date of October 15, 2026. No questions or comments have been received.

The Proponent is committed to continued public involvement and feedback by interested members of the public, including the EJ Populations. The Proponent and Project Team will submit a Chapter 91 License Application and Water Quality Certification Application, including a public notice published in the local newspaper and 21-day comment period, where the public is provided the opportunity to submit comments to MassDEP. Further, the Proponent and Project Team will submit an NOI Application with the Amesbury Conservation Commission, including notifications to abutters that are part of the EJ Community within 100-feet of the Project Site. The Proponent and Project Team also will include any interested parties in email circulations of new information and/or scheduled meetings. The Proponent is open to additional means of public outreach and community engagement throughout the MEPA process and subsequent permit processes.

IV. For Projects seeking to meet qualifying housing criteria at 301 CMR 11.01(2)(c)1. and 2.
Not Applicable to this project.

A. Identify any municipality or census tract meeting the definition of "vulnerable health EJ criteria" in the DPH EJ Tool located in whole or in part within the DGA of the Project site. *[Information can be reproduced from Environmental Justice Screening Form, used to provide Advance Notification under 301 CMR 11.05(4).]*

B. Identify the sources of potential pollution within the boundaries of the identified EJ populations within the DGA, using the mapping layers available in the DPH EJ Tool.

C. Describe the benefits provided for the identified EJ populations within the DGA, including but not limited to the following (complete applicable items below):
   i) Affordable units provided: __ units or __% (appx)
   ii) Is the project retaining or increasing existing affordability: __Y __N *[if decreasing existing affordability, provide rationale]*
   iii) Tree plantings: __ [number or acreage] *[Locations for plantings can be identified with input from local or state agencies, or using the i-tree landscape tool to identify census blocks with low tree canopy: https://landscape.itreetools.org/maps/]*
   iv) Open space/parks: ___
   v) Air quality/public health benefits: ____ *[e.g., air quality monitoring, indoor air quality, contributions to local health clinics, etc]*
   vi) Stormwater/flooding reduction measures: ____
   vii) Retail activation / community space: ___
   viii) Affirmative marketing efforts: __ [home ownership, rental, etc]
   ix) Construction period: __ [air/noise monitoring, traffic controls, etc]
   x) Others: ___

Qualifying Housing Criteria Section

Complete the items below to demonstrate compliance with qualifying housing criteria at 301 CMR 11.01(2)(c)1. or 2.

Criterion	Metric	Project
a. **Housing-centered**	Devotes 67% or more of the gross floor area of the Project to residential uses, with the remainder devoted to supportive commercial, cultural, educational, community and/or civic uses. Gross floor area shall not include parking, utility space, and other ancillary spaces not intended for exclusive occupancy by the user or tenant	Gross floor area (GFA) of project: ___ sq (from ENF impacts table on p. 2) GFA % residential: __% (must be ≥67%) GFA of residential use: ___ sq GFA of non-residential uses: __ sq (specify uses: ___, , _) Excluded areas: ___ sq (specify exclusions: __, ___, ___)
b. **Dense**	Achieves density of: • at least 8 units per acre for single-family; • at least 12 units per acre for two- or three-family buildings; and • at least 15 units per acre for multi-family housing of more than three-family residential uses	Single family Number of units: __ Density: __ units per acre (calculated under local zoning requirements; include citation to local requirements and any approvals received) 2- or 3-family buildings Number of units: __ Density: __ units per acre (calculated under local zoning requirements; include citation to local requirements and any approvals received) Multi-family over 3-family Number of units: __ Density: __ units per acre (calculated under local zoning requirements; include citation to local requirements and any approvals received) ***Note:*** *Projects seeking to proceed under 301 CMR 11.01(2)(c)2. may qualify if* ***either*** *criterion (b) or (c) is met.*
c. Infill	Alters up to 5 acres of previously undeveloped land. Redevelopment of previously developed land, or redevelopment of land within or appurtenant to an office or industrial park or large institutional property, shall not be defined as alteration of previously undeveloped land. **OR**	Alteration of previously undeveloped land: __ acres (must be ≤10 acres) If >5 acres but ≤10 acres, specify the following: • # or acreage of trees removed: __ (appx) • # or acreage of trees to be replaced: __ (appx) (indicate # on-site and off-site) • Describe tree retention and replanting plan: _____

Criterion	Metric	Project
c. **Infill** *(cont.)*	Alters up to 10 acres of previously undeveloped land and the Project proposes a tree retention and replanting plan that demonstrates measures to minimize tree removal and replace removed trees to the maximum extent practicable. **AND** No portion of the Project site shall include any land where projected total ecosystem carbon stocks are in the top quintile statewide, as defined by the Massachusetts Forest Carbon Top Quintile data layer issued by EEA; any designated priority habitat, as defined in 321 CMR 10.02; or any land with soils classified as prime farmland by the United States Department of Agriculture which is currently in active agricultural use or was in active agricultural use within the past five years.	**Attach locus map showing the Project site in relation to the 3 natural resource areas specified in this criterion (this should be combined with map of highest hazard areas for flood and erosion criterion below), using the MEPA Qualifying Housing Map Viewer.** Is the Project site located outside the 3 natural resource areas specified: • Top quintile carbon __Y __N • Designated rare species habitat __Y __N • Prime farmland soils __Y __N Has the site been in active agricultural use within the past five years? __Y __N ***Note**: all layers on the MEPA Qualifying Housing Map Viewer must be turned on, even if the site has not been in active agricultural use within the past 5 years.* ***Note:** the locus map must be provided for all Projects, even if seeking to proceed under 301 CMR 11.01(2)(c)2.*
d. **Flood and Erosion**	**For Any Project:** Located outside highest hazard areas and outside the Special Flood Hazard Area as defined by the Wetlands Protection Act regulations at 310 CMR 10.00. **OR** **If Redevelopment**: Located outside highest hazard areas and complies with the American Society of Civil Engineers Guidance on Structural Safety in Flood Areas (ASCE 24-24). **OR** **If Redevelopment and does not exceed any mandatory EIR threshold:** Complies with the American Society of Civil Engineers Guidance on Structural Safety in Flood Areas (ASCE 24-24) and demonstrates absence of off-site flood impacts. **Redevelopment** means replacement, rehabilitation, or expansion of existing structures, improvement of existing roads or reuse of degraded or previously developed areas.	Is the Project considered Redevelopment? __Y _N *[Note: if any portion of the Project does not qualify as redevelopment, the entire project must be considered new.]* Is the Project site located outside the Special Flood Hazard Area as defined by the Wetlands Protection Act regulations at 310 CMR 10.00: __Y __N *[Note: this must be documented by printing and attaching a FEMA FIRMette from the FEMA Flood Map Service Center website, as part of required attachment #4 to the ENF. If the Proponent intends to rely on other information, please specify.]* Is the Project site located outside highest hazard areas as designated by the Executive Office of Energy and Environmental Affairs: : __Y __N ****Attach locus map showing the Project site in relation to the highest hazard areas as designated by the Executive**

Criterion	Metric	Project
d. Flood and Erosion *(cont.)*	**Highest hazard areas** shall be those areas subject to high erosion or with exposure to flooding characterized by factors such as high-velocity flows, high-velocity wave action, breaking wave heights, sheet flow and scour and flash flooding. Such highest hazard areas shall include, but not be limited to, the following areas as defined by the Federal Emergency Management Agency: V, Coastal A and AO zones on a Flood Insurance Rate Map (FIRM) and floodways and A zones along the banks of waterbodies. The Secretary shall set forth in guidance methodology for delineating highest hazard areas.	**Office of Energy and Environmental Affairs (can combine with map of 3 layers for infill criterion above), using the MEPA Qualifying Housing Map Viewer.** Specify whether any portion of the Project site is located in: FEMA V Zone: __Y __N FEMA Coastal A: __Y __N FEMA AO Zone: __Y __N Within 200 feet of waterbody: __Y __N Barrier Beach: __Y __N *[note: this must be documented with environmental constraints map as part of required attachment #4].* ***Note**: If the Proponent intends to rely on information other than the MEPA Qualifying Housing Map Viewer to demonstrate eligibility under this criterion, please provide detailed justification. However, the "high erosion" areas as mapped in the Viewer shall be definitive.* ***Note**: this locus map must be provided for all Projects, even if seeking to proceed under 301 CMR 11.01(2)(c)2.* To demonstrate compliance with ASCE 24-24, provide a certification by a qualified professional and a narrative description of key project components, including building elevations relative to established base flood elevations. If applicable, provide documentation to demonstrate the absence of off-site flood impacts from the Project (provide information consistent with Section IV. of Climate Change Adaptation and Resiliency Section, including flow path analysis or topographic maps as applicable).
e. Energy Efficient	Complies with the Massachusetts Stretch Energy Code adopted pursuant to Chapter 169 of the Acts of 2008	Does Project comply with the Massachusetts Stretch Energy Code: __Y __N Specify the following: Fuel source for space heating: ___ (air source heat pump, ground source heat pump, gas, etc) Fuel source for water heating: ___ (air source heat pump, ground source heat pump, gas, etc) Passivehouse certified: __Y __N

Criterion	Metric	Project
f. Adequately served by utilities	**1.** Does not require approval of a new interbasin transfer of water or wastewater, other than a transfer determined to be insignificant pursuant to the Interbasin Transfer Act and implementing regulations at 313 CMR 4.00. **AND** **2.** Does not require a new or expanded gas main	*Note: this criterion is not applicable to Projects seeking to qualify under 301 CMR 11.01(2)(c)2.* Will Project require approval of a new interbasin transfer of water or wastewater, other than a transfer determined to be insignificant: __Y __N Will Project require a new or expanded gas main (not individual hookups): __Y __N
g. Accessible	1. Generates fewer than 3,000 New unadjusted average daily trips (adt) on roadways leading to a single location. **OR** 2. Generates fewer than 6,000 New adt of traffic on roadways providing access to a single location if the Project is located within one-half mile of a public transit stop with an existing or proposed safe and accessible path of travel to the Project site. Projects with 3,000 or more New adt, prior to filing the ENF, must consult with the Massachusetts Department of Transportation and with the Massachusetts Bay Transportation Authority or applicable local or regional transit authority established pursuant to M.G.L. c. 161B, § 3 or § 14.	***Note:*** *this criterion is not applicable to Projects seeking to qualify under 301 CMR 11.01(2)(c)2.* Specify New unadjusted average daily trips (adt) for Project: __ (must be <6,000 adt) If unadjusted adt if ≥3,000 but <6,000, specify the following: • Is the Project site located within ½ mile of a transit stop: __Y __N • Does the Project provide existing or proposed safe and accessible path of travel to the transit stop: __Y __N • Specify any proposals to provide access as part of the Project: ___ ***Note****: "Transit stop" shall be defined to include a commuter rail station, subway station, transit station, ferry terminal or bus station serviced by MBTA or local or regional transit authority established pursuant to M.G.L. c. 161B, § 3 or § 14.* If unadjusted adt if ≥3,000 but <6,000, specify the following: • Did the Proponent conduct consultation with MassDOT: __Y __N • Did the Proponent conduct consultation with MBTA or local/regional transit authority: _Y_N • Describe the results of consultation: __ (agreements for mitigation, traffic scoping, etc) ***Note****:* for Projects requiring MassDOT permitting, attach Traffic Impact Analysis (TIA) if required by MEPA/MassDOT Guidelines. For other Projects, attach traffic study if completed for local permitting.

Certifications

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

   (Publication) Newburyport News (Date) October 19, 2026

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Signatures:

Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)
10/15/2026		10/15/2026	Mark L. Manganello

Aaron Townsley	Mark Manganello
Name (print or type)	Name (print or type)
National Grid	LEC Environmental Consultants, Inc.
Firm/Agency	Firm/Agency
170 Data Drive	12 Resnik Road, Suite 1
Street	Street
Waltham, MA 02451	Plymouth, MA 02364
Municipality/State/Zip	Municipality/State/Zip
781-906-3985	508-746-9491
Phone	Phone

ENF Distribution List: Amesbury Former Manufactured Gas Plant Remediation

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Department of Environmental Protection Boston Office Commissioner's Office One Winter Street Boston, MA 02108 MassDEP.MEPA@mass.gov	Amesbury Conservation Commission 62 Friend Street Amesbury, MA 01913 armingtona@amesburyma.gov
Department of Environmental Protection Central Regional Office Attn: MEPA Coordinator 150 Presidential Way Woburn, MA 01801 John.d.viola@mass.gov	Amesbury Health Department 9 S. Hunt Rd. Amesbury, MA 01913 ketchend@amesburyma.gov
Massachusetts Department of Transportation Public/Private Development Unit 10 Park Plaza, Suite #4150 Boston, MA 02116 MassDOTPPDU@dot.state.ma.us	Amesbury Planning Board 62 Friend Street Amesbury, MA 01913 jainn@amesburyma.gov
Massachusetts Department of Transportation District #4 Attn: MEPA Coordinator 519 Appleton Street Arlington, MA 02476 DOT-DL-D4-Planning@dot.state.ma.us	MEPA Office Attn: EEA EJ Director 100 Cambridge Street, Suite 900 Boston, MA 02144 MEPA-EJ@mass.gov
Massachusetts Historical Commission Attn: Ms. Brona Simon Executive Director & SHPO The MA Archives Building 220 Morrissey Boulevard Boston, MA 02125 (Certified Mail)	Massachusetts Office of Coastal Zone Management Attn: Project Review Coordinator 100 Cambridge Street, Suite 900 Boston, MA 02144 Patrice.bordonaro@mass.gov Sean.duffey@mass.gov
Merrimack Valley Planning Commission 160 Main St, Haverhill, MA 01830 info@mvpc.org	Massachusetts Division of Marine Fisheries 30 Emerson Avenue Gloucester, MA 01930 DMF.ENVReview-north@mass.gov

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

MEPA Office

100 Cambridge St., Suite 900
Boston, MA 02114
Telephone 617-626-1020

The following should be completed and submitted to a local newspaper:

PUBLIC NOTICE OF ENVIRONMENTAL REVIEW

PROJECT: Amesbury Former Manufactured Gas Plant Site Remediation Project

LOCATION: Powwow River, Amesbury, MA

PROPONENT: Boston Gas Company

The undersigned is submitting an Environmental Notification Form ("ENF") and Proposed Environmental Impact Report ("EIR") to the Secretary of Energy & Environmental Affairs on or before: October 15, 2026

This will initiate review of the above project pursuant to the Massachusetts Environmental Policy Act ("MEPA," M.G.L. c. 30, ss. 61-62L). Copies of the ENF may be obtained from:

Mark Manganello, LEC Environmental Consultants, Inc., 12 Resnik Road, Suite 1, Plymouth, MA 02360 (email: mark@lecenvironmental.com/phone: 508-746-9491)

Electronic copies of the ENF are also being sent to the Conservation Commission and Planning Board of Amesbury.

The Secretary of Energy & Environmental Affairs will publish notice of the ENF/EIR in the Environmental Monitor, receive public comments on the project, and then decide if the project adequately and properly complies with MEPA and its implementing Regulations. A site visit and/or remote consultation session on the project may also be scheduled. All persons wishing to comment on the project, or to be notified of a site visit and/or remote consultation session, should email MEPA@mass.gov or the MEPA analyst listed in the Environmental Monitor. Requests for language translation or other accommodations should be directed to the same email address. Mail correspondence should be directed to the Secretary of Energy & Environmental Affairs, 100 Cambridge St., Suite 900, Boston, Massachusetts 02114, Attention: MEPA Office, referencing the above project.

By Proponent: Boston Gas Company

1.0 SUMMARY

In accordance with 301 CMR 11.07(6)(d), this section provides a brief, non-technical summary of the following: project name and location, project description, list of required permits and status, alternatives, potential environmental impacts, measures to avoid and minimize impacts, and a list of mitigation measures.

1.1 Amesbury Former MGP Site Remediation Project Description

Project Proponent: Boston Gas Company

Project Name: Amesbury Former MGP Site Remediation Project

Project Location: Powwow River, Amesbury, Massachusetts

The Project involves implementing a contaminated sediment remediation plan within a portion of the Powwow River and adjacent wetlands in accordance with requirements of the *Massachusetts Contingency Plan Regulations* (310 CMR 40.0000; "MCP"). The Project involves the following activities:

- Dredging contaminated sediment from a portion of the Powwow River to a depth of up two feet and installation of a subaqueous cap to restore the dredge area and match existing grades.
- Dredging contaminated sediment from a mudflat within the Powwow River to depths of generally two to three feet, and backfilling with imported, clean silt, sand, and gravel to match existing grades and existing sediment grain-size distribution.
- Excavation of contaminated sediment from a wetland located adjacent to the river to a depth of three feet and backfilling with wetland topsoil to match existing grades.
- Construction of two (2) laydown/staging areas for construction equipment and material management and processing, one on the north side of the Project at 39 Water Street and the other on the south side of the Project at 8 Noel Street.
- Construction of temporary equipment access/haul roads extending from each of the laydown/staging areas to the excavation and dredging areas.
- Off-site disposal of contaminated sediment at a treatment facility or landfill after dewatering.
- Comprehensive restoration of all disturbed areas, including the dredge footprint in the Powwow River and mudflat, the wetland excavation footprint, laydown/staging areas, and access/haul roads. Restoration will consist of

importing clean, compatible soils where necessary, re-establishing pre-existing grades, and planting native species to restore and improve conditions in all temporarily disturbed areas.

- Implementing property use restrictions (e.g. "Activity and Use Limitations" or "AULs") within portions the Site, as needed.

The Project will involve temporary and permanent alteration of federal, state and local-regulated wetlands and related jurisdictional areas. State and local-regulated areas associated with the project site and proposed activities include Land Under Water (LUW), Bank, Bordering Vegetated Wetlands (BVW), Bordering Land Subject Flooding (BLSF), Riverfront Area and Buffer Zone ("Wetland Resource Areas").

Following removal of contaminated sediment from the wetland and river and other construction-related activities, the Project will implement a comprehensive restoration plan to return all disturbed areas to pre-construction conditions and land uses. The substrate in dredged river areas will be restored with material to mimic existing conditions and restore benthic habitat conditions, while also functioning as a cap. The mudflat dredge footprint will be backfilled with similar sediment to restore benthic habitat conditions. Restored vegetated wetland and upland areas will be replanted with native plant species to re-establish vegetation in areas that are altered during implementation of the proposed remedy. The river dredge and mudflat dredge areas and wetland excavation area are depicted in the graphic below.



Figure 1: River/mudflat dredge footprint and wetland excavation footprint.

The "Project site" comprises the properties that constitute the area on which Project activities will occur. Sections of this report also refer to the "Site" which is a larger area that includes the extent of contamination identified under the MCP and established in the Supplemental Phase II Comprehensive Site Assessment (CSA) Report submitted to MassDEP in November 2025 (Appendix D, Figure 1). The upstream boundary of the Site extends to a point in the river near 35 Water Street/1 Field Street and continues downstream to Route 495, as shown on Appendix D, Figure 1. The Project site is a smaller area within the Site. Sections of this report also refer to the "Upper River" which contains the Project site and the "Lower River" which extends south from the Project site to Route 495 within the Site. No remediation activities are proposed or required in the Lower River.

The Project has been designed to avoid, minimize, and mitigate impact and includes various short-term and long-term mitigation measures to minimize construction period impacts and to ensure no permanent loss of Wetland Resource Areas, no adverse impacts to jurisdictional waterways, no disproportionate adverse effects on EJ Populations. All existing Wetland Resource Area functions/values will be maintained or improved by the remedial actions and restoration work, which will remove contaminated sediment from the river and fully restore all in-water and landside disturbances. Construction-related

disturbances will be avoided and minimized by implementing various Best Management Practices (BMPs).

The proposed Project is further described and depicted in the following:

- *GEI Figures* (Appendix D)
- *Amesbury Former MGP Remediation Site Plans*, prepared by GEI, dated August 14, 2026 (Appendix E)
- *Environmental Resources Map*, prepared by LEC, dated September 17, 2026 (Appendix F)

1.1.1 Site History

This Project is part of a larger MCP disposal site which includes property owned by Proposed at 39 Water Street that contained a Manufactured Gas Plant (MGP) in the late 1800s and early 1900s. After MGP operations ceased around 1924, portions of the former MGP footprint on abutting 35 Water Street were used by the City of Amesbury as a municipal landfill until 1952 and an industrial landfill until the early 1960s.

In 2004, contamination was documented on the former MGP property (including 39 and 39A Water Street and 33R Oakland Street) and the Proponent proceeded with sampling and investigations to determine the scope of contamination, remediation design and alternatives analysis, environmental permitting, and remediation activities in accordance with the MCP. The site is tracked by MassDEP Release Tracking Number (RTN) 3-24070 (the "Site").

The remedy for the Site at that time (39 and 39A Water Street and 33R Oakland Street) included excavating contaminated wetland soil and a small portion of upland soil, dredging sediment from the Powwow River, and restoring the wetlands and uplands (EEA File # 14651). Construction began in October 2016 and was completed in June 2017. However, in April 2017 while installing coir logs on the southeastern boundary of the work area, residual coal tar was observed in shallow wetland soil at the southeastern edge of the Site. This area was beyond the designed and permitted limit of work for the original remediation project.

Beginning in 2017, GEI performed supplemental investigations to evaluate the nature and extent of the residual coal tar beyond the limits of the originally defined Site boundary. GEI, on behalf of the Proponent, submitted semi-annual Phase IV Status Reports to MassDEP to provide regular updates on the progress of the supplemental investigations.

Due to observations of coal tar beyond the limits of the originally defined Site boundary, additional assessment was performed to establish a revised Site boundary. As part of the Supplemental Phase II CSA Report submitted to MassDEP in November 2025, the Site boundary was redrawn to reflect the extent of tar impacts, including a larger portion of

the Powwow River mudflats and channel extending downstream from the former MGP site (Appendix D, Figures 1 and 2).

The Proponent is undertaking the Project to comply with the MCP and restore the Site to a condition of No Significant Risk (NSR), as defined in the MCP.

1.1.2 MEPA Jurisdiction and Thresholds

MEPA jurisdiction is triggered since the Project requires state permits (401 Water Quality Certification and Chapter 91 Waterways License(s) from MassDEP) and exceeds the Wetland Thresholds for an ENF as follows:

- Alteration of 5,000 or more square feet of BVW [11.03(3)(b)(1)(d)].
- Alteration of ½ or more acres of any other wetland. [11.03(3)(b)(1)(f)].
- Dredging of 10,000 or more cy of material [11.03(3)(b)(3)].
- Disposal of 10,000 or more cy of dredged material [11.03(3)(b)(4)].

The Project does not exceed any mandatory EIR Thresholds related to impacts; however, it is located within one mile of an Environmental Justice Population, and therefore an EIR is required. The Proponent is filing this Dual EENF and Proposed EIR and requesting a Rollover EIR, in accordance with 301 CMR 11.06 (13), as further discussed below in Section 1.7. In the alternative, the Proponent requests a Single EIR.

1.1.3 Project Schedule and Cost

The Project is scheduled for construction in 2028, and will likely be completed in 2029, pending timely receipt of all permits. Time of Year (TOY) restrictions imposed by Massachusetts Division of Marine Fisheries (DMF) restrict the potential construction windows by prohibiting silt-producing activities between March 15 and June 30 and September 1 and November 15; however, pre-filing consultation with DMF resulted in a finding that the fall TOY restriction may be waived with the use of siltation curtains or other dredging design measures to avoid impact to the designated fishery. The Project schedule is based on utilization of siltation curtains or other design measures to allow work in the fall TOY restriction.

The cost of the project is expected to be approximately $21 million.

1.2 Required Permits and Status

The required state, federal and local permits are listed below in Table 1:

Table 1: Required Permits		
Permit/Approval	**Agency/Party**	**Status**
State		
Chapter 91 Consolidated Written Determination and License(s)	MassDEP Waterways	To Be Filed
401 Water Quality Certification	MassDEP Wetlands	To Be Filed
Federal		
Pre-Construction Notification	US Army Corps of Engineers	To Be Filed
NPDES Construction General Permit	US Environmental Protection Agency	Prior to Construction
NPDES Dewatering and Remediation General Permit	US Environmental Protection Agency	Prior to Construction
Local		
Notice of Intent/Order of Conditions	Conservation Commission	To Be Filed
Planning Board Special Permit (Earth Filling Special Permit, Special Permit for Work in a Water Resources Protection District, and an Earth Removal Permit)	Planning Board	To Be Filed

1.3 Summary of Agency and Community Outreach

Agency outreach has been occurring during the Project design phase, including pre-application meetings with MEPA, MassDEP (Wetlands and Waterways), MA Division of Marine Fisheries (DMF), National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Services (NMFS), the United States Army Corps of Engineers (USACE) and the City of Amesbury.

Community outreach was initiated on July 22, 2026 with circulation of the EJ Screening Form to the community stakeholders in the EJ Reference List for the Project. The email to the EJ Reference List and the EJ Screening Form included notice of a virtual public meeting on August 26, 2026. The same notice was posted on the project website (www.amesburymgpsite.com) on July 22, 2026 and also advertised in the Newburyport Daily News on August 19, 2026. Project flyers were posted at public locations throughout the community prior to the public meeting. There were no attendees at the August 26, 2026 public meeting. The meeting was recorded and posted to the Project website and an email was sent to the EJ Reference List notifying stakeholders of the availability of the video and requesting comments or questions prior to the anticipated MEPA filing date of October 15, 2026. No questions or comments have been received.

1.4 Summary of Alternatives

The objective of the Project is to implement a remediation project in accordance with the requirements of the MCP. The goal is to execute a practicable, site-specific, focused remedial action that will achieve a condition of No Significant Risk and a Permanent Solution, as defined and required by the MCP. The interests of the MCP broadly align with the interests of other environmental regulations in Massachusetts, including those that regulate wetlands and waterways, in that the analysis of remediation action alternatives focuses on measures that eliminate and/or mitigate risk to human health and the environment.

Since remediation projects focus on cleanup of specific contaminated sites, off-site project alternatives are not feasible and have not been considered and the "No Action Alternative" is not feasible since it would not achieve the MCP requirements of site cleanup.

Extensive evaluation of on-site remediation alternatives is mandated by the MCP and involves a careful analysis of the extent and nature of the contamination and potential options for remediation that will achieve the objectives of the MCP. Field research/sampling and evaluation of methods and design for completing the cleanup under the MCP have been ongoing for many years for the Site.

GEI's alternatives analysis under the MCP identified four remediation options referred to as Remedial Action Alternatives (RAAs), as follows:

- RAA1: Excavate Wetland, Dredge Mudflat, Upper and Lower River, and Restoration.
- RAA2: Excavate Wetland, Dredge Mudflat, Deep Dredge Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Lower River Only).
- RAA3 (the Project): Excavate Wetland, Dredge Mudflat, Shallow Dredge Upper River, Subaqueous Cap in Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Upper and Lower River).
- RAA4: Targeted Excavation in Wetland, Targeted Shallow Dredge in Mudflat and Isolated Areas in River to Eliminate RAH (Readily Apparent Harm), Subaqueous Cap Placed in Targeted Dredge Areas, and Temporary Solution

A graphic depiction of each RAA is provided in the *GEI Figures*, prepared by GEI (Appendix D, Figures 2-5). Each GEI Figure depicts the footprint of construction activities that would be involved in each RAA scope of work.

The RAAs consist of technologies, or a combination of technologies, that are likely to reduce, mitigate, or eliminate risks at the Site to achieve a Permanent Solution or, if

necessary, a Temporary Solution under the MCP[1]. The RAAs were evaluated in accordance with eight specific criteria established by the MCP. The eight criteria include effectiveness, short-and long-term reliability, implement ability, cost, risks, benefits, timeliness, non-pecuniary interests. While all eight criteria are relevant to MEPA review of alternatives, the benefits criterion is particularly important as it includes the "benefit of restoring natural resources." Based on these criteria, RAA3 – the Project – was selected as the preferred alternative.

In summary, the Project is the alternative that most effectively and efficiently reduces, mitigates and eliminates risk to human health and the environment. RAA1 would involve a substantially larger dredge footprint and volume thereby increasing Wetland Resource Area and impacts would have substantially greater construction-related impacts due to greater duration and complexity. Thus, impacts to the environment and surrounding community would be greater without significantly improving risk reduction compared to the Project. RAA2 is similar to the Project in terms of footprint, but would involve a substantially larger dredge volume, longer duration and greater complexity than the Project thereby increasing Wetland Resource Area impacts and construction impacts without significantly improving risk reduction compared to the Project. RAA4 involves a reduced dredge footprint by focusing on areas with the highest concentration of contamination; however, this alternative would not achieve a Permanent Solution and would require further remediation in the future which would result in additional impacts due to a second mobilization of construction activities and associated disturbances.

The types of construction-related impacts associated with the staging areas and access areas are generally consistent between the four alternatives since dredging and wetland excavation in each scenario would require similar operations, landside laydown and access. As noted above, the duration and complexity differ between the alternatives in ways that favored the Project. The Proponent did evaluate alternatives for the location of the staging areas. The property providing sufficient space with the lowest impact to the surrounding community was the 8 Noel Street property. An additional alternative analysis was part of the design of the laydown area on the 8 Noel Street property, with a focus on avoiding environmental impacts while maximizing construction efficiency. Various configurations and designs for the 8 Noel Street laydown area were considered, including direct access to the river from its nearest point in an effort to avoid the temporary BVW disturbance associated with a long-haul road to the shoreline. Site topography along the shoreline prevents practical access in locations closer to the laydown/staging area.

[1] Under the MCP, a Permanent Solution is the designation for a contaminated site that has demonstrated no significant risk to people or the environment. A Temporary Solution is the designation for a contaminated site that has demonstrated no substantial hazard to people or the environment but additional cleanup is still necessary to achieve no significant risk.

The remediation alternatives and construction related alternatives are described in greater detail below in Section 3.0.

1.5 Summary of Project Impacts

The Project impacts involve direct disturbances to Wetland Resource Areas from dredging and excavation activities and temporary disturbances to Wetland Resource Areas from the construction laydown/staging areas and access/haul roads. Impacts to resource areas are listed below on Table 2 based on the project activity that will cause the impact.

Measurement	Area	Square Feet (SF) Linear Feet (LF)	Description
Land Under Water	River Dredge Area 1 - Small	8,052 SF	All Areas Below MHW
	River Dredge Area 2 - Large	129,489 SF	
	Wetland Excavation Area	9,254 SF	
	Mudflat Area	24,762 SF	
	39 Water Street Laydown and Haul Road Area which may be impacted for access	674 SF	
	8 Noel Street Laydown and Haul Road Area which may be impacted for access	20,731 SF	
	Total Land Under Water Impact Area	192,962 SF	
BVW	River Dredge Area 1 - Small	-	Areas Between MHW-BVW
	River Dredge Area 2 - Large	-	
	Wetland Excavation Area	765 SF	
	Mudflat Area	58 SF	
	39 Water Street Laydown and Haul Road Area which may be impacted for access	7,096 SF	
	8 Noel Street Laydown and Haul Road Area which may be impacted for access	8,475 SF	
	Total BVW Impact Area	16,394 SF	
Bank	River Dredge Area 1 - Small	-	LF Activity on MHW Boundary & Bank Along Noel St.
	River Dredge Area 2 - Large	-	
	Wetland Excavation Area	119 LF	
	Mudflat Area	17 LF	
	39 Water Street Laydown and Haul Road Access/Laydown Impact Areas-**BANK**	52 LF	
	Access/Laydown Impact Areas-**MHW**	67 LF	
	8 Noel Street Laydown and Haul Road Access/Laydown Impact Areas-**BANK**	435 LF	
	Access/Laydown Impact Areas-**MHW**	474 LF	
	Total Linear Footage of Bank Altered	1,164 LF	
BLSF	River Dredge Area 1 - Small	-	Areas Between BVW and 100- Year Floodplain
	River Dredge Area 2 - Large	-	
	Wetland Excavation Area	-	
	Mudflat Area	-	
	39 Water Street Laydown and Haul Road Area which may be impacted for access	1,724 SF	
	8 Noel Street Laydown and Haul Road Area which may be impacted for access	1,101 SF	

	Total BLSF Impact Area	2,825 SF	
Riverfront Area	River Dredge Area 1 - Small	-	All Areas Between MHW and 200-Foot Riverfront Area
	River Dredge Area 2 - Large	-	
	Wetland Excavation Area	765 SF	
	Mudflat Area	58 SF	
	39 Water Street Laydown and Haul Road Area which may be impacted for access	14,514 SF	
	8 Noel Street Laydown and Haul Road Area which may be impacted for access	99,500 SF	
	Total Riverfront Area Impact	114,837 SF	
BVW 100-Foot Buffer	River Dredge Area 1 - Small	-	All areas Between BVW and 100' Offset of BVW
	River Dredge Area 2 - Large	-	
	Wetland Excavation Area	-	
	Mudflat Area	-	
	39 Water St. Laydown and Haul Road Area which may be impacted for access	12,458 SF	
	8 Noel Street Laydown and Haul Road Area which may be impacted for access	39,251 SF	
	Total River Front Impact Area	51,709 SF	

Temporary Project-related impacts on the community and environment are expected during the approximately 13-month construction period. These impacts include truck traffic on Noel Street, Main Street, and Macy Street from the Noel Street laydown/staging area and on Water Street, Chestnut Street, and Elm Street from the Water Street laydown/staging area. Noise and emissions from construction activities are expected to be minimal but may be observed in the immediate vicinity of the laydown areas and work areas, including nearby neighborhoods on Field Street and Oakland Street. Recreational access to the Powwow River will also be limited during construction.

Post-construction, the footprint of disturbance for excavation and dredging will be improved in terms of wetland functions and values and reducing risk to human health as a result of removal of contaminated sediment.

The footprint of disturbance associated with the laydown areas and access will be improved post-construction through comprehensive restoration measures.

1.6 Summary of Project Mitigation

The purpose of the Project is itself a form of mitigation in that the purpose is to remove contaminated sediment from the Powwow River and adjacent wetland through remediation. Remediation of contamination in the Powwow River will mitigate the current condition by removing shallow contaminated sediment and replacing it with clean sand and gravel as a cap, and native vegetation where appropriate and creating a condition of No Significant Risk for human health and the environment. Mitigation for

the Wetland Resource Area disturbances caused by dredging and excavation of contaminated sediment is achieved through restoration of the affected resource areas.

These measures include restoring the dredge footprint with clean sand and gravel, similar in grain size to the existing sediment, and capping underlying sediment to prevent access. The excavated wetland area will be fully restored with hydric soil and a native plant community.

Mitigation is also provided for construction-period impacts to Wetland Resource Areas and Buffer Zones associated with construction laydown/staging area and access/haul road impacts. These disturbances will be fully restored with appropriate topsoil and native plantings, as necessary, that will result in an overall improvement over existing conditions, as discussed in Section 4.6.

Construction period impacts to air quality and generation of turbidity and sheen during the dredging work will be mitigated through monitoring control measures while the remedy is being performed. A turbidity curtain and absorbent booms will be deployed to manage turbidity during construction, with associated turbidity monitoring equipment in the water column. Construction period monitoring and erosion and sediment control measures are discussed in Section 4.7.

Mitigation is also provided for construction impacts through noise and dust control measures, truck traffic routing away from residential areas, emissions restrictions, and notifications prior to construction.

1.7 Request for a Rollover EIR or a Single EIR

The Proponent respectfully requests authorization for a rollover EIR in accordance with 301 CMR 11.06 (13) as the EENF/EIR meets the following regulatory criteria:

a) presents a complete and definitive description and analysis of the Project and its alternatives, and an assessment of its potential environmental and public health impacts and mitigation measures sufficient to allow a Participating Agency to fulfill its obligations in accordance with M.G.L. c. 30, §§ 61 and 62K and 301 CMR 11.12(5);

The proposed Project and Alternative Analysis are described in detail in Section 3.0. Existing conditions for EJ communities are described in Section 8.0. Potential impacts and mitigation measures including to the environment and EJ communities are provided in Section 5.0 and 8.0.

b) demonstrates that the Project will not materially exacerbate any existing unfair or inequitable Environmental Burden and related public health consequences impacting an Environmental Justice Population, and will not result in a disproportionate adverse effect or increased climate change effects on an Environmental Justice Population;

The Project will provide a net benefit to the public health and safety of EJ Populations by remediating contamination in the Powwow River and achieving a condition if No Significant Risk. Refer to Section 8.2 for an Assessment of Existing Environmental Burden and Related Health Consequences and Section 8.3 for an Analysis of Project Impacts on EJ Populations.

c) describes measures taken to provide meaningful opportunities for public involvement by Environmental Justice Populations prior to filing the dual ENF and Proposed EIR, including any changes made to the Project to address concerns raised by or on behalf of Environmental Justice Populations;

The proposed outreach was discussed with the MEPA staff during the MEPA-EJ pre-filing meeting held on January 2025. This outreach plan has been followed through the creation of the Project website, circulation of the EJ Screening Form and hosting a virtual public meeting. The Proponent took additional steps beyond those discussed at the pre-filing meeting by publishing notice of the virtual meeting in a local newspaper and posting flyers in community spaces, posting a video of the meeting on the Project website and reaching out to the EJ Reference List to directly solicit comments and questions prior to the filing date. A detailed description of outreach and public involvement is described in Section 8.4.

d) shows that comments received on the dual ENF and Proposed EIR do not raise substantial issues not previously considered by the Proponent; and

Comments received on the dual EENF and Proposed EIR will be addressed expeditiously during the comment period. Based on the MEPA-EJ prefiling meeting and extensive agency outreach and consultation, no substantial issues are anticipated during review of the EENF/Proposed EIR.

e) shows that no substantive issues remain to be resolved. No substantive issues are anticipated.

Compliance with this standard will be determined during MEPA review of EENF and Proposed EIR.

If a Rollover EIR is not granted, the Proponent requests that Secretary allow a Single EIR in accordance with 301 CMR 11.06(8).

2.0 EXISTING ENVIRONMENT

2.1 General Site Description and Site Use

The Project site includes portions of multiple properties along the Powwow River, including properties owned by the City of Amesbury and National Grid utility companies.[2] See Appendix A, Figure 2 (red polygon).



Properties within the Project site and associated ownership information are provided in Table 3 below:

[2] National Grid USA is the parent company of Boston Gas Company, New England Power Company and Massachusetts Electric Company. While the individual utilities own the properties, the owner is referenced as National Grid for simplicity and consistency.

Table 3: Subject Properties			
Address	**Assessor's Reference**	**Owner**	**Proposed Activity**
39 Water Street	Map 54, Lot 219	National Grid	Laydown, access road, dredging
39A Water Street	Map 54, Lot 220	City of Amesbury	Access road and dredging
33R Oakland Street	Map 54, Lot 222	Residential Owner	Access road, wetland excavation, dredging
35 Oakland Street	Map 54, Lot 222B	Residential Owner	Wetland excavation
37 Oakland Street	Map 54, Lot 222	Residential Owner	Wetland excavation and dredging
39 Oakland Street, Lot 4B	Map 54, Lot 222D	National Grid	Dredging
41 Oakland Street, Lot 5B	Map 54, Lot 222E	National Grid	Dredging
43 Oakland Street	Map 54, Lot 222F	Residential Owner	Dredging
4 Oakland Court	Map 54, Lot 222G	Residential Owner	Dredging
24 Oak Street	Map 66, Lot 33	Amesbury Riverwalk LLC	Dredging
26 Oak Street	Map 66, Lot 32	National Grid	Dredging
28 Oak Street	Map 65, Lot 53	National Grid	Dredging
3 River Street	Map 66, Lot 1	Residential Owner	Dredging
1 Field Street	Map 53, Lot 127	National Grid	Access road and dredging
8 Noel Street	Map 65, Lot 87A	Coastal Connections	Laydown, access road
8 Noel Street	Map 65, Lot 87B	National Grid	Dredging
7 Noel Street	Map 65, Lot 82	River Lane Realty LLC	Dredging

The preceding discussion of the Project site describes the properties within the Project site upon which Project activities are proposed. Sections of this report also refer to the "Site" which is a larger area that includes the extent of contamination identified under the MCP and established in the Supplemental Phase II CSA Report submitted to MassDEP in November 2025 (Appendix D, Figure 1). The upstream boundary of the Site extends to a point in the river near 35 Water Street/1 Field Street and continues downstream to Route 495 as shown on Appendix D, Figure 1. The Project site is a smaller area within the Site. Sections of this report also refer to the "Upper River" which contains the Project site and the "Lower River" which extends south from the Project site to Route 495 within the Site. See Appendix D, Figure 1. No remediation activities are proposed or required in the Lower River.

Although property uses vary within the Project site, there are no buildings or developed areas within the Project site. As described above, the Project site includes undeveloped

vegetated uplands, vegetated wetlands, and the Powwow River. There are electric distribution/transmission lines within easements within the Project site, including an overhead distribution/transmission line extending along the western bank of the Powwow River. Municipal sewer lines extend within easements within the property at 1 Field Street and at 8 Noel Street. The property at 8 Noel Street also contains a large overgrown manmade stormwater management basin, a portion of which is within the Project site.

Upland conditions within the Project site and adjacent areas include mature, forested uplands within historically disturbed areas as well as meadow and thicket conditions, also within historically disturbed areas.

The forested upland within the construction laydown/staging area at 8 Noel Street includes mature red maple (*Acer rubrum*), black cherry (*Prunus serotina*), eastern white pine (*Pinus strobus*), eastern cottonwood (*Populus deltoides*), red oak (*Quercus rubra*), pear (*Pyrus* spp.), crabapple (*Malus* spp.), tree-of-heaven (*Ailanthus altissima*), black locust (*Robinia pseudoacacia*), and Norway maple (*Acer platanoides*). The understory is variably dense with some relatively sparse areas and other dense thickets. Dominant vegetation includes tartarian honeysuckle (*Lonicera tatarica*), multiflora rose (*Rosa multiflora*), highbush blackberry (*Rubus alleghaniensis*), and arrowwood (*Viburnum dentatum*), with entanglements of bittersweet (*Celastrus orbiculata*).

Forested upland and meadow conditions are present in the northern laydown/staging area and in portions of the southern laydown area. Vegetation includes multiflora rose bittersweet, various goldenrod (*Solidago* spp.), Virginia creeper (*Parthenocissus quinquefolia*), and grape (*Vitis* spp.).

The southerly laydown area occurs partially within an overgrown stormwater management basin dominated by common reed (*Phragmites australis)*. The stormwater basin was confirmed as a non-jurisdictional feature through a Determination of Applicability issued by the Amesbury Conservation Commission, dated October 29, 2025 (Appendix G). The basin will be restored and improved as part of the Project, as further described in the Project description section below.

2.2 Topography and Soils

The Project site and surrounding area contains extensive undeveloped natural resources generally surrounded by a combination of residential and commercial development, as well as a public shared use path ("the Riverwalk"). Topography and soils are discussed in the context of the proposed construction activities within the Project site, including laydown/staging areas (north and south), construction access/haul roads (north and south), wetland excavation area, and dredging area.

Generally, topography is highly variable in the vicinity of the northerly portion of the Project site, with steep slopes extending from the BVW and Bank up to the Riverwalk and

developed portions of the properties at 39 Water Street, 39A Water Street, 33R Oakland Street, 35 Oakland Street, 37 Oakland Street, 39 Oakland Street, 41 Oakland Street, 43 Oakland Street, and 4 Oakland Court. At the toe of the steep slope on these properties, topography becomes relatively flat where the BVW extends along the shoreline and Bank of the river.

The northerly laydown area occurs on a gently to moderately sloping hillside extending between the Riverwalk and BVW with elevations at the Riverwalk of approximately 27 feet and at the BVW edge of approximately seven feet. All elevations in this report are based on the National Geodetic Vertical Datum 1929 datum (NGVD29). Soils in this area are mapped as Windsor Loamy Sand (Appendix A, Figure 3) which are very deep, excessively drained soils formed in sandy outwash or eolian deposits. However, given the history of development and earthwork along this section of the river, upland soils are primarily fill.

In the northerly construction access route extending through BVW from the laydown area to the BVW excavation area, topography is relatively flat and soils are mapped as Maybid Silt Loam which are very deep, poorly drained soil formed in silt and clayey glacial lacustrine sediment. Again, the history of development in this area has resulted in fill within the wetland. Similar conditions are present within the BVW excavation area (portions of 33R Oakland Street, 35 Oakland Street and 37 Oakland Street) except that a tributary from the BVW to the river extends into the excavation area with steeper one to two-foot slopes along the banks of the channel.

Within the Powwow River dredge footprint, the depth at high water (elevation 4.80 feet) descends gradually toward the centrally located low-flow channel where it is somewhat steeper and deeper between elevation -2.5 to -3.5 feet.

Sediment in the Powwow River dredge areas have been classified as organic deposits consisting of fibrous organic soil and varying amounts of fine sand, generally overlying gray to brown sand with varying amounts of gravel and silt. Debris including ash, brick, clinkers, ceramic, coal, and glass were observed throughout the sediment deposits. Soil in the wetland excavation area consists of organic deposits overlying sandy and/or silty material. Debris including asphalt, coal, brick, ceramic, glass, slag, and wood was observed throughout the wetland soil.

On the southern side of the river, property at 1 Field Street contains a broad, relatively flat *Phragmites* marsh on the east side, transitioning to forested upland which occupies the western portion. The west side of 1 Field Street slopes steeply down to the Bank of the river, lacking any significant BVW along the shoreline. Topography on 8 Noel Street is variable, with forested upland areas displaying gently rolling topography in flatter areas. A five to ten-foot-tall earthen berm extends parallel to the shoreline between the

forested upland and the meadow/scrub-shrub conditions present in the electric easement that extends along the shoreline. Most of the Powwow River shoreline on 8 Noel Street is defined by a relatively steep Bank vegetated with mature trees, which transitions to flatter conditions where the BVW occurs. The aforementioned stormwater basin is located on this property with distinct manmade berms around the perimeter. Wetland Resource Areas are described in detail below.

Sediment within the project dredging/excavation footprint and access/haul roads is generally historic fill or previously disturbed due to various historical activities. The river was dredged in the late 1880s and then filled back in with sediment through natural deposition. According to the Essex County Soil Survey, the vegetated wetlands within the Project site are mapped as Maybid Silt Loam, while adjacent uplands are mapped as Windsor Loamy Sand, Deerfield Loamy Fine Sand, Agawam Fine Sandy Loam, and Saco Variant Silt Loam. The Maybid soils are characteristic of swamps and lowlands bordering on rivers formed by deposition of silty material from the river. The upland soils underlying the surface fill materials are glacial in origin, formed in sandy outwash or other glaciofluvial deposits.

2.3 Wetland Resource Areas

In accordance with the *Massachusetts Wetlands Protection Act* ("*Act*", M.G.L. c. 131, s. 40) and its implementing *Regulations* ("*Act Regulations*"; 310 CMR 10.00), the City of Amesbury *Wetlands Protection Ordinance* and *Amesbury Wetland Regulations*, and the *Federal Clean Water Act* ("CWA"; 33 U.S.C. 1344, s. 404) and its implementing regulations (33 CFR and 40 CFR), LEC identified and delineated Wetland Resource Area boundaries along the shoreline of the Powwow River in April, May and June of 2023. These boundaries were revisited and confirmed accurate in April of 2026. A description of each Wetland Resource Area is provided below.

2.3.1 Bordering Vegetated Wetlands (BVW)

According to the *Act Regulations* [310 CMR 10.55(2)], Bordering Vegetated Wetlands are defined as: *freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes…Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants…The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.*

BVW is located on both sides of the Powwow River within and adjacent to the Project footprint. Specifically, the northerly access/haul road and wetland excavation area occur partially within BVW, while a long segment of the southerly access route also crosses BVW. Each of these BVW disturbance areas is described below.

The northerly construction access road extends from the laydown area within scrub-shrub wetland which transitions to an emergent marsh as it approaches the wetland excavation area which is entirely within marsh conditions. Vegetation in the scrub shrub wetland is dominated by willow (*Salix* spp.), silky dogwood (*Cornus amomum*), smooth alder (*Alnus serrulata*), multiflora rose (*Rosa multiflora*), jewelweed (Impatiens capensis), cinnamon fern (*Osmunda cinnamomea*), poison ivy (*Toxicodendron radicans*), and skunk cabbage (*Symplocarpus foetidus*), while the marsh is dominated by cattail (*Typha* spp.) and common reed (*Phragmites australis*) with scattered clusters and individuals of marsh marigold (*Caltha palustris*), beggarticks (*Bidens* spp.), green arrow arum (*Peltandra virginica*), and pickerelweed (*Pontederia cordata*). Box elder (*Acer negundo*), ash (*Fraxinus* spp.), red maple (*Acer rubrum*), and Norway maple (*Acer platanoides*) form a canopy fringing on the edges of the scrub-shrub and marsh areas.



Figure 1: Photo of scrub-shrub wetland near footprint of northerly construction access road.

As noted above, sediment within the wetland excavation footprint and access/haul roads is generally historic fill or previously disturbed due to various historical activities, with natural deposition of sediment occurring at the surface. The marsh in this area is within or immediately adjacent to the Mean High Water (MHW) line of the freshwater tidal Powwow River and water levels rise and fall dramatically with the tides. At low tide, the water recedes into a low-flow channel within the marsh and toward the main channel of the Powwow River located close to 150 feet away.



Figure 2: Photo of wetland excavation area showing low flow channel in late summer.

The southerly construction access route extends through a broad, flat section of BVW defined by a dense colony of *Phragmites* which transitions to an emergent marsh, dominated by sensitive fern (*Onoclea sensibilis*), and various sedges (*Carex* spp.) and rushes (*Juncus* spp.). Scattered buttonbush are also present in this wetland. Soils here are also mucky as this area is subject to deposition of sediment from the river.

Hydrology in this wetland is driven by the rising and falling water levels in the tidal river, with soils remaining saturated to the surface constantly. Soil consists of historic fill over organic deposits and sandy and/or silty material.



Photo 3: The southerly construction access/haul road will extend over this emergent marsh.

The boundary of BVW in the Project footprint and nearby areas was field delineated by LEC in accordance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*) and its implementing *Regulations* (310 CMR 10.00, the *Act Regulations*), the City of Amesbury *Wetlands Protection Ordinance* and *Amesbury Wetland Regulations*, and the *Federal Clean Water Act* (33 U.S.C. 1344, s.404, the *CWA*). Hydric soils and plant community composition were evaluated in accordance with the handbook *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act* (September 2022) and the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020).

2.3.2 Isolated Vegetated Wetlands

IVWs are not specifically protected under the state *Act* unless they meet the definition of Isolated Land Subject to Flooding (ILSF); however, the *Amesbury Wetlands Bylaw* and *Regulations* protect *any freshwater wetland, bordering or isolated vegetated wetland, marsh, wet meadow, bog, or swamp*.

One small IVW is located on the 8 Noel Street property adjacent to the Project footprint. The IVW is a man-made depression likely created many decades ago during earthwork on the property. The wetland has formed in a shallow topographic depression displaying evidence of surface water in the form of water-stained leaves. Water is typically four inches or less and understory vegetation is generally lacking. The moderately dense canopy

contains mature and sapling red maple, American elm (*Ulmus americana*), Norway maple, crabapple (*Malus* spp.), and cottonwood (*Populus deltoides*).

2.3.3 Riverfront Area

According to 310 CMR 10.58 2(a), Riverfront Area is defined as *the area of land between a river's mean annual high water line and a parallel line measured horizontally 200 feet away.*

Riverfront Area extends 200 feet from the MHW line, as depicted on the Plans, encompassing the wetland excavation area, construction access routes (north and south) and portions of the laydown areas (north and south). The Riverfront Area encompasses the BVW and adjacent upland areas. Forested upland and meadow/thicket conditions are present in portions of the Riverfront Area within the Project site, as described above, and a portion of the overgrown stormwater basin is also within the Riverfront Area.

2.3.4 Land Under Water

According to 310 CMR 10.56(2): *LUW is the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock...The boundary of Land under Water Bodies and Waterways is the mean annual low water level.*

Land Under Water extends between the Bank on either side of the river, including the dredging footprint.



Figure 4: Photo of LUW in the dredging footprint at low tide. Mudflat in foreground.

The LUW within the Project footprint contains areas that display mudflat characteristics subject to the rising and falling tide, as well as areas within the main channel of the river which contain flowing water at all times. Depths in the channel are up to seven feet at high water, while the mudflats contain two to three feet of water on average at high water conditions.

Vegetation observed in the mudflat includes arrowhead (*Sagittaria latifolia*) and pickerelweed with individuals and patches of burreed (*Sparganium americanum*), water whorl grass (*Catabrosa aquatica*), and dotted smartweed (*Persicaria punctata*).

2.3.5 Bank/Mean Annual High Water

Bank is defined at 310 CMR 10.54(2)(a) as *the portion of land surface which normally abuts and confines a water body. The upper boundary of a bank is the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a bank is the mean annual low flow level.*

Mean Annual High Water (MAHW) is defined at 310 CMR 10.58 (2)(a)(2) as *the line that is apparent from visible markings or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the mean annual high-water line. Bankfull field indicators include but are not limited to; changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts.*

a. In most rivers, the first observable break in slope is coincident with bankfull conditions and the mean annual high-water line.

b. In some river reaches, the mean annual high-water line is represented by bankfull field indicators that occur above the first observable break in slope, or if no observable break in slope exists, by other bankfull field indicators. These river reaches are characterized by at least two of the following features: low gradient, meanders, oxbows, histosols, a low-flow channel, or poorly-defined or nonexistent banks.

c. In tidal rivers, the mean annual high-water line is coincident with the mean high water line determined under 310 CMR 10.23.

Since the Powwow River is tidal, MAHW is coincident with the MHW line, which has been determined to be elevation 4.80 (NGVD) by the Project's surveyor. The Bank of the river is variable in character, with moderate slopes in areas where BVW is located landward, while steep embankments occur along the shoreline in locations where there is no BVW, such as the waterfront on 24 Oak Street and 8 Noel Street. Due to tidal fluctuation and riverine flow dynamics, exposed soil lacking vegetation is present along the shoreline at and below MHW in some areas.

2.3.6 Bordering Land Subject to Flooding

According to 310 CMR 10.57 (2)(a), *Bordering Land Subject to Flooding is an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.*

According to the July 3, 2012 *Federal Emergency Management Agency Flood Insurance Rate Map* for Essex County, Massachusetts (Community Panel 250075), the Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood Zone AE, base flood areas determined (NAVD 88', EL 10.8 and 11.0) *–Area subject to flooding by the 1% annual chance flood* are located within the Powwow River and adjacent wetlands (Appendix B, Figure 2).

2.4 Chapter 91 Waterways

Under the *Massachusetts Public Waterfront Act* (M.G.L. Chapter 91) and the associated *Waterways Regulations* (310 CMR 9.00), the land below the MHW line to the Powwow River are jurisdictional waterways subject to regulation. The MHW line is depicted on the Plans to establish the landward limit of Chapter 91 jurisdiction. Because the Powwow River is a tidal river, the boundary between private tidelands and Commonwealth tidelands is mean low water. Under Massachusetts law, mean low water is established by the NGVD standards. When this rule is applied to the Powwow River in the Upper River and a portion of the Lower River, the low water mark falls below the bed of the river. In other words, at low tide, the tide ebbs entirely out of the Powwow River, leaving the freshwater flow of the river with no tidal influence. In such a case, the boundary is set as the "thread of the stream" or the "center of the creek." *Tappan v. Bos. Water-Power Co.*, 157 Mass. 24, 30 (1892). This boundary is depicted as the "thalweg" of the river in Appendix D, Figure 1, which extends from the Upper River to a portion of Lower River until it reaches the point where the NGVD is above mean low water. From that point until the Powwow River reaches the I-495 culvert, the boundary of private tidelands extends to mean low water and the tidelands below mean low water are Commonwealth Tidelands.

In the vicinity of the Project, the river is not easily accessible by recreational power boats due to upstream dams, the downstream culvert below I-495 and shallow water around low tides. Recreational boating activity is limited to small watercraft such as kayaks and canoes.

2.5 Natural Heritage and Endangered Species Program Designation

According to the 15th Edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2021) published by NHESP, the Project site is not located within or in proximity to a *Priority Habitat of Rare Species* or *Estimated Habitat of Rare Wildlife.*

No Certified or Potential Vernal Pools are mapped in close proximity to the Project site (Appendix A, Figure 4).

2.6 Surface Water and Geographical Protection Areas

According to the MassGIS Datalayers, the Project site is not located within an Interim Wellhead Protection Area (IWPA), is not located within a Zone A Surface Water Protection Area, is not located within an Area of Critical Environmental Concern and is not located within an Outstanding Resource Water (Appendix A, Figure 5).

2.7 Traffic, Transit, Pedestrian, and Bicycle Transportation

The Project site is within an urban area, surrounded by roadways connecting to downtown Amesbury. The roadways in closest proximity to the Project site are secondary side streets, including Water Street, Oakland Street, River Street, River Court, Noel Street and Field Street. The Riverwalk shared-use trail is a popular public amenity which extends south from the terminus of Water Street roughly parallel to the river. The Riverwalk is located adjacent and to the north of the northerly laydown/staging area and wetland excavation area.

2.8 Historic Structures or Districts, and Archaeological Sites

According to the MassGIS Datalayer for the State Register of Historic Places, no historic structures are present within or in close proximity to the Project site, nor is the Project site located within a Historic District. A Project Notification Form was submitted prepared by BGC's consultant, Public Archeology Limited, Inc. (PAL) and submitted to the Massachusetts Historic Commission (MHC) on August 25, 2026 providing information on historic properties in the vicinity of the Project and finding that no inventoried resources are within or overlap with the Project site and that the Project site has no/low sensitivity for the presence of archaeological resources. The MHC concurred with these findings. Appendix H provides PAL's report and MHC's concurrence.

2.9 Environmental Justice Populations

The Project site is located within one mile of two Environmental Justice (EJ) Populations (Appendix A, Figure 7). See Section 8.0 for a detailed listing of the census block groups for these EJ Populations.

3.0 ALTERNATIVES ANALYSIS

The objective of the Project is to implement an environmental remediation project at the Project site that will achieve a condition of No Significant Risk and a Permanent Solution, as defined and required by the MCP. As such, off-site project alternatives are not feasible and were not evaluated. The "No Action Alternative" is not practicable since it would not achieve the MCP requirements of site cleanup and is therefore not separately evaluated.

Exploring on-site remediation alternatives is mandated by the MCP and involves a careful analysis of the extent and nature of the contamination and potential options for remediation that will achieve the objectives of the MCP. Field research/sampling and evaluation of methods for completing the cleanup has been ongoing for many years. The alternatives analysis in this section is based on the MCP requirements for assessing Remedial Action Alternatives (RAAs) and selecting a remedy. The Project was selected based on this analysis. The Licensed Site Professional (LSP) for the Project, GEI, will submit a detailed analysis of RAAs to the Massachusetts Department of Environmental Protection in the Phase III Report for the Project in October 2026.

3.1 MCP Alternatives

GEI has identified four RAAs under the MCP:

- RAA1: Excavate Wetland, Dredge Mudflat, Upper and Lower River, and Restoration.
- RAA2: Excavate Wetland, Dredge Mudflat, Deep Dredge Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Lower Reach Only).
- RAA3 (the Project): Excavate Wetland, Dredge Mudflat, Shallow Dredge Upper River, Subaqueous Cap in Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Upper and Lower River).
- RAA4: Targeted Excavation in Wetland, Targeted Shallow Dredge in Mudflat and Isolated Areas in River to Eliminate RAH, Subaqueous Cap Placed in Targeted Dredge Areas, and Temporary Solution

3.2 Development of Remedial Action Alternatives

The RAAs were evaluated in accordance with eight specific criteria established by the MCP: effectiveness, short-and long-term reliability, implementability, cost, risks, benefits, timeliness, non-pecuniary interests. While all eight criteria are relevant to MEPA review of alternatives, the benefits criterion is particularly important as it includes

the "benefit of restoring natural resources". Based on these criteria, the Project (RAA3) was selected as the preferred alternative.

The Project was determined to be the alternative that most effectively and efficiently reduces, mitigates and eliminates risk to human health and the environment. RAA1 would involve a substantially larger dredge footprint and volume thereby increasing impacts to the environment and surrounding community without significantly improving risk reduction compared with the Project. RAA2 is similar to the Project in terms of types of impacts, but it too would involve a substantially larger dredge volume that would increase the duration and complexity of the construction activities and thereby increase impacts to the environment and surrounding community without significantly improving risk reduction. RAA4 involves a reduced dredge footprint by focusing on areas with the highest concentration of contamination; however, this alternative would not achieve a Permanent Solution and would require further remediation in the future, including a second mobilization of construction activities and associated disturbances, which would result in additional impacts.

3.3 Remedial Action Alternative Descriptions

Each of the RAAs is described in greater detail below, with reference to the Project for comparison.

3.3.1 RAA1: Excavate Wetland, Dredge Mudflat, Upper and Lower River, and Restoration

The goal of RAA1 is to approach or achieve a background condition at the Site through the removal and off-site disposal of contaminated sediment within the wetland, mudflat, and Upper and Lower River. The extent of RAA1 is shown in Appendix D, Figure 2.

RAA1 consists of the following:

- Removing approximately 55,000 cubic yards of dredged and excavated sediments for off-site treatment or disposal over approximately 11.3 acres of the wetland, mudflat, and river, which is a significantly higher amount of dredged/excavated sediment when compared to other alternatives with similar levels of risk reduction. Specifically, conceptual excavation and dredge designs include the following:
  - Excavating the Oakland Street wetland to three feet to eliminate Readily Apparent Harm (RAH)[3] and achieve a condition of No Significant Risk (NSR) for current and future receptors, similar in scope to the Project.

[3] Under the MCP, Readily Apparent Harm refers to obvious, visible evidence that environmental contamination is present and may cause harm to the environment. In the case of the Project site, coal tar has been observed in isolated locations as shallow as a few inches below the sediment surface.

- Hydraulically dredging the Oakland Street mudflat generally up to two to three feet below the sediment surface to eliminate RAH and achieve NSR for current and future receptors, similar in scope to the Project.
- Hydraulically dredging the Upper and Lower River between four to nine feet below the sediment surface to eliminate RAH and achieve NSR for current and future receptors. The depth of the dredge coincides with the observed top of a confining silt or clay layer. In general, the upper surface of this silt or clay layer ranges from approximately four to nine feet below the sediment surface in the dredge area. This scope of dredging is significantly greater than the Project with much deeper dredging over a much larger area. The result is an increase in dredged material from approximately 13,000 cubic yards (the Project) to approximately 55,000 cubic yards (RAA1). Construction duration would increase from approximately 13 months (the Project) to approximately 47 months (RAA1)
- Transporting excavated and dredged sediment from the excavation and dredge areas to the upland staging area located at 8 Noel Street. Sediment would be stabilized in the staging area using Portland cement or other additives prior to off-site transport. Water generated during this process would be collected, treated, and discharged under permit back to the river. This alternative would require a much larger laydown area with increased wetland impacts and significantly more water treatment and management when compared to the Project.
- Restoring the wetland, mudflat, river, and staging areas, consisting of backfilling with imported wetland sediment or other imported soil and revegetating with native wetland plants or other appropriate plants.

Property use restrictions would not be needed for most properties in the Site because background would be approached or achieved in most areas[4].

Under RAA1, a condition of No Significant Risk and a Permanent Solution would be achieved; however, construction duration would be significantly longer, availability of disposal facilities may be limited, impacts to the surrounding community from construction-related activity would be greater, impacts resulting from laydown areas would be significantly larger and suitable laydown areas may not even be available given space constraints along the river.

[4] Property use restrictions are still required for four properties near the former MGP property which were part of the original remedy completed in 2017 and are not part of these proposed remedial activities. These properties include 34-40 Water Street, 39 Water Street, 39A Water Street, and 33R Oakland Street.

In addition, wetland impacts would be significantly greater than the Project due to the significantly larger dredge footprint, the increased depth of dredge, the longer construction duration, and the associated construction-related impacts.

3.3.2 RAA2: Excavate Wetland, Dredge Mudflat, Deep Dredge Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Lower River Only)

The goal of RAA2 is the removal and off-site disposal of contaminated sediment necessary to achieve a condition of No Significant Risk within the wetland, mudflat and the Upper River without the need for property use restrictions, and to achieve a condition of No Significant Risk within the Lower River by relying on the overlying sediment to act as a natural cap with property use restrictions utilized as applicable. The purpose of the natural cap is to limit exposure to deeper impacted sediment. The extent of RAA2 is shown in Appendix D, Figure 3.

RAA2 consists of the following:

- Removing approximately 26,000 cubic yards of dredged and excavated sediments for off-site treatment or disposal over approximately 5.2 acres of the wetland, mudflat, and river. Specifically, conceptual excavation and dredge designs include:
    - Excavating the Oakland Street wetland to 3 feet to eliminate RAH and achieve NSR for current and future receptors, similar in scope to the Project.
    - Mechanically dredging the Oakland Street mudflat generally up to 2 to 3 feet below the sediment surface to eliminate RAH and achieve No Significant Risk for current and future receptors, similar in scope to the Project.
    - Mechanically dredging the Upper River to 4 to 9 feet below the sediment surface to eliminate RAH and achieve No Significant Risk for current and future receptors. The depth of the dredge coincides with the observed top of a confining silt or clay layer. In general, the upper surface of this silt or clay layer ranges from approximately 4 to 9 feet below the sediment surface in the dredge area. This scope of dredging is significantly greater than the Project with much deeper dredging. The result is an increase in dredged material from approximately 13,000 cubic yards (the Project) to approximately 26,000 cubic yards (RAA2). Construction duration would increase from 13 months (the Project) to 23 months (RAA2)
- Retaining the natural sediment cap in the Lower River to achieve No Significant Risk for future receptors.

- Transporting excavated and dredged sediment from the excavation and dredge areas to the upland staging area located at 8 Noel Street. Sediment would be stabilized in the staging area using Portland cement or other additives prior to off-site transport. Water generated during this process would be collected, treated, and discharged under permit back to the river. This alternative would require significantly more water treatment and management when compared to the Project.
- Restoring the wetland, mudflat, river, and staging areas, consisting of backfilling with imported wetland sediment or other imported soil and revegetating with native wetland plants or other appropriate plants.
- Implementing Property use restrictions on portions of the Lower River as needed.

Although deeper contaminated sediment within the Lower River would be left in place at depth under RAA2, the exposure pathways to future ecological and human receptors would be restricted by the existing sediment acting as a natural cap with implementation of Property Use Restrictions.

The Property Use Restrictions would prohibit the relocation of disturbed deeper sediment to the shallower sediment interval, maintain a designated sediment elevation, and require preparation of a sediment management plan and health and safety plan if the sediment were dredged or otherwise handled during future work.

Under RAA2, a condition of No Significant Risk and a Permanent Solution would be achieved at the Site; however, construction duration would be longer, availability of disposal facilities may be reduced, and impacts to the surrounding community from construction-related activity would be greater. Wetlands impacts would be significantly greater than the Project due to the significantly deeper dredge footprint and volume of material removed, the longer construction duration, and the associated construction-related impacts.

3.3.3 RAA3 – the Project: Excavate Wetland, Dredge Mudflat, Shallow Dredge Upper River, Subaqueous Cap in Upper River, Natural Sediment Cap in Lower River, Restoration, and Property Use Restrictions (Upper and Lower River)

The Project involves removal and off-site disposal of contaminated sediment to achieve a condition of No Significant Risk within the wetland and mudflat without the need for Property use restrictions and within the Upper and Lower River by installing a subaqueous cap in the Upper River or relying on the overlying sediment to act as a natural cap in the Lower River. Property use restrictions are necessary in portions of the Upper and Lower River. The extent of the Project is shown in Appendix D, Figure 4.

The Project consists of the following:

- Removing approximately 13,000 cubic yards of dredged and excavated sediments for off-site treatment or disposal over approximately 3.5 acres of the wetland, mudflat, and river. Specifically, conceptual excavation and dredge designs include:
  - Excavating the Oakland Street wetland to three feet to eliminate RAH and achieve No Significant Risk for current and future receptors.
  - Mechanically dredging the Oakland Street mudflat generally up to two to three feet below the sediment surface to eliminate RAH and achieve No Significant Risk for current and future receptors.
  - Mechanically dredging the Upper River to up to two feet below the sediment surface to eliminate RAH and achieve No Significant Risk for current receptors.
- Placing an up to two-foot-thick subaqueous cap in the Upper River to achieve No Significant Risk for future receptors. Specifically, conceptual subaqueous cap design includes (from bottom to top):
  - Sand and Carbon Layer: Up to six inches of sand dosed with carbon placed over remaining contaminated sediment. This layer is being placed to capture sheens that could be present immediately after dredging.
  - Armor Layer: Minimum six inches of stone consisting of 1.5-inch minus stone over the sand and carbon layer.
  - Benthic Layer: Minimum six inches of clean sand over the armor layer that will serve as a benthic layer.
- Retaining the natural sediment cap in the Lower River to achieve No Significant Risk for future receptors.
- Transporting excavated and dredged sediment from the excavation and dredge areas to the upland staging area located at 8 Noel Street. Sediment would be stabilized in the staging area using Portland cement or other additives prior to off-site transport. Water generated during this process would be collected, treated, and discharged under permit back to the river.
- Restoring the wetland, mudflat, and staging areas, consisting of backfilling with imported wetland sediment or other imported soil and revegetating with native wetland plants or other appropriate plants.
- Implementing property use restrictions on the Upper and Lower River as needed.

Although deeper contaminated sediment within the Upper and Lower River would be left in place at depth under the Project, the exposure pathways to future ecological and human receptors would be restricted by a subaqueous cap (Upper River) or the existing sediment

acting as a natural cap (Lower River) with implementation of property use restrictions, as needed.

The property use restrictions would prohibit the relocation of disturbed deeper sediment to the shallower sediment interval, maintain a designated sediment elevation, require repair of cap if disturbed, and require preparation of a sediment management plan and health and safety plan if the sediment were dredged or otherwise handled during future work.

Under the Project, a condition of No Significant Risk and a Permanent Solution would be achieved at the Site.

3.3.4 RAA4: Targeted Excavation in Wetland, Targeted Shallow Dredge in Mudflat and Isolated Areas in River to Eliminate RAH, Subaqueous Cap in Targeted Dredge Areas, and Temporary Solution

The goal of RAA4 is the targeted removal and off-site disposal of contaminated sediment necessary to eliminate the condition of RAH within the wetland, mudflat, and river. Shallow and deeper contaminated sediment that pose significant risk would temporarily remain. The extent of RAA4 is shown in Appendix D, Figure 5.

RAA4 consists of the following:

- Removing approximately 1,300 cubic yards of dredged and excavated sediments for off-site treatment or disposal over approximately 0.4 acre of the wetland, mudflat, and river. Specifically, conceptual excavation and dredge designs include:
  - Excavating the RAH area in the Oakland Street wetland to 1.5 feet to eliminate RAH.
  - Mechanically dredging the RAH area in the Oakland Street mudflat to 1.5-feet below the sediment surface to eliminate RAH.
  - Mechanically dredging the two isolated RAH areas in the Upper River to up to two feet below the sediment surface to eliminate RAH.
- Placing a 1.5-foot temporary subaqueous cap in the RAH area in the Oakland Street wetland, mudflat, and up to a two-foot-thick temporary subaqueous cap in the Upper River to isolate underlying contaminated sediment from current and future receptors. Specifically, conceptual subaqueous cap design includes:
  - Sand and Carbon Layer: Up to 6 inches of sand dosed with carbon placed over remaining contaminated sediment. This layer is being placed to capture sheens that could be present immediately after dredging.
  - Armor Layer: Minimum 6 inches of stone consisting of 1.5-inch minus stone over the sand and carbon layer.

  - Benthic Layer: Up to 6 inches of clean sand over the armor layer that will serve as a benthic layer.

- Retaining the natural sediment cap in the Lower River to achieve No Significant Risk for future receptors.
- Transporting excavated and dredged sediment from the excavation and dredge areas to the upland staging area located at 8 Noel Street. Sediment would be stabilized in the staging area using Portland cement or other additives prior to off-site transport. Water generated during this process would be collected, treated, and discharged under permit back to the river.
- Restoring the wetland, mudflat, and staging areas, consisting of backfilling with imported wetland sediment or other imported soil and revegetating with native wetland plants or other appropriate plants.
- Implementing property use restrictions on portions of the Lower River as needed.

The reduced dredge footprint and reduced construction duration associated with RAA4 would result in significantly less wetland impact than the Project in the short term but would require additional wetland impacts over time; moreover, this alternative does not achieve a condition of No Significant Risk and Permanent Solution as further discussed below.

3.4 Comparative Evaluation of Remedial Action Alternatives

As noted above, a detailed evaluation of the alternatives consisted of ranking each alternative against the eight MCP evaluation criteria: effectiveness, short-and long-term reliability, implementability, cost, risks, benefits, timeliness, non-pecuniary interests. Impacts to Wetland Resource Areas associated with each of the RAAs were also considered, as detailed in Section 3.5 below.

3.4.1 Effectiveness

All RAAs except RAA4 will effectively remove or eliminate exposure and achieve a Permanent Solution and a condition of No Significant Risk. While RAA4 would eliminate RAH, significant risk to current receptors would still remain and the Site would only achieve a Temporary Solution. RAA1 ranked higher for effectiveness as it eliminates contaminated sediment on the Site and returns the Site to background and/or local conditions. RAA2 and the Project ranked lower than RAA1 because contaminated sediment would be significantly reduced or contained, but a substantial amount would remain. In RAA2, contaminated sediment would remain in place at depth in the Lower River; and in the Project, contaminated sediment would remain in place at depth in both the Upper and Lower River. However, both RAA2 and the Project are effective solutions because property use restrictions and caps are effective at controlling the potential

exposure to contaminated sediment and are commonly implemented as part of Permanent Solutions at disposal sites. RAA4 ranked lowest because although RAH would be eliminated, the greatest amount of contaminated sediment would remain in place.

3.4.2 Short-term and Long-Term Reliability

RAAs that have better short- and long-term reliability rely to a greater extent on sediment removal. However, those RAAs introduce additional requirements for managing short-term reliability issues, i.e., controlling impacts to the environment during intrusive removal activities.

RAA1 ranked highest for long-term reliability because removal of contaminated sediment to background would eliminate exposure. RAA2 and RAA3 ranked lower because although significant removal of contaminated sediment to background (in some areas) or to achieve No Significant Risk would still eliminate exposure, both remedies rely on maintenance of caps and compliance with property use restrictions to prevent exposure to remaining contaminated sediment. RAA4 ranked lowest because contaminated sediment would remain in place and only the RAH condition would be addressed in the wetland and mudflat areas (and two isolated areas in the river). RAA4 also relies on the maintenance of a cap although it would not be as robust as the cap installed for the Project.

RAA2 ranked highest for short-term reliability because removal of contaminated sediment to background (in some areas) or to achieve No Significant Risk would eliminate exposure in a larger portion of the Site. This alternative relies only on maintenance of a natural cap rather than an engineered subaqueous cap that is planned for the Project. RAA1 ranked lowest for short-term reliability given the long construction duration that could be affected by inclement weather events or workforce interruptions, lesser availability of disposal facilities to accommodate such large sediment volumes, and potential infeasibility of identifying suitable laydown areas given space constraints along the river.

3.4.3 Implementability

The aquatic environment is typically difficult for construction projects, due to fluctuating tides, heightened forces during storms, and access limitations. Sediment removal can be technically complex, requiring sequencing work around tides while maintaining engineering controls to limit emissions and discharges to the environment. Any work in the aquatic environment requires compliance with a complex set of environmental laws and regulations. The expected level of environmental permitting for the RAAs is similar.

RAA4 ranged highest for implementability since it has limited technical complexity and the shortest construction duration. RAA2 and the Project ranked next because of the moderately large volume of sediment to be dredged and processed. However, the Project

ranked higher than RAA2 because although there is the technical complexity in installing a subaqueous cap along the Upper River under the Project, that is off set by the technical complexity in a larger dredge footprint and volume, the need for temporary support during dredging to achieve design depths and prevent failure of banks, and longer construction duration of RAA2 that could be subject to inclement weather and other workforce interruptions. RAA1 ranked lowest because of the very complex nature of the deep dredging needed to implement the remedy, including the large volume of sediment to be dredged and processed and the need for temporary support during dredging to achieve design depths and prevent failure of banks. In addition, there would be increased difficulty finding adequate capacity at disposal facilities.

3.4.4 Costs

RAA4 is the lowest cost alternative since it requires the lowest dredging volume and off-site sediment disposal. RAA4 will only moderately disturb the wetland and mudflat because the remedial footprint is smaller so costs for environmental restoration are lower. The Project is the next lowest cost alternative since although there is significant dredging and off-site sediment disposal, that volume is comparatively lower than for RAA1 and RAA2 because some contaminated sediment will remain in place beneath a subaqueous cap. RAA2 is the second highest cost alternative since more of the Upper River would be dredged and sediment disposed off-site compared to the Project. RAA1 is the highest cost alternative since it requires the most significant dredging and significant off-site sediment disposal.

3.4.5 Risks

RAA1, RAA2, and RAA3 carry similar levels of risk but with varying degrees of short-term risk versus long-term risk. RAA1 carries the highest level of short-term risk during construction due to the large volume of sediment being excavated and transported but it poses less long-term risk due to the removal of more impacted sediment. RAA2 poses more short-term risk since more sediment removal and offsite disposal is required but it poses less long-term risk because it relies only on a natural cap in the Lower River to control future exposures. The Project balances the risks, with less short-term risk since less sediment removal and off-site disposal is required but relatively more long-term risk because it relies on a subaqueous cap in the Upper River and natural cap in the Lower River to control future exposures. RAA4 ranked as the least preferable for risk as only targeted removal of sediment to eliminate RAH would be performed and significant risk to current receptors would still remain.

3.4.6 Benefits

Excavation and dredging are expected to disrupt the existing habitat in the short term; however, restoration will return the Site to a healthier ecosystem. All but RAA4 rank

high for providing for the restoration of natural resources and productive re-use of the Site; each alternative results in removal of contaminated sediment and restoration of habitat equal to or better than current conditions. RAA4 ranks lower because although the wetland would be restored where it is disturbed, significant risk to current receptors would still remain.

Each alternative ranked equally for avoided costs as no relocation of people or businesses is necessary.

Each alternative ranked equally for avoided lost value as no economic loss would occur following implementation of any of the remedies evaluated.

The MCP requires that site remediations are evaluated to eliminate or reduce the environmental footprint of cleanup activities to the maximum extent practicable, per 310 CMR 40.0191(3)(e). All four RAAs are expected to have similar types of environmental footprints based on expected fuel consumption for dredging, sediment processing, and transportation for off-site treatment or disposal. But the intensity of the impacts will vary between the alternatives. The consumption of fuel is expected to increase with the complexity and volume of sediment removed in each RAA, i.e., RAA1 will have the largest impacts and RAA4 will have the smallest impacts. Specifically, RAA1 will have comparatively higher energy consumption and significant amounts of trucking due to the large volume of sediment to be dredged and processed; and RAA4 will have comparatively lower energy consumption and lesser amounts of trucking due to the small volume of sediment to be dredged and processed.

3.4.7 Timeliness

RAA3 ranked as the most timely alternative due to the moderate construction duration that results in achieving a condition of No Significant Risk and Permanent Solution. RAA2 ranked next since it has a longer construction duration, almost double the duration for RAA3 but also results in achieving a condition of No Significant Risk and Permanent Solution. RAA1 ranked next since it also achieves a condition of No Significant Risk and Permanent Solution but would require a very long construction duration. RAA4 ranked last since although it would be completed with a minimal construction duration, it only achieves a condition of No Substantial Hazard and a Temporary Solution, and not a condition of No Significant Risk and Permanent Solution. Definitive and enterprising steps to achieve a Permanent Solution under RAA4 would require more time, including additional dredging and cap installation.

3.4.8 Non-Pecuniary Interests

Non-pecuniary interests are those effects that are not related to financial impacts, such as effects on aesthetic values. RAA4 ranked most favorably since the local area would be affected the least from construction and trucking traffic, and interruptions in access to the

recreational bike path and river would be limited. RAA1 ranked least favorably since the local area would be affected the most from construction and trucking traffic, and interruptions in access to the recreational bike path and river would be significant. RAA2 and the Project ranked in between since they would only moderately affect the local area with traffic and interruption in access.

3.5 Summary of Analysis and Selected Remedial Action Alternative

Based on the detailed comparative evaluation of RAAs, RAA3 – the Project – was the selected remedy to address the current and future significant risks to human health and the environment. While this option leaves some of the contaminated material in-place beneath a subaqueous cap in the Upper River and natural cap in the Lower River, contaminated sediment will be significantly reduced and the remainder contained, allowing for a Permanent Solution and a condition of No Significant Risk – the same MCP outcome as RAA1 and RAA2. Under the Project, there is greater technical complexity in installing a subaqueous cap along the Upper River compared to the other evaluated RAAs, but this alternative results in the better balance of managing short-term and long-term risks, and minimizes the overall impact of the remedy on the environment and local property owners while still achieving a Permanent Solution. However, when compared to the additional cost of removing additional contaminated material, the benefit does not outweigh the short-term risks posed by RAA1 and RAA2 resulting from additional sediment removal, additional material to be disposed of off-site, and greater difficulty in controlling emissions and discharges to the environment during construction.

3.5.1 Wetland Resource Area Impact Assessment

Wetland Resource Area impacts are inherently part of the analysis since the overall goal of the project is to reduce risk of impacts from contamination to the environment. In other words, the benefits of each alternative are addressed with regard to their ability to improve the environmental conditions. This analysis broadly includes impacts to Wetland Resource Areas since they are the state-regulated features protected by environmental regulations in Massachusetts. The alternative that best protects the environment can be simply viewed as best protecting the resource areas, regardless of square footage of impact differences. Wetland Resource Area impacts for each RAA are detailed in Table 2 above.

The Project balances resource area impacts with the eight MCP evaluation criteria. RAA1 and RAA2 result in significantly greater resource area impacts, while RAA4 would result in less impact, but only in the short-term. RAA1 and RAA2 can be dismissed since they result in significantly greater resource area impact than RAA3 or RAA4. Although it would result in significantly less resource area impact than RAA3, RAA4 was found to be unfavorable because it only achieves a condition of No Substantial Hazard and a Temporary Solution, and not a condition of No Significant Risk

and Permanent Solution. As noted above, definitive steps to achieve a Permanent Solution under RAA4 could take a very long time, and may result in additional dredging and cap installation, and associated resource area impacts.

3.6 Laydown Area and Access Road Alternatives Discussion

A separate analysis of the laydown areas and access roads alternatives was completed. The analysis included an evaluation of possible laydown area locations and configurations.

3.6.1 Evaluation of Possible Laydown Areas

The northerly and southerly laydown areas and the temporary equipment access roads were selected and designed based on a combined analysis of environmental impacts and private property access considerations.

The northerly laydown area at 39 Water Street and the access route extending across the BVW on 39A Water Street and 33R Water Street was selected based on three primary factors: the laydown area was used previously as a laydown area and it is owned by National Grid; and it is accessible from the terminus of Water Street and does not involve any direct impacts to Wetland Resource Areas; and there are no other viable laydown areas in this area.

Given the steep slopes in the immediate vicinity of the wetland excavation area and adjacent dredge area on 33R, 35, 37, 39, 41 and 43 Oakland Street and 4 Oakland Court, constructing laydown and access roads in closer proximity to the east of the excavation area is not feasible. Given the location of the wetland excavation area, located about 150 feet from the laydown area, the construction access route was designed in a straight line to connect the laydown area to the excavation area with the least impact to BVW.

The southerly laydown area on 8 Noel Street was designed after extensive evaluation of alternatives followed by discussions and a lease agreement with the property owner. The configuration minimizes impacts to Wetland Resource Areas and minimizes removal of mature trees, while ensuring there is adequate usable space for the remediation operations that will occur within the laydown area. Alternative configurations were explored, including use of property at 1 Field Street and 7 Noel Street (Appendix D, Figure 6). The advantages and disadvantages of each of these properties, including 8 Noel Street, is shown in Table 4 below.

Table 4: Possible Laydown Areas		
Construction Staging Locations	**Advantages**	**Disadvantages**
8 Noel Street	• Sufficient space for anticipated staging. • No nearby residential or commercial conflicts. • Flexible layout and expansion potential. • No impact to wetland on northern edge of parcel.	• Significant site preparation. • Select removal of trees. • Privately owned; lease or purchase required for us.
7 Noel Street	• Minimal site preparation. • No impacts to wetlands and woodlands.	• Likely insufficient space for anticipated staging. • Significant impact to active commercial operations; likely need for occupant relocation. • Farthest from the construction site. • Complexity in drainage channel and sewer line crossing. • Privately owned; lease or purchase required for use.
1 Field Street	• Closest to the construction site. • No impacts to wetlands. • Owned by National Grid.	• Likely insufficient space for anticipated staging. • Significant site preparation. • Select removal of trees. • Significant impact to residential neighborhood.

As detailed above, the potential staging area at 8 Noel Street was found to be the best alternative because it contained the necessary space, involved minimal conflicts to nearby residential or commercial activities and avoided significant impacts on Wetland Resource Areas.

3.6.2 Evaluation of Possible Configurations at Selected Laydown Area

Within the property at 8 Noel Street, two practicable alternatives for establishing a temporary construction staging and laydown area were evaluated, with consideration given to acreage requirements (minimum of two acres necessary), Wetland Resource Areas, vegetation impacts, adjacent land uses, constructability, and the minimum area required to support construction activities (Appendix D, Figure 7). Note that a third alternative was evaluated but it did not meet the minimum two-acre requirement and was dismissed as infeasible. Each alternative also incorporated post-construction restoration, including improvements to the existing stormwater basin.

Option 1

Option 1 represents the originally conceived laydown area and encompasses approximately 2.25 acres. This layout maximizes the available usable land and results in high efficiency for construction activities. However, the layout extends to within approximately 10 feet of adjacent athletic fields and wetland resource areas. The proximity to sensitive resources and adjacent receptors introduces greater potential for temporary construction-related impacts, including visual and noise impacts to both the property owner's athletic fields and the nearby residential neighborhood. In addition, this option would require the removal of a significant number of high-value trees. While the larger laydown area would facilitate construction logistics and maintain a high amount of usable land, it provides the least avoidance and minimization of environmental and community impacts among the alternatives. Following construction, the laydown area would be restored, including construction of a more effective stormwater basin.

Option 2

Option 2 represents a modified laydown area that balances the need for sufficient construction area while minimizing environmental and community impacts. This laydown area provides approximately 2.15 acres, thereby meeting the minimum required laydown area while reducing the overall footprint relative to Option 1. The layout incorporates setbacks from the northern wetland and increases buffer distances to the athletic fields and residential neighborhood, which reduces potential visual and noise impacts relative to Option 1. This layout also prioritizes retention of existing trees and results in only moderate removal of high-value trees among the alternatives, preserving a greater number of high-value trees compared to Option 1. Additional grading would be required to create usable land due to existing berms. As with the other alternatives, the laydown area would be restored post-construction, including construction of a more effective stormwater basin.

In summary, Option 1 provides the greatest flexibility for construction activities but results in the most temporary impact to wetlands, trees, and adjacent land uses. Option 2 achieves a balance between these considerations by providing sufficient area for construction activities while incorporating meaningful avoidance or minimization measures, including increased buffers and reduced tree removals. Based on this evaluation, Option 2 was selected because it represents the most practicable solution that minimizes impacts to wetland resource areas, trees, and adjacent land uses while still meeting project requirements.

4.0 PROJECT DESCRIPTION

The Project involves excavating and dredging contaminated sediment from the Powwow River and an adjacent wetland in order to meet MCP obligations. Under the MCP, the goal is to execute a practicable, site-specific remediation project that will achieve a condition of No Significant Risk and a Permanent Solution. The Project has been designed in the context of the MCP requirements as well as the applicable environmental regulations and is intended to achieve the objectives of the MCP, with comprehensive restoration of all remediation and construction related disturbances to the environment.

The Project involves the following activities:

- Construction of laydown/staging areas and access/haul roads to facilitate remediation activities.
- Excavating contaminated sediment from a wetland located adjacent to the Powwow River.
- Dredging contaminated sediment from a mudflat within the Powwow River.
- Dredging contaminated sediment from the main channel of the Powwow River.
- Installation of a subaqueous cap within the dredged main channel of the Powwow River.
- Restoration of the dredged and excavated areas.
- Restoration of laydown/staging areas and access/haul roads.
- Implementing property use restrictions at parts of the Site as needed.

In total, approximately 13,000 cubic yards of sediment will be removed from a 3.5-acre remediation footprint. While not part of the Project site for the purposes of environmental permitting, achieving a condition of No Significant Risk under the MCP includes leaving the natural sediment located downstream of the Project site (referenced as the Lower River) in place. This so-called "natural cap" is sufficient to achieve No Significant Risk under the MCP. No work is proposed in the Lower River; however, property use restrictions will be implemented on portions of this area as needed.

Although deeper contaminated sediment within the Upper and Lower River will be left in place at depth, the exposure pathways to future ecological and human receptors will be restricted by a subaqueous cap (Upper River) or the existing sediment acting as a natural cap (Lower River) and through the use of property use restrictions.

Property use restrictions will be used as needed to prohibit the relocation or disturbance of deeper sediment, maintain a designated sediment elevation, require repair of cap if

disturbed, and require preparation of a sediment management plan and health and safety plan if the sediment were dredged or otherwise handled during future work.

After remediation, all disturbed areas associated with this Project will be fully restored, resulting in a significant improvement over existing conditions. Once the work is complete, a condition of No Significant Risk and a Permanent Solution will be achieved at the Site under the MCP.

Each of the Project elements is described in detail below.

4.1 Dredging

The removal of sediment in the river and mudflat will be performed using mechanical and/or hydraulic dredging equipment depending on the location and quantity of material removed. For mechanical dredging, the equipment will include an excavator or crane mounted on a barge or amphibious equipment, equipped with a clamshell or environmental dredging bucket. For the wetland excavation area or the mudflat area while working in the dry, sediment removal below MHW constitutes dredging, but the construction methods and restoration plan for these areas differs from the river and mudflat dredging, and is described separately in Section 4.2 below.

The depth of dredging in the mudflat will be approximately two to three feet below the sediment surface, and up to two feet within the remainder of the Powwow River dredge area. These depths were determined as part of the MCP alternatives analysis and project design process, with the objective of achieving a condition of No Significant Risk.

The dredging activity will be coordinated with the tides, with most of the work performed around mid or high tide to maintain clearance between the dredging vessel and river substrate. Typically, an over dredge tolerance is specified to account for the inherent inaccuracies in underwater excavation and to ensure that the required depth is reliably achieved.

It is anticipated that the dredging would generally progress from upstream to downstream to prevent inadvertent cross contamination of previously dredged areas. Turbidity curtains will be deployed to contain suspended sediment within the work area. The details of the dredging plan including location of turbidity curtains will be decided by the contractor and reviewed and approved by the engineer. Dredging may be performed on one half of the river at a time so that fish (American Eel) passage is maintained on the other half of the river during construction. Dredging in sections to allow fish passage was suggested by MA Division of Marine Fisheries (DMF) to allow work to occur between the otherwise required Time of Year (TOY) restriction between September 1 and November 15. Planning to continue dredging during the TOY restriction is critical to expediting the dredging effort and reducing the overall timeline for in-water work and associated construction period impacts to the resource areas.

Dredging impacts within LUW are summarized below.

- Mudflat dredging area: 24,762 square feet
- River dredge area 1: 8,052 square feet
- River dredge area 2: 129,489 square feet
- Wetland excavation area: 9,254 square feet

4.1.1 Subaqueous Cap

After material is dredged to the specified depth within the Powwow River channel dredge area, a subaqueous cap will be installed using three layers designed to prevent contact to underlying sediments. The cap involves three layers (from bottom to top):

- Sand and Carbon Layer: The sand and carbon layer will be up to 6-inches of sand dosed with carbon. This layer is being placed to capture sheens that could be present immediately after dredging. The sand and carbon layer will be buried beneath the armor layer (see below) comprised of a minimum of six inches of 1.5-inch or smaller stone. This will stabilize the sand and carbon layer to maximize effectiveness.
- Armor Layer: Minimum of six inches of stone consisting of 1.5-inch minus stone over the sand and carbon layer.
- Benthic Layer: The benthic layer will consist of a minimum of six inches of clean sand placed over the armor layer to mimic existing benthic habitat conditions. This layer will function similarly to the existing substrate and over time will substantially restore the characteristics of the benthic habitat to match existing conditions.

The subaqueous cap will be installed as a direct contact barrier to mitigate the direct dermal contact, ingestion, and fugitive air emissions exposure risks by limiting the accessibility to the contaminated sediment. Covering the contaminated sediment with the cap removes the potential exposure pathways. During construction, there could be some short-term risk posed by potential dermal contact and migration of contaminants via the temporary exposure to surface water. These short-term risks will be managed by implementing and maintaining the appropriate control measures, such as:

- Preparation and implementation of a Health and Safety Plan by the contractor.
- Installing and maintaining turbidity curtains and absorbent booms to prevent migration of turbid water or sheen out of the work zone.
- Placement of sand dosed with carbon over the remaining deeper, contaminated sediment as means to control sheen, if generated, during dredging. The methods and sequencing for dredging and installation of the cap are further described below in Section 4.4 Construction Sequence and Methods.

Based on GEI's human health risk assessment, ecological risk assessment, and hydraulics and hydrology evaluations, the proposed cap design is:

- Adequate to prevent direct contact with the underlying contaminated sediments including access to impacted sediments through other means, such as digging or small boat anchoring.
- Resilience to scouring resulting from a 10-year storm event for the Powwow River (a conservative scenario for this river).

4.2 Wetland Excavation Activities

Contaminated sediment will be removed from the BVW and LUW in the wetland excavation area by excavating/dredging to a depth of three feet and backfilling the area with three feet of clean wetland soil. The excavation area contains approximately 765 square feet of BVW and 9,254 square feet of LUW (area below MHW). An additional 58 square feet of BVW excavation will occur in the mudflat excavation area. The wetland excavation area contains a channel that drains the BVW marsh located further west and flows toward the mudflat. The areas beyond the channel but within this excavation area are vegetated, as described in Section 2.3.1.

Excavated material will be transported to the laydown/staging area at 8 Noel Street, as determined by the contractors' means and methods. Excavation work will be performed during low tide to minimize water control and management requirements. Turbidity control measures will be placed at the downstream end of the wetland excavation area to minimize sedimentation during excavation. A temporary access/haul road will provide access to the wetland excavation area to facilitate equipment access and access for restoration activities, including plantings and erosion control matting. The access/haul road is described in detail below in Section 4.3.4.

4.2.1 Backfilling Activities

The backfilling activities associated with the river dredging activities, which include the subaqueous cap, are described above Section 4.1.1. The wetland excavation area will be backfilled with thee feet of clean wetland soil, as described above in Section 4.2. Restoring the mudflat will consist of backfilling with imported soil that generally matches the existing sediment grain size and organic content. Restoration details for each area are provided in Section 4.6.

4.3 Construction Laydown/Staging Areas

The dredging and excavation activities will be facilitated by construction of two laydown and staging areas, each of which includes a temporary access road extending from the laydown area to the dredging and excavation areas. The 8 Noel Street laydown/staging area is expected to be the primary center of operations given its larger size, and the material processing and sediment stockpiling will occur there. The 39 Water Street area

will be used for construction equipment staging, clean backfill stockpiling and restoration planting storage. Each area is described in detail below, along with the material processing plan that will occur within the 8 Noel Street laydown/staging area.

4.3.1 8 Noel Street Laydown/Staging Area

The primary laydown/upland staging area for the Project will be located at 8 Noel Street, which is owned by Coastal Connections. National Grid has leased a portion of the property for use as a laydown area (Appendix D, Figure 7). It is anticipated the following activities will be performed at the 8 Noel Street Laydown Area:

- Clearing and grading to create the laydown area.
- Contractor trailers and equipment storage.
- Contaminated sediment stockpiling, dewatering, handling, and processing for off-site disposal.
- Clean backfill and capping material stockpiling and handling.
- Water collection and treatment as contaminated sediment is processed.
- Contaminated sediment transport off-site for thermal desorption or landfill disposal.

A temporary six-foot chain link fence will be constructed around the laydown/staging area. The fence will be covered with synthetic screening fabric (or similar) along the western side for privacy as requested by the owner of 8 Noel Street.

As part of site preparation, the area will be cleared of vegetation and graded. Grading will consist of leveling out the existing ground surface to support use as a laydown area. This clearing and grading effort will include creating a temporary river access point for construction worker foot traffic and clearing and temporarily filling a degraded stormwater basin, as described below.

The graded laydown/staging areas will be covered with a High-Density Polyethylene liner and a gravel base working pad to protect the underlying soils and fully contain contaminated sediments in the laydown area during material processing activities. The lined area will facilitate collection of effluent during dewatering along with stormwater that comes in contact with contaminated sediments.

Disturbed areas associated with laydown/staging areas will be fully restored with a diverse mix of native saplings and plant and topsoil (if necessary), resulting in a long-term overall improvement to existing conditions by establishing native plant communities in areas currently dominated by non-native species. Restoration of the laydown area will also include constructing a small picnic area outside any Wetland Resource Areas and a path to a river overlook for use by the 8 Noel Street property owner.

Additional information on the restoration of the 8 Noel Street property is in Section 4.6.

4.3.2 39 Water Street Laydown/Staging Area

A secondary laydown area will be located at 39 Water Street, which is owned by National Grid. It is anticipated the following activities will be performed at the 39 Water Street laydown area:

- Clearing and grading to create the laydown area
- Construction equipment staging
- Clean backfill material stockpiling and handling
- Restoration plantings storage

As part of site preparation, the area will be cleared and graded. Grading will consist of leveling out the existing ground surface to support use as a laydown area. Some temporary earth support may be necessary to achieve desired grades. Restoration of the laydown area will include replanting the area with native trees and plants. Additional information on the restoration of the 39 Water Street property is in Section 4.6.

4.3.3 Material Processing

The dredged and excavated sediments will be transported to a dedicated laydown area at 8 Noel Street for dewatering and amendment prior to disposal. Due to the water content of the sediments, dewatering and amendment of sediments will be required prior to materials being transported for off-site treatment or disposal. Sediment dewatering may be performed through various methods such as gravity drainage, geotextile tubes (geobags or geotubes), mechanical/filter presses, or drying beds. Once the initial dewatering step is completed, additional amendments will likely be necessary since these dewatering techniques are likely not sufficient to meet the moisture content and handling characteristics, such as unconfined compressive strength, typically required by receiving facilities.

The amendment process typically involves mixing dredged or excavated sediment with material such as Portland cement or lime kiln dust to reduce water content prior to off-site transport or short-term on-site storage to allow for adequate draining. Material processing will help meet regulatory or logistical requirements for treatment or disposal.

Dewatering effluent will be captured, treated, and discharged to the Powwow River in accordance with requirements of a NPDES Dewatering and Remediation General Permit or it will be discharged to the City of Amesbury Wastewater Treatment Facility under an Industrial User Permit. Specific water management needs will be dictated by dredging methods. Additional information on the water treatment system is presented in Section 4.5.

4.3.4 Off-Site Treatment or Disposal

The treatment and disposal technologies for managing dredged and excavated material from former MGP sites typically include thermal desorption and landfilling. Material will be pre-characterized for treatment or disposal prior to dredging and excavation.

Thermal desorption is a physical separation process that uses either indirect or direct heat exchange to vaporize VOCs and SVOCs from soil, sediment, or sludge.

Landfilling is a disposal process of placing waste material at a non-hazardous waste landfill as direct fill or as cover material, depending on physical and contaminant characteristics. Reuse as landfill daily cover is generally preferable to direct disposal. From a waste management perspective, landfilling is a less desirable soil processing option because it does not transform or destroy contaminants in the dredged or excavated material. However, because daily or weekly volumes may be capped at a thermal desorption plant or sediment characteristics may preclude treatment at a thermal desorption plant, landfill disposal is often necessary.

There is an isolated area at 37 Oakland Street where vinyl chloride was detected in sediment at concentrations that exceed the Resource Conservation and Recovery Act (RCRA) regulatory limit. This sediment is estimated to be less than 10 cubic yards total but because it exceeds the threshold for characteristically hazardous waste, it cannot be treated by thermal desorption or disposed of at a non-hazardous waste landfill. The sediment will be segregated and disposed off-site at a hazardous waste landfill.

4.3.5 Construction Mat Access/Haul Roads

Construction mat access/haul roads will be constructed from the 8 Noel Street Laydown Area to the edge of the Powwow River and from the 39 Water Street Laydown Area to the wetland excavation area, as depicted on the Project Plans (Appendix E). The construction mat access/haul roads will be utilized to cross wetland areas while protecting the underlying wetland resources and create a stable road for construction equipment moving to and from the excavation and dredging work areas.

The access/haul road from the 8 Noel Street Laydown Area to the edge of the Powwow River will be used to access the work area and to provide a means for transporting sediment from the river to the laydown/staging area for processing, amending, and off-site disposal. It is also anticipated that the construction mat access road will be used to provide backfill and capping materials to the mudflat and river channel dredging areas.

The construction mat access/haul roads from the 39 Water Street Laydown Area to the wetland excavation area will be used to access the work area and to provide a means for transporting imported backfill and restoration plantings to the wetland. The construction

mat access roads will be installed and maintained in general accordance with typical National Grid details and Best Management Practices.

The 39 Water Street construction mat access/haul road will result in temporary disturbance to BVW (7,096 square feet), Bank (52 linear feet), and LUW (674 square feet). The 8 Noel Street construction mat access/haul road will result in temporary disturbance to BVW (8,475 square feet), Bank (909 linear feet), and LUW (20,731 square feet). Restoration of the area will be performed at the completion of work. Restoration of these areas is described in Section 4.6

4.3.6 Water Access (8 Noel Street)

For river access during construction, two potential temporary water access areas have been identified for proposed for use at the 8 Noel Street property to allow the contractor water access for transporting staff to and from the work area. It is anticipated that temporary floating docks with associated temporary piles and ramps will be deployed to accommodate Jon boats for use by the construction team. The location of these access points is shown on Appendix D, Figure 7. Temporary wetland disturbances associated with the temporary dock include clearing 67 linear feet of Bank, and less than four square feet of LUW disturbances associated with the temporary piles.

4.4 Construction Sequence and Methods

The Proponent will retain a remediation contractor to perform the dredging, excavation, processing and off-site disposal of sediment and all associated wetlands and uplands restoration. While the contractor will be responsible for the final details, the conceptual construction sequence is provided below in Table 5.

Phase	Duration	Description	Activities
Permitting	20 Months	• Prepare and submit applications to local, state, and federal agencies to permit the project.	• Periodic site inspections by project team or others.
Procurement	9 Months	• Advertise, review, and select a contractor to perform cleanup.	• Periodic site inspections by project team or others.
Mobilization	2 Months	• Selective tree removals at 8 Noel Street laydown area and 39 Water Street laydown area. • Site preparation such as grading and equipment setup at 8 Noel Street laydown area and 39 Water Street laydown area.	• Chain saws and felling trees • Wood chipping. • Limited trucking on Noel Street and Water Stree.t • Truck backup alarms. • Equipment noise in laydown area (e.g., dump trucks, bulldozers).

Phase	Duration	Description	Activities
River Dredging and Capping	4 Months	• Dredging and capping work in Powwow River. • Sediment processing/ material mixing at 8 Noel Street laydown area. • Off-site disposal.	• Moderate trucking on Noel Street. • Truck backup alarms. • Equipment noise on river and in laydown area (e.g., loaders, excavators, dump trucks, etc.)
Wetland Excavation/ Mudflat Dredging, and Backfilling	3 Months	• Excavation, dredging and backfilling work in Oakland Street wetlands/mudflats. • Sediment processing/ material mixing at 8 Noel Street laydown area. • Off-site disposal.	• Moderate trucking on Noel Street and limited trucking on Water Street. • Truck backup alarms. • Equipment noise on river and in laydown area (e.g., loaders, excavators, dump trucks, etc.)
Continued Materials Management and Off-site Disposal	2 Months	• Sediment processing/ material mixing at 8 Noel Street laydown area. • Off-site disposal.	• Moderate trucking on Noel Street. • Truck backup alarms. • Equipment noise in laydown area (e.g., loaders, bulldozers).
Environmental Restoration	2 Months	• Demobilization of water treatment system and sediment amendment area at 8 Noel Street laydown area. • Regrade 8 Noel Street laydown area. • Planting/environmental restoration in Oakland Street wetlands/mudflats, 8 Noel Street laydown area, and 39 Water Street laydown area. • Remove and restore mat road. • Construct picnic area and path at 8 Noel Street.	• Moderate trucking on Noel Street and Water Street. • Truck backup alarms • Equipment noise (e.g., loaders, bulldozers, skid steers, etc.)
Demobilization	1 Month	• Final equipment removal at 8 Noel Street and 39 Water Street laydown area.	• Limited trucking on Noel Street and Water Street. • Truck backup alarms.

4.5 Water Control Plan

Given excavation and dredging activities in wetlands and the Powwow River, management of water during construction will be critical to ensuring environmental impacts are limited to the excavation and dredging footprints and to ensure efficient management, loading and off-site disposal of contaminated sediment. Surface water flowing into and out of the wetland excavation area and dredging areas with the tides will require management and carefully

planned construction techniques. Water released during dewatering/processing of excavated/dredged sediment and stormwater from precipitation events will also require management.

Final details of the water control plan for each of these aspects of the Project will be determined by the contractors' means and methods and applicable permit requirements and conditions. The selected contractor will have extensive experience with construction projects in waterways and is expected to select methods for controlling water that comply with all environmental permits and minimize construction period impacts beyond the dredge/excavation footprint. It is important, and standard practice, to maintain some level of flexibility in the construction techniques used to allow contractors to manage water as they deem appropriate based on their experience.

4.5.1 Dewatering of Sediment

Water management will be required as part of the dewatering of sediment after being removed during dredging and excavation activities. This effort will be performed at the 8 Noel Street Laydown Area. It is anticipated that dewatering effluent from the sediments will likely require treatment for Site-related contaminants, including cyanide, benzene, toluene, ethylbenzene, and xylene (BTEX), and polycyclic aromatic hydrocarbon (PAH) compounds, prior to discharge to the Powwow River under a NPDES DRGP or to the City of Amesbury Wastewater Treatment Facility under an Industrial User Permit.

The water treatment system will likely consist of a mobile trailer unit or be assembled on-site from modular components. The dewatering management and treatment system will likely include the following primary processes:

- Storage and Flow Equalization – One or more settlement tanks (e.g., fractionation or weir tanks) to receive dewatering effluent from material processing. Tanks are used for flow equalization and initial settling of suspended solids.
- Filtration - Multiple bag or cartridge filters to remove particulates and suspended solids. Filters are typically plumbed in parallel such that one filter can operate while the other remains on standby or is changed out.
- Adsorption - Granular activated carbon (GAC) vessels in series, primarily for organic compound removal, including BTEX and PAH compounds. GAC is a technology in which water is pumped through one or more vessels containing activated carbon to which dissolved organic contaminants adsorb. Before the concentration of contaminants in the effluent exceed threshold levels the carbon can either be regenerated, or removed, disposed of, and then replaced. Adsorption by GAC has a long history of use in treating municipal, industrial, and hazardous waste. The time duration before GAC requires regeneration or change out is dependent on

contaminant type, concentration, and volume; regulatory cleanup requirements; and metal concentrations; and will be determined while the system is being designed.

- Removal - If dense non-aqueous phase liquid (DNAPL), such as coal tar, is encountered, an oil/water separator will be installed prior to the fractionation or weir tank(s).

Water treatment system influent and effluent sampling and testing will be performed in accordance with the NPDES DRGP or City of Amesbury Wastewater Treatment Facility requirements depending on the discharge location, respectively.

4.6 Restoration Plan

The Project involves disturbance from excavation and dredging of contaminated sediment and the associated construction disturbances. The Project involves comprehensive restoration of all resource areas and disturbed upland/Buffer Zone areas which will result in a significant overall improvement to the ecological functions of the resource areas and buffers. The proposed walking trail and picnic area on the 8 Noel Street property are the only features that will be excluded from restoration and will remain as permanent features post-construction. The wetland excavation area, mudflat, river dredging, upland/buffer zone, and stormwater basin restoration plans are described separately below.

4.6.1 Wetland Excavation Area Restoration Plan

Restoration of the wetland excavation area, most of which also constitutes dredging since it is below MHW, will involve restoration with imported wetland soil and plantings. This area includes a main channel and smaller side channels which are below MHW and subject to frequent tidal inundations.

After excavation, the wetland area will be backfilled with at least three feet of wetland topsoil containing mineral soil mixed with clean leaf compost to achieve pre-existing grades and allow for settling. The soil will be tested so that it meets requirements for pH (6.2-6.8) and organic carbon content (around 12%).

Final grades will be restored to pre-construction elevations to obtain similar wetland hydrology, maintain flood storage capacity and re-establish pre-construction cover types (marsh and scrub shrub/forested wetland).

Vegetation in the wetland excavation footprint includes *Phragmites*, cattails, scattered individuals of marsh marigold, pickerel weed and arrow arum, with silky dogwood shrubs on the outer portions. The planting plan will attempt to mimic and improve these conditions by including dogwood shrub plantings (spaced 5 feet on center) in the current location of dogwood, scattered marsh marigold plantings (10 feet on center), and pickerelweed and arrow arum plugs (12 inches on center). Detailed planting plans depicting the specifications of the restoration activities will be finalized during permitting.

Due to tidal flow and to minimize erosion, the surface of the restoration area will be stabilized with erosion control matting after soil is spread.

Restoration activities will be monitored by a qualified Wetland Scientist, including excavation, inspection of imported soil, backfilling, grading, planting, and seeding. Following the planting installation and demobilization, the Wetland Scientist will continue post-construction monitoring of the wetland restoration areas for at least two full growing seasons (or longer if required in permitting), or until 75% coverage by native wetland indicator species is achieved.

4.6.2 Mudflat Restoration

The mudflat restoration involves backfilling the dredged areas with a mix of sand and organic matter, similar in composition to a conventional topsoil (5-12% organic matter content) and then planting with aquatic species currently present in the mudflat. The backfill material will be similar in composition (grain size/organic matter) to existing conditions and will be spread in a manner that re-establishes existing topography/bathymetry. Plantings will include plugs of bur-reed, arrowhead, pickerelweed and arrow arum (spaced 12 inches on center).

4.6.3 River Dredging Restoration

As described above in Section 4.1, restoration of the river dredge footprint involves placing a subaqueous cap over the underlying soil to restrict underlying contamination and to restore a benthic layer that mimics existing conditions. This benthic layer will provide similar benthic habitat conditions as the existing material to be dredged.

4.6.4 Upland/Buffer Zone Restoration Plan

The proposed Project includes disturbance and restoration to upland areas, including upland Riverfront Area, BLSF, Buffer Zone, and upland areas that are outside jurisdictional wetland resource areas. Restoration will occur following the completion of dredging and processing activities as equipment and staging materials are removed from the Project site. The restored upland/Buffer Zone areas will be backfilled with topsoil (5-12% organic matter content), if necessary, to achieve pre-existing grades and create a suitable substrate for planting and seeding.

The upland/Buffer Zone areas will be revegetated with a diverse mix of native saplings and shrubs, along with habitat-specific seed mixes intended to create a stratified native plant community. At a minimum, BGC intends to replace trees with saplings at a ratio of at least 1:1 with additional density up to 2:1 where appropriate and approved by the landowner. Species planted will include native species present in the existing canopy, including red maple, ash, American elm, and red and white oak. A final planting plan with species list/quantities, size, spacing, and seed mix details will be developed during the permitting process.

4.6.5 Stormwater Basin Restoration (8 Noel Street)

Upon completion of remediation, the stormwater basin at 8 Noel Street will be restored to match existing topography to ensure it functions similar to existing conditions from the perspective of stormwater management, and planted with native restoration seed mix which will result in a significant overall improvement compared to the existing condition that includes a plant community dominated by invasive Phragmites.

4.6.6 Construction Period Erosion and Sediment Control

A Notice of Intent to manage stormwater under NPDES is required by the EPA for coverage under the Construction General Permit (CGP). Coverage under the CGP is required because the Project will result in the disturbance of an area greater than 1 acre in size. The coverage requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared and adhered to, and that a copy of the SWPPP be kept on site. The SWPPP will include BMPs for stormwater control during construction. BMPs to be employed for the Project include, but are not limited to:

- Managing contaminated sediments in a lined area to facilitate collection of effluent during dewatering along with stormwater that comes in contact with contaminated sediments.
- Placing straw bales and silt fences along clean laydown areas for the loading, stockpile, and staging areas to prevent sediment from leaving the laydown area(s).
- Constructing a temporary fence around the laydown and work areas.
- Installing temporary turbidity curtains and absorbent booms to prevent turbid water or sheen from leaving the work area.

Good housekeeping practices across the work area will also be implemented as part of the SWPPP. Stockpiling of imported materials may be necessary for materials such as sand, gravel, or soil. Piles will be located within the limits of work within the designated area but not within 25 feet of the river. Stockpiles of contaminated sediments will be placed in lined, bermed areas to both collect effluent during sediment dewatering and to prevent washout. Stockpiles of clean or capping materials will be placed on polyethylene sheeting or other impervious surfaces and covered or stabilized when not actively being used. Stockpiles will be contained with straw bales to prevent washout. Stockpiles will be inspected at least weekly until the site reaches final stabilization, in accordance with the SWPPP and the EPA CGP.

All erosion and sediment controls will be removed at the end of the Project at the direction of the engineer and upon approval from the Amesbury Conservation Commission. There will be a final inspection to verify that the material staging area has been restored to pre-construction conditions. Laydown areas will be cleaned and restored

as described in Section 4.6.4. Erosion controls in staging areas and temporary fencing will be removed once restoration in the staging areas is complete.

4.6.7 Construction Period Environmental Controls

Emissions of fugitive dust, volatile organic compounds (VOCs), and odors and generation of turbidity and sheen during the dredging work will require monitoring and may require the application of control measures while the remedy is being performed. It is anticipated that turbidity curtains and absorbent booms will be deployed across the upstream and downstream ends of the work zone to prevent migration of turbidity and sheen out of the work area.

For emissions, a perimeter air monitoring program will be implemented during the work that will consist of perimeter air monitoring stations deployed at the edge of the work zone. The air monitoring stations will monitor for fugitive dust (PM10) and total VOCs.

For turbidity, real-time monitors will be deployed upstream (Reference Location) and downstream (Monitoring Locations) of the work area. Time-weighted average (TWA) values at the Reference Location and Monitoring Locations will be regularly updated and compared in real-time when dredging is in progress.

For sheen, visual observations will be performed regularly during active dredging or excavation work. Visual observations will be performed at the turbidity curtains and absorbent booms at the upstream and downstream ends of the work zone to confirm sheen, if present, is not migrating beyond the work zone.

5.0 ASSESSMENT OF IMPACTS

Impacts from the various aspects of the Project have been evaluated, with a focus on analyzing impacts to Wetland Resource Areas and upland/Buffer Zone areas, and construction-related impacts.

The Project impacts involve direct disturbances to Wetland Resource Areas from dredging and excavation activities and temporary disturbances to Wetland Resource Areas and upland areas from the construction laydown/staging areas and access/haul roads.

Construction-related impacts may include erosion and sedimentation, turbidity, air quality/noise, and traffic. Potential impacts to Chapter 91 Waterways, Rare Species, Historic/Cultural Resources, Solid and Hazardous Waste, and Land Use were also evaluated.

Climate Change adaptation and resiliency are evaluated in Section 7.0. Impacts to EJ Communities are described in detail in Section 8.0.

5.1 Wetland Resource Areas

As detailed below, Wetland Resource Area impacts have been identified and quantified for each resource area affected, including a description of the specific activities that cause impacts. All impacted Wetland Resource Areas will be fully restored post-construction.

5.1.1 Land Under Water

LUW impacts are associated with dredging in the river and mudflat and wetland excavation, totaling 171,557 square feet, and approximately 13,000 cubic yards of material removed. LUW impacts are also anticipated for the laydown/staging areas and access/haul roads totaling 21,405 square feet including a potential construction equipment access connection extending from the terminus of the 8 Noel Street haul road to the larger river dredge footprint.

Additional potential impacts to LUW beyond the dredge/excavation footprint during construction may be caused by the following:

- Suspended sediment in the water column
- Construction equipment transporting sediment
- Barge spuds being inserted into the substrate to stabilize vessels
- Turbidity curtain anchors
- Turbidity monitor anchors

Mitigation measures and contractor means and methods will aim to avoid or minimize the disturbances from these activities, but impacts are possible and cannot be quantified with any accuracy.

5.1.2 Bordering Vegetated Wetlands

Impacts to BVW are associated with the portion of the wetland excavation area that extends into BVW (765 square feet) and the temporary access/haul roads which cross BVW (15,571 square feet).

BVW impacts are associated with a portion of the wetland excavation area, which involves removal of vegetation and up to three feet of the existing soil. Clean, organic-rich topsoil will be backfilled into the BVW to restore pre-existing grades, and vegetation will be planted to restore the plant community, as described in Section 4.1.1, 4.1.2 and 4.5.1.

The impacts from access/haul roads are considered temporary as the roads will be constructed using construction mats, as described in Section 4.2.2, which are designed to accommodate heavy equipment activities while minimizing disturbance to underlying soil and vegetation. Temporary impacts to vegetation from the mats are expected; however, mats protect the plant root systems and full restoration after removal of mats is also expected within two growing seasons. Supplemental vegetation plantings will occur if necessary.

5.1.3 Bank

Bank impacts total 1,164 linear feet and are associated with construction access/haul roads, wetland excavation, mudflat dredging and construction of the temporary water access on 8 Noel Street. The temporary access road extending from Noel Street to the southerly laydown area at 8 Noel Street will cross an intermittent stream which flows parallel to Noel Street. The Bank alteration here will be minimal as steel plates and minor filling will be used to cross the stream and minimize disturbance to the Bank, aside from vegetation removal which will be necessary. These impacts are temporary as the stream channel will be restored post-construction with plantings as detailed in Section 4.6. All other Bank impacts are also temporary and will be restored through the restoration plans described in Section 4.

5.1.4 Riverfront Area

Riverfront Area impacts total 114,837 square feet and are associated with the northerly laydown area, the southerly laydown area, and access roads. All disturbances will be fully mitigated through restoration as described in Section 4.6.

5.1.5 Bordering Land Subject to Flooding

BLSF impacts are associated with the northerly and southerly laydown areas and the southerly construction access drive. The total BLSF impact is 2,825 square feet, all of

which will be fully restored. There will be no changes in topography that would constitute filling in the floodplain or otherwise require compensatory flood storage.

5.1.6 Upland/Buffer Zone

Buffer Zone impacts are associated with the northerly laydown area, the southerly laydown area , access roads. The cumulative Buffer Zone disturbance is 50,709 square feet. All disturbances will be fully mitigated through restoration as described in Section 4.6.

5.2 Chapter 91 Waterways

Impacts to waterways are inclusive of all activities below MHW which includes the proposed dredging footprint, the portion of the wetland excavation area below MHW, the placement and maintenance of subaqueous cap, property use restrictions and the temporary piles associated with the temporary pier. Recreational boating activity will be temporarily impacted during construction. The project area will be posted with signage discouraging boat activity in the project area during construction. No long-term impacts to recreational boating activity or any other public interests that are protected by Chapter 91 are anticipated.

5.3 Rare Species

Impacts to state and federal rare species are not expected to occur. The Project site is not mapped as rare species habitat by MA NHESP (Appendix A, Figure 2) and impacts to federal endangered species will be avoided by adhering to TOY for NLEB and TCB.

5.4 Historic/Cultural Resources

No impacts to Historic/Cultural Resources are expected with this project. A PNF prepared by the Proponent's consultant Public Archaeology Laboratory (PAL) was submitted to MHC on August 25, 2026. PAL's findings indicated that no aboveground "resources are within or overlap with the Project area" and that "the Project area has been subject to significant ground disturbance; PAL has therefore assessed the Project area as having no/low sensitivity for the presence of archaeological resources and is unlikely to contain potentially significant archaeological deposits. PAL has therefore assessed the proposed Project as having no/low archeological sensitivity and recommend that no further archeological surveys is warranted." Based on this, PAL concluded that the Project "will not affect any historic properties." On September 14, 2026, MHC concurred with PAL's findings. The PNF, including MHC's note of concurrence, are provided in Appendix H.

5.5 Solid and Hazardous Waste

The project is designed to remediate a condition involving hazardous material under the MCP. Non-hazardous waste generated during construction will be managed in

accordance with 310 CMR 40.0000. Hazardous waste generated during construction will be managed in accordance with 310 CMR 30.000.

Solid waste generated by the Project, primarily from the laydown areas and sediment and erosion controls, will be disposed of as non-banned construction waste in accordance with waste facility management regulations at 310 CMR 19.017. Waste will be managed and disposed of pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban).

5.6 Land Alteration

Impacts to land use are expected to be temporary and restored post-construction. The entire footprint of work is currently undeveloped uplands, wetlands and the Powwow River.

- Surrounding land uses may experience minor impacts from construction truck traffic.
- The Riverwalk share-use path will be rerouted during construction activities utilizing the northerly construction laydown area.

All other surrounding properties and the associated residential and commercial land uses will be unaffected by the Project.

5.7 Traffic

Impacts to surrounding neighborhoods from truck traffic are anticipated but will be limited to residents along the roads designated for truck traffic to and from the laydown/staging areas. Traffic will consist of vehicle types ranging from pick-up trucks to heavy construction equipment. Dump truck traffic to and from the Project site will occur during the process of hauling excavated and dredged material off-site for disposal and hauling imported, clean backfill and restoration plantings. There will also be daily traffic at the start and end of each workday resulting from construction workers and other professionals who will be onsite during construction. Off-site disposal of dredged and excavated material and on-site delivery of imported, clean backfill will involve an average of approximately 15 truck trips per day to and from the site over an approximately eight-month period.

One of the primary considerations with selecting 8 Noel Street as a construction laydown was its location in proximity to neighborhoods and roads that provide relatively direct access to the highway. Specifically, 8 Noel Street was identified as a suitable laydown area because truck traffic will avoid neighborhoods surrounding the Project.

The Project plans include a Traffic Management Plan (Sheet C-02 of the Plans in Appendix E) which depicts the routes to be traveled by trucks and conditions to be followed to minimize local disturbances.

5.8 Air Quality and Noise

Construction equipment and activity may result in temporary impacts to air quality and cause noise that affect surrounding neighborhoods. Construction equipment will be operating continuously during most workdays; however, activity will be limited by the tides. In-water work may only occur during certain hours of the workday, while sediment processing and other activities may continue within the laydown/staging areas for the full day. Comprehensive monitoring of air quality and noise at the work limits and in multiple locations along the river will be performed to evaluate potential impacts and mitigation measures will be employed if project-specific action levels are approached.

The work will be performed in accordance with applicable sections of the MassDEP Air Pollution Control Regulations at 310 CMR 7.02 and 310 CMR 7.09. Specific air quality mitigation measures include the following:

- Use of appropriately designed construction entrances and wheel wash facilities as necessary to prevent off-site migration of soils.
- Street sweeping of construction areas and surrounding streets and sidewalks.
- Transportation of material in covered or enclosed trailers.
- Wetting of exposed soils and stockpiles to prevent dust generation.
- Minimizing stockpiling of materials on site.
- Turning off construction equipment when not in use and minimizing idling times.
- Minimizing the duration that soils are left exposed in the laydown/staging areas.

These measures are intended to minimize potential impacts associated with construction activities that may generate fugitive dust, which may result in localized increases in airborne particulate levels. Fugitive dust emissions from construction activities will depend on such factors as the properties of the emitting surfaces (e.g., moisture content and volume of spoils), weather variables, and construction practices employed. Although fugitive dust may be generated during construction activities, the distance to offsite receptors makes it unlikely that the migration of dust will result in significant off-site impacts. Nonetheless, the contractor will implement dust control measures during construction that will primarily consist of using wetting agents regularly to control and suppress dust that may come from the project activities. Site preparations involving construction of laydown/staging areas, and vehicles departing the laydown/staging areas have the greatest potential to create fugitive dust. As necessary, laydown/staging areas will be routinely misted to suppress dust generation. Dust from construction traffic exiting the laydown/staging areas onto public roads will be controlled with the use of vehicle tracking pads, which remove soil from the tires of construction vehicles.

Proper emission controls, use of clean fuels, control of truck and equipment idling times, will minimize potential air quality disturbances to the neighborhood. The Proponent requires the use of ultra-low sulfur diesel fuels exclusively in its diesel-powered construction equipment. Contractors will be directed to retrofit any diesel-powered non-road construction equipment rated 50 horsepower or above to be used for 30 or more days over the course of the Project with EPA-verified (or equivalent) emission control BMPs (e.g. oxidation catalysts or other comparable technologies).

While intermittent increases in noise levels are expected during construction activities, The Proponent is committed to minimizing these impacts. Construction-related noise levels will comply with applicable sections of MassDEP's Air Quality Regulations at 310 CMR 7.10, and every reasonable effort will be made to minimize noise impacts from construction activities. Noise mitigation measures include:

- Minimizing the amount of work conducted outside of typical construction hours.
- Ensuring that appropriate mufflers are installed and maintained on construction equipment.
- Ensuring appropriate maintenance and lubrication of construction equipment to provide the quietest performance.
- Turning off construction equipment when not in use and minimizing idling times in compliance with state law (G.L. c. 90, § 161A) and MassDEP regulations (310 CMR 7.11(1)(b)).
- Mitigating the impact of noisy equipment on sensitive locations by using shielding or buffering distance to the extent practical.
- Notifying landowners in advance of construction and providing a point of contact for noise-related questions and concerns.

6.0 AVOIDANCE, MINIMIZATION, AND MITIGATION

Avoidance, minimization and mitigation are primary factors in design of remediation projects that involve wetlands and waterways. The MCP alternatives evaluation process includes specific considerations regarding environmental impacts and this Project has been designed to avoid, minimize and mitigate wetland impacts to the maximum extent practical while balancing the construction impacts that must occur with remediation of contaminated sediment within a river and adjacent wetlands.

6.1 Summary of Proposed Avoidance, Minimization and Mitigation

The Project has been designed to avoid, minimize and mitigate environmental impacts. As an MCP-driven remediation project, the impacts are a primary factor which is balanced with the Project objective, as noted in the Alternatives Analysis completed for each of the RAAs. Wetland and Land Under Water impacts specifically are subject to this balance, whereby the Project intends to maximize removal of contaminated sediment, all of which occurs in Wetland Resource Areas, while taking into account the effectiveness, cost, and construction related impacts of the activities. Resource area impacts from construction laydown/staging areas and access/haul roads were also avoided and minimized to the extent practicable during the design process by locating and routing these features away from wetlands when feasible, or by minimizing unavoidable impacts through design location.

6.2 Proposed Mitigation for Wetland Impacts

Mitigation for wetland impacts is provided for each aspect of the Project and for each Wetland Resource Area. The dredging impacts in the river are mitigated by the subaqueous cap, the dredging impacts in the mudflat are mitigated by backfilling the area with similar soil and revegetating, the dredging/excavation impacts in the wetland are mitigated by backfilling with wetland soil and revegetating, the impacts from construction laydown/access are mitigated by restoration activities, and potential construction period impacts are mitigated by construction techniques intended to manage disturbances.

6.2.1 Dredging Impacts to Land Under Water

Mitigation for dredging impacts to LUW in the river involves implementing the subaqueous cap which will isolate remaining, deeper contaminated sediment and restore a natural substrate to the river. Mitigation for dredging the mudflat involves backfilling the area with a similar soil to re-establish grades and restore the substrate and revegetate with native species. The wetland excavation area disturbances to LUW will be mitigated by backfilling with wetland soil to pre-existing grades and re-vegetating with native species.

Potential construction period impacts to LUW, such as turbidity in the water column and disturbances from construction equipment, will be mitigated by use of turbidity curtains and carefully planned construction means and methods designed to mitigate potential disturbances. These mitigation measures, combined with the overall improvement accomplished by removing contaminated sediment, will result in a significant overall improvement to LUW.

6.2.2 Temporary Construction Impacts to Wetland Resource Areas

As noted in Section 4.6, all disturbed Wetland Resource Areas will be fully restored after construction is complete. This includes temporary construction impacts to BVW, BLSF, Riverfront Area and Bank from construction matting and the construction laydown/staging areas. These areas will all be fully restored with topsoil and plantings to match existing conditions and/or improve existing conditions.

6.3 Proposed Mitigation for Tree Removal

Mitigation for tree removal involves restoration of existing forested areas that will be disturbed during construction by planting native saplings spaced 20 feet on center. The largest tree removal area will be the southerly laydown area, while some trees will be removed from the northerly area as well. The proposed Upland/Buffer Zone Restoration Plan described in Section 4.6 includes planting saplings and shrubs to initiate restoration of a forested habitat in these areas.

7.0 CLIMATE CHANGE ADAPATION AND RESILIENCY

As provided in the MEPA Interim Protocol on Climate Change Adaptation and Resiliency (effective October 1, 2021), the RMAT Climate Resilience Design Standards Tool output has been appended to this EENF filing (Appendix B) and the Climate Change Adaptation and Resiliency Section of the ENF form has been completed.

GEI consulted the RMAT Climate Resilience Design Standards Tool. The RMAT Tool indicated a "High" risk rating for sea level rise/storm surge, extreme precipitation (riverine and stormwater flooding) and extreme heat.

GEI reviewed Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) ResilientMass maps and data center (https://resilientma-mapcenter-mass-eoeea.hub.arcgis.com) to understand potential climate change impacts to the Site. The climate change tools were created by EOEEA to help explore the latest statewide climate data and projections to support climate resilience in Massachusetts.

GEI also reviewed the findings of the Merrimack Valley Multi-Hazard Mitigation Plan (Merrimack Valley Planning Commission, November 2024), prepared in accordance with the Municipal Vulnerability Preparedness (MVP) Grant Program. The report provides a baseline climate change and natural hazard vulnerability assessment and develops a list of priority actions for several Merrimack Valley cities and towns, including the City of Amesbury. According to the MHMP, Amesbury's community risk rating is "High" for inland flooding, extreme temperatures, severe winter storms, and high winds/thunderstorms; and "Moderate" for coastal flooding, coastal/riverine erosion, drought, and hurricane/tropical storm. The Powwow River was also identified as potentially vulnerable to flood events and riverine (riverbank) erosion.

7.1 RMAT

As noted above, the RMAT Tool indicated a "High" risk rating for sea level rise/storm surge, extreme precipitation (stormwater flooding), extreme precipitation (riverine flooding), and extreme heat.

In analyzing potential exposure and mitigation measures, it is important to emphasize that the proposed Project does not involve any structures or permanent features within the river or wetlands that are above existing grades/elevations, will not result in a permanent change in elevation within any of the Project areas, and will restore vegetation within temporarily disturbed wetlands and upland/Buffer Zone areas. As a result, the Project does not change existing land use, vegetation cover type, or other features that would change climate change resilience in this area.

7.2 Climate Change Adaptation and Resilience Strategies

With the exception of the subaqueous cap, the Project will not result in new structures or any significant changes to existing conditions, including topography, that would warrant adaptation and resilience strategies.

The subaqueous cap was designed based on an analysis of resilience to storm damage from extreme precipitation and flooding in the river. The analysis determined that the cap should withstand the extreme precipitation and flooding events that may occur as a result of climate change. The cap will be monitored annually to ensure it is functioning as intended.

Climate change interactions, including extreme precipitation /flooding, sea level rise, rising temperature, and extreme weather, have been addressed as follows.

7.2.1 Resilience to Extreme Precipitation and Riverine Flooding

During construction, the Project footprint may be susceptible to impacts from significant precipitation events and associated stormwater flooding and riverine flooding. Stormwater flooding generated within the Project area will be mitigated by construction period erosion and sedimentation controls described in Section 4.6.6, and further detailed in a Stormwater Pollution Prevention Plan (SWPPP) to be prepared by the contractor prior to construction.

As an urban waterway located adjacent to downtown Amesbury, the Powwow River is subject to "flashy" inputs of stormwater during extreme precipitation events. While the Project cannot change this existing condition, the SWPPP will stipulate inspections of the construction period erosion and sediment control measures within 24 hours of a storm producing 0.25 inches or more in 24 hours.

Riverine flooding may also occur during construction in response to inland precipitation events and coastal storms. Portions of the Project site are located within the FEMA 100-year floodplain but outside of the Massachusetts Coast Flood Risk Model (MC-FRM). During construction, the Project team will monitor weather forecasts and restrict construction activity accordingly. All construction equipment, material stockpiles and other project-related equipment and materials will be stored above the 100-year floodplain elevation within the construction staging/laydown areas.

As noted above, the subaqueous cap was designed to be resilient to extreme precipitation and flooding events and will be monitored annually to ensure it is functioning as intended.

7.2.2 Resilience to Extreme Heat

Extreme heat may occur during the construction process, and removal of existing trees may temporarily exacerbate extreme heat within the construction staging/laydown areas. Given the short duration of the Project, and the plan to restore all disturbed areas including

replanting saplings to replace trees that are removed, the Project will not change the long-term effects of extreme heat or otherwise exacerbate extreme heat. Extreme heat during construction will be managed by the contractor according to their Health and Safety Plan.

7.2.3 Sea Level Rise

According to the Merrimack Valley Multi-Hazard Mitigation Plan, "increases in sea level rise poses severe consequences for both natural and man-made systems. Using the intermediate emissions scenario, sea level is projected to increase an additional six (6) inches by 2030 and four (4) feet by the end of the century. If a high emissions scenario is used, those projections increase to 1.1 feet by 2030 and 7.7 feet by 2100".

As a tidal river that is tributary to the Merrimack River, the Powwow River and surrounding low-lying areas will be affected by sea level rise as higher high tides will rise to a higher elevation in the Powwow River, inundating additional areas along the shoreline and slowly changing the hydrology and vegetation. The magnitude and timeline for these changes are uncertain, but the Project site will be subjected to these changes. There are no specific resilience measures associated with sea level rise incorporated into this design because the goal of the Project is remediation followed by restoration of all disturbed areas to match existing conditions. Once restored, the Project site's capacity to adapt to sea level rise will align with existing conditions. Given the Project purpose of remediation, additional long-term resilience measures associated with sea level rise are not warranted as part of this Project.

7.3 Greenhouse Gas Emissions Protocol

In accordance with the MEPA Greenhouse Gas Emissions Policy and Protocol, the proponent is requesting a "De Minimis Exemption." The Project will not result in the construction of new facilities that will generate new, permanent greenhouse gas emissions. Greenhouse gas emissions from the Project will be limited to temporary construction emissions. As an environmental remediation project focused on waterways dredging that does not trigger a mandatory EIR threshold, the Project meets the criteria in the Greenhouse Gas Policy for the De Minimis Exemption.

8.0 ENVIRONMENTAL JUSTICE

The Designated Geographic Area (DGA) for the Project is one mile because the Project does not meet or exceed MEPA review thresholds under 301 CMR 11.03(8)(a)-(b) and does not generate 150 or more new adt of diesel vehicle traffic over a duration of one year or more within five miles of the Project. Because one or more EJ Populations are located within the DGA around the Project, the Project is subject to both the *MEPA Public Involvement Protocol for Environmental Justice Populations (the "Public Involvement Protocol")* and the *MEPA Interim Protocol for Analysis of Project Impacts on Environmental Justice Populations (the "Impacts Protocol")*. Compliance with protocols is described below.

8.1 Summary of Environmental Justice Populations

A. Project Location

Appendix A, Figure 8, depicts a map of all Environmental Justice (EJ) Populations within five miles of the proposed Project. Appendix A, Figure 7 depicts a more detailed view of all EJ Populations within one mile of the proposed Project.

B. Characteristics of EJ Populations

The Project site is located within an EJ Population and within one mile of one additional EJ Population (Appendix A, Figure 7). This assessment includes EJ Populations located within the City of Amesbury provided below:

Table 6-1: EJ Communities within 1 mile of Project Site

EJ Block Group	Municipality	Criteria
BG 1, CT 2663	Amesbury	Income
BG 2, CT 2664	Amesbury	Income

According to the EJ Maps Viewer, no languages spoken by residents with limited English proficiency comprise 5% or more of the population within one mile of the Project site.

C. Likely Effects on EJ Populations

As explained in detail in Section 8.3 below, the project is not reasonably likely to negatively affect EJ Populations located within the DGA.

8.2 Assessment of Existing Unfair or Inequitable Environmental Burdens and Related Public Health Consequences

In accordance with the Impact Protocol, this section provides the assessment of existing unfair or inequitable environmental burden and related public health consequences impacting the Environmental Justice Populations from any prior or current private,

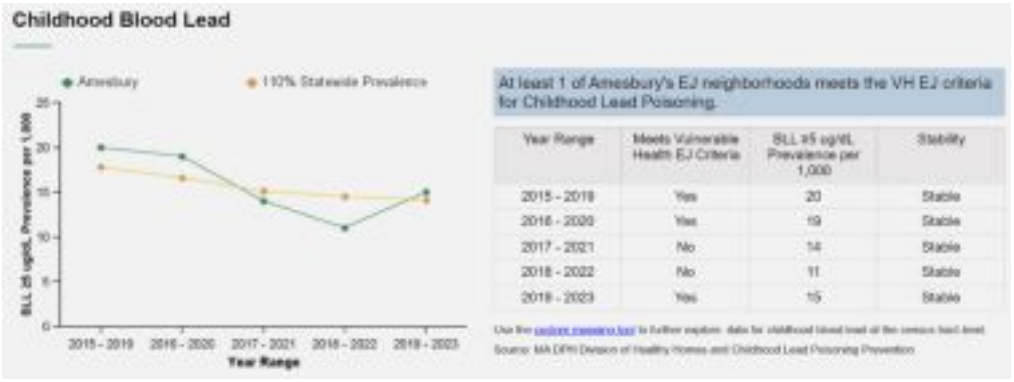
industrial, commercial, state, or municipal operation or project that has damaged the environment within the DGA.

8.2.1 Vulnerable Health Criteria

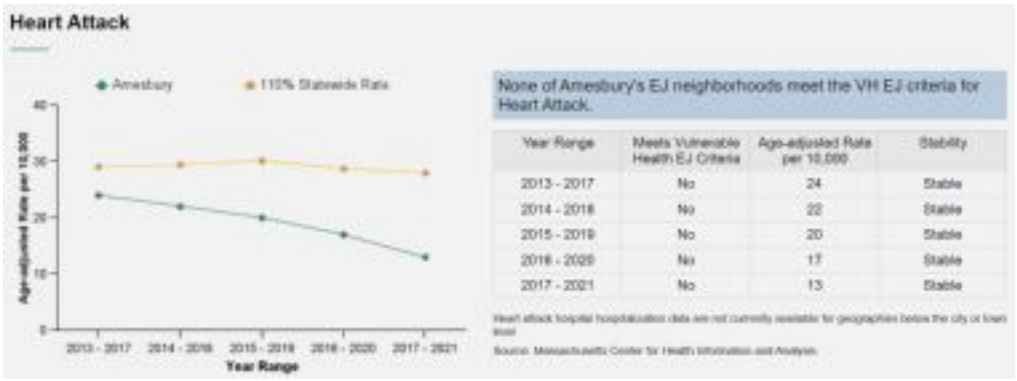
The Massachusetts Department of Public Health (DPH) EJ Tool identifies whether the municipalities included in the EJ Populations (Amesbury and Newburyport) exhibit one or more of four specific "vulnerable health criteria:" (Heart Attack, Childhood Blood Lead, Low Birth Weight, and Childhood Asthma). Based on the DPH EJ Reports *and* the DPH EJ Tool, cities that exhibit the vulnerable health criteria are identified below (Tables 8-2 through 8-3):

- Heart Attack: None
- Childhood Blood Lead: Amesbury
- Low Birth Weight: Amesbury
- Childhood Asthma: None

Table 6-2: Amesbury – EJ Reports







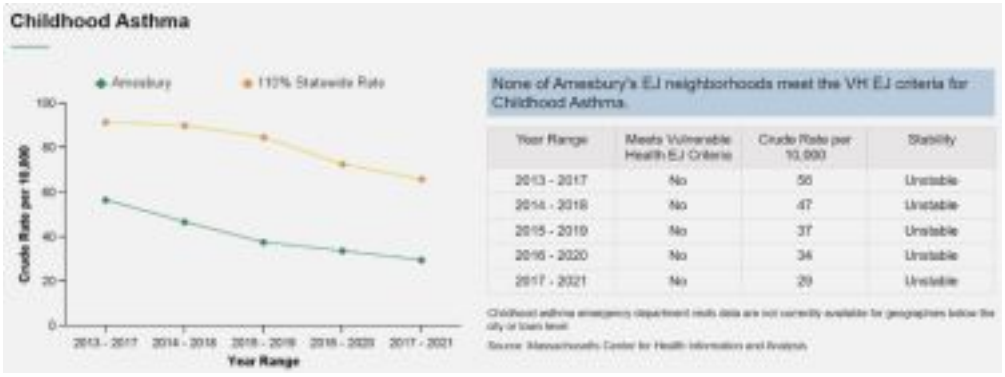
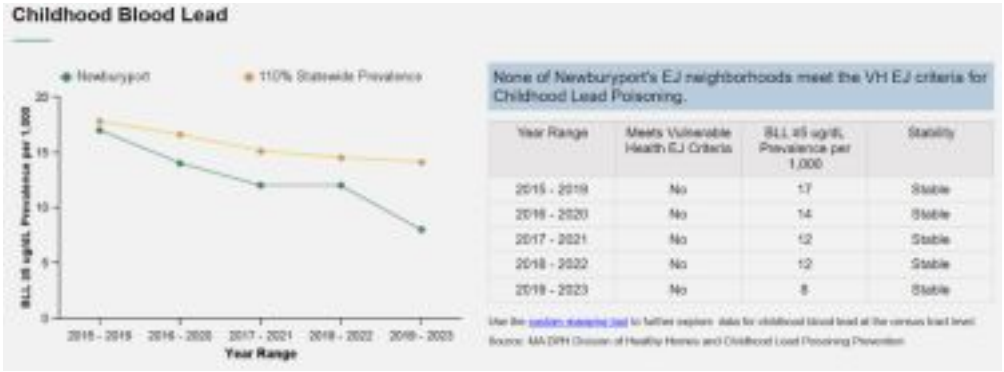
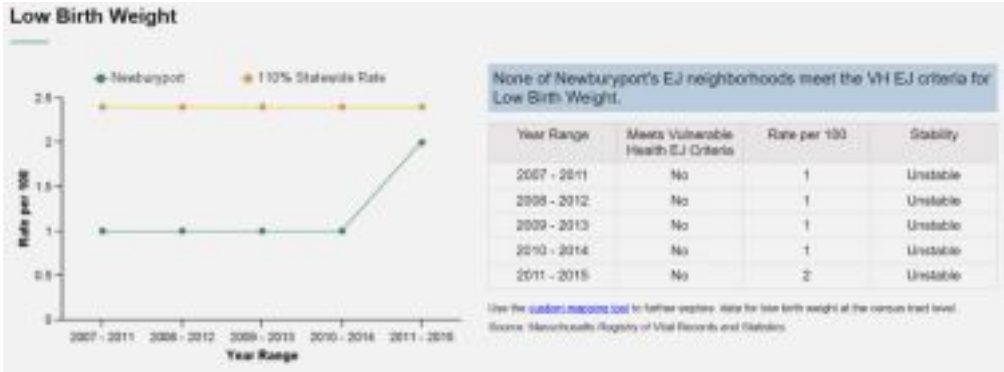
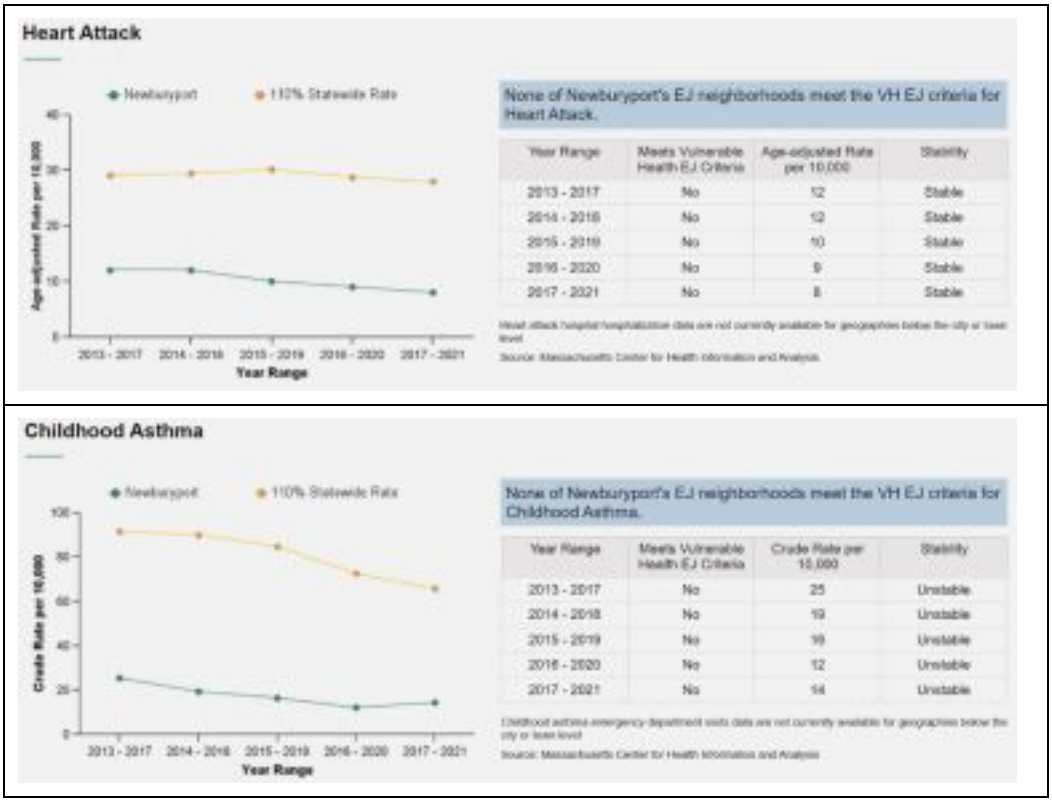


Table 6-3: Newburyport – EJ Reports







Childhood Asthma and Heart Attack are tracked only at the municipal level, so any potential for relatively higher levels within the EJ population could not be distinguished from the municipality as a whole. Both Childhood Blood Lead and Low Birth Weight are typically tracked by the DPH EJ Viewer at a census tract level.

The DPH EJ Tool indicated that two of the five census tracts within the DGA exceed the 110% statewide rate for Low Birth Weight; both of which are located within Amesbury (Table 8-4). The DPH EJ Tool also indicated that two of the five census tracts within the one-mile DGA exceed the 110% statewide rate for Childhood Blood Lead, both of which are located within Amesbury (Table 8-5).

Table 6-4: Vulnerable Health Criteria Summary - Low Birth Weight

City	Census Tract Number	City/Town Rate	City/Town Confidence Interval	Statistical Significance	Stability	Statewide Rate	110% of Statewide Rate	Statewide Confidence Interval	Health Criteria > 110% of Statewide Rate
Amesbury	25009266100	NS	NS	NS	NS	216.8	238.5	212 - 222	No
Amesbury	25009266200	NS	NS	NS	NS	216.8	238.5	212 - 222	No
Amesbury	25009266300	NS	NS	NS	NS	216.8	238.5	212 – 222	**Yes**
Amesbury	25009266400	1.6	169.4-934	NSSD	Unstable	216.8	238.5	212 – 222	**Yes**
Newburyport	25009268100	308.6	NS	NS	NS	216.8	238.5	212 – 222	No

Year Range = 2011-2015 Data provided by MA DPH Environmental Justice Tool, Downloadable Report Data
NSSD = Not Statistically Significantly Different
NSD = Not Statistically Different
SSH = Statistically Significantly Higher
SSL = Statistically Significantly Lower
NS = Not Shown due to small numbers

Table 6-5: Vulnerable Health Criteria Summary – Childhood Blood Lead (Age group 9-47 months)

City	Census Tract Number	City/Town Rate	City/Town Confidence Interval	Statistical Significance	Stability	Statewide Rate	110% of Statewide Rate	Statewide Confidence Interval	Health Criteria > 110% of Statewide Rate
Amesbury	25009266100	NS	NS	NS	NS	16.2	17.8	16-17	No
Amesbury	25009266200	15.2	5.3-25.1	NSD	Unstable	16.2	17.8	16-17	No
Amesbury	25009266300	39.9	19.7-60.1	SSH	Stable	16.2	17.8	16-17	**Yes**
Amesbury	25009266400	26.1	10.7-41.5	NSD	Unstable	16.2	17.8	16-17	**Yes**
Newburyport	25009268100	0	0-24.5	NSD	Unstable	16.2	17.8	16-17	No

Year Range = 2015-2019 Data provided by MA DPH Environmental Justice Tool, Downloadable Report Data
NSSD = Not Statistically Significantly Different
NSD = Not Statistically Different
SSH = Statistically Significantly Higher
SSL = Statistically Significantly Lower
NS = Not Shown due to small numbers

As provided above, EJ Populations within the DGA exhibit higher levels of Childhood Blood Lead and Low Birth Weights. According to the EPA, children are susceptible and sensitive to lead exposure through touching soils or dust that may have lead and putting their hands in their mouths, eating and drinking food or water containing lead, eating or drinking from dishes or cups containing lead, inhaling dust from lead-based paint, or playing with toys manufactured with lead-based paint or products. Pregnant women may also be subject to the aforementioned exposures; thereby potentially exposing a developing baby. In turn, there is strong evidence that lead exposure may increase the risk of low birth weight, in addition to exposure to tobacco smoke and elevated levels of particulate matter, sulfur dioxide, carbon monoxide, and nitrogen dioxide.

According to the Impacts Protocol, the elevated levels of two of the four vulnerable health criteria indicate that the nearby EJ Populations "could then be viewed as exhibiting 'vulnerable health EJ criteria,' and therefore potentially bearing an 'unfair or inequitable' environmental burden and related public health consequences."

8.2.2 Potential Sources of Pollution

The Proponent consulted additional data layers in the DPH EJ Tool to assess public health conditions within the immediate vicinity of the Project site, in accordance with 301 CMR 11.07(6)(g)10. Facilities mapped within the DGA are provided below. There are no MassDEP Public Water Suppliers, Wastewater Treatment Plants, MassDEP Groundwater Discharge Permits, MBTA Bus and Rapid Transit, or Energy Generation and Supplies mapped within the one-mile radius of the Project site. Table 6-5 below lists facilities identified in the vicinity of the Project site.

MassDEP Major Air and Waste Facilities: Large Quantity Generators		
Facility Name	**Address**	**EJ Location**
Essex Gas Company	Water Street	BG 1, CT 2663 and included in the project site
CVS Pharmacy 0073	5 Macy Street	Not in an EJ population and 0.35± miles southwest of the project site
Amesbury Chevrolet	103 Macy Street	Not in an EJ population and 0.90± miles southeast of the project site

MassDEP Major Air and Waste Facilities: Large Quantity Toxic User		
Facility Name	**Address**	**EJ Location**
Munters Corp	79 Monroe Street	Not in an EJ population and 0.85± miles east of the project site

M.G.L. c. 21E Sites			
Facility Name / RTN	**Address**	**EJ Location**	**Status**
Keyspan Property Map 54 3-0024070	Water Street	BG 1, CT 2663 and included in the project site	Tier II
Former Amesbury Metal Products 3-0034747	33-39 Oakland Street	BG 1, CT 2663 and 0.05± miles east of the project site	Tier 1D
Space Age Cleaners 3-0026060	6 School Street	Not in an EJ population and 0.40± miles west of the project site	Tier II
8-10 School Street 3-0026999	8-10 School Street	Not in an EJ population and 0.40± miles southeast of the project site	Tier 1D
Hat Factory Sediments 3-0003173	Merrimac Street	Not in an EJ population and 0.95± miles south of the project site	Tier 1D

"Tier II" Toxics Use Reporting Facilities			
Facility Name	**Address**	**EJ Location**	**EHS above TPQ?**
ARC Technologies	144 Elm Street	BG 1, CT 2663 and 0.08± miles northeast of the project site	NO
National Grid – Amesbury 5	14 Mill Street	BG 1, CT 2663 and 0.3± miles northwest of the project site	NO
Verizon Amesbury co (VZ-MA592206)	13 Pleasant Street	Not in an EJ population and 0.5± miles west of the project site	YES
Verizon Wireless Amesbury (128818)	10 Dennet Way	Not in an EJ population and 0.5± miles northwest of the project site	YES

National Grid-Hillside 66	9 Allenclair Drive	Not in an EJ Population and 0.7± miles southwest of the project site	No
Haas Group International, Amesbury Facility	10 Industrial Way	Not in an EJ Population and 0.8± miles east of the project site	YES
Amesbury Chevrolet	103 Macy Street	Not in an EJ Population and 0.90± miles southeast of the project site	YES

MassDEP Sites with AULs				
Facility Name	**Address**	**EJ Location**	**Status**	**RTN #**
Bartley Machine & mfg	35 Water Street	BG 1, CT 2663 and 0.05± miles northwest of the project site	RAO	3-0004108
Near Melrose Street	47 Congress Street	BG 2, CT 2664 and 0.5± miles northeast of the project site	RAO	3-0012469
No Location Aid	36 Main Street	BG 1, CT 2663 and 0.3± miles northwest of the project site	RAO	3-0013943
At Marston Street	33-39 Oakland Street	BG 1, CT 2663 and 0.05± miles east of the project site	RAO	3-0013096
17 Chestnut Street and 34, 36, 38, 40 Water Street	Chestnut and Water Streets	BG 1, CT 2663 and 0.05± miles northwest of the project site	PSC	3-0035199
Former Bartley Machine & Manufacturing	38 Water Street	BG 1, CT 2663 and 0.05± miles northwest of the project site	PSC	3-0035454
Former Bartley Machine & Manufacturing	38 Water Street	BG 1, CT 2663 and 0.05± miles northwest of the project site	PSC	3-0035506
Teke Furniture Restoration	6 Morrill Street	BG 1, CT 2663 and 0.12± miles north of the project site	PSC	3-0034070
18 Chestnut Street	18 Chestnut Street	BG 1, CT 2663 and 0.15± miles northwest of the project site	PSC	3-0034164
No Location Aid	19 Pond Street	Not in an EJ Population and 0.40± miles northwest of the project site	RAO	3-0020783
Former Manufacturing Building	77 Elm Street	BG 2, CT 2664 and 0.3± miles northwest of the project site	PSC	3-0033215
Proposed Amesbury Transportation Center	68 Elm Street and 18 Water Street	BG 1, CT 2663 and 0.25± miles northwest of the project site	RAO	3-0029372

Fraser Pontiac GMC	130 Market Street	Not in an EJ Population and 0.65± miles northwest of the project site	RAO	3-0019327
Abutting Substation	Mill Street	BG 1, CT 2663 and 0.3± miles northwest of the project site	RAO	3-0014817

Underground Storage Tanks		
Facility Name	**Address**	**EJ Location**
Pubali Corp DBA Richdale Convenience – 411280	65 Friend Street	Not in an EJ Population and 0.45± miles west of the project site
Cumberland Farms Inc – 136547	132 Elm Street	BG 1, CT 2663 and 0.2± miles north of the project site
Getty Petroleum Marketing Inc – 136558	9 Haverhill Road	Not in an EJ Population and 0.55± miles southwest of the project site
Irving Oil Company – 401625	24 Rocky Hill Road	Not in an EJ Population and 0.65± miles southeast of the project site
Cumberland Farms Inc – 136050	241 Main Street	Not in an EJ Population and 0.5± miles southwest of the project site
Miancom USA LLC – 340398	23 Rocky Hill Road	Not in an EJ Population and 0.65± miles southeast of the project site
CK Smith & Company Inc – 372532	63 Elm Street	BG 2, CT 2664 and 0.3± miles northwest of the project site

EPA Facilities		
Facility Name	**Address**	**Location**
Munters	79 Monroe Street	Not in an EJ Population and 0.9± miles east of the project site

Road Infrastructure	
Route Name	**EJ Location**
Rt 495 (NB/SB)	Not in an EJ Population and 0.5± miles southeast of the project site
Elm Street	Partially in BG 1, CT 2663 and BG 2, CT 2664 and 0.1± mile northwest of the project site
RT 110 (Macy Street)	Partially in BG 1, CT 2663 and 0.3± miles south of the project site
RT 150 (Hillside Avenue)	Partially in BG 1, CT 2663 and BG 2, CT 2664 and 0.5± mile west and north of the project site

Other Transportation Infrastructure		
Type	**Ownership**	**EJ Location**
AMESBURY RIVERWALK	VARIOUS (AMESBURY, RECREATIONAL TRAIL EASEMENTS)	BG 1, CT 2663 AND 0.05± MILE NORTHEAST OF THE PROJECT SITE

Regional Transit Agencies	
RTA Name	**EJ Location**
MERRIMACK VALLEY REGIONAL TRANSPORTATION AUTHORITY	BG 1, CT 2663 AND BG 2, CT 2664 AND ENCOMPASSES THE PROJECT SITE

8.2.3 RMAT Tool Assessment

The Project Proponent consulted the RMAT Climate Resilience Design Standards Tool (the "RMAT Tool," Appendix B). The RMAT Tool identified a "Low" project score and a "High Risk" exposure score for sea level rise, extreme precipitation (stormwater and riverine flooding), and extreme heat. According to the Impact Protocol, the high exposure scores may indicate an elevated climate risk for the local EJ Populations. An analysis of the Project impacts on EJ Populations related to climate change and resiliency is provided in Section 8.3.2.

8.2.4 U.S. EPA EJ Screen

U.S. EPA's "EJ Screen" provides a percentile ranking by census block group, compared against statewide averages, for 13 environmental indicators. An analysis was performed for the census block group where the Project site is located and eight surrounding census block groups[5] located within immediate proximity of the Project (**A**ppendix B). The environmental indicators assessed through the EPA EJ Screen were as follows: Particulate Matter 2.5; Ozone; Nitrogen Dioxide; Diesel Particulate Matter; Toxic Releases to Air; Traffic Proximity; Lead Paint; Superfund Proximity; RMP (Risk Management Plan) Facility Proximity; Hazardous Waste Proximity; Underground Storage Tanks; Wastewater Discharge; and Drinking Water Non-Compliance.

The analysis found that the census block group in which the Project site is located contains one elevated percentile level, for Superfund Proximity, equal to/above the 80th percentile at the state level for any of the environmental indicators. Below is an analysis of environmental indicators equal to or exceeding the 80th percentile and as a result, the indicators are not considered a potential unfair or inequitable burden impacting the EJ Population.

[5] Census block groups are statistical divisions of census tracts, https://www.census.gov/programs-surveys/geography/about/glossary.html

Results by EJ Population

EJ Screen Blockgroup 250092663001 (BG 1, CT 2663)

The Project site is located within this census block group (Appendix A, Figure 7). This census block group contains an elevated percentile level for one environmental indicator: Superfund Proximity (80th percentile). An analysis of Project impacts on EJ Populations is provided in Section 8.3.6 (Superfund Proximity).

EJ Screen Blockgroup 250092664002 (BG 2, CT 2664)

This census block group is located immediately north of the Project site with the DGA. This census block group contains an elevated percentile level for two environmental indicators: Superfund Proximity (83rd percentile) and Wastewater Discharge (82nd percentile). An analysis of Project impacts on EJ Populations is provided in Section 8.3.6.

8.2.5 Conclusion

As stated in the Impacts Protocol, "any identified EJ population that is located in a municipality or census tract demonstrating 'vulnerable health EJ criteria,' or an EJ population immediately surrounding a project location that has a 'High' risk rating in the RMAT tool for sea level rise/storm surge or extreme precipitation (urban or riverine flooding), is highly likely to be impacted by an unfair or inequitable environmental burden." As such, BGC assessed Project impacts on EJ Populations.

8.3 Analysis of Project Impacts on Environmental Justice Populations

The following sections include an analysis of Project impacts on EJ Populations in order to determine whether the Project will likely result in a disproportionate adverse effect on such population by materially exacerbating any existing unfair or inequitable environmental or public health burden impacting the EJ Population. As detailed in Section 8.2, the burdens impacting the EJ Population are low birth weight, childhood blood lead levels, proximity to Superfund sites and "High" risk to climate change and resiliency factors (the "Existing EJ Populations Burdens"). As explained below, the Project impacts will not materially exacerbate any of these burdens. Due to the nature of the Project, the Project will benefit EJ Populations through the remediation of the Powwow River.

8.3.1 Land Use and Alteration

Land use within the Project site includes residential, commercial, and industrial development. Passive recreational opportunities are provided via the Amesbury Riverwalk, and non-motorized boat launches upstream of the Project site.

The nature and severity of the Project's land use impacts during and following completion of remediation is not anticipated to materially exacerbate the Existing EJ Populations

Burdens. The Project and remediation activities will be confined within the Powwow River with temporary access from two locations that will not interfere with existing land uses. The Project will benefit the public and environment, as the current condition poses a risk to human health and the environment. Therefore, remediation is necessary and required under the MCP and will result in an improvement to current conditions.

During construction, BMPs will be implemented to minimize potential adverse impacts to Wetland Resource Areas, as described in Section 4.6. Construction activities will be overseen by an Environmental Monitor to document compliance with environmental permits and authorizations, ensure BMPs are correctly implemented and maintained, and inspect restoration activities. The Environmental Monitor will also conduct post-construction monitoring in accordance with environmental permits and authorizations.

8.3.2 Climate Change and Resiliency

As described in Section 7.3, the Project does not involve any above-grade proposed structures (i.e., increase in impervious area) or permanent changes to existing conditions except for a picnic area and walking trail on 8 Noel Street. While the RMAT Tool output identified a "High Risk" exposure level for all four indicators, the proposed Project will not permanently change elevation within the Project site and temporarily disturbed areas will be restored with vegetation. As such, the Project site and surrounding areas capacity to withstand storm events and extreme flooding will not be altered. Additionally, restoration plantings will re-establish tree cover and provide carbon sequestration to mitigate any heat island effect impacts.

8.3.3 Water Resources

As described in Section 5.1, the Project will result in temporary impacts to LUW, BVW, Bank, Riverfront Area, BLSF, the 100-foot Buffer Zone, and Flowed Tidelands. No permanent impacts are proposed, and temporarily disturbed areas within the Powwow River will be restored with a cap comprised of three layers, including a sand and carbon layer, an armor layer and a benthic layer. Temporary impacts within BVW will be backfilled with at least three feet of topsoil to achieve pre-existing grades and will be re-vegetated with a diverse planting plan.

Construction-period BMPs will be implemented to protect Wetland Resource Areas, including protective construction mats, straw wattles, silt fencing, stormwater management features, and other methods to prevent erosion and sedimentation. None of this work or its impacts will materially exacerbate the Existing EJ Populations Burdens.

Overall, the proposed Project goal to remediate existing contaminants within and proximate to the Powwow River will result in an improvement to existing conditions and a benefit to public health.

8.3.4 Transportation

Short-term, intermittent transportation and traffic impacts during construction are anticipated to facilitate exporting excavated materials, importing clean materials and restoration plantings, construction equipment, and commuting staff. Construction-related traffic will primarily travel to the Project site from I-495 or I-95 via main roads, including Macy Street, Elm Street, Chestnut Street, Water Street, and Noel Street. The transportation route will occur within an EJ Population and residential areas along Elm Street; however, Elm Street is a main road subject to frequent commuter traffic. Access to the Project site will not require truck or vehicular traffic through residential neighborhoods off main streets and avoids travel through the dense downtown portion of Amesbury along Main Street. The impacts will be temporary and will not materially exacerbate the Existing EJ Populations Burdens.

8.3.5 Air Quality

The area surrounding the proposed Project is moderately developed, with a multitude of residential streets intermingled with commercial and industrial land uses. Diesel vehicles and construction equipment will be utilized during construction; however, construction BMPs will be followed to limit the amount of particulate matter emitted from the construction sites. Additionally, diesel-powered equipment is required to use ultra-low sulfur diesel fuel. During construction, contractors will be required to adhere to Massachusetts General Law Ch.90, Section 16A and 3.10 CMR 7.11, which prohibits the idling of engines of stopped vehicles in excess of five minutes except for concrete trucks which are excluded from this requirement while mixing and pouring concrete. All mitigation efforts to reduce and control air pollution generated from the construction activities will be implemented in accordance with the *Air Pollution Control Regulations* (310 CMR 7.00). Once a contractor is selected to build the proposed Project, the Proponent is committed to creating construction period dust control and truck route plans. Any air quality impacts will be temporary and, as such, will not materially exacerbate the Existing EJ Populations Burdens.

8.3.6 Hazardous Materials

As described in Sections 3.5 and Section 4, the proposed Project goal is to remediate contamination within and proximate to the Powwow River in accordance with the MCP to address current and future significant risks to human health and the environment. The proposed Project has been designed to leave some of the contaminated material in place within the Powwow River beneath a subaqueous cap; however, contaminated sediment will be significantly reduced and contained in comparison to existing conditions. Additionally, the site-specific remediation plan will achieve a condition of NSR and a Permanent Solution as defined by the MCP. The proposed Project will result in a long-

term benefit to human health and the environment and will not materially exacerbate the Existing EJ Populations Burden.

8.3.7 Noise and Vibration

Noise and vibration will be important factors for the contractor to mitigate during remediation activities, especially during excavation/dredging of contaminated materials and transportation. The contractor will work closely with the City of Amesbury to remain within ordinances for decibel levels and will establish noise, vibration, and air monitoring stations around the perimeter of the Project site to monitor that the work is within specified guidelines. The Proponent also understands that a significant concern for the community will be the cleanliness of the streets from trucks leaving the Project site during construction activities. The contractor will implement measures to maintain clean streets during site work and ensure contaminated sediment transported from the Project site is handled in accordance with all applicable regulations. Remediation activities will occur within regular working hours during the work week and selectively on weekends only in accordance with local ordinances as to avoid disturbing local residents. Prior to noise-generating activities, the Proponent will notify landowners in proximity to the Project site of the schedule. The noise impacts from the Project will not materially exacerbate the Existing EJ Populations Burdens.

8.3.8 Comparable Benefits on EJ and Non-EJ Communities

In accordance with Part III.B. of the MEPA EJ Protocol, the following analysis is provided to determine whether the impacts on EJ Populations described above are greater or lesser than those on non-EJ Populations. Specifically, this analysis assesses *whether the project is adding impacts to an already burdened area in a "targeted" way that is disproportionate to when compared to non-EJ Populations.*

The Project site is located entirely within an EJ Population (Appendix A, Figure 7), and as such, the proposed Project has no impact on non-EJ Populations within the Project site. The nearest non-EJ Populations to the Project site are located to the northeast (opposite of Elm Street), to the northwest (opposite of Main Street), and to the south (south of Noel Street). Alternative transportation routes which would redirect traffic to non-EJ Populations would still require access within the EJ Population and would result in longer travel distances from I-495 and/or I-95.

The presence of contaminants within this portion of the Powwow River prevents the Proponents ability to achieve the Project goal at alternative locations; therefore, relocating the proposed Project outside an EJ Community is infeasible. The Project will improve existing conditions, Wetland Resource Areas, and public health, resulting in a long-term benefit to the surrounding EJ Communities and any non-EJ Communities that utilize the area.

8.3.9 Finding of No Disproportionate Adverse Effect

Based on the analysis above, the proposed Project is not anticipated to create an unfair or inequitable environmental burden or related consequences on nearby EJ Populations as compared to the general population. In contrast, the proposed Project will result in an improvement to the Project site, implement a diverse native and naturalized restoration planting plan, and will provide long-term environmental and public health benefits.

8.4 Public Involvement

The following section summarizes measures the Proponent took to enhance public involvement prior to filing the EENF with MEPA. Sections 8.4.2 and 8.4.3 summarize the Proponent's intent to continue enhancing public involvement during and following MEPA review.

8.4.1 Public Involvement Prior to the MEPA Review Process

The project team participated in a pre-filing consultation meeting with the MEPA office on January 30, 2025 to discuss the project and Community Outreach efforts. During the pre-filing consultation meeting, the Proponent discussed its plans to: host an active Project website providing a description of the Project, provide opportunities for public input and make Project documents broadly available; host a virtual public meeting to provide an overview of the Project and answer questions and take comments; and establish and widely circulate contacts for Project questions and requests for information,

The Proponent proceeded with this plan. On July 22, 2026, the Environmental Justice Screening Form was provided to community-based organizations (CBOs) and tribes based on the project-specific EJ Reference List generated from the EJ Reference list provided by the EEA EJ Director (Appendix C). The cover email and Environmental Justice Screening Form included notice of a virtual public meeting held on August 26, 2026. The Screening Form provided Project information, including the Project website[6] and contact information to request an individual meeting or ask questions about the Project.

The Proponent and project team held the virtual community meeting as scheduled on August 26, 2026 at 6:00 p.m. via Zoom. Notice was published in the local newspaper one week in advance. The Proponent also developed a Project Fact Sheet flier to notify members of the community of the meeting, and posted the flier at churches, the library and other community gathering spaces.

Although no members of the public or community attended, the Proponent and the project team presented the Project and recorded the presentation. The recording of the presentation was posted on the Project website, and an email was sent to the EJ Reference

[6] https://amesburymgpsite.com/

List to notify them of the recording and request any questions or comments prior to the anticipated filing date of October 15, 2026. No such questions or comments have been received.

8.4.2 Public Involvement During and After MEPA Review

The Project website will continue to be updated as the MEPA process continues to notify community members of filings and opportunities to comment. The Proponent will email the EJ Reference List when this Dual EENF/Proposed EIR is filed and will circulate notices of the MEPA site visit, summaries of supplemental information submitted to the MEPA Office, and any other relevant notices or materials generated during the course of MEPA review. The Proponent and the Project team will continue to be available throughout the MEPA process to provide Project information and, upon request, meet with community members or host additional informational meetings.

9.0 STATUTORY AND REGULATORY STANDARDS AND REQUIREMENTS

As previously indicated, the Project will require local and state permits, involving submittal of a NOI filing with the Amesbury Conservation Commission seeking an Order of Conditions (OOC) for the project under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00) and the *Amesbury Wetlands Protection Ordinance* and *Amesbury Wetland Regulations*, a Section 401 Water Quality Certification pursuant to the *Massachusetts Clean Water Act* (M.G.L. c 21, s 26-53) and the *401 Water Quality Certification Regulations* (314 CMR 9.00), and a Consolidated Written Determination and License(s) from MassDEP pursuant to M.G.L. c. 91 and 310 CMR 9.00) to authorize dredging, fill, structures and new uses in jurisdictional tidelands. Because of the complex nature of the Project and the fact that this is a remediation project that will deliver public benefits, the Proponent and DEP have entered into a Fast Track agreement that governs both Chapter 91 and Water Quality Certification (Appendix K). Draft Section 61 Findings for MassDEP permitting have also been prepared (Appendix I).

The Project will also require filing a Pre-Construction Notification with the U.S. Army Corps of Engineers for coverage under the Nationwide Permits, and NOIs for coverage under the NPDES CGP and the NPDES Dewatering and Remediation General Permit. Below is a description of the proposed Project's compliance with the applicable state and local environmental permits.

9.1 Massachusetts Wetlands Protection Act Regulations

The proposed Project is specifically intended to achieve compliance with the MCP. Although the Project will exceed alteration thresholds for BVW, LUW, Bank, BLSF, and Riverfront Area; it is permittable under the WPA Regulations as a Limited Project under 310 CMR 10.53(3)(q) as cited below.

According to 310 CMR 10.53(3)(q), the issuing authority may issue an Order of Conditions for project that involve *Assessment, monitoring, containment, mitigation, and remediation of, or other response to, a release or threat of release of oil and/or hazardous material in accordance with the provisions of 310 CMR 40.0000: Massachusetts Contingency Plan and the following general conditions (although no such measure may be permitted which is designed in accordance with the provisions of 310 CMR 40.1020: Background Levels of Oil and Hazardous Material solely to reduce contamination to a level lower than that which is needed to achieve "No Significant Risk" as defined in 310 CMR 40.0006(12)):*

1. there are no practicable alternatives to the response action being proposed that are

consistent with the provisions of 310 CMR 40.0000: Massachusetts Contingency Plan and that would be less damaging to resource areas. The alternatives analysis shall include, at a minimum, the following:

a. an alternative that does not alter resource areas, which will provide baseline data for evaluating other alternatives; and

b. an assessment of alternatives to both temporary and permanent impacts to resource areas.

The remedial action has been proposed in compliance with the provisions of 310 CMR 40.0000, as described throughout this report. Proposed impacts to Wetland Resource Areas are unavoidable due to the presence of contaminants in Wetland Resource Areas. An alternatives analysis is provided in Section 4.0. There are no alternatives that completely avoid Wetland Resource Areas and will achieve the goal for a practicable, site-specific, focused remedial action that will achieve a condition of No Significant Risk and a Permanent Solution. As such, off-site project alternatives have not been considered and are not relevant, and the "No Action Alternative" is not practicable since it would not achieve the MCP requirements of site cleanup. While avoidance of Wetland Resource Area impacts is unavoidable, the proposed Project has been designed to fully restore disturbances to Wetland Resource Areas and includes best management practices to avoid, minimize, and mitigate potential secondary impacts during construction.

A "Comprehensive Remedial Action Alternative" that is selected in accordance with the provisions of 310 CMR 40.0851 through 40.0869 shall be deemed to have met the requirements of 310 CMR 10.53(3)(q)1.; and

2. such projects shall be designed, constructed, implemented, operated, and maintained to avoid or, where avoidance is not practicable, to minimize impacts to resource areas, and shall meet the following standards to the maximum extent practicable:

a. hydrological changes to resource areas shall be minimized;

b. best management practices shall be used to minimize adverse impacts during construction, including prevention of erosion and siltation of adjacent water bodies and wetlands in accordance with standard U.S.D.A. Soil Conservation Service methods;

c. mitigating measures shall be implemented that contribute to the protection of the interests identified in M.G.L. c. 131, § 40;

d. compensatory storage shall be provided in accordance with the standards of 310 CMR 10.57(4)(a)1. for all flood storage volume that will be lost;

e. no access road, assessment or monitoring device, or other structure or activity shall restrict flows so as to cause an increase in flood stage or velocity;

f. temporary structures and work areas in resource areas, such as access roads and assessment and monitoring devices, shall be removed within 30 days of completion of the work. Temporary alterations to resource areas shall be substantially restored to preexisting hydrology and topography. At least 75% of the surface of any area of disturbed vegetation shall be reestablished with indigenous wetland plant species within two growing seasons and prior to said vegetative reestablishment any exposed soil in the area of disturbed vegetation shall be temporarily stabilized to prevent erosion in accordance with standard U.S.D.A. Soil Conservation Service methods. Temporary structures, work areas, and alterations to resource areas are those that no longer are necessary to fulfill the requirements of 310 CMR 40.0000: Massachusetts Contingency Plan; and

g. work in resource areas shall occur only when the ground is sufficiently frozen, dry, or otherwise stable to support the equipment being used.

The proposed Project is not anticipated to result in hydrological changes to Wetland Resource Areas, as pre-existing conditions will be restored following excavation and removal of contaminants. Best Management Practices will be followed during construction, including implementation and maintenance of erosion and sedimentation controls, equipment use and storage, stockpiling, and monitoring to ensure protection of Wetland Resource Areas. The proposed Project will not result in a net loss of flood storage volume, and construction related disturbances to Wetland Resource Areas will be fully restored.

9.2 Amesbury Wetlands Protection Ordinance and Regulations

The *Ordinance* and implementing *Regulations* implement Performance Standards for activities within Areas Subject to Protection; however, there are no specific regulations which supersede the Limited Project provisions that regulate this Project under the WPA, as described above.

The NOI Application for the proposed Project will be submitted to the Amesbury Conservation Commission as a Limited Project [310 CMR 10.53(3)(q)] to exceed allowable Wetland Resource Area impact thresholds in order to remediate contaminants in accordance with the provisions of 310 CMR 40.0000. The NOI will include supporting information documenting that the proposed Project has undergone a thorough alternatives analysis, minimizes work in proximity to Wetland Resource Areas to the extent practicable, includes best management practices to avoid and minimize secondary impacts to Wetland Resource Areas during work, and will not result in further encroachment into Wetland Resource Areas following the completion of work.

9.3 401 Water Quality Certification

In accordance with the Massachusetts Clean Water Act (M.G.L. c 21, s 26-53) and the *401 Water Quality Certification Regulations* (314 CMR 9.00; *WQC Regulations*), the proposed Project will require submittal of a 401 Water Quality Certification Application with MassDEP Wetlands for the major dredging (>5,000 cubic yards) associated with the proposed Project (BRPWW07). Specifically, the Project meets the criteria for the as follows:

According to 314 CMR 9.06 *Criteria for the Evaluation of Applications for Discharge of Dredged or Dredged or Fill Material*,

(1) No discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

As an MCP regulated project, the selected alternative has undergone a rigorous alternatives analysis, as detailed in Section 3.0 of this report. The selected alternative has been identified as the alternative that will most effectively and efficiently achieve a condition of No Significant Risk under the MCP.

(2) No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will avoid and minimize potential adverse impacts to the bordering or isolated vegetated wetlands, land under water or ocean, or the intertidal zone. However, no such project may be permitted which will have any adverse effect on specified habitat sites of Rare Species.

As noted in the Alternative Analysis in Section 3.0, and the Assessment of Impacts in Section 5.0, the project has been designed to avoid impacts to resource areas to the greatest extent possible given the constraint of remediation work occurring in BVW, Bank, and LUW. Impacts cannot be fully avoided, but with restoration proposed and construction methods designed to minimize temporary disturbance, the impacts have been avoided and minimized to the maximum extent possible.

(a) *For discharges to bordering or isolated vegetated wetlands, such steps shall include a minimum of 1:1 restoration or replication. The Department may waive the requirement for 1:1 restoration or replication for Ecological Restoration Projects and for maintenance or repair (but not replacement, reconstruction, or substantial enlargement) of existing and lawfully located dams.*

The Project involves full restoration of all disturbed resource areas in compliance with this standard.

The performance standards of 314 CMR 9.06 (2)(b) and (3) through (7) do not apply to this Project.

According to the 314 CMR 9.07 *Criteria for the Evaluation of Applications for Dredging and Dredged Material Management,*

(1) *General (a) No dredging shall be permitted unless appropriate and practicable steps have been taken which will first avoid, and if avoidance is not possible then minimize, or if neither avoidance or minimization are possible, then mitigate, potential adverse impacts to land under water or ocean, intertidal zone and special aquatic sites. No dredging shall be permitted if there is a practicable alternative that would have less impact on the aquatic ecosystem. However, no such dredging may be permitted which will have any adverse effect on specified habitat sites of Rare Species unless the work is subject to a Conservation and Management Permit or Determination of No Take issued by the Division of Fisheries and Wildlife.*

As noted above and Section 3.0 and 5.0 of this report, the Project has been designed to avoid, minimize and mitigate potential adverse impacts to LUW through the proposed Project design, including construction techniques and proposed restoration measures to ensure no adverse impacts on LUW or the aquatic ecosystem.

(b) *All applications, except for maintenance projects, shall include a comprehensive analysis of practicable alternatives as defined in 314 CMR 9.07(1)(a). The scope of alternatives to be considered shall be commensurate with the scale and purpose of the proposed activity, the impacts of the proposed activity, and the classification, designation and existing uses of the affected wetlands and waters in the Surface Water Quality Standards at 314 CMR 4.00: Massachusetts Surface Water Quality Standards.*

As noted in the Alternative Analysis in Section 3.0, the Project has been designed to avoid impacts to resource areas to the greatest extent possible given the constraint of remediation work occurring in BVW, Bank, and LUW. The Project design has been subject to a rigorous alternatives analysis required under the MCP takes into consideration impacts to human health and the environment while ensuring the outcome is a finding of No Significant Risk under the MCP.

The regulations at 314 CMR 9.07 (1)(c)-(k) do not apply to the project.

9.4 Chapter 91 Regulations

Due to the complexity of the Project and that it may require multiple licenses over time to address dredging, the establishment and maintenance of caps within the Powwow River and temporary moorings, the Proponent and MassDEP have determined that a Consolidated Written Determination (CWD) is appropriate for the Project. Authorized

under 310 CMR 9.14(4), a CWD provides a comprehensive determination by MassDEP that will allow for the issuance of multiple licenses over time. This will allow MassDEP to work with the Proponent to tailor licenses to different aspects of the work in order to address initial work, such as dredging, temporary moorings and the placement/establishment of the in-water caps as well as authorizing the long-term maintenance of these caps.

The Project is water-dependent because it consists entirely of "facilities and activities undertaken or required by a public agency for purposes of decontamination, capping, or disposal of polluted aquatic sediments" as per 310 CMR 9.12(2)(a)14. The Project will meet all applicable standards and requirements for water-dependent projects as summarized below.

310 CMR 9.31(2) Proper Public Purpose

As a water-dependent project, the Project is presumed to meet the proper public purpose requirement. Moreover, as an environmental remediation project that will have minimal and only temporary impacts on the use of the Powwow River, the Project will "provide greater benefit than detriment to the rights of the public in said lands."

310 CMR 9.35 Standards to Preserve Water-related Public Rights

The Project will not significantly impact navigation, free passage over or through the Powwow River or any other public rights protected by Chapter 91. The Project will result in temporary restrictions on the use of the Powwow River in order to complete the remedial actions. However, these impacts are necessary to meet the requirements of the MCP and are not significant due to their temporary nature. The Project will restore the river to existing grades and depths and so will not impact navigability. The Project does not include any fill or structures for private use of Commonwealth tidelands that will interfere with any public rights to use the Powwow River.

9.36: Standards to Protect Water-dependent Uses

As an environmental remediation project with only temporary impacts during the construction period, the Project will not significantly interfere with littoral or riparian property owners' right to approach their property from a waterway, significantly disrupt any water-dependent use in operation or displace any existing water-dependent use on the Powwow River.

9.37: Engineering and Construction Standards

The Project will meet all applicable engineering and construction standards under this provision.

310 CMR 9.40 Standards for Dredging and Dredged Material Disposal

(1) Limitations on Dredging and Disposal Activity

These standards do not apply to the Project.

(2) Resource Protection Requirements.

(a) The design and timing of dredging and dredged material disposal activity shall be such as to avoid interference with anadromous/catadromous fish runs. At a minimum, no such activity shall occur in such areas between March 15th and June 15th of any year, except upon a determination by the Division of Marine Fisheries, pursuant to M.G.L. c. 130, § 19, that such an activity will not obstruct or hinder the passage of fish.

The Project has been designed to avoid dredging during the spring TOY restriction for dredging activities.

(b) The design and timing of dredging and dredged material disposal activity shall be such as to minimize adverse impacts on shellfish beds, fishery resource areas, and submerged aquatic vegetation. The Department may consult with the Department of Fish and Game or the natural resource officer of the municipality regarding the assessment of such impacts.

Potential adverse effects to fisheries due to dredging will be avoided and minimized by using silt curtains and BMPs listed above.

(3) Operational Requirements for Dredging, (4) Dredged Material Disposal, and (5) Supervision:

The Project generally complies with the operational requirements for dredging; however, most are not applicable to an MCP-regulated dredging project which is constrained by the extent of contamination and MCP remediation and disposal requirements.

310 CMR 13.00 Public Benefit Determination

As a project within tidelands and requiring an EIR, the Project triggers the public benefit determination requirement in 310 CMR 13.02(1). As a water-dependent use project, the Project presumptively meets the public benefit criteria in 310 CMR 13.04. Moreover, as an environmental remediation project that will clean up the Powwow River while having minimal and only temporary impacts on public use, the Project meets the specific criteria in 310 CMR 13.04(3).

9.5 Draft Section 61 Findings

The Draft Section 61 Finding for the Project has been prepared in accordance with the provisions of Chapter 30, Section 61 and 301 CMR 11.07(6)(k) and is included as attachment to this filing (Appendix I).

10.0 CONCLUSION

On behalf of the Proponent, Boston Gas Company, LEC is filing the enclosed Expanded Environmental Notification Form and Proposed Environmental Impact Report for the *Amesbury Former MGP Site Environmental Remediation Project* in accordance with the MEPA *Regulations* (301 CMR 11.00). The proposed Project is intended to implement a remediation project within a portion of the Powwow River in accordance with requirements of the MCP.

The proposed Project involves temporary impacts to Wetland Resource Areas and Waters of the U.S.; areas subject to federal, state, and local protection. Federal level environmental permitting includes submitting a Pre-Construction Notification with USACE and NOI Applications with EPA for coverage under the NPDES Construction General Permit and Dewatering and Remediation General Permit. State permitting includes submittal of a Water Quality Certification Application with MassDEP Wetlands and a Chapter 91 Consolidated Written Determination and License(s) with MassDEP Waterways. Local environmental permitting consists of a NOI filing seeking an OOC from the Amesbury Conservation Commission, and a Special Permit from the Amesbury Planning Board.

The MassDEP permits establish MEPA jurisdiction as a state permit, and the project exceeds ENF thresholds at 301 CMR 11.03 triggering MEPA review. The proposed work is located within one mile of an Environmental Justice Community, which requires an EIR. The Proponent has filed this Dual EENF and Proposed EIR in order to request a Rollover EIR. In the alternative, the Proponent requests a Singel EIR.

The proposed Project has been designed based on an intensive alternative analysis mandated under the MCP Regulations. The Project is designed to avoid, minimize and mitigate environmental and construction-related disturbances to the greatest extent practical, and to comply with all applicable federal, state, and local environmental statutes and regulations.

Massachusetts Wetlands Protection Act (M.G.L. c. 131, §. 40), https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXIX/Chapter131/Section40

Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00 & 310 CMR 10.58 (2) (a) 1.d.), https://www.mass.gov/doc/310-cmr-1000-the-wetlands-protection-act

Massachusetts Natural Heritage and Endangered Species Program Atlas of Estimated Habitat of State-listed Rare Wetlands Wildlife. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Route 135, Westborough, MA 01581, https://www.mass.gov/service-details/regulatory-maps-priority-estimated-habitats

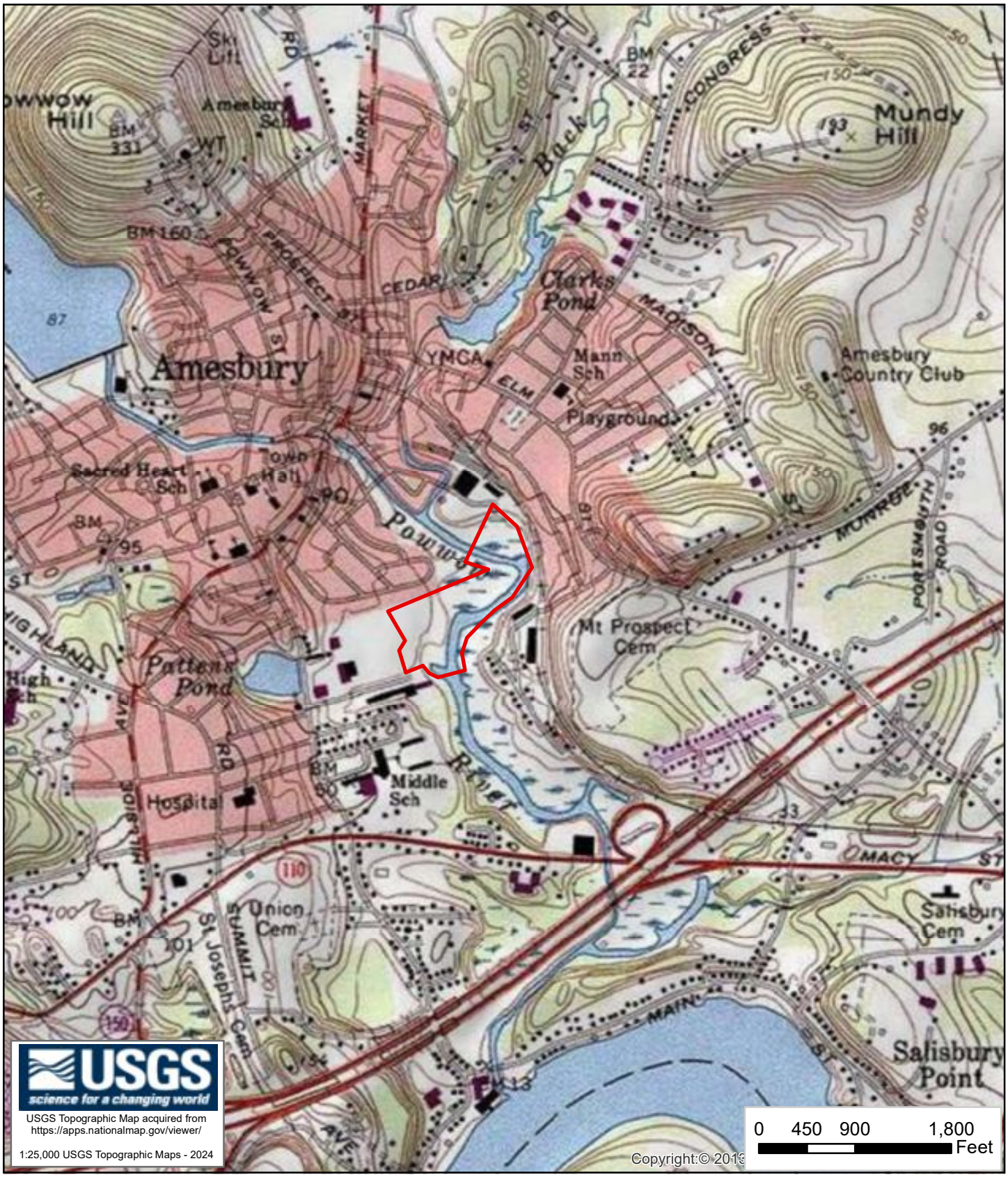
310 CMR 9.00: Waterways Regulations https://www.mass.gov/doc/310-cmr-900-waterways-regulations

Central Massachusetts Regional Planning Committee 2020 Growth Strategy for Central Massachusetts, 2020, online at https://www.cmrpc.org/sites/default/files/Documents/CDAP/CMRPC_2020GrowthStrategy_Update.pdf

Amesbury Wetlands Protection Ordinance and Amesbury Wetland Regulations

Appendix A

Figure 1: USGS Topographic Map
Figure 2: MassGIS Orthophoto
Figure 3: NRCS Soil Survey Map
Figure 4: MassGIS Orthophoto: NHESP Overlay
Figure 5: MassGIS Orthophoto: Surface Water and Geographical Protection Areas
Figure 6: FEMA Flood Insurance Rate Map
Figure 7: EJ Populations within One Mile
Figure 8: EJ Populations within Five Miles



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Figure 1: USGS Topographic Map

Powwow River
Between Water Street and Noel Street
Amesbury, Massachusetts

N

September 16, 2026



LEC Environmental Consultants, Inc.

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Figure 2: Aerial Orthophoto Map

Powwow River
Between Water Street and Noel Street
Amesbury, Massachusetts

N

September 16, 2026

Soil Map—Essex County, Massachusetts, Northern Part



Map Scale: 1:3,030 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Essex County, Massachusetts, Northern Part
Survey Area Data: Version 21, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12A	Maybid silt loam, 0 to 3 percent slopes	6.8	29.6%
255B	Windsor loamy sand, 3 to 8 percent slopes	0.5	2.1%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	0.4	1.8%
275C	Agawam fine sandy loam, 8 to 15 percent slopes	2.2	9.5%
602	Urban land	0.4	1.8%
607	Water, saline	8.7	38.0%
651	Udorthents, smoothed	2.9	12.6%
718A	Saco variant silt loam, frequently ponded, 0 to 1 percent slopes, frequently flooded	1.0	4.5%
Totals for Area of Interest		**23.0**	**100.0%**



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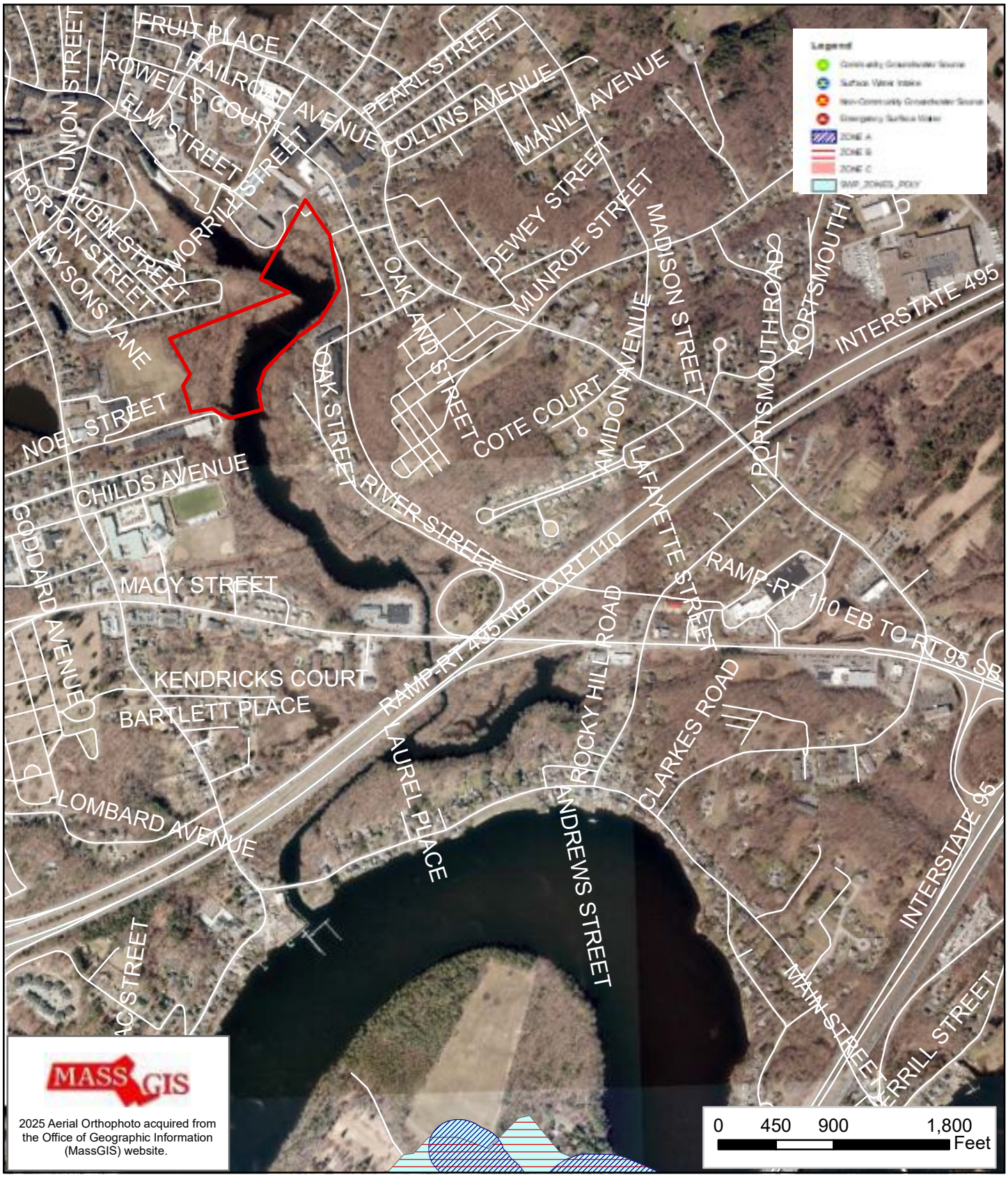
Plymouth, MA
508.746.9491
www.lecenvironmental.com

Figure 4: NHESP Map

Powwow River
Between Water Street and Noel Street
Amesbury, Massachusetts

N

September 16, 2026



LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
www.lecenvironmental.com

Figure 5: Surface Water and Protection Area

Powwow River
Between Water Street and Noel Street
Amesbury, Massachusetts

N

September 16, 2026

Figure 6: National Flood Hazard Layer FIRMette

FEMA



Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

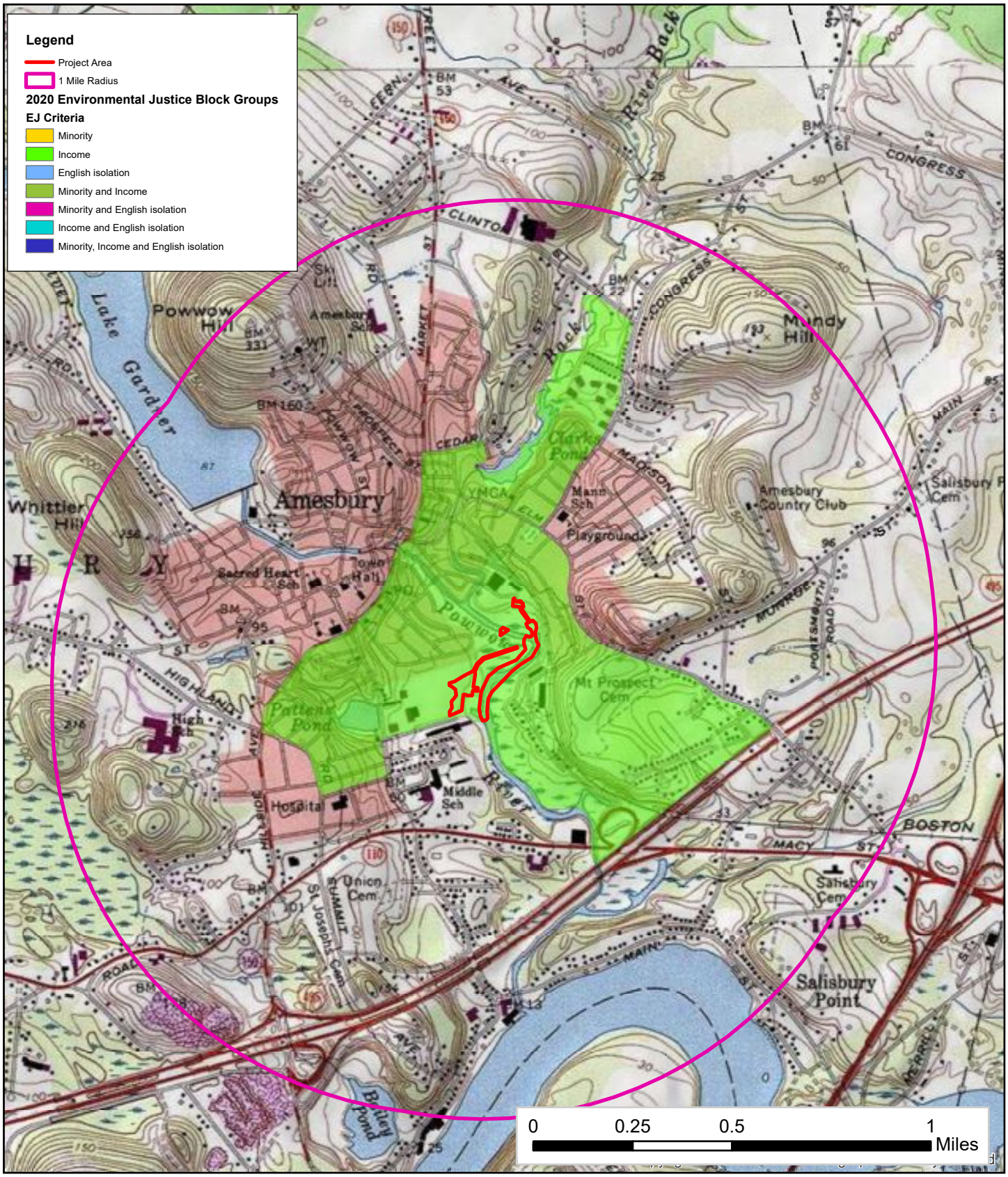
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/17/2026 at 2:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



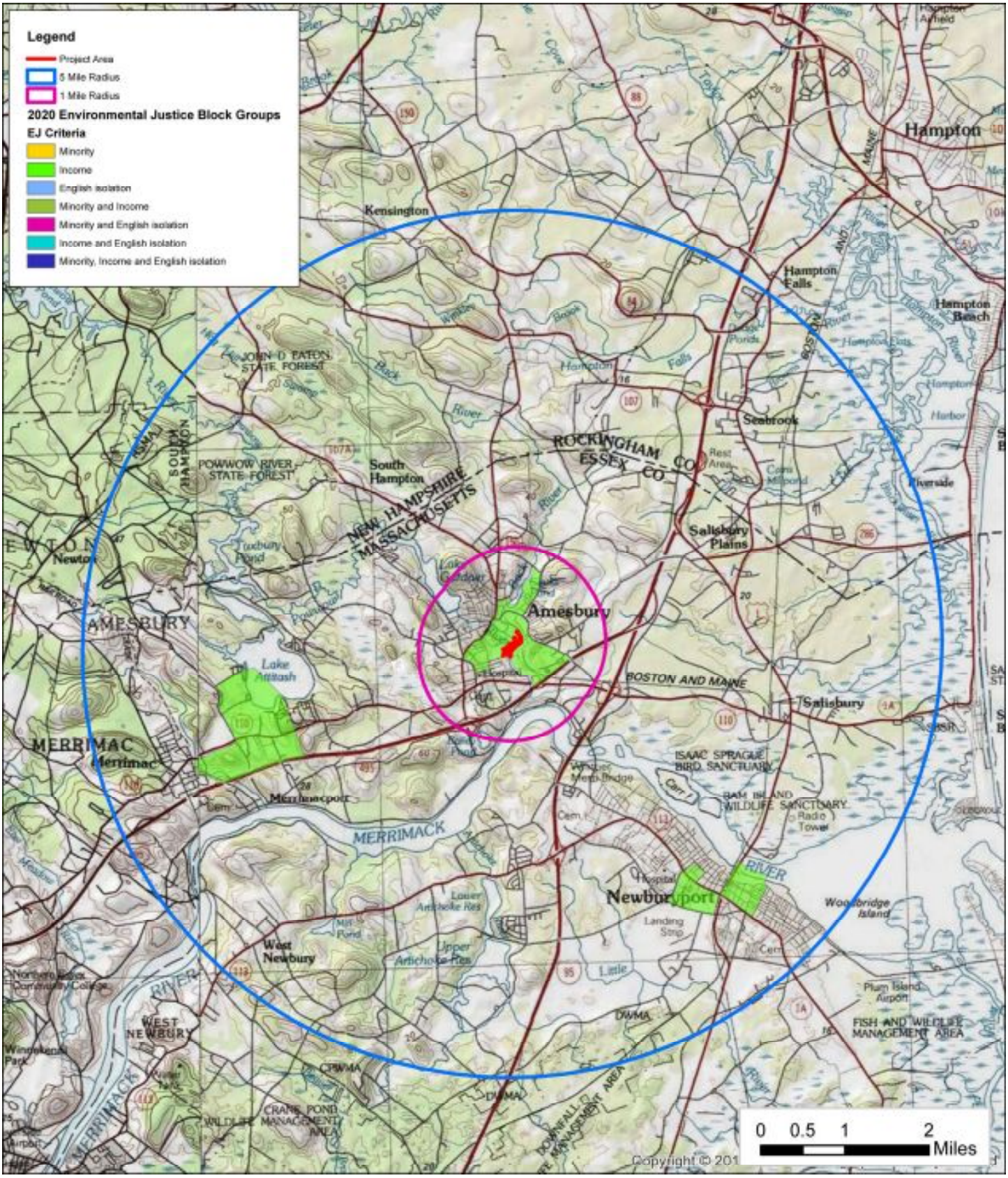
LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
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Figure 7: EJ Communities
1 Mile Radius
Powwow River Between
Water Street and Noel Street
Amesbury, Massachusetts

N

July 15, 2026



LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
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Figure 8: EJ Communities
5 Mile Radius

Powwow River Between
Water Street and Noel Street
Amesbury, Massachusetts

N

July 15, 2026

Appendix B

Climate Resilience Design Standards Tool Project Report, Prepared by GEI Consultants, Inc.

Westborough DPH EJ Reports

US EPA EJ Screen

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

blockgroup 250092663001

Residents within this specified blockgroup
(Site 1, FIPS 250092663001)
Area in Square Miles: 0.48
Population: 1,629

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	5.96	6.52	15	8.45	5	0.7	0.9
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	9.2	8.8	56	7.8	67	1.2	1.0
Diesel Particulate Matter (ug/m3)	0.146	0.176	47	0.191	46	0.8	0.8
Toxic Releases to Air	220	2,800	14	4,600	33	0.0	0.1
Traffic Proximity and Volume (daily traffic count/distance to road)	3,200,000	6,100,000	39	1,700,000	83	1.9	0.5
Lead Paint Indicator (% pre-1960s housing)	60.47%	0.51	59	0.3	80	2.0	1.2
Superfund Proximity (site count/km distance)	0.38	0.34	79	0.39	79	1.0	1.1
RMP Proximity (facility count/km distance)	0.00	0.37	0	0.57	0	0.0	0.0
Hazardous Waste Proximity (facility count/km distance)	3.4	11.2	30	3.5	70	0.9	0.3
Underground Storage Tanks (UST) indicator	7.4	3.3	86	3.6	85	2.0	2.2
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	560	760	95	700,000	70	0.0	0.7
Drinking Water Non-Compliance	1.0	3.17	61	2.2	78	0.5	0.3
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.94	1.19	57	1.34	39	0.7	0.9
Supplemental Demographic Index USA	1.60	1.52	71	1.64	53	1.0	1.1
% Low Income	28%	22%	71	30%	52	0.9	1.3
% in limited English-speaking Households	9%	6%	76	5%	83	1.8	1.4
% Unemployed (among civilian labor force)	3%	5%	44	6%	46	0.6	0.6
% with Less Than High School Education	6%	9%	55	11%	43	0.6	0.7
% under Age 5	1%	5%	21	5%	19	0.3	0.3
% over Age 64	20%	18%	67	18%	66	1.1	1.2
% People of Color	17%	31%	40	40%	33	0.4	0.6

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

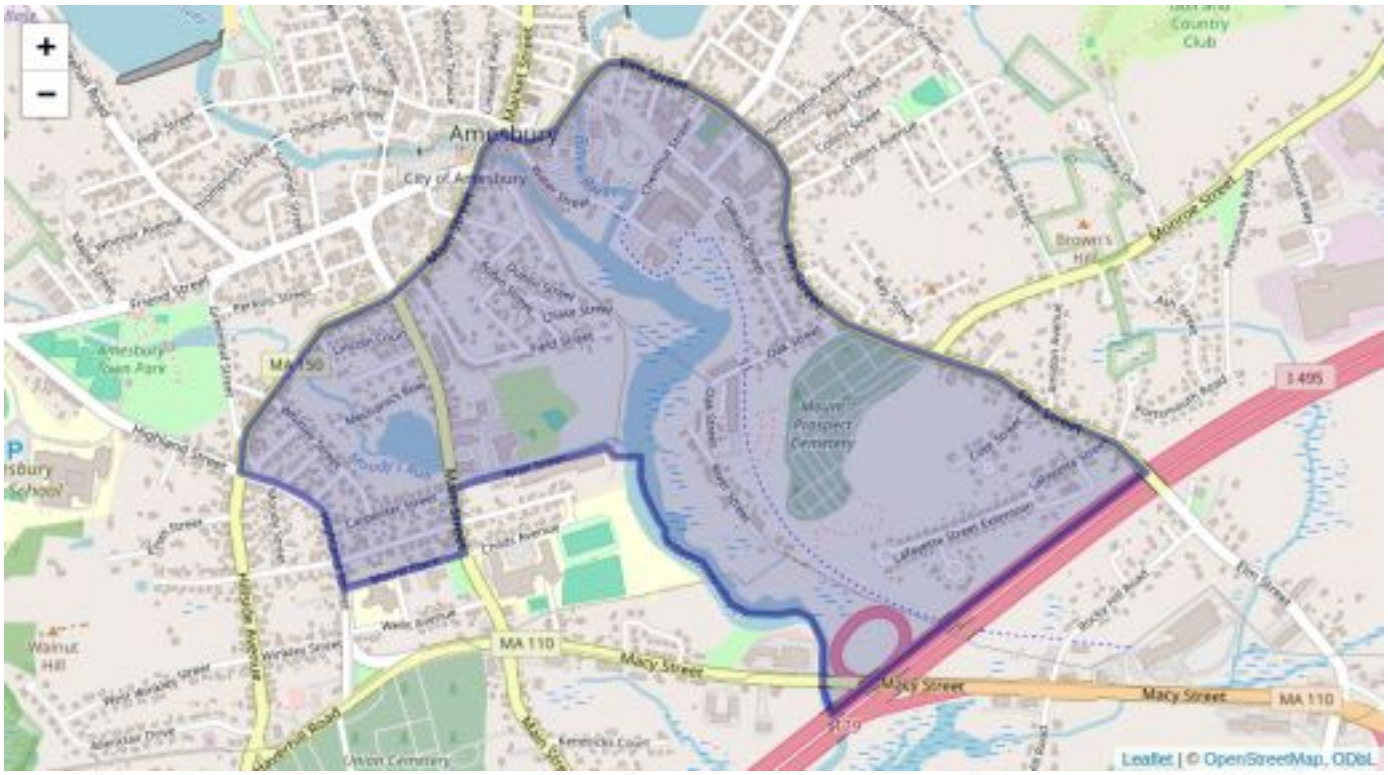
The indexes for a selected area are compared to those for all other locations in the state or nation.

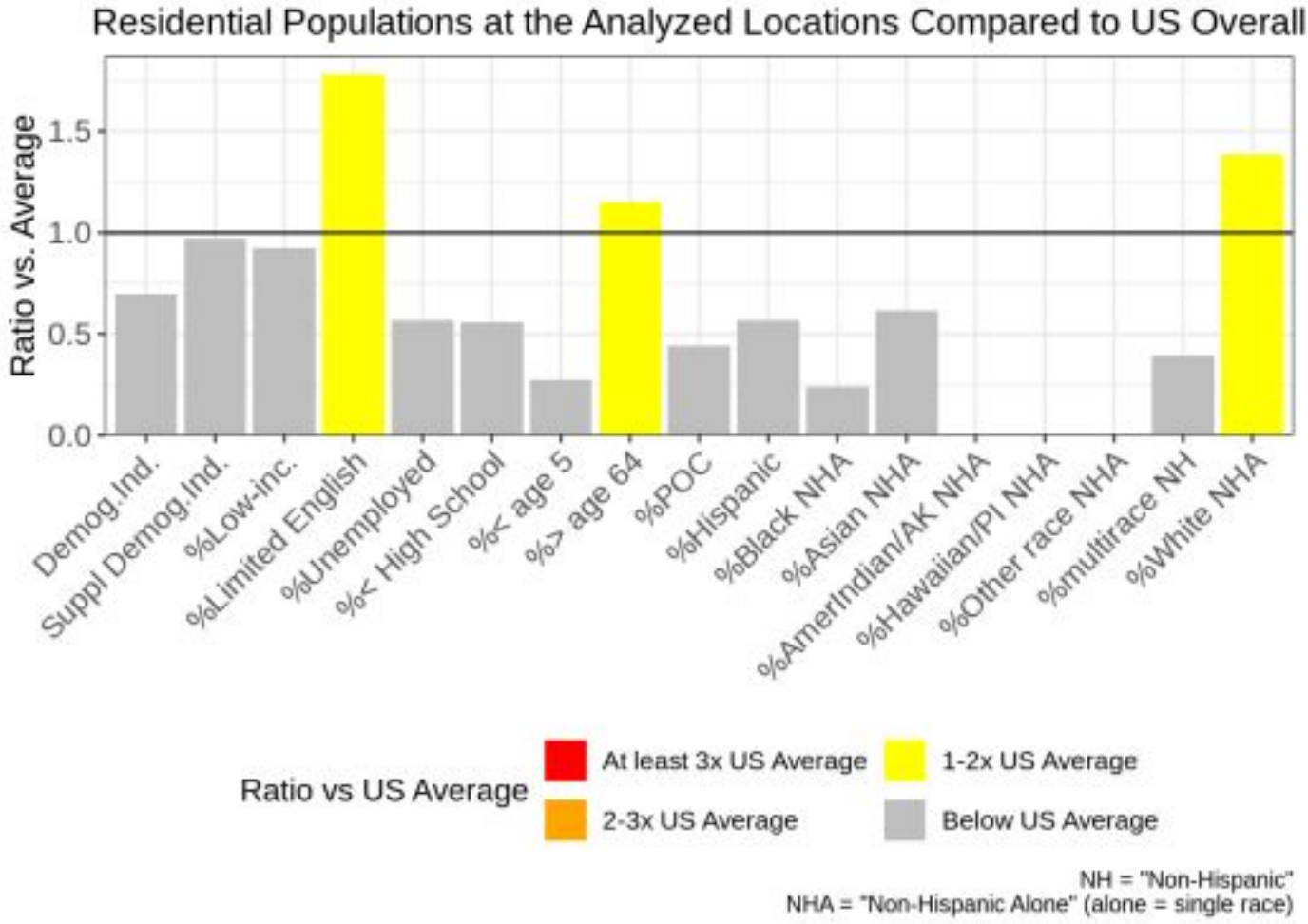
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	24	8
Ozone Summary Index	48	30
Nitrogen Dioxide (NO2) Summary Index	60	57
Diesel Particulate Matter Summary Index	56	47
Toxic Releases to Air Summary Index	26	36
Traffic Proximity and Volume Summary Index	49	64
Lead Paint Summary Index	63	66
Superfund Proximity Summary Index	80	72
RMP Proximity Summary Index	0	0
Hazardous Waste Proximity Summary Index	43	59
Underground Storage Tanks Summary Index	72	67
Wastewater Discharge Summary Index	78	61
Drinking Water Non-Compliance Summary Index	77	82
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	20	6
Ozone Supplemental Summary Index	46	29
Nitrogen Dioxide (NO2) Supplemental Summary Index	68	71
Diesel Particulate Matter Supplemental Summary Index	62	55
Toxic Releases to Air Supplemental Summary Index	20	39
Traffic Proximity and Volume Supplemental Summary Index	53	81
Lead Paint Supplemental Summary Index	70	77
Superfund Proximity Supplemental Summary Index	89	81
RMP Proximity Supplemental Summary Index	0	0
Hazardous Waste Proximity Supplemental Summary Index	42	74
Underground Storage Tanks Supplemental Summary Index	83	80
Wastewater Discharge Supplemental Summary Index	90	73
Drinking Water Non-Compliance Supplemental Summary Index	80	84

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	10%	0.6	0.8
% Black or African American (non-Hispanic, single race)	3%	0.2	0.4
% Asian (non-Hispanic, single race)	3%	0.6	0.5
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.4	0.3
% White (non-Hispanic, single race)	83%	1.4	1.2
LANGUAGE SPOKEN AT HOME			
% speaking non-English languages at home	11%	0.5	0.4
% speaking Other Indo-European at home	5%	1.3	0.5
% speaking Asian and Pacific Island languages at home	0%	0.2	0.1
% speaking Arabic, Other, and unspecified languages at home	0%	0	0
% speaking English at home	1	1.1	1.2
% speaking Spanish at home	6%	0.4	0.6
% speaking French at home	0	3.3	1
% speaking Russian, Polish or Other Slavic at home	0	1.3	0.8
% speaking Chinese (including Mandarin, Cantonese) at home	0	0.1	0.1
% speaking Korean at home	0	0	0
% speaking Other Indo-European languages at home	0	0.6	0.2
% speaking Vietnamese at home	0	0	0
% speaking Other Asian and Pacific Island languages at home	0	0.4	0.3
% speaking Arabic at home	0	0	0
% speaking German or other West Germanic languages at home	0	1	1.5
% speaking Tagalog (including Filipino) at home	0	0	0
% speaking Other and unspecified languages at home	0	0	0
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Spanish (as % of limited English households)	100%	4.5	5.8
% speaking Other Indo-European languages (as % of limited English households)	0%	0	0
% speaking Asian-Pacific Island languages (as % of limited English households)	0%	0	0
% speaking Other languages (as % of limited English households)	0%	0	0
BREAKDOWN BY SEX			
% Males	47%	1	1
% Females	53%	1.1	1.1
HEALTH			
% with Disabilities	16%	1.2	1.3
% with Low Life Expectancy	18%	0.9	1
% with Heart Diseases	6	1	1.1
% of Adults with Asthma	11.00	1.1	1
% of Adults with Cancer (excluding skin cancer)	8.00	1.2	1.2
AGE			
% under Age 5	1%	0.3	0.3
% under age 18	12%	0.6	0.6
% over Age 64	20%	1.1	1.2
COMMUNITY			
Occupied Housing Units	898	NA	NA
Per Capita Income	47,908	NA	NA
% Owner-occupied housing units	40%	0.6	0.6
POVERTY			
% Households below Poverty Level	10%	0.7	0.9
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	5	NA	NA
Number of Toxic Release Facilities	2	NA	NA
Number of Water Discharge Facilities	7	NA	NA
Number of Brownfields	4	NA	NA
Number of Schools	0	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	1	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	0	0
Estimated Flood Risk in 30 Years	12%	2.1	0.9
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	1	NA	NA
% Households without Broadband Internet	17%	1.4	1.9
% People without Health Insurance	2%	0.3	0.9
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	1,629	NA	NA
Non-POC resident count	1,345	NA	NA
Count of Population Age 25 up	1,297	NA	NA
Count of Households	898	NA	NA
Population 16 years and over	1,461	NA	NA
Civilian labor force	1,038	NA	NA
Count of Housing Units Built Pre 1960	543	NA	NA
Built housing units count (denominator for % pre 1960)	898	NA	NA
Count of Population for whom Poverty Status is Determined	1,629	NA	NA
Count of Households in B28002 Internet Subscription Universe	898	NA	NA


Amesbury
City of Amesbury
MA 150
MA 110
Macy Street
I 495
Leaflet | © OpenStreetMap, ODbL


Residential Populations at the Analyzed Locations Compared to US Overall
Ratio vs. Average
1.5
1.0
0.5
0.0
Demog.Ind.
Suppl Demog.Ind.
%Low-inc.
%Limited English
%Unemployed
%< High School
%< age 5
%> age 64
%POC
%Hispanic
%Black NHA
%Asian NHA
%AmerIndian/AK NHA
%Hawaiian/PI NHA
%Other race NHA
%multirace NH
%White NHA
Ratio vs US Average
At least 3x US Average
1-2x US Average
2-3x US Average
Below US Average
NH = "Non-Hispanic"
NHA = "Non-Hispanic Alone" (alone = single race)

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

blockgroup 250092664002

Residents within this specified blockgroup
(Site 1, FIPS 250092664002)
Area in Square Miles: 0.11
Population: 994

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	5.98	6.52	17	8.45	5	0.7	0.9
Ozone (ppb)	55.5	56.7	31	61.8	24	0.9	1.0
Nitrogen Dioxide (NO2)	8.5	8.8	50	7.8	60	1.1	1.0
Diesel Particulate Matter (ug/m3)	0.146	0.176	47	0.191	46	0.8	0.8
Toxic Releases to Air	210	2,800	14	4,600	32	0.0	0.1
Traffic Proximity and Volume (daily traffic count/distance to road)	2,700,000	6,100,000	33	1,700,000	79	1.6	0.4
Lead Paint Indicator (% pre-1960s housing)	50.17%	0.51	47	0.3	74	1.7	1.0
Superfund Proximity (site count/km distance)	0.29	0.34	74	0.39	76	0.7	0.9
RMP Proximity (facility count/km distance)	0.00	0.37	0	0.57	0	0.0	0.0
Hazardous Waste Proximity (facility count/km distance)	2.6	11.2	25	3.5	65	0.7	0.2
Underground Storage Tanks (UST) indicator	10.1	3.3	92	3.6	89	2.8	3.0
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	820	760	95	700,000	72	0.0	1.1
Drinking Water Non-Compliance	1.0	3.17	61	2.2	78	0.5	0.3
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	1.11	1.19	65	1.34	48	0.8	1.1
Supplemental Demographic Index USA	1.32	1.52	56	1.64	36	0.8	0.9
% Low Income	32%	22%	75	30%	59	1.1	1.5
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed (among civilian labor force)	19%	5%	96	6%	95	3.3	3.4
% with Less Than High School Education	2%	9%	26	11%	18	0.2	0.2
% under Age 5	0%	5%	0	5%	0	0.0	0.0
% over Age 64	12%	18%	33	18%	35	0.7	0.7
% People of Color	22%	31%	48	40%	39	0.6	0.7

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

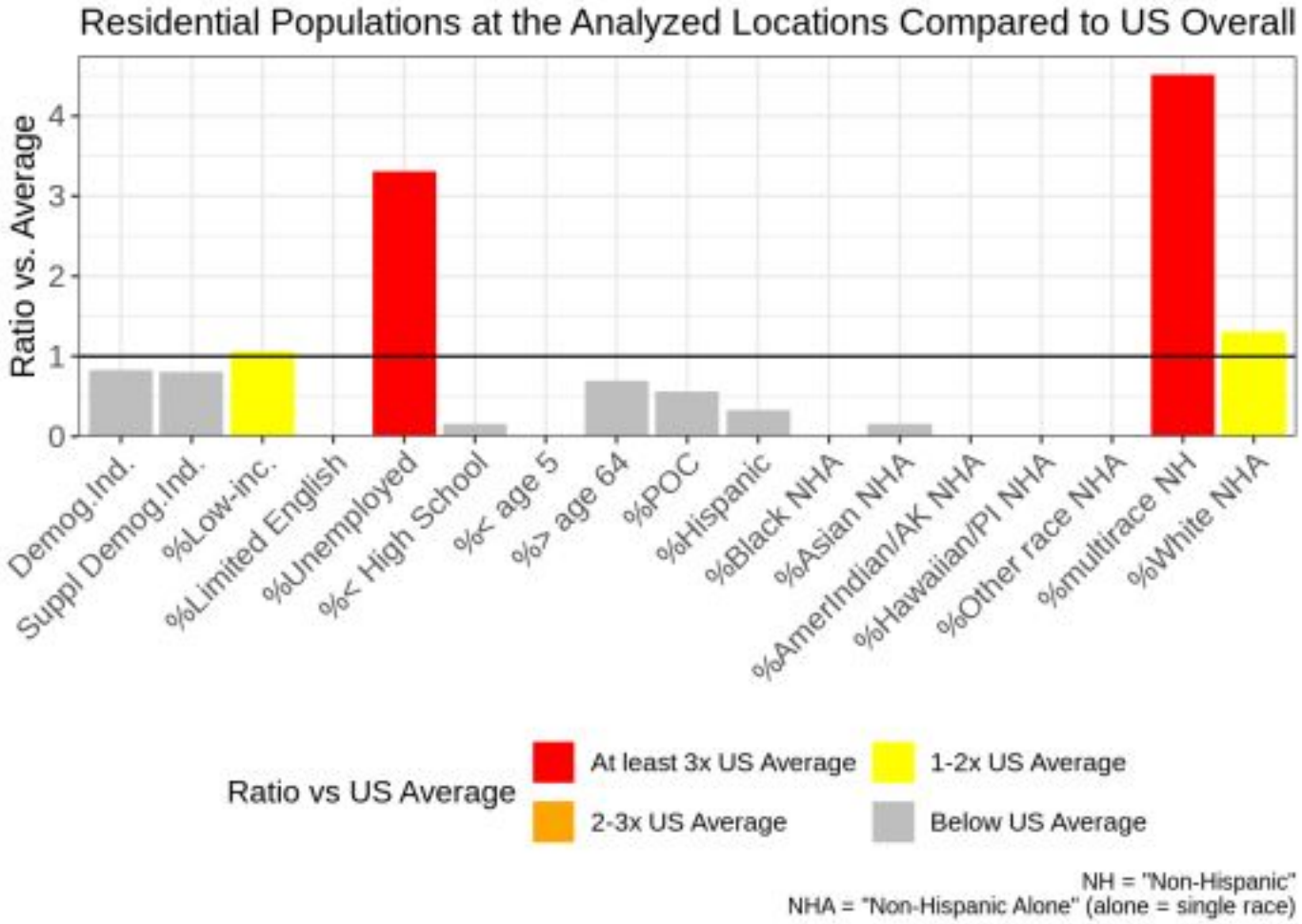
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	30	9
Ozone Summary Index	51	34
Nitrogen Dioxide (NO2) Summary Index	61	59
Diesel Particulate Matter Summary Index	61	52
Toxic Releases to Air Summary Index	29	41
Traffic Proximity and Volume Summary Index	50	68
Lead Paint Summary Index	62	69
Superfund Proximity Summary Index	83	75
RMP Proximity Summary Index	0	0
Hazardous Waste Proximity Summary Index	43	62
Underground Storage Tanks Summary Index	78	74
Wastewater Discharge Summary Index	82	67
Drinking Water Non-Compliance Summary Index	79	84
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	19	5
Ozone Supplemental Summary Index	37	23
Nitrogen Dioxide (NO2) Supplemental Summary Index	56	57
Diesel Particulate Matter Supplemental Summary Index	54	47
Toxic Releases to Air Supplemental Summary Index	16	31
Traffic Proximity and Volume Supplemental Summary Index	39	71
Lead Paint Supplemental Summary Index	52	64
Superfund Proximity Supplemental Summary Index	78	73
RMP Proximity Supplemental Summary Index	0	0
Hazardous Waste Proximity Supplemental Summary Index	31	62
Underground Storage Tanks Supplemental Summary Index	79	74
Wastewater Discharge Supplemental Summary Index	83	65
Drinking Water Non-Compliance Supplemental Summary Index	74	80

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	6%	0.3	0.5
% Black or African American (non-Hispanic, single race)	0%	0	0
% Asian (non-Hispanic, single race)	1%	0.2	0.1
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	15%	4.5	4
% White (non-Hispanic, single race)	78%	1.3	1.1
LANGUAGE SPOKEN AT HOME			
% speaking non-English languages at home	6%	0.3	0.3
% speaking Other Indo-European at home	4%	1.1	0.4
% speaking Asian and Pacific Island languages at home	0%	0	0
% speaking Arabic, Other, and unspecified languages at home	1%	0.6	0.5
% speaking English at home	1	1.2	1.3
% speaking Spanish at home	2%	0.1	0.2
% speaking French at home	0	0.4	0.1
% speaking Russian, Polish or Other Slavic at home	0	2.6	1.7
% speaking Chinese (including Mandarin, Cantonese) at home	0	0	0
% speaking Korean at home	0	0	0
% speaking Other Indo-European languages at home	0	1	0.3
% speaking Vietnamese at home	0	0	0
% speaking Other Asian and Pacific Island languages at home	0	0	0
% speaking Arabic at home	0	0.6	0.4
% speaking German or other West Germanic languages at home	0	0	0
% speaking Tagalog (including Filipino) at home	0	0	0
% speaking Other and unspecified languages at home	0	0.6	0.5
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Spanish (as % of limited English households)	N/A	NA	NA
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	49%	1	1
% Females	51%	1	1
HEALTH			
% with Disabilities	15%	1.1	1.2
% with Low Life Expectancy	17%	0.9	1
% with Heart Diseases	5	0.8	0.9
% of Adults with Asthma	11.00	1.1	1
% of Adults with Cancer (excluding skin cancer)	6.60	1	1
AGE			
% under Age 5	0%	0	0
% under age 18	24%	1.2	1.3
% over Age 64	12%	0.7	0.7
COMMUNITY			
Occupied Housing Units	573	NA	NA
Per Capita Income	40,279	NA	NA
% Owner-occupied housing units	28%	0.4	0.4
POVERTY			
% Households below Poverty Level	22%	1.6	2
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	0	NA	NA
Number of Air Pollution Facilities	0	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	0	NA	NA
Number of Brownfields	0	NA	NA
Number of Schools	0	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
Number of Worship Places	0	NA	NA
Number of Hospitals	0	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	0	0
Estimated Flood Risk in 30 Years	10%	1.8	0.8
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	1	NA	NA
% Households without Broadband Internet	17%	1.4	1.9
% People without Health Insurance	2%	0.3	0.9
Flag for Overlapping with Transportation Disadvantaged Communities	0	NA	NA
OTHER			
Total Population	994	NA	NA
Non-POC resident count	774	NA	NA
Count of Population Age 25 up	705	NA	NA
Count of Households	573	NA	NA
Population 16 years and over	788	NA	NA
Civilian labor force	641	NA	NA
Count of Housing Units Built Pre 1960	301	NA	NA
Built housing units count (denominator for % pre 1960)	600	NA	NA
Count of Population for whom Poverty Status is Determined	994	NA	NA
Count of Households in B28002 Internet Subscription Universe	573	NA	NA


Amesbury
City of Amesbury
Amesbury Elementary School
AES Open Space
Amesbury Golf and Country Club
Mundy Hill
60 m
Leaflet | © OpenStreetMap, ODbL


Residential Populations at the Analyzed Locations Compared to US Overall
Ratio vs. Average
0
1
2
3
4
Demog.Ind.
Suppl Demog.Ind.
%Low-inc.
%Limited English
%Unemployed
%< High School
%< age 5
%> age 64
%POC
%Hispanic
%Black NHA
%Asian NHA
%AmerIndian/AK NHA
%Hawaiian/PI NHA
%Other race NHA
%multirace NH
%White NHA
Ratio vs US Average
At least 3x US Average
1-2x US Average
2-3x US Average
Below US Average
NH = "Non-Hispanic"
NHA = "Non-Hispanic Alone" (alone = single race)

EJSCREEN Community Report

This report summarizes environmental and residential population information for user-defined areas, and combines that data into indexes.

blockgroup 250092663002

Residents within this specified blockgroup
(Site 1, FIPS 250092663002)
Area in Square Miles: 1.25
Population: 2,150

Environmental and Residential Population Indicators

	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	RATIO TO US AVG	RATIO TO STATE AVG
POLLUTION AND SOURCES							
Particulate Matter (PM 2.5 in ug/m3)	5.96	6.52	15	8.45	5	0.7	0.9
Ozone (ppb)	55.6	56.7	34	61.8	25	0.9	1.0
Nitrogen Dioxide (NO2)	8.9	8.8	53	7.8	63	1.1	1.0
Diesel Particulate Matter (ug/m3)	0.144	0.176	46	0.191	45	0.8	0.8
Toxic Releases to Air	230	2,800	15	4,600	34	0.0	0.1
Traffic Proximity and Volume (daily traffic count/distance to road)	3,700,000	6,100,000	45	1,700,000	87	2.2	0.6
Lead Paint Indicator (% pre-1960s housing)	59.14%	0.51	57	0.3	80	2.0	1.2
Superfund Proximity (site count/km distance)	0.37	0.34	78	0.39	79	0.9	1.1
RMP Proximity (facility count/km distance)	0.00	0.37	0	0.57	0	0.0	0.0
Hazardous Waste Proximity (facility count/km distance)	3.9	11.2	34	3.5	73	1.1	0.3
Underground Storage Tanks (UST) indicator	1.6	3.3	46	3.6	59	0.4	0.5
Wastewater Discharge Indicator (toxicity-weighted concentration/distance)	570	760	95	700,000	70	0.0	0.7
Drinking Water Non-Compliance	1.0	3.17	61	2.2	78	0.5	0.3
RESIDENTIAL POPULATION INDICATORS							
Demographic Index USA	0.51	1.19	29	1.34	15	0.4	0.5
Supplemental Demographic Index USA	1.28	1.52	54	1.64	34	0.8	0.9
% Low Income	13%	22%	39	30%	23	0.4	0.6
% in limited English-speaking Households	0%	6%	0	5%	0	0.0	0.0
% Unemployed (among civilian labor force)	1%	5%	22	6%	25	0.1	0.1
% with Less Than High School Education	6%	9%	52	11%	40	0.5	0.6
% under Age 5	5%	5%	60	5%	54	0.9	1.1
% over Age 64	16%	18%	51	18%	51	0.9	0.9
% People of Color	13%	31%	31	40%	27	0.3	0.4

EJ Indexes

The summary and supplemental EJ indexes are a combination of environmental and residential population information.

For each of the environmental indicators, there is an EJ Index and a Supplemental EJ Index.

The indexes for a selected area are compared to those for all other locations in the state or nation.

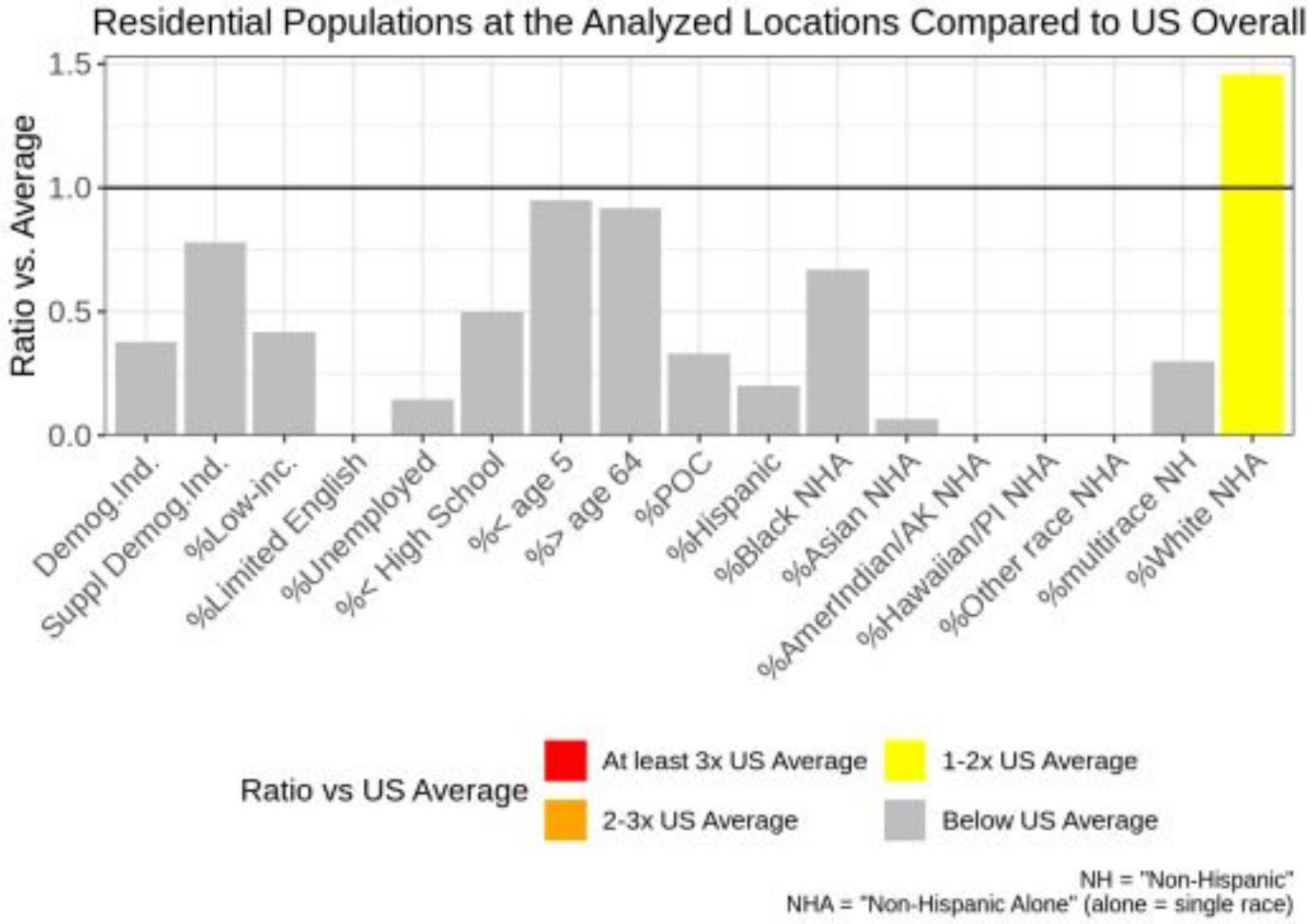
	PERCENTILE IN STATE	PERCENTILE IN USA
EJ INDEXES		
Particulate Matter Summary Index	16	5
Ozone Summary Index	30	17
Nitrogen Dioxide (NO2) Summary Index	43	39
Diesel Particulate Matter Summary Index	39	31
Toxic Releases to Air Summary Index	15	22
Traffic Proximity and Volume Summary Index	39	47
Lead Paint Summary Index	45	44
Superfund Proximity Summary Index	63	63
RMP Proximity Summary Index	0	0
Hazardous Waste Proximity Summary Index	33	43
Underground Storage Tanks Summary Index	40	42
Wastewater Discharge Summary Index	60	41
Drinking Water Non-Compliance Summary Index	66	76
SUPPLEMENTAL EJ INDEXES		
Particulate Matter Supplemental Summary Index	17	5
Ozone Supplemental Summary Index	39	23
Nitrogen Dioxide (NO2) Supplemental Summary Index	57	58
Diesel Particulate Matter Supplemental Summary Index	52	44
Toxic Releases to Air Supplemental Summary Index	17	32
Traffic Proximity and Volume Supplemental Summary Index	50	74
Lead Paint Supplemental Summary Index	59	66
Superfund Proximity Supplemental Summary Index	80	74
RMP Proximity Supplemental Summary Index	0	0
Hazardous Waste Proximity Supplemental Summary Index	39	66
Underground Storage Tanks Supplemental Summary Index	50	55
Wastewater Discharge Supplemental Summary Index	83	62
Drinking Water Non-Compliance Supplemental Summary Index	73	79

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
BREAKDOWN BY POPULATION GROUP			
% Hispanic or Latino	4%	0.2	0.3
% Black or African American (non-Hispanic, single race)	8%	0.7	1.2
% Asian (non-Hispanic, single race)	0%	0.1	0
% American Indian and Alaska Native (non-Hispanic, single race)	0%	0	0
% Native Hawaiian and Other Pacific Islander (non-Hispanic, single race)	0%	0	0
% Other race (non-Hispanic, single race)	0%	0	0
% Two or more races (non-Hispanic)	1%	0.3	0.3
% White (non-Hispanic, single race)	87%	1.5	1.3
LANGUAGE SPOKEN AT HOME			
% speaking non-English languages at home	11%	0.5	0.4
% speaking Other Indo-European at home	5%	1.3	0.5
% speaking Asian and Pacific Island languages at home	0%	0.2	0.1
% speaking Arabic, Other, and unspecified languages at home	0%	0	0
% speaking English at home	1	1.1	1.2
% speaking Spanish at home	6%	0.4	0.6
% speaking French at home	0	3.3	1
% speaking Russian, Polish or Other Slavic at home	0	1.3	0.8
% speaking Chinese (including Mandarin, Cantonese) at home	0	0.1	0.1
% speaking Korean at home	0	0	0
% speaking Other Indo-European languages at home	0	0.6	0.2
% speaking Vietnamese at home	0	0	0
% speaking Other Asian and Pacific Island languages at home	0	0.4	0.3
% speaking Arabic at home	0	0	0
% speaking German or other West Germanic languages at home	0	1	1.5
% speaking Tagalog (including Filipino) at home	0	0	0
% speaking Other and unspecified languages at home	0	0	0
LANGUAGE IN LIMITED ENGLISH SPEAKING HOUSEHOLDS			

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
% speaking Spanish (as % of limited English households)	N/A	NA	NA
% speaking Other Indo-European languages (as % of limited English households)	N/A	NA	NA
% speaking Asian-Pacific Island languages (as % of limited English households)	N/A	NA	NA
% speaking Other languages (as % of limited English households)	N/A	NA	NA
BREAKDOWN BY SEX			
% Males	45%	0.9	0.9
% Females	55%	1.1	1.1
HEALTH			
% with Disabilities	16%	1.2	1.3
% with Low Life Expectancy	18%	0.9	1
% with Heart Diseases	6	1	1.1
% of Adults with Asthma	11.00	1.1	1
% of Adults with Cancer (excluding skin cancer)	8.00	1.2	1.2
AGE			
% under Age 5	5%	0.9	1.1
% under age 18	21%	1	1.1
% over Age 64	16%	0.9	0.9
COMMUNITY			
Occupied Housing Units	881	NA	NA
Per Capita Income	60,956	NA	NA
% Owner-occupied housing units	79%	1.2	1.3
POVERTY			
% Households below Poverty Level	0%	0	0
FEATURES AND LOCATION INFORMATION			
Number of Sites Nearby (total unique)	1	NA	NA
Distance to Closest Site for Avg Person	0.0	NA	NA
Number of Sites Nearby (avg)	1.0	NA	NA
Number of Sites Nearby (max)	1	NA	NA
Distance to Closest Site	0.0	NA	NA
Count of National Priority List Superfund sites	0	NA	NA
Count of Treatment Storage Disposal Facilities (TSDF)	1	NA	NA
Number of Air Pollution Facilities	2	NA	NA
Number of Toxic Release Facilities	0	NA	NA
Number of Water Discharge Facilities	10	NA	NA
Number of Brownfields	1	NA	NA
Number of Schools	1	NA	NA

ADDITIONAL INFORMATION	VALUE	RATIO TO US AVG	RATIO TO STATE AVG
Number of Worship Places	0	NA	NA
Number of Hospitals	3	NA	NA
Flag for Overlapping with Tribes	0	NA	NA
Flag for Overlapping with Impaired Waters	1	NA	NA
Flag for Overlapping with Non-Attainment Areas	1	NA	NA
Flag for Overlapping with CEJST Disadvantaged Communities	0	NA	NA
Flag for Overlapping with EPA IRA Disadvantaged Communities	0	NA	NA
CLIMATE			
Estimated Fire Risk in 30 Years	0%	0	0
Estimated Flood Risk in 30 Years	12%	2.1	0.9
CRITICAL SERVICES			
Flag for Overlapping with Housing Burden Communities	0	NA	NA
Flag for Overlapping with Food Desert Areas	0	NA	NA
% Households without Broadband Internet	6%	0.4	0.6
% People without Health Insurance	2%	0.3	0.9
Flag for Overlapping with Transportation Disadvantaged Communities	1	NA	NA
OTHER			
Total Population	2,150	NA	NA
Non-POC resident count	1,867	NA	NA
Count of Population Age 25 up	1,554	NA	NA
Count of Households	881	NA	NA
Population 16 years and over	1,754	NA	NA
Civilian labor force	1,237	NA	NA
Count of Housing Units Built Pre 1960	521	NA	NA
Built housing units count (denominator for % pre 1960)	881	NA	NA
Count of Population for whom Poverty Status is Determined	2,070	NA	NA
Count of Households in B28002 Internet Subscription Universe	881	NA	NA


MA 150
I 495
MA 110
Leaflet | © OpenStreetMap, ODbL


Residential Populations at the Analyzed Locations Compared to US Overall
Ratio vs. Average
1.5
1.0
0.5
0.0
Demog.Ind.
Suppl Demog.Ind.
%Low-inc.
%Limited English
%Unemployed
%< High School
%< age 5
%> age 64
%POC
%Hispanic
%Black NHA
%Asian NHA
%AmerIndian/AK NHA
%Hawaiian/PI NHA
%Other race NHA
%multirace NH
%White NHA
Ratio vs US Average
At least 3x US Average
1-2x US Average
2-3x US Average
Below US Average
NH = "Non-Hispanic"
NHA = "Non-Hispanic Alone" (alone = single race)

Climate Resilience Design Standards Tool Project Report

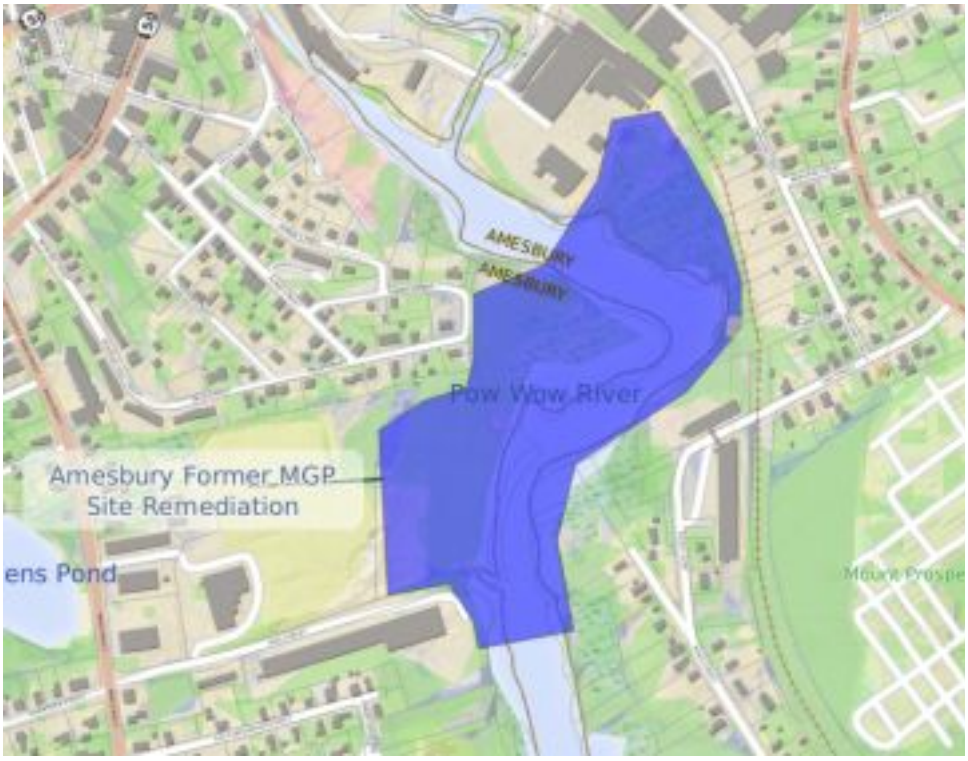
Amesbury Former MGP Site Remediation
Date Created: 7/13/2026 2:13:19 PM
Created By: NTroccolo
Date Report Generated: 7/22/2026 6:36:53 PM
Tool Version: Version 1.4
Project Contact Information: Kenneth Lento (Kenneth.lento@nationalgrid.com)

Project Summary

Link to Project

Estimated Capital Cost: $0.00
End of Useful Life Year: 2058
Project within mapped Environmental Justice neighborhood: Yes

Ecosystem Service Benefits	Scores
Project Score	Low
Exposure	**Scores**
Sea Level Rise/Storm Surge	High Exposure
Extreme Precipitation - Stormwater Flooding	High Exposure
Extreme Precipitation - Riverine Flooding	High Exposure
Extreme Heat	High Exposure



Asset Preliminary Climate Risk Rating Summary

Number of Assets: 1

Asset Risk	Sea Level Rise/Storm Surge	Extreme Precipitation - Stormwater Flooding	Extreme Precipitation - Riverine Flooding	Extreme Heat
Wetland Restoration and Subaqueous Cap	—— Natural Resource project assets do not receive a preliminary climate risk rating. ——			

Climate Resilience Design Standards Summary

	Target Planning Horizon	Intermediate Planning Horizon	Percentile	Return Period	Tier
Sea Level Rise/Storm Surge					
Wetland Restoration and Subaqueous Cap	2050				
Extreme Precipitation					
Wetland Restoration and Subaqueous Cap	2050				Tier 2
Extreme Heat					
Wetland Restoration and Subaqueous Cap	2050		50th		Tier 2

Scoring Rationale - Project Exposure Score

The purpose of the Exposure Score output is to provide a preliminary assessment of whether the overall project site and subsequent assets are exposed to impacts of natural hazard events and/or future impacts of climate change. For each climate parameter, the Tool will calculate one of the following exposure ratings: Not Exposed, Low Exposure, Moderate Exposure, or High Exposure. The rationale behind the exposure rating is provided below.

Sea Level Rise/Storm Surge

This project received a "High Exposure" because of the following:

- Located within the predicted mean high water shoreline by 2030
- Exposed to the 1% annual coastal flood event as early as 2030
- Historic coastal flooding at project site

Extreme Precipitation - Stormwater Flooding

This project received a "High Exposure" because of the following:

- Historic flooding at the project site
- Maximum annual daily rainfall exceeds 10 inches within the overall project's useful life
- No increase to impervious area
- Existing impervious area of the project site is less than 10%

Extreme Precipitation - Riverine Flooding

This project received a "High Exposure" because of the following:

- Project site has a history of riverine flooding
- Part of the project is within a mapped FEMA floodplain, outside of the Massachusetts Coast Flood Risk Model (MC-FRM)
- Part of the project is within 500ft of a waterbody and less than 20ft above the waterbody
- Project is potentially susceptible to riverine erosion

Extreme Heat

This project received a "High Exposure" because of the following:

- Existing trees are being removed as part of the proposed project
- Existing impervious area of the project site is less than 10%
- 10 to 30 day increase in days over 90 deg. F within project's useful life
- Located within 100 ft of existing water body
- No increase to the impervious area of the project site

Scoring Rationale - Asset Preliminary Climate Risk Rating

A Preliminary Climate Risk Rating is determined for each infrastructure and building asset by considering the overall project Exposure Score and responses to Step 4 questions provided by the user in the Tool. Natural Resource assets do not receive a risk rating. The following factors are what influenced the risk ratings for each asset.

Asset - Wetland Restoration and Subaqueous Cap
Primary asset criticality factors influencing risk ratings for this asset:

No score available

Project Climate Resilience Design Standards Output

Climate Resilience Design Standards and Guidance are recommended for each asset and climate parameter. The Design Standards for each climate parameter include the following: recommended planning horizon (target and/or intermediate), recommended return period (Sea Level Rise/Storm Surge and Precipitation) or percentile (Heat), and a list of applicable design criteria that are likely to be affected by climate change. Some design criteria have numerical values associated with the recommended return period and planning horizon, while others have tiered methodologies with step-by-step instructions on how to estimate design values given the other recommended design standards.

Asset: Wetland Restoration and Subaqueous Cap — Natural Resources

Sea Level Rise/Storm Surge

Target Planning Horizon: 2050
Intermediate Planning Horizon: Not Applicable

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

The projected values, Standards, and Guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.

Applicable Design Criteria

Projected Tidal Datums: APPLICABLE
This project is located in an area with uncertainty for future tidal datums. These uncertain zones are either dynamic in terms of geomorphology or are restricted by manmade features (i.e., culverts, tide gates, etc.) that should be evaluated in more detail at the site-scale.

Projected Water Surface Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Wetland Restoration and Subaqueous Cap	2050	5% (20-Year)	9.8	9.6	9.7

Projected Wave Action Water Elevation: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(ft - NAVD88)		
Wetland Restoration and Subaqueous Cap	2050	5% (20-Year)	11.2	9.6	10.5

Projected Wave Heights: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period	Max	Min	Area Weighted Average
			(Feet)		
Wetland Restoration and Subaqueous Cap	2050	5% (20-Year)	2.5	0.0	1.6

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Duration of Flooding: NOT APPLICABLE

Projected Design Flood Velocity: NOT APPLICABLE

Projected Scour & Erosion: NOT APPLICABLE

Extreme Precipitation

Target Planning Horizon: 2050

LIMITATIONS: The recommended Standards for Total Precipitation Depth & Peak Intensity are determined by the user drawn polygon and relationships as defined in the Supporting Documents. The projected Total Precipitation Depth values provided through the Tool are based on the climate projections developed by Cornell University as part of EEA's Massachusetts Climate and Hydrologic Risk Project, GIS-based data as of 10/15/21. For additional information on the methodology of these precipitation outputs, see Supporting Documents.

While Total Precipitation Depth & Peak Intensity for 24-hour Design Storms are useful to inform planning and design, it is recommended to also consider additional longer- and shorter-duration precipitation events and intensities in accordance with best practices. Longer-duration, lower-intensity storms allow time for infiltration and reduce the load on infrastructure over the duration of the storm. Shorter-duration, higher-intensity storms often have higher runoff volumes because the water does not have enough time to infiltrate infrastructure systems (e.g., catch basins) and may overflow or back up during such storms, resulting in flooding. In the Northeast, short-duration high intensity rain events are becoming more frequent, and there is often little early warning for these events, making it difficult to plan operationally. While the Tool does not provide recommended design standards for these scenarios, users should still consider both short- and long-duration precipitation events and how they may impact the asset.

The projected values, standards, and guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.

Applicable Design Criteria

Tiered Methodology: Tier 2

Projected Total Precipitation Depth & Peak Intensity for 24-hr Design Storms: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Return Period (Design Storm)	Projected 24-hr Total Precipitation Depth (inches)	Step-by-Step Methodology for Peak Intensity
Wetland Restoration and Subaqueous Cap	2050	25-Year (4%)	8.4	Downloadable Methodology PDF

Return Period Recommendations for natural resource assets and subsequent projected values are provided as a consideration for users, not a formal standard. Users should follow industry best practices for designing natural resource assets in coordination with the appropriate regulatory agencies.

Projected Riverine Peak Discharge & Peak Flood Elevation: APPLICABLE
Methodology to Estimate Projected Values : Tier 2

Extreme Heat

Target Planning Horizon: 2050
Percentile: 50th Percentile

LIMITATIONS: The recommended standards are determined by the user-drawn polygon and relationships as defined in the supporting Section Documents. The guidance provided within this Tool may be used to inform plans and designs, but does not provide guarantees for resilience. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence. One avenue to seek more information would be to access the comprehensive temperature and precipitation projections including additional return periods, time horizons, and seasons at the Climate Projections Dashboard.

Applicable Design Criteria

Projected Annual/Summer/Winter Average Temperatures: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Percentile	Projected Annual Average Temperature [°F]	Projected Summer Average Temperature [°F]	Projected Winter Average Temperature [°F]
Wetland Restoration and Subaqueous Cap	2050	50th	53.00	73.41	31.41

LIMITATIONS: The recommended Standards for Projected Average Annual/Summer/Winter Temperature are determined by the user-drawn polygon and relationships as defined in the supporting Section Documents. The guidance provided within this Tool may be used to inform plans and designs, but is not comprehensive and does not provide guarantees for resilience. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence. One avenue to seek more information would be to access the comprehensive temperature and precipitation projections including additional return periods, time horizons, and seasons at the Climate Projections Dashboard.

Projected Growing Degree Days: APPLICABLE

Asset Name	Recommended Planning Horizon	Recommended Percentile	Projected Growing Degree Days (degree days)
Wetland Restoration and Subaqueous Cap	2050	50th	3741

LIMITATIONS: The recommended Standards for ProjectedÂ Cooling Degree Days and Heating Degree DaysÂ are determined by the user-drawn polygon and relationships as defined in the supporting Section Documents. The guidance provided within this Tool may be used to inform plans and designs, but is not comprehensive and does not provide guarantees for resilience. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence. One avenue to seek more information would be to access the comprehensive temperature and precipitation projections including additional return periods, time horizons, and seasons at the Climate Projections Dashboard.

Projected Days Per Year With Max Temp > 95°F, >90°F, <32°F: NOT APPLICABLE

Projected Number of Heat Waves Per Year & Average Heat Wave Duration: NOT APPLICABLE

Projected Cooling Degree Days & Heating Degree Days (base = 65°F): NOT APPLICABLE

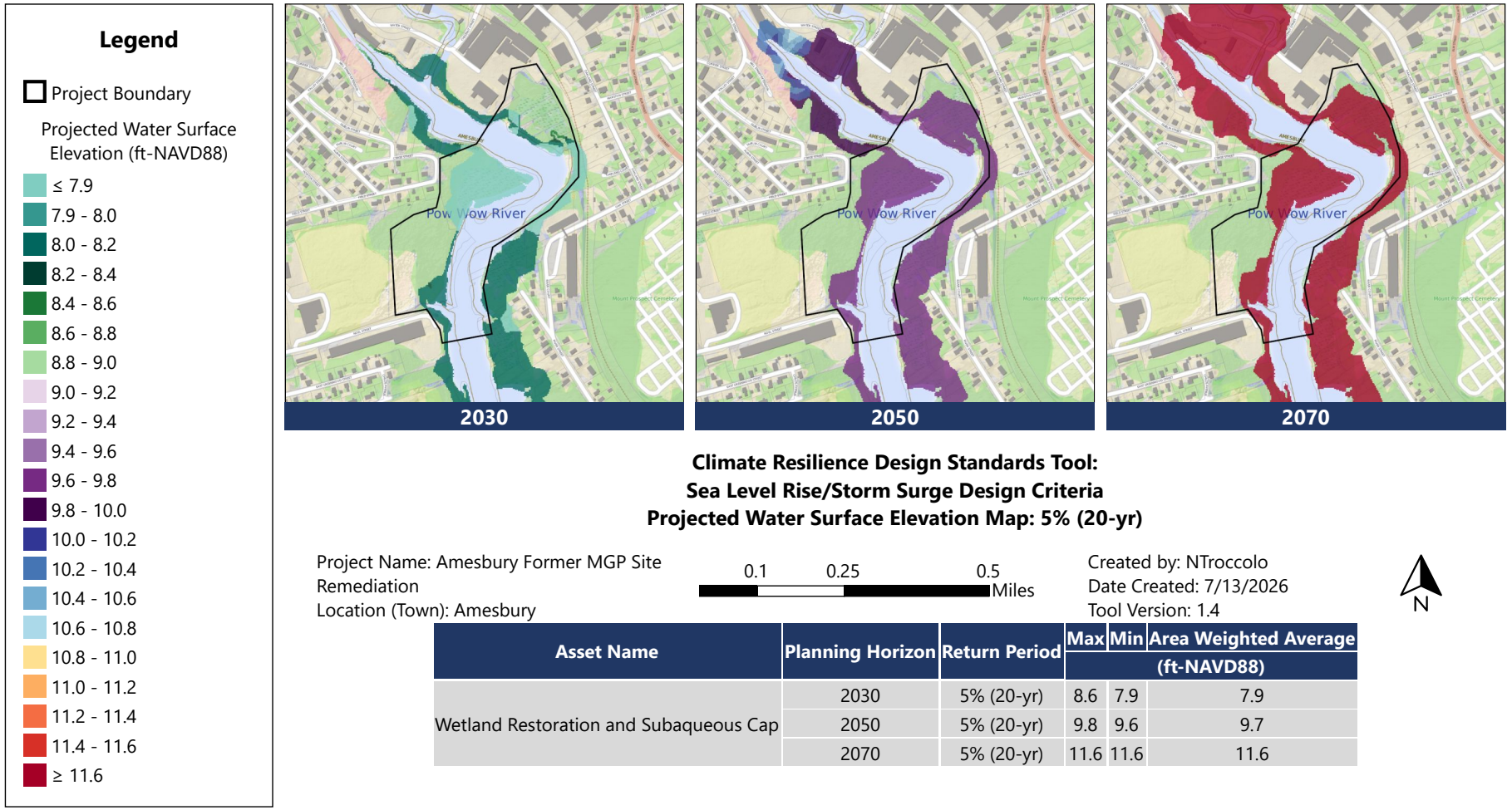
Projected Heat Index: NOT APPLICABLE

Sea Level Rise/Storm Surge Project Maps

The following three maps illustrate the Projected Water Surface Elevation for the 2030, 2050, and 2070 planning horizons corresponding to the lowest return period (largest design storm) recommended across the assets identified for this project in the Tool. For projects that only have Natural Resource assets, the maps will show the Projected Water Surface Elevations corresponding to the 5% (20-year) return period. Refer to the Climate Resilience Design Standards Output - Sea Level Rise/Storm Surge Section for additional values associated with other assets. The maps include the project area as drawn by the user with a 0.1 mile minimum buffer, but do not reflect the location of specific assets on the site.

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values and maps provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

The projected values, maps, Standards, and Guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 5% (20-yr)

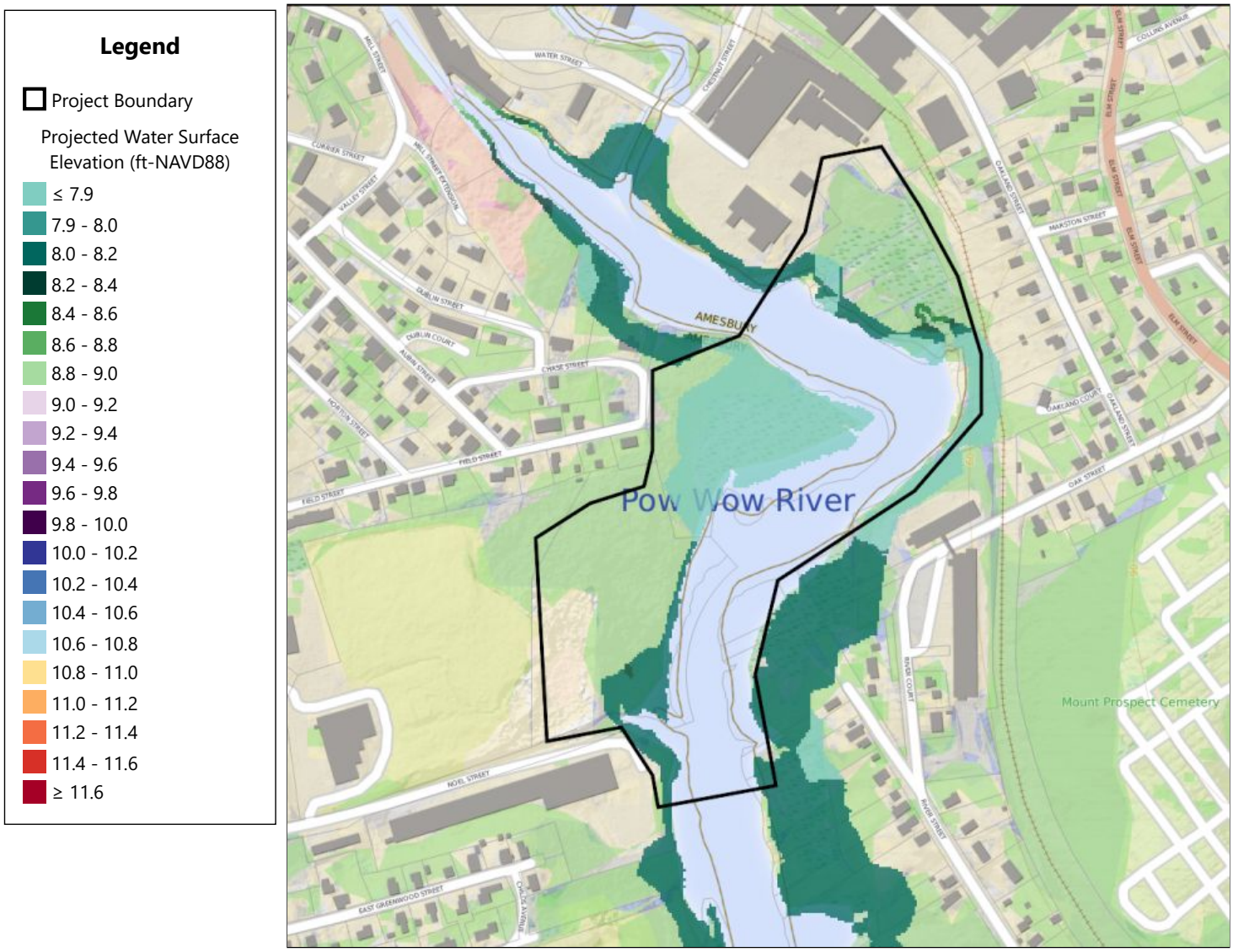
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.1 0.25 0.5 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2030	5% (20-yr)	8.6	7.9	7.9
	2050	5% (20-yr)	9.8	9.6	9.7
	2070	5% (20-yr)	11.6	11.6	11.6



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2030, 5% (20-yr)

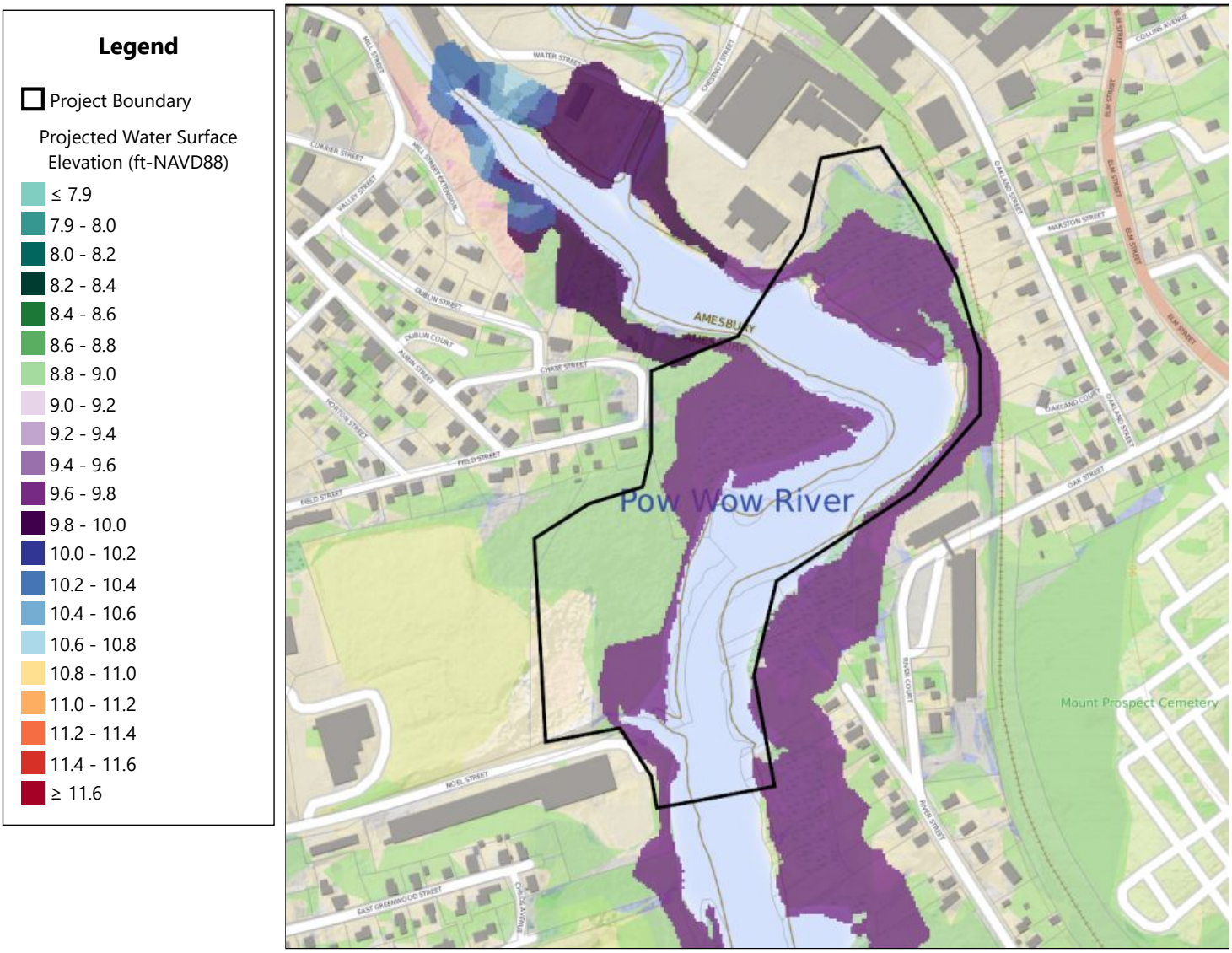
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2030	5% (20-yr)	8.6	7.9	7.9



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2050, 5% (20-yr)

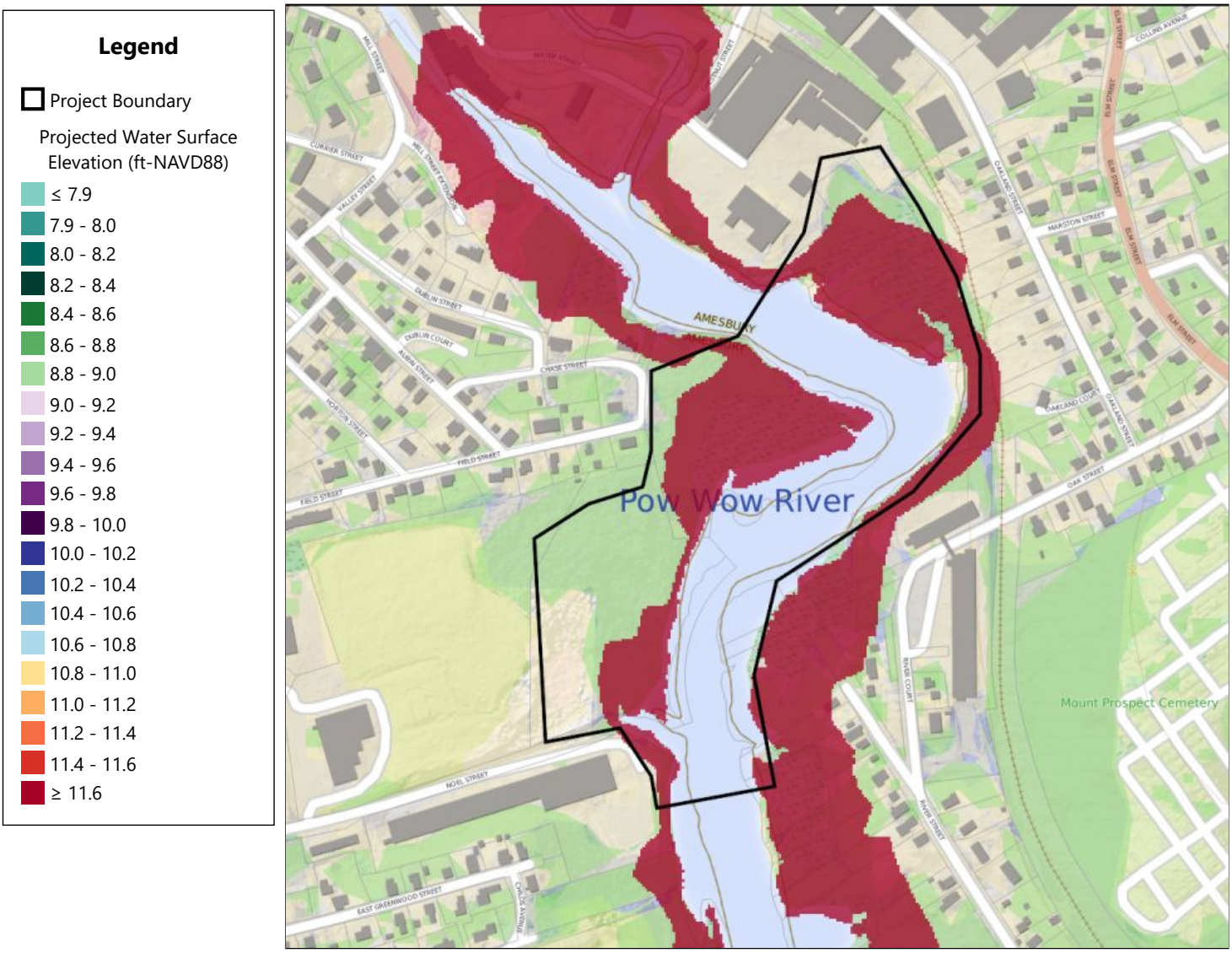
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2050	5% (20-yr)	9.8	9.6	9.7



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Water Surface Elevation Map: 2070, 5% (20-yr)

Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

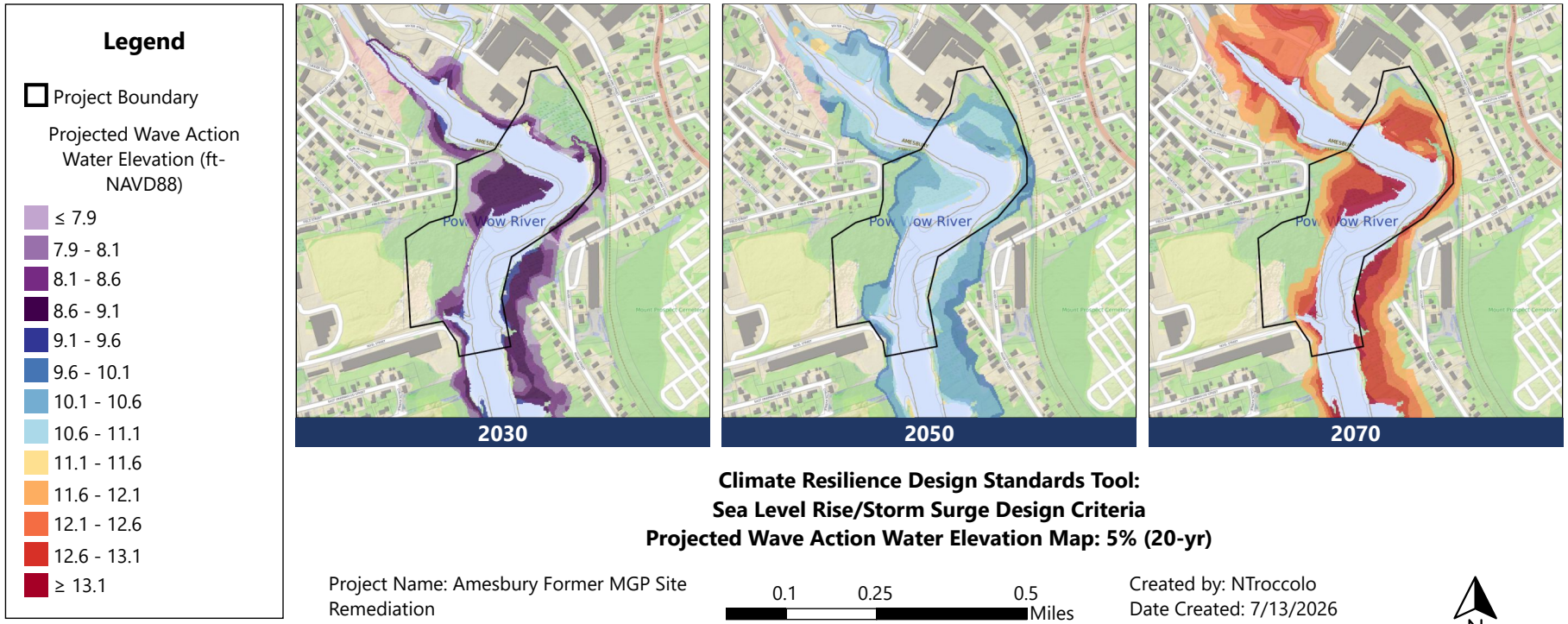
Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2070	5% (20-yr)	11.6	11.6	11.6

Sea Level Rise/Storm Surge Project Maps

The following three maps illustrate the Projected Wave Action Water Elevation for the 2030, 2050, and 2070 planning horizons corresponding to the lowest return period (largest design storm) recommended across the assets identified for this project in the Tool. For projects that only have Natural Resource assets, the maps will show the Projected Wave Action Water Elevations corresponding to the 5% (20-year) return period. Refer to the Climate Resilience Design Standards Output - Sea Level Rise/Storm Surge Section for additional values associated with other assets. The maps include the project area as drawn by the user with a 0.1 mile minimum buffer, but do not reflect the location of specific assets on the site.

LIMITATIONS: The recommended Climate Resilience Design Standards for the Sea Level Rise / Storm Surge Design Criteria are based on the user drawn polygon and relationships as defined in the Supporting Documents. The projected values and maps provided through the Tool are based on the Massachusetts Coast Flood Risk Model (MC-FRM) outputs as of 9/13/2021, which included GIS-based data for three planning horizons (2030, 2050, 2070) and six return periods (0.1%, 0.2%, 0.5%, 1%, 2%, 5%). These values are projections based on assumptions as defined in the model and the LiDAR used at the time. For additional information on the MC-FRM, review the additional resources provided on the Start Here page.

The projected values, maps, Standards, and Guidance provided within this Tool may be used to inform plans and designs, but they do not provide guarantees for future conditions or resilience. The projected values are not to be considered final or appropriate for construction documents without supporting engineering analyses. The guidance provided within this Tool is intended to be general and users are encouraged to do their own due diligence.



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Wave Action Water Elevation Map: 5% (20-yr)

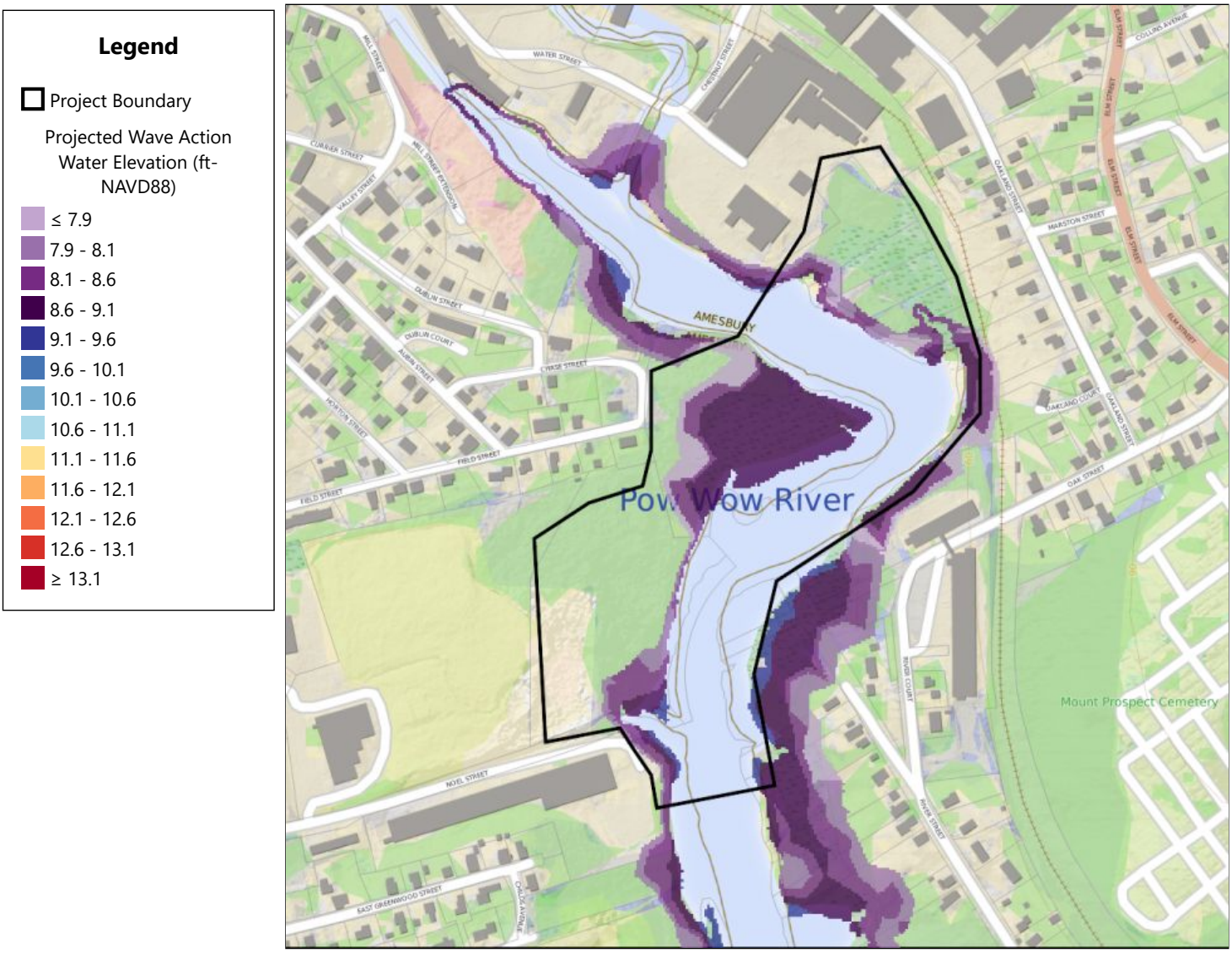
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.1 0.25 0.5 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2030	5% (20-yr)	9.1	7.9	8.5
	2050	5% (20-yr)	11.2	9.6	10.5
	2070	5% (20-yr)	13.1	11.6	12.5



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Wave Action Water Elevation Map: 2030, 5% (20-yr)

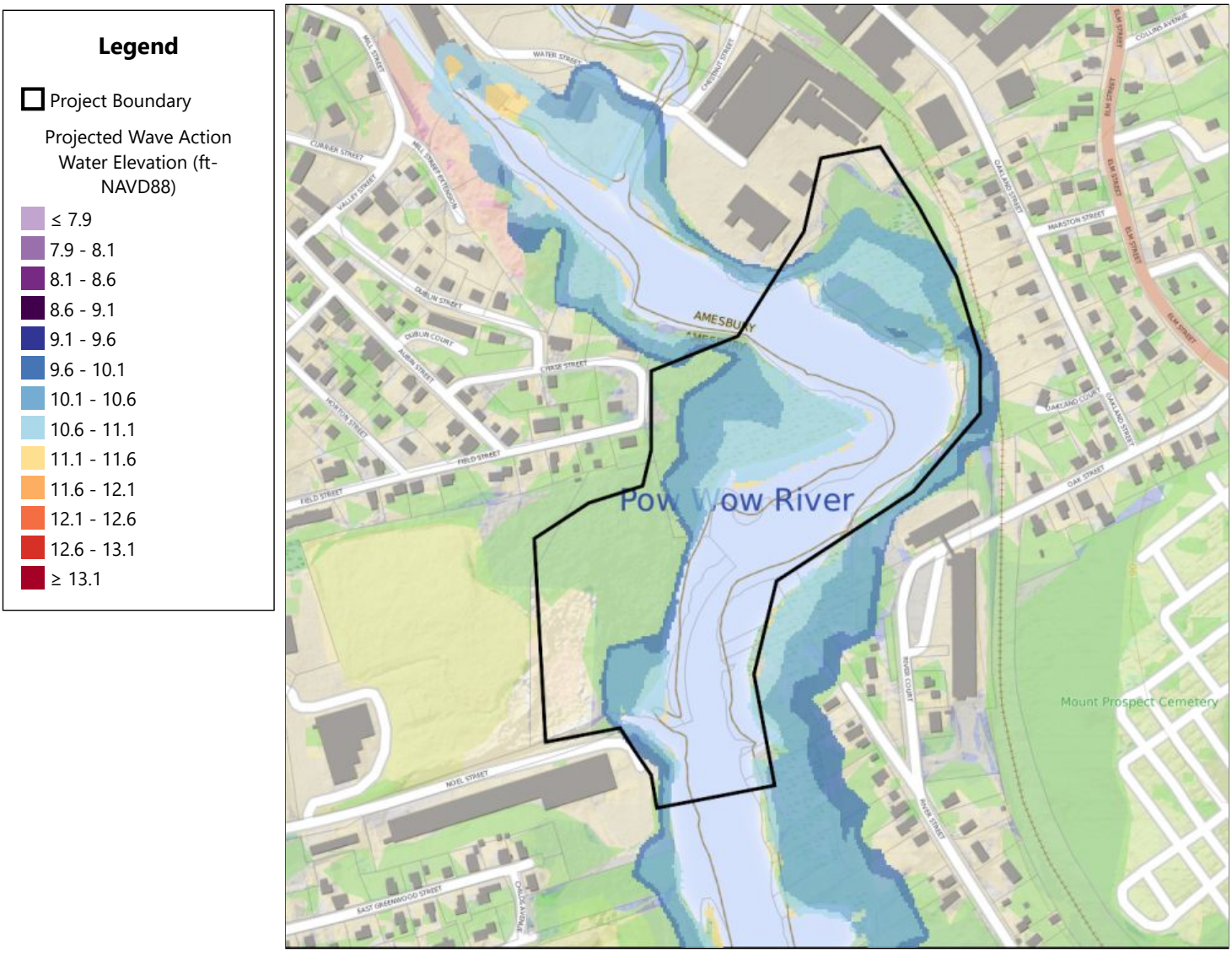
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2030	5% (20-yr)	9.1	7.9	8.5



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Wave Action Water Elevation Map: 2050, 5% (20-yr)

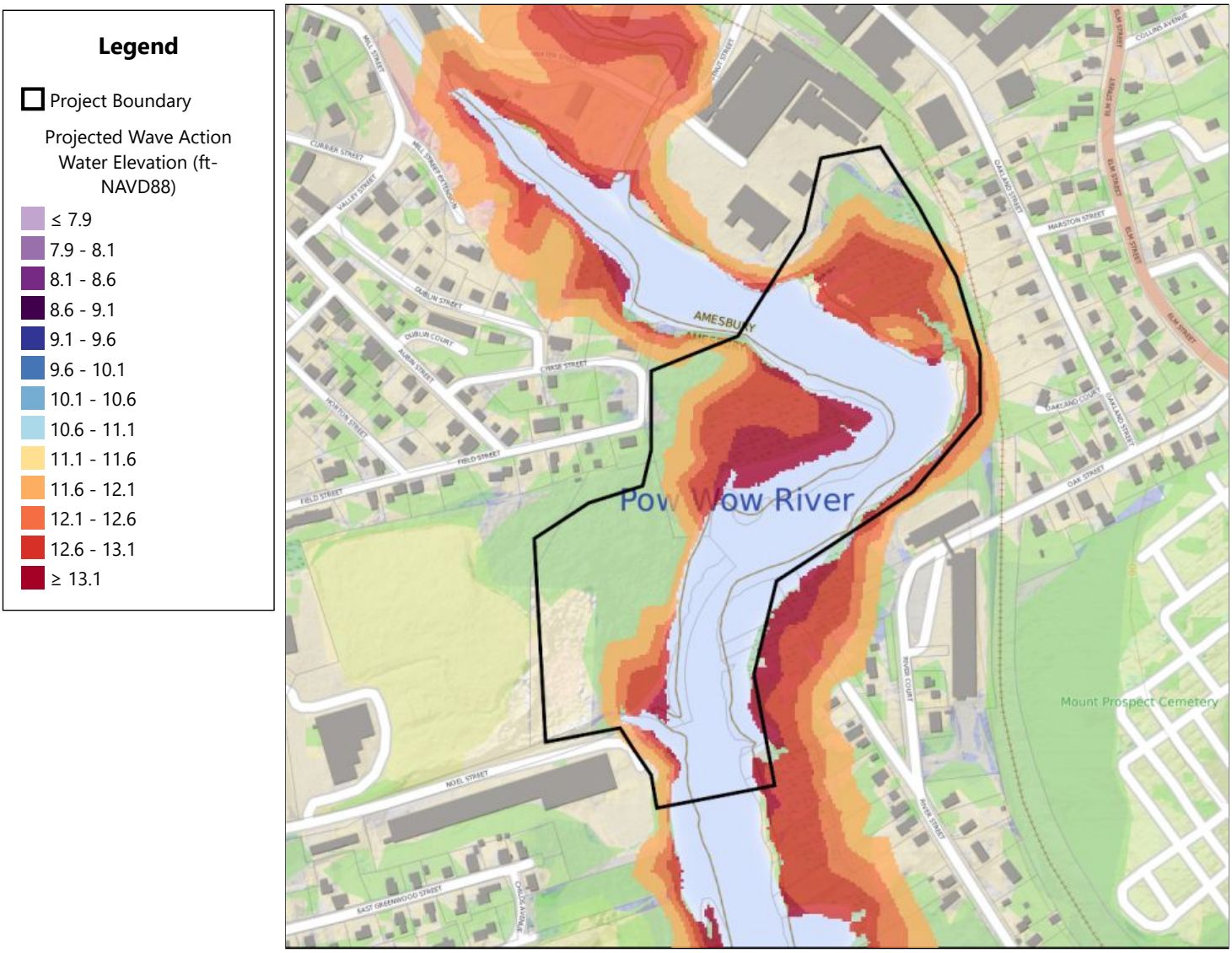
Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2050	5% (20-yr)	11.2	9.6	10.5



Climate Resilience Design Standards Tool:
Sea Level Rise/Storm Surge Design Criteria
Projected Wave Action Water Elevation Map: 2070, 5% (20-yr)

Project Name: Amesbury Former MGP Site Remediation
Location (Town): Amesbury

0.025 0.05 0.1 Miles

Created by: NTroccolo
Date Created: 7/13/2026
Tool Version: 1.4

N

Asset Name	Planning Horizon	Return Period	Max	Min	Area Weighted Average (ft-NAVD88)
Wetland Restoration and Subaqueous Cap	2070	5% (20-yr)	13.1	11.6	12.5

Project Inputs

Core Project Information

Name:	Amesbury Former MGP Site Remediation
Given the expected useful life of the project, through what year do you estimate the project to last (i.e. before a major reconstruction/renovation)?	2058
Location of Project:	Amesbury
Estimated Capital Cost:	$0
Who is the Submitting Entity?	Private Other National Grid Kenneth Lento (Kenneth.lento@nationalgrid.com)
Is this project being submitted as part of a state grant application?	No
Which grant program?	
What stage are you in your project lifecycle?	Permitting
Is climate resiliency a core objective of this project?	Yes
Is this project being submitted as part of the state capital planning process?	No
Is this project being submitted as part of a regulatory review process or permitting?	Yes
Brief Project Description:	The proposed remediation consists of excavating contaminated sediment in the affected wetland and dredging the shallow contaminated sediment in an approximately 1,200-foot-long portion of the Powwow River. Following the proposed cleanup, the wetland and other affected areas will be restored to pre-construction elevations. Temporarily disturbed wetland resource areas and upland areas will be restored with native plantings. A subaqueous cap will be installed within the portion of the Powwow River that is dredged to provide a barrier to isolate deeper tar-contaminated sediments so they will not pose a significant risk. The cap will consist of an engineered sand layer overlain by a protective stone layer overlain by a suitable benthic layer to restore biological activity. Permitting includes the Expanded Environmental Notification Form (EENF) in accordance with the Massachusetts Environmental Policy Act (M.G.L. c 30, s. 61-62H, MEPA) and the MEPA Regulations (301 CMR 11.00).

Project Ecosystem Service Benefits

Factors Influencing Output

- ✓ Project protects fisheries, wildlife, and plant habitat
- ✓ Project remediates existing sources of pollution
- ✓ Project prevents pollution

Factors to Improve Output

- ✓ Provide opportunities for passive and/or active recreation through open space

Is the primary purpose of this project ecological restoration?

No

Project Benefits

Provides flood protection through nature-based solutions	No
Reduces storm damage	No
Recharges groundwater	No
Protects public water supply	No
Filters stormwater using green infrastructure	No
Improves water quality	No
Promotes decarbonization	No
Enables carbon sequestration	No
Provides oxygen production	No
Improves air quality	No
Prevents pollution	Yes
Remediates existing sources of pollution	Yes
Protects fisheries, wildlife, and plant habitat	Yes
Protects land containing shellfish	No
Provides pollinator habitat	No
Provides recreation	Maybe
Provides cultural resources/education	No

Project Climate Hazard Exposure

Is the primary purpose of this project ecological restoration?	No

Does the project site have a history of coastal flooding?	Yes
Does the project site have a history of flooding during extreme precipitation events (unrelated to water/sewer damages)?	Yes
Does the project site have a history of riverine flooding?	Yes
Does the project result in a net increase in impervious area of the site?	No
Are existing trees being removed as part of the proposed project?	Yes

Project Assets

Asset: Wetland Restoration and Subaqueous Cap
Asset Type: Aquatic Ecosystems
Asset Sub-Type: Large- and mid-size rivers
Construction Type: Restoration or enhancement
Construction Year: 2028
Monitoring Frequency: 30

Report Comments

GEI considered data and information from various sources to assess vulnerabilities of the selected remedy related to precipitation, sea level rise, temperature, and extreme weather. Modeling and analysis confirmed that while climate change may increase flooding, erosion, and temperature extremes, the proposed subaqueous sediment cap and the existing, natural cap should remain stable and effective under projected future conditions. The design will include appropriate armoring and will consider sediment mobility, hydrostatic pressure, and bioturbation, ensuring long-term resilience of the remedy.

Appendix C

Advanced Notice and Circulation of EJ Screening Form Email Dated July 22, 2026
EJ Screening Form
EJ Reference List
Project Fact Sheet
EJ Meeting Public Notice

Outlook

Amesbury Former MGP Remediation Project Environmental Justice Screening Form

From Mark Manganello <MManganello@lecenvironmental.com>

Date Wed 7/22/2026 4:23 PM

To claire@uumassaction.org <claire@uumassaction.org>; juliablatt@massriversalliance.org <juliablatt@massriversalliance.org>; Jodi.Valenta@tpl.org <Jodi.Valenta@tpl.org>; kerry@msaadapartners.com <kerry@msaadapartners.com>; sylvia@communityactionworks.org <sylvia@communityactionworks.org>; hclish@outdoors.org <hclish@outdoors.org>; Bjenkins@clf.org <Bjenkins@clf.org>; aestpierre@clf.org <aestpierre@clf.org>; pmuratore@clf.org <pmuratore@clf.org>; bfrank@clf.org <bfrank@clf.org>; aboydrabin@environmentalleague.org <aboydrabin@environmentalleague.org>; zsaifee@environmentalleague.org <zsaifee@environmentalleague.org>; ben@environmentmassachusetts.org <ben@environmentmassachusetts.org>; robb@massland.org <robb@massland.org>; cluppi@cleanwater.org <cluppi@cleanwater.org>; dalida@n2nma.org <dalida@n2nma.org>; Lena@N2NMa.org <Lena@N2NMa.org>; Miles@N2NMa.org <Miles@N2NMa.org>; rob@oceanriver.org <rob@oceanriver.org>; vick.mohanka@sierraclub.org <vick.mohanka@sierraclub.org>

Cc kenneth.lento <kenneth.lento@nationalgrid.com>; Hoffman, Ryan <rhoffman@geiconsultants.com>; TJ Roskelley <troskelley@andersonkreiger.com>; 'Stephen Graham' <sgraham@watkinsstrategies.com>; Matt Watkins <mwatkins@watkinsstrategies.com>; MEPA-EJ (EEA) <mepa-ej@mass.gov>; Claire Hoogeboom <CHoogeboom@lecenvironmental.com>

1 attachment (7 MB)

Amesbury Former MGP Remediation Project EJ Screening Form.pdf;

Hi All,
Attached please find the EJ Screening Form for the Amesbury Former MGP Remediation Project in Amesbury, Massachusetts. The project involves removal and capping contaminated sediments within a portion of the Powwow River in accordance with requirements of the Massachusetts Contingency Plan (310 CMR 40.0000). Community-based organizations and tribal organizations are receiving this notification in accordance with the MEPA Public Involvement Protocol for Environmental Justice Populations. The attached Screening Form includes information on the public website for the project and project team contacts. A virtual public meeting will be hosted on **August 26, 2026 at 6:00 PM**.
Here is a link to the meeting:
Attendee Link: https://us06web.zoom.us/j/85649839064
Webinar ID: 856 4983 9064
Please reach out with any questions about the project or the Screening Form.
Best,
Mark

Go Native with New England Plants! July: *Arisaema triphyllum*

Mark L. Manganello
Assistant Director of Ecological Services
LEC Environmental Consultants, Inc.
12 Resnik Road, Suite 1, Plymouth, MA 02360
Cell: 508.813.4133

PLYMOUTH, MA **WAKEFIELD, MA** **WORCESTER, MA** **RINDGE, NH** **PROVIDENCE, RI**

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Environmental Justice Screening Form

Project Name	**Amesbury Former MGP Site**
Anticipated Date of MEPA Filing	**September 2026**
Proponent Name	**Boston Gas Company**
Contact Information (e.g., consultant)	**Mark Manganello** **LEC Environmental Consultants, Inc.** **12 Resnik Road, Suite 1** **Plymouth, MA 02360** **mmanganello@lecenvironmental.com** **508-746-9491**
Public website for project or other physical location where project materials can be obtained (if available)	**https://amesburymgpsite.com/**
Municipality and Zip Code for Project (if known)	**Amesbury, MA 01913**
Project Type* (list all that apply)	**Remediation**
Is the project site within a mapped 100-year FEMA flood plain? Y/N/ unknown	**Yes**
Estimated GHG emissions of conditioned spaces (click **here** for GHG Estimation tool)	**Not applicable – there are no conditioned spaces or structures proposed.**

Project Description

1. Provide a brief project description, including overall size of the project site and square footage of proposed buildings and structures if known.

The Project involves removal and capping contaminated sediments within a portion of the Powwow River in accordance with requirements of the *Massachusetts Contingency Plan* (310 CMR 40.0000; MCP). This Project is associated with a former manufactured gas plant (MGP) that was located on 2.4 acres at the end of Water Street. The MGP operated from about 1899 to 1924, using coal and oil to manufacture gas. After MGP operations ceased, the City of Amesbury used portions of the former MGP area as a municipal landfill until 1952, followed by a local, private company that used it as an industrial landfill until the early 1960s. After landfilling operations concluded, part of the former MGP area was used for parking and the remainder was left undeveloped. A portion of this undeveloped area reverted to a wooded wetland.

Between 2004 and 2016, Boston Gas Company evaluated the site for potential coal tar contamination from MGP operations and potential cleanup alternatives, and then in 2016-2017 conducted a permitted and approved remediation project near the former MGP footprint.

After completing the permitted remedial activities in 2017, Boston Gas Company continued to closely monitor the site and surrounding area. Between 2017 and 2024, these monitoring efforts and environmental assessments, which included soil and sediment sampling, identified additional

potential contamination beyond the original MGP site boundary, including within a downstream wetland, mudflats and a portion of the Powwow River.

The proposed additional remediation consists of excavating the contaminated sediment in the affected wetland and dredging the shallow contaminated sediment in an approximately 1,200-foot-long portion of the Powwow River (see Attachment A). Following the proposed cleanup, the wetland and other affected areas will be restored to pre-construction elevations. Temporarily disturbed wetland resource areas and upland areas will be restored with native plantings. A subaqueous cap will be installed within the portion of the Powwow River that is dredged to provide a barrier to isolate deeper tar-contaminated sediments so they will not pose a significant risk. The cap will consist of an engineered sand layer overlain by a protective stone layer overlain by a suitable benthic layer to restore biological activity.

The Project is subject to the MCP cleanup requirements and will involve temporary alteration of federal, state and local-regulated wetlands and other jurisdictional areas, including Bank, Bordering Vegetated Wetland, Land Under Water Bodies and Waterways, Bordering Land Subject to Flooding, Riverfront Area and Buffer Zone.

2. List anticipated MEPA review thresholds (301 CMR 11.03) (if known)

The Project is expected to exceed three thresholds requiring an ENF:

Alteration of 5,000 or more square feet of BVW [11.03(3)(b)(1)(d)]
Alteration of ½ or more acres of any other wetland. [11.03(3)(b)(1)(f)]
Dredging of 10,000 or more cy of material [11.03(3)(b)(3)]
Disposal of 10,000 or more cy of dredged material [11.03(3)(b)(4)

3. List all anticipated state, local and federal permits needed for the project (if known)

Table 1: Required Permits

Permit/Approval	Agency/Party	Status
Local		
Notice of Intent/Order of Conditions	Conservation Commission	To Be Filed
Special Permit	Planning Board	To Be Filed
Industrial User Permit	City of Amesbury	To Be Filed
State		
Chapter 91 Waterways License	MassDEP Waterways	To Be Filed
401 Water Quality Certification	MassDEP Wetlands	To Be Filed
Federal		
Nationwide Permit Coverage	US Army Corps of Engineers	To Be Filed
NPDES Permit (Construction General Permit)	US Environmental Protection Agency	Prior to Construction
NPDES Dewatering and Remediation General Permit	US Environmental Protection Agency	Prior to Construction

4. Identify EJ populations and characteristics (Minority, Income, English Isolation) within 5 miles of project site (can attach map identifying 5-mile radius from EJ Maps Viewer in lieu of narrative)

EJ Populations within a 5-mile radius of the Project site are summarized below (See Attachment B):

EJ Block Group	Municipality	Criteria
BG 1, CT 2663	Amesbury	Income
BG 2, CT 2664	Amesbury	Income
BG 1, CT 2683	Newburyport	Income
BG 3, CT 2683	Newburyport	Income
BG 3, CT 2621	Merrimac	Income

5. Identify any municipality or census tract meeting the definition of "vulnerable health EJ criteria" in the DPH EJ Tool located in whole or in part within a 1 mile radius of the project site.

Municipalities within the 1-mile radius of the Project site include Amesbury and Newburyport.

- **Amesbury meets the vulnerable health criteria for Childhood Blood Lead and Low Birth weight on a municipality level, and Low Birth Weight and Lead Poisoning on a Census Tract level.**
- **Newburyport does not meet any of the vulnerable health criteria on a municipality or Census Tract level.**

6. Identify potential short-term and long-term environmental and public health impacts that may affect EJ Populations and any anticipated mitigation

Two EJ Populations, BG 1, CT 2663 and BG 2, CT 2664, are located within the 1-mile radius in the municipality of Amesbury.

The purpose of the Project will be to remediate contamination within the Powwow River which will provide long-term environmental benefits. There are no long-term environmental or public health impacts that will affect EJ Populations. The construction of the Project will result in the following temporary impacts:

Wetlands and Water Quality

The Project involves temporary impacts to Wetland Resource Areas, including Bordering Vegetated Wetlands, Bank, Land Under Water, Bordering Land Subject to Flooding, and Riverfront Area. No permanent loss of Wetland Resource Areas or flood storage capacity will occur. The Project will incorporate protective and preventative measures to minimize and avoid impacts to wetlands and water quality. All existing wetland functions/values will be maintained or improved in response to remedial activity and on-site restoration.

To protect water quality and these sensitive resource areas, temporary access to excavation/dredge areas will be constructed over wetlands using protective construction mats. Construction mats are comprised of wooden beams, bolted together, and are typically 4 feet wide by 16 feet long. They are laid temporarily on top of the ground and vegetation. Use of these mats is a "Best Management Practice" because they reduce environmental impacts by allowing heavy machines and vehicles to cross sensitive areas without damaging the soil or roots of vegetation and are also placed in a manner that does not affect the flow of water in streams. These mats will be removed when construction is completed, and the wetlands will be restored. Additional Best Management Practices, such as the use of straw wattles, silt fencing, stormwater management features, and other control measures will be used to prevent soil and other material from being transported into wetlands and waterbodies. Using these Best Management Practices, any impacts to water quality will be negligible and temporary and are not anticipated to cause impacts to public health. Multi-year post-construction monitoring and reporting will ensure temporarily disturbed Wetland Resource Areas are restored as intended. As a result of these measures, construction of the Project is not expected to generate any impacts related to wetlands or water quality that will materially impact EJ Populations.

Air Quality

Construction-period activities, such as grading, road building, vehicle travel, and other earth-disturbing work may result in a temporary increase in airborne dust. Impacts to air quality will be minimized by managing the control of dust movement or blowing into the air with practices such as spreading wood mulch or straw and using water trucks to spray dried soil to keep it moist. The potential for dust generation is only anticipated during the construction period and is not anticipated to cause impacts to public health. Post construction, soil will be stabilized and re-vegetated. In addition, diesel-powered equipment is required to use ultra-low sulfur diesel fuel. Any diesel-powered non-road construction equipment rated 50-horsepower or more that will be used on the Project for 30 days or more will be required to install emission control devices. The temporary impacts from these emissions will be minimal and are not anticipated to cause material environmental or public health impacts to EJ populations.

Noise

Noise impacts associated with construction-period activities are temporary in nature and expected to be minimal. Noise and vibration generated by construction activity may result in temporary impacts to immediately surrounding properties during construction. Prior to the commencement of work, the Proponent will notify landowners in proximity to the Project area of the Project schedule. Temporary, noise-generating activities will be conducted in accordance with any local and state requirements and are not anticipated to cause environmental or public health impacts to EJ populations.

Traffic

Impacts from traffic during the construction of the Project will be minor and intermittent. Construction vehicle traffic and circulation during construction may result in temporary impacts to the surrounding properties, including congestion from construction-related truck traffic and construction employee traffic. Traffic will be routed directly to main roads and away from neighborhoods to minimize impacts. Traffic from the northerly construction laydown area will be routed from Water Street to Chestnut Street to Elm Street to Route 110, and then east onto Route 95 or west to Route 495. Traffic from the southerly construction laydown area will be routed from Noel Street to Main Street to Route 110, and then west onto Route 495 or east onto Route 95. Temporary traffic impacts from the Project are not anticipated to cause environmental or public health impacts to EJ populations.

Recreation

Impacts to recreational activity in the vicinity of the Project site will be minor and short-term. Temporary re-routing of the Riverwalk shared-use path will be necessary during the construction season and will impact recreation use of the path near the Project site. Restricted access to the Powwow River in the vicinity of the Project will be necessary during construction. Signage and barriers will be installed in the affected segment of the bike path to alert users to rerouting. Signage will be posted in the river up- and downstream of the Project limits warning recreational boaters to avoid the area due to ongoing remediation activities. Temporary impacts to public recreation from the Project are not anticipated to cause environmental or public health impacts to EJ populations.

7. Identify project benefits, including "Environmental Benefits" as defined in 301 CMR 11.02, that may improve environmental conditions or public health of the EJ population

The purpose of the Project is to provide environmental benefits through the cleanup of the Powwow River.

8. Describe how the community can request a meeting to discuss the project, and how the community can request oral language interpretation services at the meeting. Specify how to request other accommodations, including meetings after business hours and at locations near public transportation.

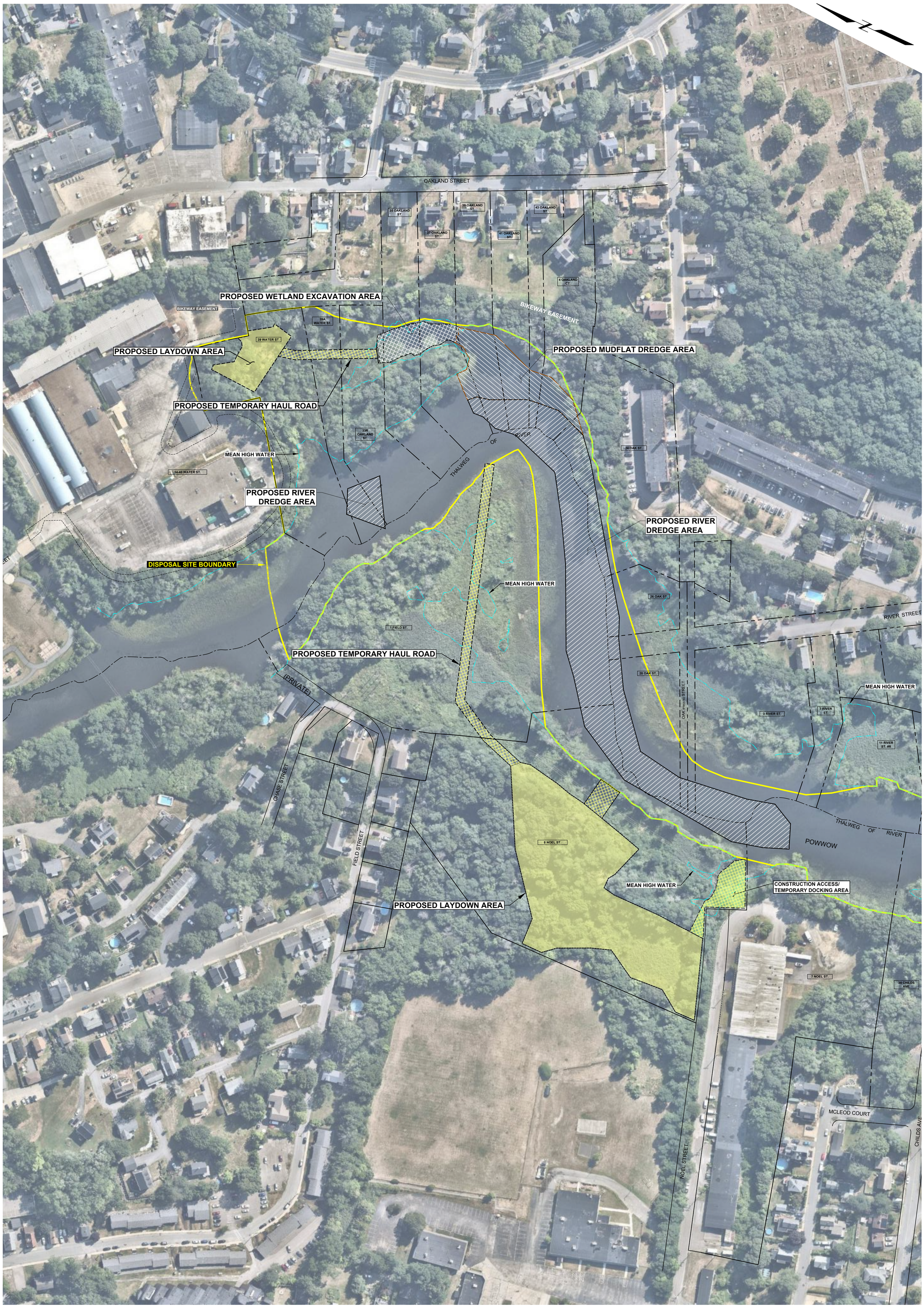
Communities and members of the public can access information related to the Project in the following ways:

- **A public website, hosted at the following web address: https://amesburymgpsite.com/**
- **Boston Gas Company will host a virtual public meeting on August 26, 2026.**

  Attendee Link: https://us06web.zoom.us/j/85649839064
  Webinar ID: 856 4983 9064
  - **Recipients of this screening form will receive information related to this meeting via email.**
  - **Notice of this virtual meeting will be sent to the City of Amesbury Mayor's Office and will be published in the Newburyport Daily News.**
  - **Anyone who cannot attend the virtual meeting may request an in-person meeting with the Project team.**
- **Hard copies of Project materials will be made available to anyone by request.**
- **For anyone that is not able to attend the virtual public meeting or if you have additional questions, the project team is available. Contacts include Kenneth Lento at 781-633-3123 or at Kenneth.Lento@nationalgrid.com, or Mark Manganello at 508-746-9491 or at MManganello@lecenvironmental.com.**

There are no EJ communities that meet the "English Isolation" criteria within the 1-mile designated geographic area (DGA) of the Project. However, should individuals request interpretation services in advance of meeting dates, including translation of project materials, please email Kenneth.Lento@nationalgrid.com. Boston Gas Company will endeavor to translate the documents provided to EJ populations and provide requested interpretation.

Recipients of this form include organizations on the EJ Reference List provided by Massachusetts Executive Office of Energy and Environmental Affairs per the Public Involvement Protocol.



LEGEND:

- LAYDOWN AREA
- TEMPORARY HAUL ROAD
- WETLAND EXCAVATION AREA
- MUDFLAT DREDGE AREA
- RIVER DREDGE AREA

Attachment A: Aerial Image

NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Environmental Justice Screening Form
Amesbury Former MGP Site
Amesbury, Massachusetts

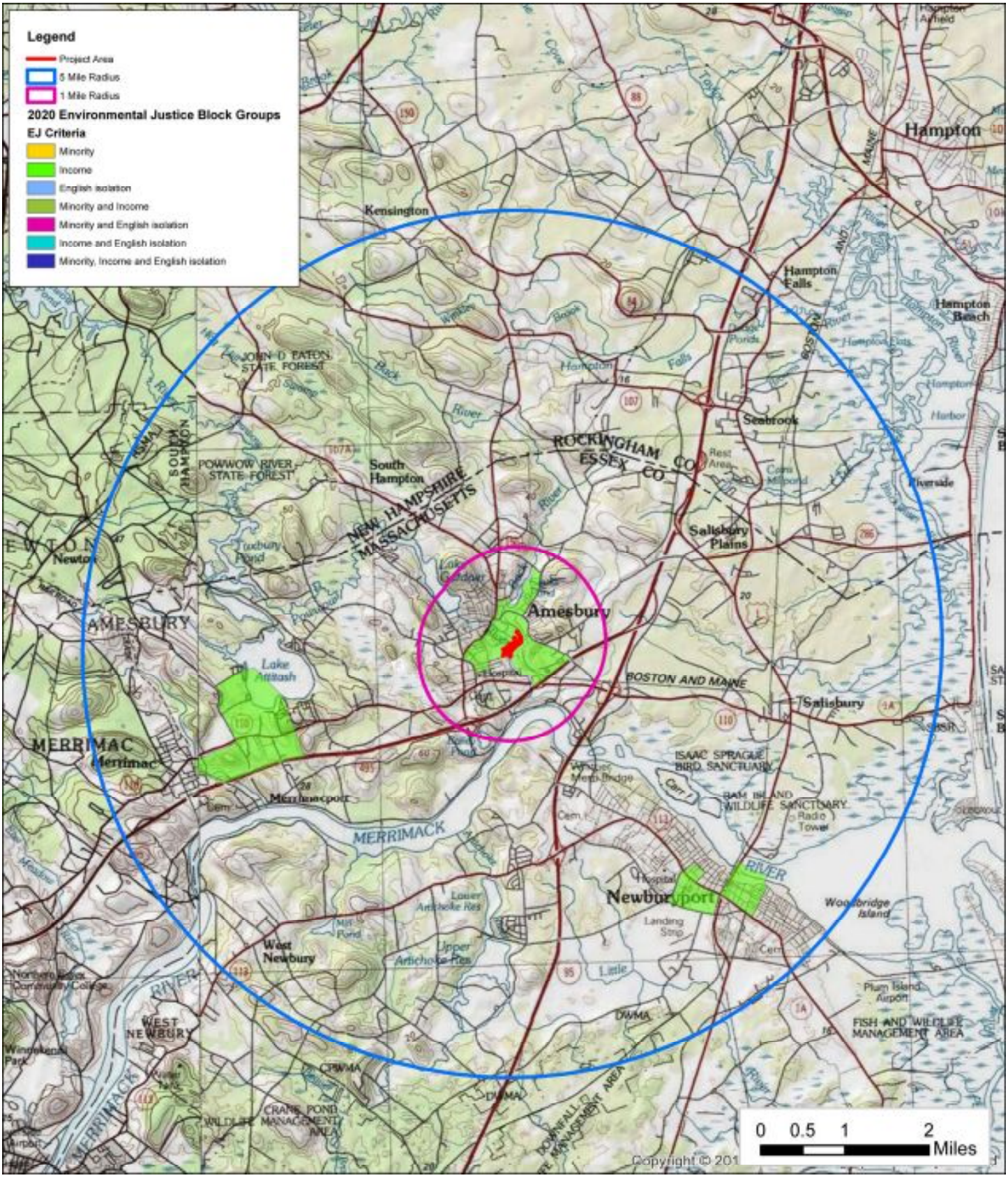
Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

GEI Consultants

PROPOSED REMEDIATION AND CONSTRUCTION LAYDOWN AREAS

Project 1804576 | July 2026 | Att. A

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Permitting\1804576-02.dwg - 7/17/2026



LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
www.lecenvironmental.com

Attachment B: EJ Communities 1 and 5 Mile Radius

Powwow River Between Water Street and Noel Street
Amesbury, Massachusetts

N

July 15, 2026

Project-Specific EJ Distribution List

Populate this Project-Specific Distribution List with the appropriate contacts from all 4 tabs in the EJ Reference List workbook

Project Name: Amesbury Former MGP Remediation Project

Project Address: Water Street / Chestnut Street Amesbury, MA 01913

MA Municipalities in Project's DGA: Amesbury

Date Generated: _____

Filing Type: ENF/EENF DEIR/FEIR SER Other

First Name	Last Name	Title	Phone	Email	Affiliation	Contact Type *(autopopulates)*
Claire	B.W. Muller	Movement Building Director	(508) 308-9261	claire@uumassaction.org	Unitarian Universalist Mass Action Network	Statewide CBO
Julia	Blatt	Executive Director	(617) 714-4272	juliablatt@massriversalliance.org	Mass Rivers Alliance	Statewide CBO
Jodi	Valenta	Massachusetts State Director	(617) 367-6200	Jodi.Valenta@tpl.org	The Trust for Public Land	Statewide CBO
Kerry	Bowie	Board President	Not Provided	kerry@msaadapartners.com	Browning the GreenSpace	Statewide CBO
Sylvia	Broude	Executive Director	(617) 292-4821	sylvia@communityactionworks.org	Community Action Works	Statewide CBOLocal CBO
Heather	Clish	Director of Conservation & Recreation Policy	(617) 523-0655	hclish@outdoors.org	Appalachian Mountain Club	Statewide CBO
Britteny	Jenkins	Vice President	Not Provided	Bjenkins@clf.org	Conservation Law Foundation	Statewide CBO
Alex	St. Pierre	Director of Communities & Toxics	Not Provided	aestpierre@clf.org	Conservation Law Foundation	Statewide CBO
Paulina	Muratore	Director of Transportation Justice and Infrastructure	Not Provided	pmuratore@clf.org	Conservation Law Foundation	Statewide CBO
Breanne	Frank	Associate Attorney	Not Provided	bfrank@clf.org	Conservation Law Foundation	Statewide CBO
Amy	Boyd Rabin	Vice President of Policy	(617) 221-8258	aboydrabin@environmentalleague.org	Environmental League of Massachusetts	Statewide CBO
Zahra	Saifee	Policy & Advocacy Coordinator	(435) 632-9482	zsaifee@environmentalleague.org	Environmental League of Massachusetts	Statewide CBO
Ben	Hellerstein	MA State Director	(617) 747-4368	ben@environmentmassachusetts.org	Environment Massachusetts	Statewide CBO
Robb	Johnson	Executive Director	(978) 443-2233	robb@massland.org	Mass Land Trust Coalition	Statewide CBO
Cindy	Luppi	New England Director	(617) 338-8131 x208	cluppi@cleanwater.org	Clean Water Action	Statewide CBO
Dálida	Rocha	Executive Director	Not Provided	dalida@n2nma.org	Neighbor to Neighbor Mass.	Statewide CBOLocal CBO
Lena Miles	Entin Gresham	Director of Individual Giving Campaign Director	Not Provided	Lena@N2NMa.org Miles@N2NMa.org	Neighbor to Neighbor Mass.	Statewide CBOLocal CBO
Rob	Moir	Executive Director	Not Provided	rob@oceanriver.org	Ocean River Institute	Statewide CBO
Vickash	Mohanka	Director, MA Chapter	Not Provided	vick.mohanka@sierraclub.org	Sierra Club MA	Statewide CBO
Heidi	Ricci	Director of Policy	Not Provided	hricci@massaudubon.org	Mass Audubon	Statewide CBO
Alma	Gordon	President	Not Provided	tribalcouncil@chappaquiddickwampano	Chappaquiddick Tribe of the Wampanoag Nation	Indigenous Org
Cheryll	Toney Holley	Chair	(774) 317-9138	crwritings@aol.com	Nipmuc Nation (Hassanamisco Nipmucs)	Indigenous Org
John	Peters, Jr.	Executive Director	(617) 573-1292	john.peters@mass.gov	Massachusetts Commission on Indian Affairs (MCIA)	Indigenous Org
Melissa	Ferretti	Chair	(508) 304-5023	melissa@herringpondtribe.org	Herring Pond Wampanoag Tribe	Indigenous Org
Patricia	D. Rocker	Council Chair	Not Provided	rockerpatriciad@verizon.net	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan	Indigenous Org
Raquel	Halsey	Executive Director	(617) 232-0343	rhalsey@naicob.org	North American Indian Center of Boston	Indigenous Org
Cora	Pierce	Not Provided	Not Provided	Coradot@yahoo.com	Pocassett Wampanoag Tribe	Indigenous Org
Elizabeth	Solomon	Not Provided	Not Provided	Solomon.Elizabeth@gmail.com	Massachusetts Tribe at Ponkapoag	Indigenous Org
Bettina	Washington	Tribal Historic Preservation Officer	(508) 560-9014	thpo@wampanoagtribe-nsn.gov	Wampanoag Tribe of Gay Head (Aquinnah)	Federal Tribe
Brian	Weeden	Chair	(774) 413-0520	Brian.Weeden@mwtribe-nsn.gov	Mashpee Wampanoag Tribe	Federal Tribe
David	Weeden	THPO/Director	(774) 327.0068	David.Weeden@mwtribe-nsn.gov	Mashpee Wampanoag Tribe	Federal Tribe
Nakia	Hendricks Jr.	Office Manager	Not Provided	106Review@mwtribe-nsn.gov	Mashpee Wampanoag Tribe	Federal Tribe
Brittany	Steingesser	Staff Contact	Not Provided	AmesburyGreenTeam@gmail.com	Amesbury Green Team	CBO
Curt	Rogers	Executive Director	(978) 655-4742	crogers@merrimack.org	Merrimack River Watershed Council	CBO
Anne	Ferguson	President	(978) 270-1252	amesburyimprovementassociation@gmail.com	Amesbury Improvement Association	CBO

Amesbury Environmental Remediation

Former Amesbury MGP

Background

In the 1800s and early 1900s, numerous mills and industrial facilities operated by the Powwow River in Amesbury, in an area called the “Lower Mill Yard.” Among them was the former Amesbury Manufactured Gas Plant (“MGP”) located on 2.4 acres at the end of Water Street. The MGP operated from about 1899 to 1924, using coal and oil to manufacture gas. After MGP operations ceased, the City of Amesbury used portions of the area as a municipal landfill until 1952, followed by a local, private company that used it as an industrial landfill until the early 1960s. After landfilling operations concluded, part of the area was used for parking and the remainder was left as undeveloped, wooded wetland.

In 2004, National Grid started evaluating portions of the site for potential contamination from MGP operations, and then conducted a clean-up of the contaminants in the ground under the Massachusetts Contingency Plan. National Grid completed the permitted and approved clean-up for the site in 2017. Today, the area is a revitalized wetland located between the Amesbury Riverwalk and the Powwow River.

Continued Commitment to Monitoring

Since 2017, National Grid has continued to closely monitor the site and surrounding areas. National Grid has completed investigation activities to identify contamination beyond the original MGP site boundary, including within the Powwow River. The area of interest includes locations south of the initial Water Street location extending towards Macy Street along the Powwow River. Investigations confirmed that contaminants remain in wetland, mudflat, and river sediments, primarily in deeper layers. Surface water is unaffected. Future cleanup plans will focus on removing the potential for people and wildlife to come into contact with contaminated sediments.

Remediation Plan / Next Steps

National Grid is also in the process of determining and prioritizing an appropriate remedy plan. The results of this remedy evaluation will be included in a report (Phase III Report) that is expected to be submitted to MassDEP in Winter 2026.

National Grid is reaching out to property owners in this area and has initiated several aspects of the complex permitting that will be required for the Project. The specific timeframe for the cleanup activities is under development and will depend on coordinating property access, completing the evaluation of remedial action alternatives, and permitting the selected remedial action.



Lower Mill Yard Area - Circa Early 1900s

www.amesburymgpsite.com

nationalgrid



Aerial View of Site – June 2013

Health and Safety

Health and safety are National Grid's top priorities as we work to remediate the site and surrounding areas. We are carefully planning this project in conjunction with multiple local, state, and federal regulatory agencies, and will closely monitor the Site when we're ready to perform the work to ensure clean-up is done safely.



Past remediation of MGP Site wetlands near Powwow River off Oakland/Water Streets now complete

The Manufactured Gas Process

The former Amesbury MGP used industrial processes to produce gas from coal and oil. The community used the gas, often referred to as Town gas," primarily for the same purposes that we use natural gas today. MGPs were common throughout the Northeast before the construction of the region's natural gas pipelines. The gas production process often yielded by-products such as tars and oils. Some of these substances remained in the environment at former MGP sites after they ceased operations.

Community Outreach / Questions

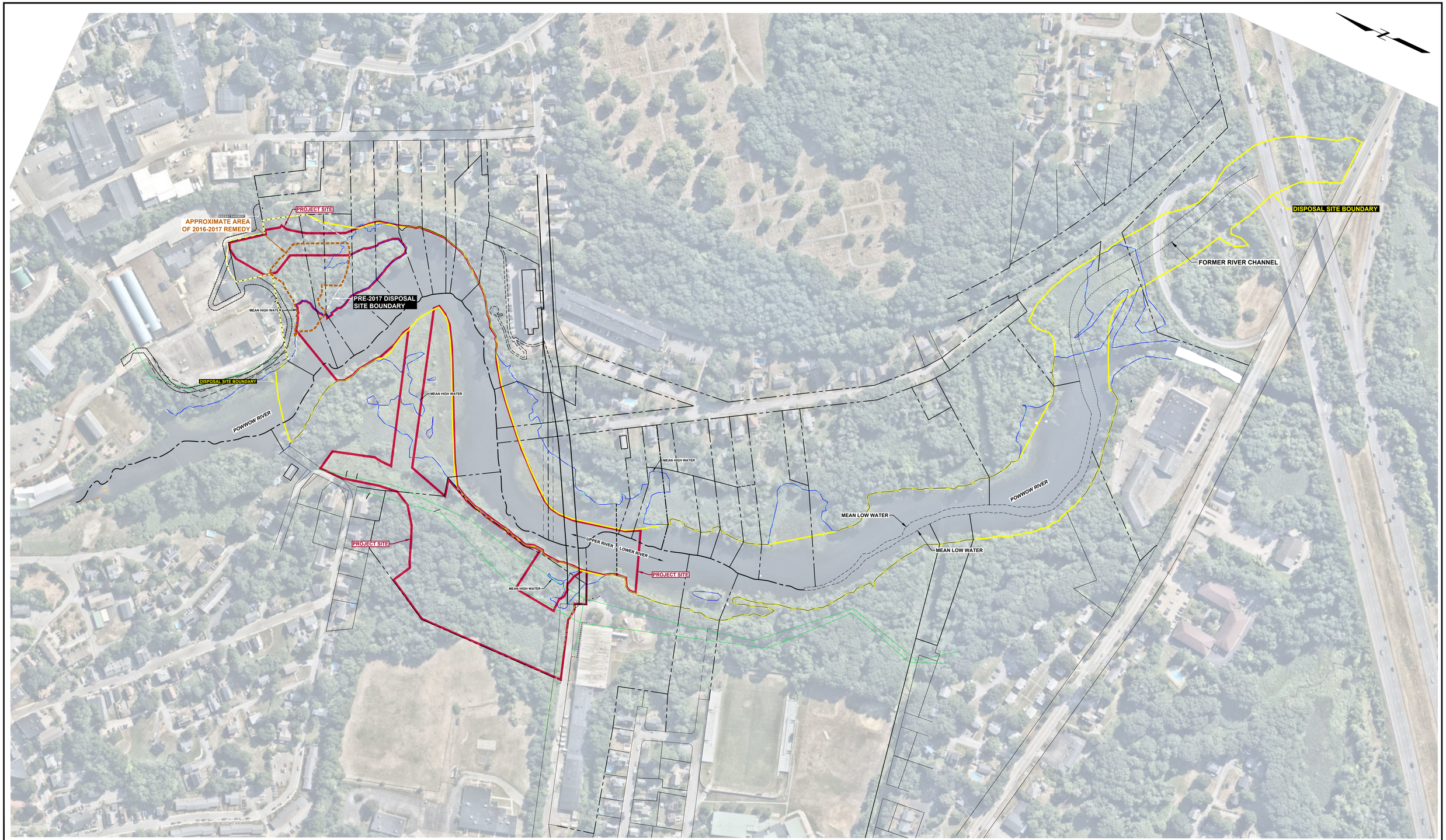
National Grid is committed to keeping the community informed of our work on the site. For more information, please contact Kenneth Lento, National Grid at 617-791-2627 or Kenneth.Lento@nationalgrid.com

PUBLIC MEETING NOTICE: Notice is hereby given that Boston Gas Company will hold a virtual public meeting on Wednesday, August 26, 2026, at 6:00 p.m. via Zoom (https://us06web.zoom.us/j/85649839064), regarding the Amesbury Former Manufactured Gas Plant (MGP) Remediation Project in the Powwow River. The virtual public meeting is scheduled in advance of a filing with the Massachusetts Environmental Policy Act (MEPA) Office under the MEPA Regulations (301 CMR 11.00) and is being held as part of Boston Gas Company's measures to enhance public involvement in accordance with the MEPA Public Involvement Protocol for Environmental Justice Populations. The project involves removal and capping contaminated sediments within a portion of the Powwow River in accordance with requirements of the Massachusetts Contingency Plan (310 CMR 40.0000; MCP). Additional project details and a copy of the Environmental Justice Screening Form can be found at the project website. https://amesburymgpsite.com/

Please contact the project team with any project-related questions: Kenneth Lento at 781-633-3123 or at Kenneth.Lento@nationalgrid.com, or Mark Manganello at 508-746-9491 or at MManganello@lecenvironmental.com.

Appendix D

GEI Figures, Prepared by GEI,
Dated October 2026



NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 150 300
SCALE: FEET

Amesbury Former MGP Site
Amesbury, Massachusetts

Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

GEI Consultants

SITE PLAN

Project 1804576 | October 2026 | Fig. 1

---- B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-09.dwg - 10/12/2026



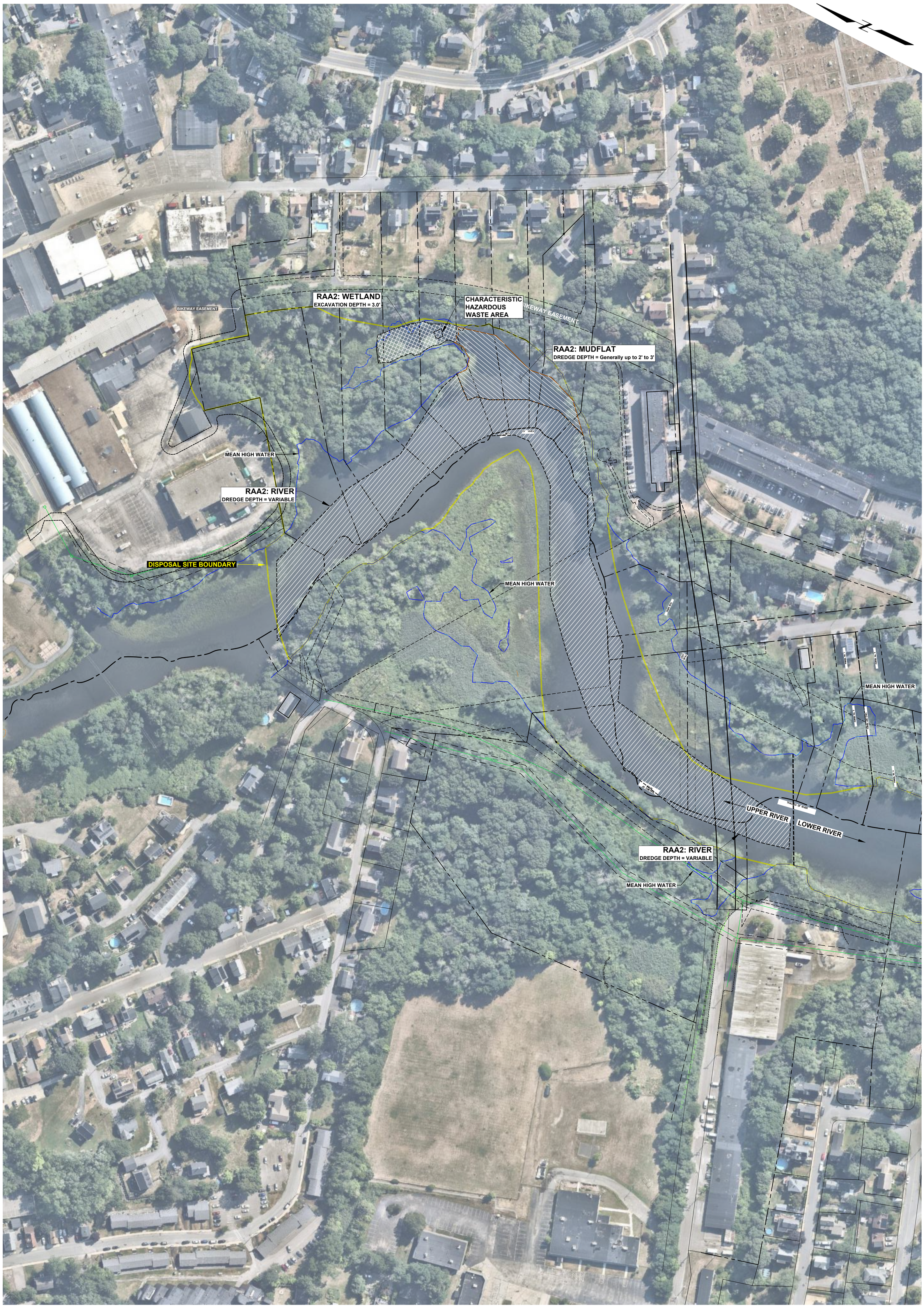
NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Amesbury Former MGP Site Amesbury, Massachusetts	GEI Consultants	RAA1: EXCAVATE WETLAND, DREDGE MUDFLAT, UPPER AND LOWER RIVER, AND RESTORATION
Boston Gas Company d|b|a National Grid Waltham, Massachusetts	Project 1804576	October 2026 Fig. 2

---- B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-07.dwg - 10/9/2026



NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Amesbury Former MGP Site
Amesbury, Massachusetts

Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

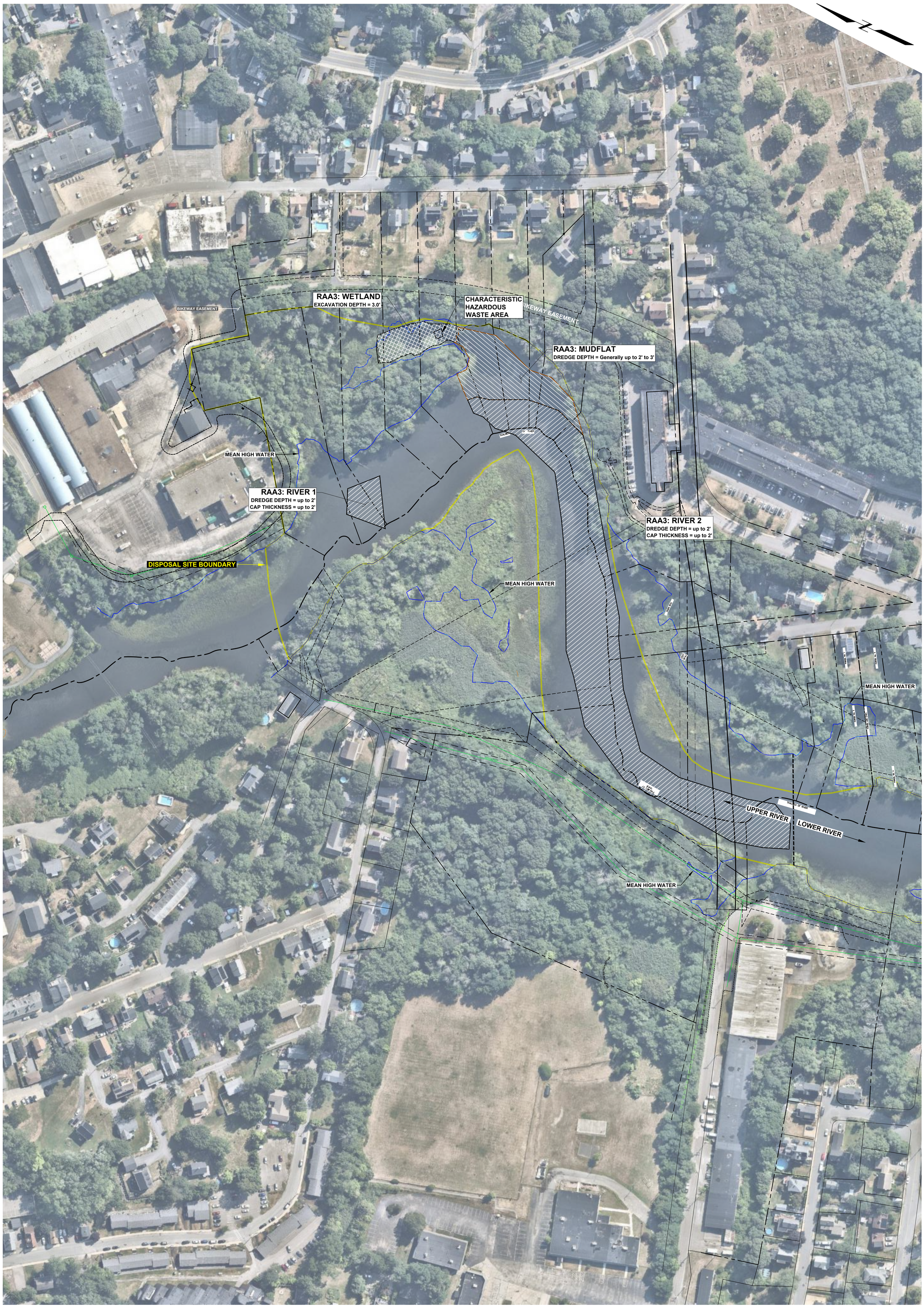
GEI Consultants

Project 1804576

RAA2:
EXCAVATE WETLAND, DREDGE MUDFLAT, DEEP DREDGE UPPER RIVER, NATURAL SEDIMENT CAP IN LOWER RIVER, RESTORATION AND AUL (LOWER RIVER ONLY)

October 2026 Fig. 3

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-07.dwg - 10/12/2026



NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Amesbury Former MGP Site
Amesbury, Massachusetts

Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

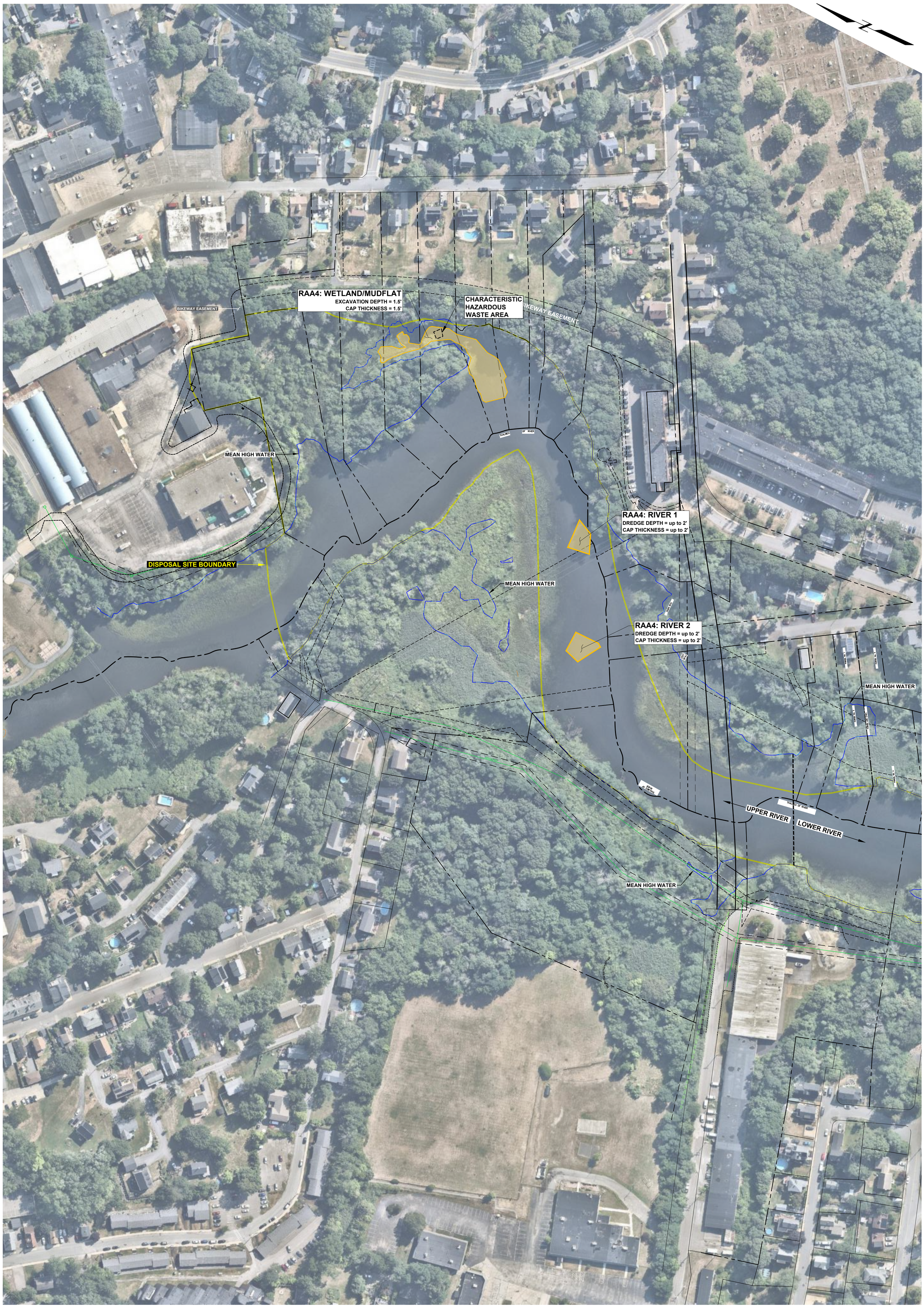
GEI Consultants

Project 1804576

RAA3:
EXCAVATE WETLAND, DREDGE MUDFLAT, SHALLOW DREDGE UPPER RIVER, SUBAQUEOUS CAP IN UPPER NATURAL SEDIMENT CAP IN LOWER RIVER, RESTORATION AND AUL (UPPER AND LOWER RIVER)

October 2026 Fig. 4

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-07.dwg - 10/12/2026



NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Amesbury Former MGP Site
Amesbury, Massachusetts

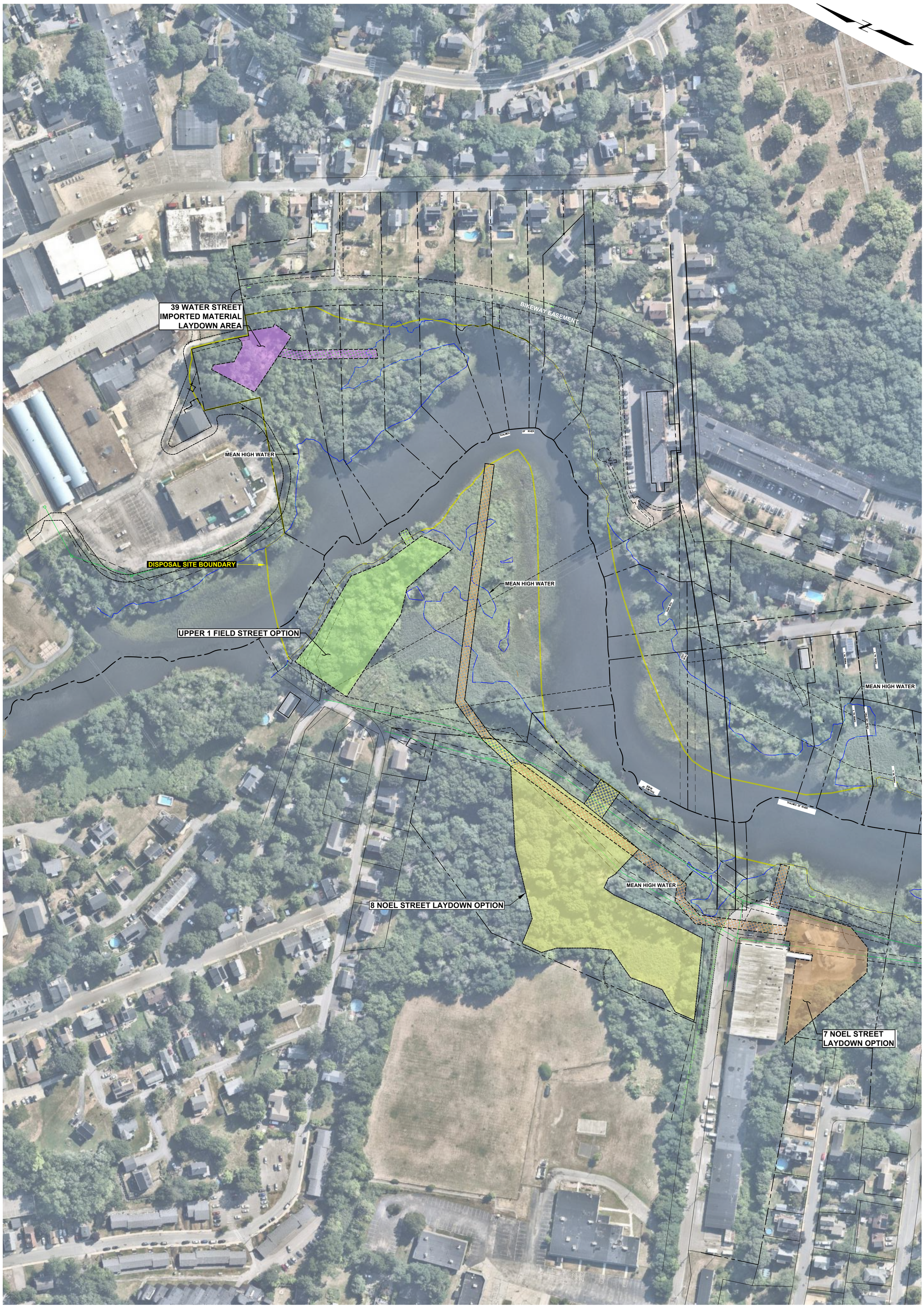
Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

GEI Consultants

RAA4:
TARGETED EXCAVATION IN WETLAND, TARGETED SHALLOW DREDGE IN MUDFLAT AND ISOLATED AREAS IN RIVER TO ELIMINATE RAH, SUBAQUEOUS CAP IN TARGETED DREDGE AREAS, AND TEMPORARY SOLUTION

Project 1804576 | October 2026 | Fig. 5

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-07.dwg - 10/12/2026



NOTES:

1. NEARMAP IMAGE DATED 7/29/2025.
2. PARCEL BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER LINE PROVIDED BY HAYNER/SWANSON, INC., 2026.

0 100 200
SCALE: 1" = 100'

Amesbury Former MGP Site Amesbury, Massachusetts	GEI Consultants	CONSTRUCTION STAGING OPTIONS
Boston Gas Company d|b|a National Grid Waltham, Massachusetts	Project 1804576	October 2026 Fig. 6

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Ph III RAP Addendum\1804576-07.dwg - 10/12/2026

ACCESS CORRIDOR TO REMEDIATION AREA

APPROXIMATE SEWER UTILITY EASEMENT

WETLAND LIMITS

OPTION 1 LAYDOWN AREA
(98,069 sf+/-)
(2.25 ac+/-)

WETLAND 100-Foot BUFFER ZONE

WETLAND 100-Foot BUFFER ZONE

OPTION 2 LAYDOWN AREA
(103,236 sf+/-)
(2.37 ac+/-)

APPROXIMATE SEWER UTILITY EASEMENT

PROPERTY BOUNDARY

CONTRACTOR WATER ACCESS AREA

PROPERTY BOUNDARY

LAYDOWN / SEDIMENT STAGING BOUNDARY

WETLAND LIMITS

WETLAND 100-Foot BUFFER ZONE

STORMWATER BASIN AREA

CONSTRUCTION ENTRANCE

CONTRACTOR WATER ACCESS AREA

RIVER

POWWOW

OAK STREET

NOEL STREET

LEGEND:

- OPTION 1 LAYDOWN AREA
- OPTION 2 LAYDOWN AREA
- CONTRACTOR WATER ACCESS AREA

Legend

Cherry (Prunus sp.)	Oak (Quercus sp.)	Bigtooth aspen (Polulus grandidentata)
Eastern cottonwood	Unknown	Basswood (Tilia americana)
Eastern white pine (Pinus strobus)	Walnut (Juglans sp.)	Green ash (Fraxinus pennsylvanica)
Quaking aspen (Populus tremuloides)	Willow (Salix sp.)	Poplar (Populus sp.)
Red maple (Acer rubrum)	Black walnut (Juglans nigra)	Yellow birch (Betula alleghaniensis)
Ash (Fraxinus sp.)	Boxelder (Acer negundo)	Maple (Acer sp.)
Elm (Ulmus sp.)	Grey birch (Betula populifolia)	Silver maple (Acer saccharinum)
Sassafras (Sassafras albidium)	Sugar maple (Acer saccharum)	Black birch (Betula lenta)
Aspen (Populus sp.)	Black cherry (Prunus serotina)	Northern red oak (Quercus rubra)

DBH
- 2.28- 7.2
- 7.21 - 13.31
- 13.32 - 21.61
- 21.62 - 32.44
- 32.45- 58.66

Low Value Tree
Pear (Pyrus sp.); Apple (Malus sp.); Tree of heavan (Ailanthus altissima); European buckthorn (Rhamnus cathartica); Black locust (Robinia pseudoacacia); Norway maple (Acer platanoides)

NOTES:

1. BASE PLAN FROM HAYNER/SWANSON, INC. 2026.
2. NEARMAP IMAGE DATED 4/14/2025.

0 60 120
SCALE, FEET

Amesbury Former MGP Site Amesbury, Massachusetts	GEI Consultants	8 NOEL STREET LAYDOWN AREA ALTERNATIVES
Boston Gas Company d|b|a National Grid Waltham, Massachusetts	Project 1804576	October 2026 Fig. 7

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Figures\Laydown Area\1804576-08.dwg - 10/5/2026

WETLAND EXCAVATION FOOTPRINT

WETLAND DREDGE FOOTPRINT

MUDFLAT DREDGE FOOTPRINT

ACCESS CORRIDOR TO REMEDIATION AREA

39 WATER STREET LAYDOWN AREA

RIVER DREDGE AREA 2

ACCESS CORRIDOR TO REMEDIATION AREA

RIVER DREDGE AREA 1

200-FT RIVERFRONT AREA

BASE FLOOD EL. 11.6 (NGVD29) 100-YEAR FLOODPLAIN

MEAN HIGH WATER (MHW)

100-FT WETLAND BUFFER

WETLAND (BVW)

8 NOEL STREET LAYDOWN AREA

RESOURCE IMPACT AREAS

- LAND UNDERWATER (ALL AREAS BELOW MHW)
- BVW (AREAS BETWEEN MHW AND BVW)
- BLSF (AREAS BETWEEN BVW AND 100-YR FLOODPLAIN)
- RIVERFRONT AREA (ALL AREAS BETWEEN MHW AND 200-FT RIVERFRONT AREA)
- 100-FT BVW BUFFER (ALL AREAS BETWEEN BVW AND 100-FT OFFSET OF BVW)
- BANK - BVW
- BANK - MHW

0 80 160

SCALE: 1" = 80'

NOTES:

1. IMAGE FROM GEOMAP AERIAL IMAGERY AUTODESK.
2. PROPERTY BOUNDARIES, THALWEG OF RIVER, AND MEAN HIGH WATER PROVIDED BY HAYNER/SWANSON, 2025.

Amesbury Former MGP Site
Amesbury, Massachusetts

Boston Gas Company d|b|a National Grid
Waltham, Massachusetts

GEI Consultants

RESOURCE IMPACT PLAN

Project 1804576 | October 2026 | Fig. 8

CLINGEN, PAUL B:\Working\NATIONAL GRID\1804576 Amesbury MGP\00_CAD\Design\Working\Fig X_Resource Impact Plan.dwg - 10/5/2026

Appendix E

Engineering Plans, Prepared by GEI, Dated October 15, 2026

PHASE IV REMEDY IMPLEMENTATION PLAN

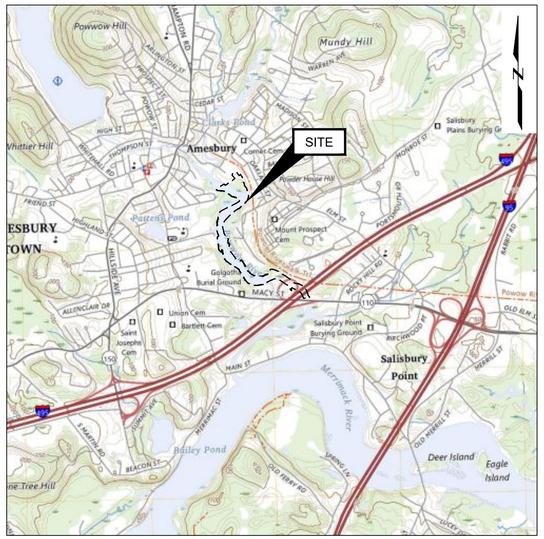
AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS



SOURCE:
MASSGIS, MARCH 1991, MA STATE OUTLINE (25K COAST) (POLYGONS).

STATE MAP

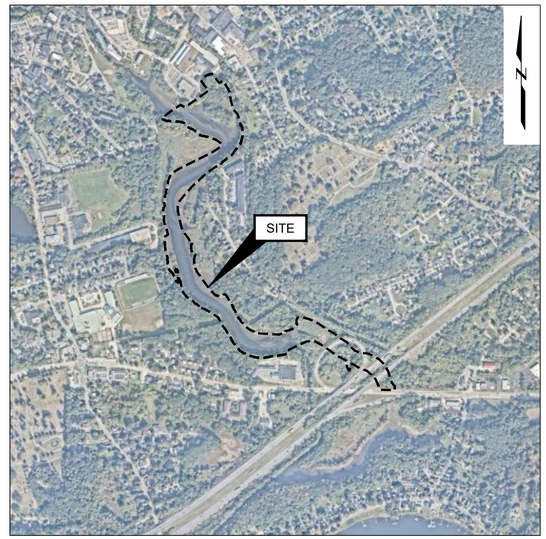
0 30 60
SCALE: 1" = 30 MILES



SOURCE:
U.S.G.S TOPOGRAPHIC MAP OF NEWBURYPORT WEST, MA, NH, 2024
(www.ngmdb.usgs.gov/topoview/)

REGIONAL MAP

0 2000 4000
SCALE: 1" = 2000'



SOURCE:
AERIAL PHOTOGRAPH OBTAINED FROM NEARMAP
IMAGERY DATE: 9/29/2025

SITE LOCATION MAP

0 800 1600
SCALE: 1" = 800'

811 DigSafe MA-ME-NH-RI-VT

811 Know what's **below.** **Call** before you dig.

PREPARED FOR:

BOSTON GAS COMPANY DBA
NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

nationalgrid

PREPARED BY:

GEI CONSULTANTS, INC.
100 QUANNAPOWITT PARKWAY
WAKEFIELD, MA 01880
(781)721-4000

GEI Consultants

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GEI PROJECT NO. 1804576

PERMIT SET

NO.	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

DWG. NO.
G-01

SHEET NO.
1 OF 33

---- b:\Working\national grid\1804576 amesbury mgp\00_CAD\Design\Sheets\2026-10 FOR PERMIT USE ONLY\1804576__G-01 TITLE SHEET.dwg - 10/15/2026

SHEET INDEX

SHEET NO.	DRAWING NO.	TITLE
1	G-01	TITLE SHEET
2	G-02	SHEET INDEX
3	C-01	TRAFFIC MANAGEMENT PLAN
4	C-02	REMEDIAL CONCEPT PLAN
5	C-03	EXISTING CONDITIONS OVERALL PLAN
6	C-04	EXISTING CONDITIONS (8 NOEL STREET)
7	C-05	EXISTING CONDITIONS (39 WATER STREET & WETLAND AREA)
8	C-06	EXISTING CONDITIONS (RIVER 1 OF 2)
9	C-07	EXISTING CONDITIONS (RIVER 2 OF 2)
10	C-08	EXISTING CONDITIONS (1 FIELD STREET)
11	C-09	HISTORICAL & SUBSURFACE EXPLORATION PLAN
12	C-10	SITE PREPARATION PLAN (8 NOEL STREET)
13	C-11	SITE PREPARATION PLAN (39 WATER STREET)
14	C-12	SITE PREPARATION PLAN (1 FIELD STREET)
15	C-13	CONSTRUCTION ACCESS - GRADING PLAN (8 NOEL STREET)
16	C-14	EROSION & SEDIMENT CONTROL PLAN (8 NOEL STREET)
17	C-15	EROSION & SEDIMENT CONTROL PLAN (39 WATER STREET)
18	C-16	TEMPORARY CONSTRUCTION DETAILS (1 of 4)
19	C-17	TEMPORARY CONSTRUCTION DETAILS (2 of 4)
20	C-18	TEMPORARY CONSTRUCTION DETAILS (3 of 4)
21	C-19	TEMPORARY CONSTRUCTION DETAILS (4 of 4)
22	C-20	POWWOW RIVER DREDGING OVERALL PLAN
23	C-21	POWWOW RIVER DREDGING PLAN (1 OF 4)
24	C-22	POWWOW RIVER DREDGING PLAN (2 OF 4)
25	C-23	POWWOW RIVER DREDGING PLAN (3 OF 4)
26	C-24	POWWOW RIVER DREDGING PLAN (4 OF 4)
27	C-25	TYPICAL DREDGE SECTIONS
28	C-26	SEDIMENT CAP PLAN
29	C-27	SEDIMENT CAP DETAILS
30	C-28	GENERAL RESTORATION PLAN (8 NOEL STREET)
31	C-29	GENERAL RESTORATION PLAN (39 WATER STREET)
32	C-30	GENERAL RESTORATION PLAN (1 FIELD STREET)
33	C-31	GENERAL RESTORATION NOTES & DETAILS

PERMIT SET

Attention:

0 1"

If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
GEI CONSULTANTS, INC.
100 QUANNAPOWITT PARKWAY
WAKEFIELD, MA 01880
781.721.4000

BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

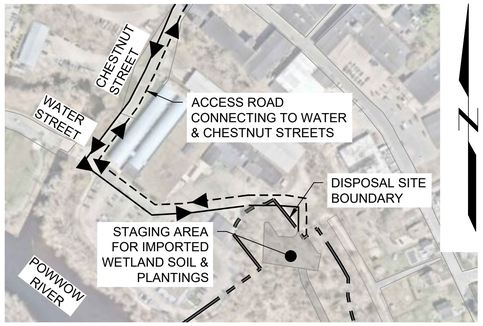
AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

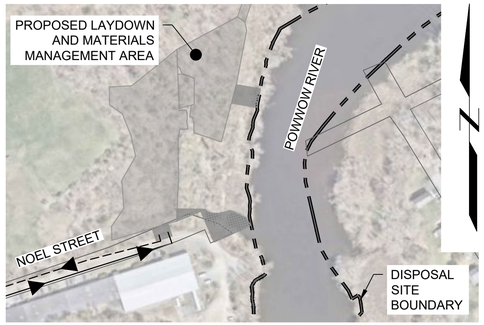
SHEET NAME: **SHEET INDEX**

SHEET NO.: G-02

HOWES, JODI b:\Working\national grid\1804576 amesbury mgp\00_CAD\Design\Sheets\2026-10 FOR PERMIT USE ONLY\1804576_G-02 SHEET INDEX.dwg - 10/15/2026



1 / - DETAIL
35 WATER STREET
SCALE: 1" = 200'



2 / - DETAIL
8 NOEL STREET
SCALE: 1" = 200'

DETAIL OF SITE AREA

3 / - DETAIL
TYPICAL SIGN
SCALE: 1" = 2'

NOTES

1. TRUCKS TRANSPORTING CONSTRUCTION EQUIPMENT OR MATERIALS (SOIL, WATER, PIPE, CEMENT, ETC.) TO OR FROM THE SITE MUST USE SPECIFIED ROUTES.
2. DO NOT QUEUE TRUCKS AND EQUIPMENT IN LOCAL STREETS.
3. INSPECT TRUCK ROUTE TO I-495/I-95 DAILY FOR SPILLAGE, DUST, OR OTHER SITE RELATED IMPACTS. ANY IMPACTS LOCATED OR REPORTED ALONG THE TRUCK ROUTE MUST BE APPROPRIATELY REMEDIATED AS DIRECTED BY THE ENGINEER.
4. MAINTAIN CONTINUOUS TRAFFIC FLOW ALONG TRUCK ROUTES OUTSIDE THE PROJECT AREA.
5. DO NOT OCCUPY ANY PORTION OF THE 8 NOEL STREET PROPERTY BEYOND THE PROJECT LIMITS.
6. PERFORM MAINTENANCE AND PROTECTION OF TRAFFIC IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION, AND TO THE SATISFACTION OF THE CITY OF AMESBURY AND THE ENGINEER.

PERMIT SET

LEGEND:

- SITE
- FROM PROJECT AREA TO I-495/I-95
- FROM I-495/I-95 TO PROJECT AREA

0 400 800
SCALE, FEET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
GEI CONSULTANTS, INC.
100 QUANNAPOWITT PARKWAY
WAKEFIELD, MA 01880
781.721.4000

BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
TRAFFIC MANAGEMENT PLAN

SHEET NO.
C-01

HOWES, JODI b:\Working\national grid\1804576 amesbury mgp\00_CAD\Design\Sheets\2026-10 FOR PERMIT USE ONLY\1804576_C-01 TRAFFIC MANAGEMENT PLAN.dwg - 10/15/2026

MUDFLAT EXCAVATION/DREDGE

RIVER DREDGE & CAP

WETLAND EXCAVATION/DREDGE

ACCESS CORRIDOR TO REMEDIATION AREA

39 WATER STREET IMPORTED MATERIAL LAYDOWN AREA

RIVER DREDGE & CAP

ACCESS CORRIDOR TO REMEDIATION AREA

50-FOOT WIDE CONSTRUCTION ACCESS CORRIDOR

TEMPORARY DOCKING AREA ACCESS

CONSTRUCTION ENTRANCE

LAYDOWN / SEDIMENT STAGING BOUNDARY

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- SUBAQUEOUS CAP
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)

0 80 160
SCALE, FEET

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
REMEDIAL CONCEPT PLAN

SHEET NO.
C-02

H:\WES...\DD\ b:\Working\national grid\1804576 amesbury mgp\00_CAD\Design\Sheets\2026-10 FOR PERMIT USE ONLY\1804576_C-02 REMEDIAL CONCEPT PLAN.dwg - 10/15/2026

SHEET C-05

SHEET C-06

SHEET C-07

SHEET C-08

SHEET C-04

POWWOW RIVER

RIVER COURT

OAK STREET

RIVER STREET

FORMER LOCATION OF RIVER STREET PRIOR TO REALIGNMENT

CHASE STREET

FIELD STREET

CHILD STREET

MCLEOD COURT

EAST GREENWOOD STREET

PARKER STREET

OAKLAND AVENUE

WASHINGTON STREET

EXISTING BUILDING TO BE DEMOLISHED

CHILDREN'S PLAY AREA

WOOD BRIDGE

STORMWATER BASIN AREA

LAWN AREA

100 FT WETLAND BUFFER ZONE

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 6104, PG. 662 PLAN 413 OF 1971 (SEE ALSO BK. 3235, PG. 321)

APPROX. EXISTING 20' WIDE ELECTRIC EASEMENT BK. 6104, PG. 662 PLAN 413 OF 1971

APPROXIMATE SEWER EASEMENT BK. 6104, PG. 355 PLAN 1515 & PLAN 59373

EXISTING ELECTRIC UTILITY EASEMENT BK. 6104, PG. 662 PLAN 413 OF 1971

EXISTING ELECTRIC UTILITY EASEMENT NO WIDTH BK. 6104, PG. 662 PLAN 413 OF 1971

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 123 OF 1978

EXISTING ELECTRIC UTILITY EASEMENT BK. 6104, PG. 662 PLAN 413 OF 1971

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 123 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6104, PG. 355 PLAN 1515 & PLAN 59373

FLOWAGE RIGHTS, RESERVATIONS FOR FLOWAGE TO THE RIVER BK. 6104, PG. 662 BK. 1551 PG. 160

FLOWAGE RIGHTS, RESERVATIONS FOR FLOWAGE TO THE RIVER BK. 1551 PG. 160

IN SO MUCH AS IT MAY STILL BE IN EFFECT REMAINDER OF 30' WIDE ELECTRIC EASEMENT BK. 1551 PG. 160 & PLAN 59376

PROPERTY AT 7 RIVER STREET AMESBURY, MASSACHUSETTS

PROPERTY AT 9 RIVER STREET AMESBURY, MASSACHUSETTS

PERMIT SET

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR

0 80 160
SCALE, FEET

Attention:
0 1"
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Checked:	MWS
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P.E. No:	
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BOSTON GAS COMPANY DBA NATIONAL GRID
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nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
EXISTING CONDITIONS OVERALL PLAN

SHEET NO.
C-03

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POWWOW RIVER

THALWEG OF RIVER

PROPERTY LINE

MEAN HIGH WATER

PROPERTY LINE

40 FT WIDE PUBLIC ROW LAID OUT AUGUST 11 1969 ACCEPTED MARCH 17 1969 WARRANT ARTICLE 33 SEE PLAN ON FILE AT TOWN CLERK'S OFFICE

APPROXIMATE RIVERWALK EASEMENT PLAN 423/7

APPROXIMATE SEWER EASEMENT BK.6468 PG. 133 PLAN 423/7 & PLAN 122 OF 1978

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 666 PLAN 413 OF 1971

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 122 OF 1978

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 5574 PG. 662 PLAN 412 OF 1971 (SEE ALSO BK. 3225, PG. 321)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

FEMA ZONE 'AE' 100 YR FLOOD ZONE

EXISTING 20' WIDE SEWER EASEMENT BK. 6552. PG. 604 PLAN 391 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6554, PG 325 PLAN 151/76 & PLAN 292/73

EXISTING 20' WIDE SEWER EASEMENT BK. 6465 PG. 237 & PLAN 113 OF 1978

APPROXIMATE SEWER EASEMENT BK. 2167, PG 212 (PER TOWN OF AMESBURY SEWER PLANS)

100 FT WETLAND BUFFER ZONE

RIVERFRONT PROTECTION AREA (TYP)

200 FT

100 FT

WETLAND BUFFER ZONE (TYP)

100 FT

WETLAND BUFFER ZONE (TYP)

ABANDONED

ABANDONED

FLOWAGE RIGHTS AND OTHER RIGHTS FOR PATTEN'S POND TO THE RIVER BK. 2883 PG. 392 BK. 735 PG. 166

STORMWATER BASIN AREA

RIVERFRONT PROTECTION AREA BUFFER

100 FT

WETLAND BUFFER ZONE ZONE (TYP)

FLAGGED WETLANDS (TYP)

CHILDREN'S PLAY AREA

WOOD BRIDGE

LAWN AREA

FIELD STREET

NOEL STREET

PATTEN'S BROOK

EXISTING BUILDING

EXISTING BUILDING

SPIKE FND

I.ROD FND

I.PIN SET

I.PIPE FND

24" RCP

36" CMP INV. = 14.31

36" CMP INV. = 8.71

18" RCP FES INV. = 8.71

100 FT WETLAND BUFFER ZONE (TYP)

VARIABLE WIDTH PUBLIC ROW LAID OUT 1998 BK. 27035 PG 116 AND 419 PLAN BK. 350 PLAN 35

APPROX. LOCATION OF 36" DRAIN LINE PLAN 198/76

IN SO MUCH AS IT MAY STILL BE IN EFFECT, REMAINDER OF 30' WIDE DRAIN EASEMENT BK 7819, PG 390 & PLAN 198/76

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR

0 30 60
SCALE, FEET

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
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BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451
nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
EXISTING CONDITIONS (8 NOEL STREET)

SHEET NO.
C-04

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EXISTING PERMANENT EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

RIVERFRONT PROTECTION AREA BUFFER

100 FT WETLAND BUFFER ZONE

EXISTING ACTIVITY AND USE LIMITATION AREA BK. 14367 PG. 247 PLAN BK. 321 PG. 47

PEDESTRIAN ACCESS EASEMENT BK. 43215 PG. 444 PLAN BK. 43098 PG. 497

PEDESTRIAN ACCESS EASEMENT BK. 43215 PG. 317 PLAN BK. 43098 PG. 496

EXISTING RIVERWALK AND BIKEWAY EASEMENT BK. 14831 PG. 466 PLAN BK. 321 PG. 47

EXISTING RIVERWALK AND BIKEWAY EASEMENT BK. 14831 PG. 466 PLAN BK. 321 PG. 47

EXISTING TEMPORARY EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

FLAGGED WETLANDS (TYP)

PROPERTY LINE

FEMA ZONE 'AE' 100 YR FLOOD ZONE

MEAN HIGH WATER

RIVERFRONT PROTECTION AREA (TYP)

200 FT

100 FT WETLAND BUFFER ZONE (TYP)

AUL AREA 1
1,519 SF

EXISTING BUILDING

EXISTING RIVERWALK/BIKEWAY EASEMENT PLAN 337 PG 49

PAVED PARKING AREA

MAG NAIL FND

PAVED BIKE PATH

FLOOD ZONE AE

FLOOD WAY

STREAM

THALWEG OF RIVER

POWWOW RIVER

GAZEBO

100 FT WETLAND BUFFER

18" RCP

24" RCP INV. = 26.98

24" RCP INV. = 25.59

12" RCP INV. = 23.03

12" MTL

2X2 STONE INV. = 5.1±

1X3 STONE INV. = 5.8±

12" CLAY INV. = 5.92'

8" CLAY INV. = 6.74'

10" PLASTIC INV. = 7.28'

10" PLASTIC INV. = 7.60'

8" METAL INV. = 7.26'

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR

0 30 60
SCALE, FEET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

PERMIT SET

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
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BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

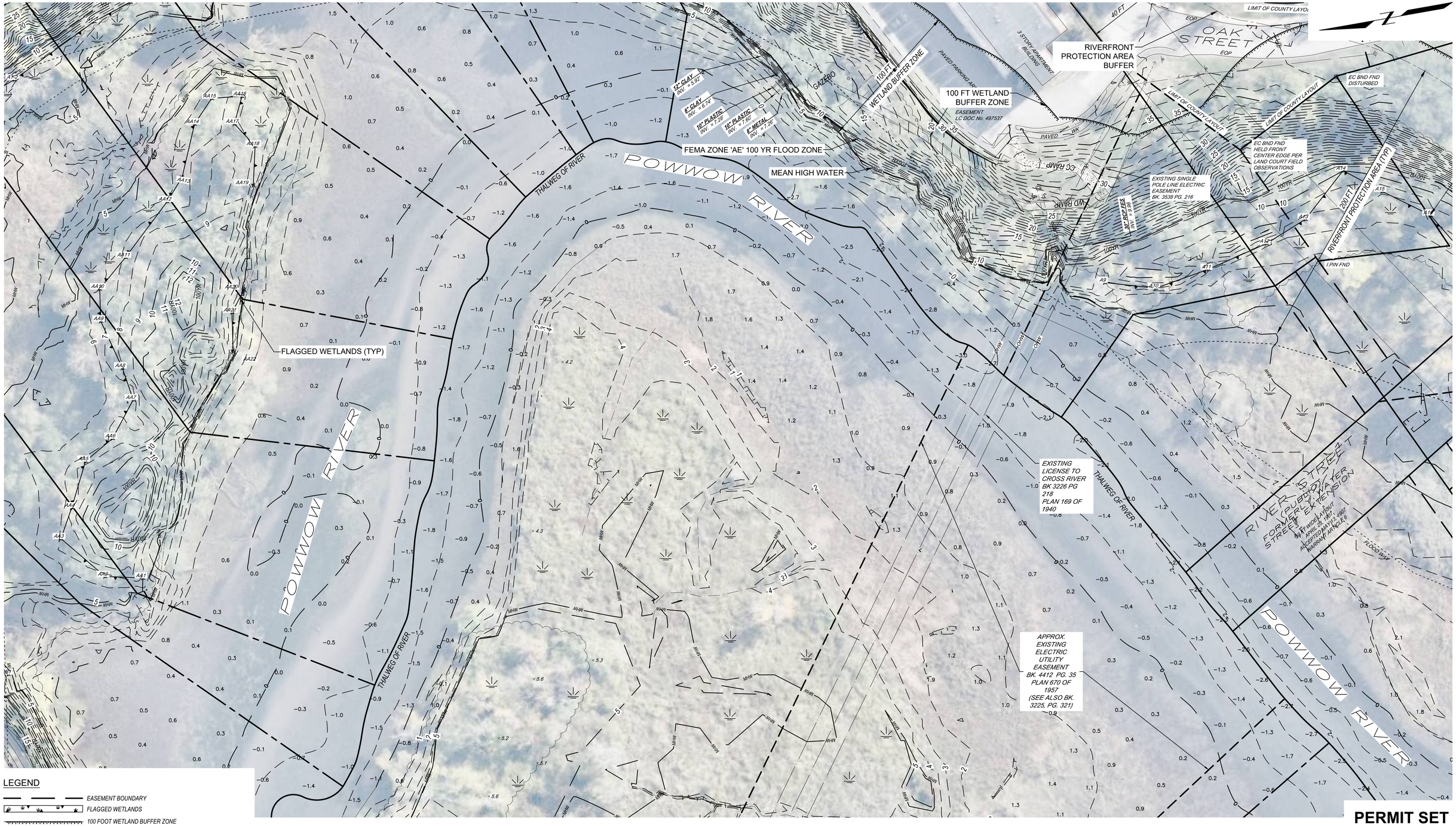
SHEET NAME

EXISTING CONDITIONS (39 WATER STREET & WETLAND AREA)

SHEET NO.

C-05

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PERMIT SET

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
EXISTING CONDITIONS (RIVER 1 OF 2)

SHEET NO.
C-06

EXISTING LICENSE TO CROSS RIVER BK 3226 PG 219 PLAN 169 OF 1940

THALWEG OF RIVER

RIVER STREET FORMER PUBLIC WAY STREET EXTENSION

BY ATWELL-HICKS ACCEPTED JULY 1, 1907 ACCEPTED MAY 13, 1987 WARRANT ARTICLE 6

EXISTING ELECTRIC UTILITY EASEMENT TO AMERICAN ELECTRIC LIGHT COMPANY BK. 3226, PG. 56 POSSIBLY EXTINGUISHED

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 5189 PG. 606 PLAN 447 OF 1968 (SEE EASEMENT NOTE No. 4)

FLOOD ZONE AE

100 FT

OAK STREET

40 FT WIDE PUBLIC ROW LAID OUT AUGUST 1989 ACCEPTED MARCH 17, 1989 WARRANT ARTICLE 33 SEE PLAN REF No. 12

FLOOD WAY

SEE PLAN REF No. 13 25 FT WIDE DRAINAGE EASEMENT NO ACCESS FROM OAK STREET PRESUMED TO BE PRIVATE

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 4412 PG. 35 PLAN 670 OF 1957 (SEE ALSO BK. 3225, PG. 321)

POWWOW RIVER

FEMA ZONE 'AE' 100 YR FLOOD ZONE

THALWEG OF RIVER

RIVER

POWWOW

FLAGGED WETLANDS (TYP)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

THALWEG OF RIVER

POWWOW RIVER

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 5574 PG. 662 PLAN 412 OF 1971 (SEE ALSO BK. 3225, PG. 321)

PROPOERTY LINE

MEAN HIGH WATER

PROPOERTY LINE

40 FT WIDE PUBLIC ROW LAID OUT AUGUST 1989 ACCEPTED MARCH 17, 1989 WARRANT ARTICLE 33 SEE PLAN ON FILE AT CLERK'S OFFICE

BROOK STREET

APPROXIMATE RIVERWALK EASEMENT PLAN 423/7

EOP PAVEMENT

100 FT

GRAVEL

APPROXIMATE SEWER EASEMENT BK.6468 PG. 133 PLAN 423/7 & PLAN 122 OF 1978

EXISTING 20' WIDE SEWER EASEMENT BK. 6552 PG. 604 PLAN 391 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6552, PG 325 PLAN 151/76 & PLAN 292/73

WETLAND BUFFER ZONE (TYP)

100 FT

WETLAND BUFFER ZONE

100 FT WETLAND BUFFER ZONE

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

CUT OFF POLE (TYP)

PATTEN'S

18" RCP FES INV. = 8.17

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 666 PLAN 413 OF 1971

SPIKE FND

200 FT

RIVERFRONT PROTECTION AREA (TYP)

ABANDONED

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 122 OF 1978

EXISTING BUILDING

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 EXISTING MAJOR CONTOUR
- 27 EXISTING MINOR CONTOUR

0 30 60
SCALE, FEET

PERMIT SET

Attention:
0 1"
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P.E. No:	
GEI Project	1804576

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BOSTON GAS COMPANY DBA NATIONAL GRID
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
EXISTING CONDITIONS (RIVER 2 OF 2)

SHEET NO.
C-07

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EXISTING LICENSE TO CROSS RIVER
BK. 3226 PG 218
PLAN 169 OF 1940

APPROX. EXISTING ELECTRIC UTILITY EASEMENT
BK. 4412 PG. 35
PLAN 670 OF 1957
(SEE ALSO BK. 3225, PG. 321)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH)
BK. 5574 PG. 663
PLAN 413 OF 1971

APPROX. EXISTING ELECTRIC UTILITY EASEMENT
BK. 5574 PG. 662
PLAN 412 OF 1971
(SEE ALSO BK. 3225, PG. 321)

APPROXIMATE SEWER EASEMENT
BK. 6554, PG 325
PLAN 151/76 & PLAN 292/73

EXISTING 20' WIDE SEWER EASEMENT
BK. 6552 PG. 604
PLAN 391 OF 1978

APPROXIMATE SEWER EASEMENT
BK. 2167, PG 212
(PER TOWN OF AMESBURY SEWER PLANS)

EXISTING 20' WIDE SEWER EASEMENT
BK. 6552, PG. 237 & [illegible] OF 1978

THALWEG OF RIVER

MEAN HIGH WATER

FEMA ZONE 'AE' 100 YR FLOOD ZONE

FLAGGED WETLANDS (TYP)

100 FT WETLAND BUFFER ZONE

100 FT RIVERFRONT PROTECTION AREA (TYP)

100 FT BUFFER ZONE

WETLAND BUFFER ZONE (TYP)

RIVERFRONT PROTECTION AREA BUFFER

ABANDONED

WOOD BRIDGE

POWWOW RIVER

RIVER STATION

SHIFT WIDENED WAY OUT ACCEPTED MAY / WARRANT ARTIC

FLOOD WAY

FLOOD ZONE AE

1 PIN SET

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR

0 30 60
SCALE, FEET

PERMIT SET

Attention:
0 1"
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH


SHEET NAME

EXISTING CONDITIONS (1 FIELD STREET)

SHEET NO.

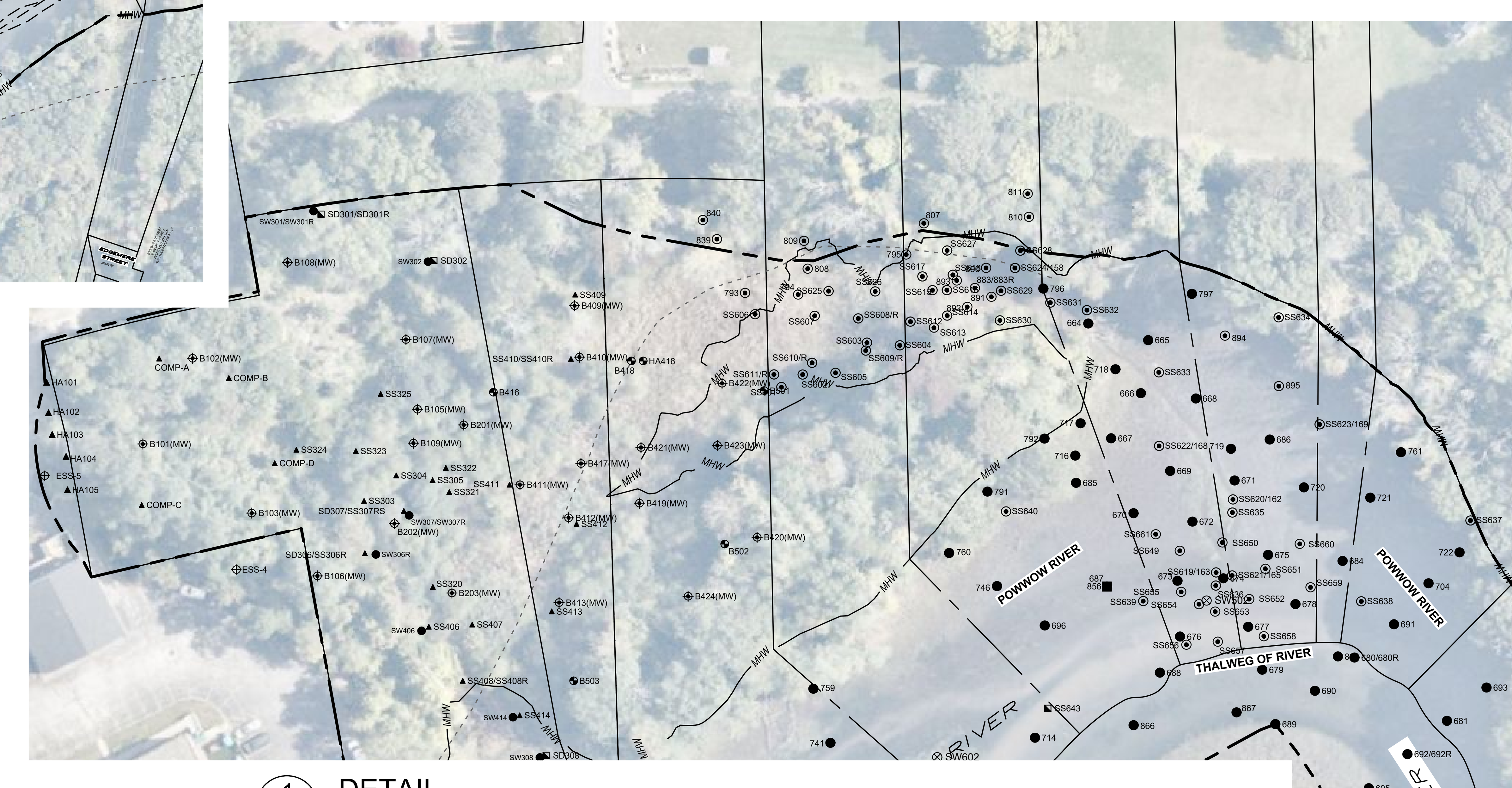
C-08

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RIVER SAMPLING LOCATION PLAN

SCALE: 1" = 150'



1 - DETAIL

WETLAND AND MUDFLAT SAMPLING LOCATIONS 1" = 60'

LEGEND:

- HAND TEST PIT
- HAND TEST PIT (VISUAL OBSERVATION)
- SEDIMENT CORE
- PIEZOMETER (DECOMMISSIONED)
- SEDIMENT CORE/ VIBRATING WIRE PIEZOMETER (DECOMMISSIONED)
- SEDIMENT PROBE
- SURFACE WATER SAMPLE
- SURFACE SEDIMENT SAMPLE
- SURFACE SOIL SAMPLE
- BORING BY GEI (MW) INDICATES MONITORING WELL INSTALLED
- MONITORING WELL BY GEI (DECOMMISSIONED)
- MONITORING WELL BY OTHERS

NOTES:

1. SEDIMENT CORE AND PIEZOMETER LOCATIONS ARE GPS-LOCATED. HAND TEST PIT, SURFACE SAMPLE, AND SEDIMENT SAMPLE LOCATIONS ARE APPROXIMATE.

0 60 120
SCALE, FEET

0 150 300
SCALE, FEET

PERMIT SET

Attention:
0 1"
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170 DATA DRIVE
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nationalgrid

PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME: **HISTORICAL & SUBSURFACE EXPLORATION PLAN**

SHEET NO. C-09

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ACCESS CORRIDOR TO REMEDIATION AREA

50-FOOT WIDE CONSTRUCTION ACCESS CORRIDOR

6-FOOT TEMPORARY FENCE WITHOUT PRIVACY SCREEN

WETLAND FLAGGING LIMIT

TEMPORARY DOCKING AREA ACCESS

LAYDOWN / SEDIMENT STAGING BOUNDARY

CONSTRUCTION ENTRANCE

BLOCK EXISTING 36" BASIN OUTLET DURING STAGING

6-FOOT TEMPORARY FENCE WITH PRIVACY SCREEN

MINIMUM 10-FOOT EXISTING VEGETATED BUFFER

TRUCK TURNAROUND AND CONSTRUCTION TRAILERS

EXISTING STORMWATER BASIN TO BE ALTERED

EXISTING STORMWATER BASIN TO REMAIN

LEASED PREMISES BOUDARY

BANK

POWWOW RIVER

THALWEG OF RIVER

FLOOD WAY

FLOOD ZONE AE

100 FT WETLAND BUFFER ZONE (TYP)

RIVERFRONT PROTECTION AREA (TYP)

100 FT WETLAND BUFFER ZONE (TYP)

ABANDONED

STORMWATER BASIN AREA

LAWN AREA

EXISTING BUILDING

EXISTING BUILDING

8 NOEL STREET

VARIABLE WIDTH PUBLIC ROW LAID OUT 1998 BK 17035 PG 416 AND 419 PLAN BK 350 PLAN 35

WETLAND BUFFER ZONE (TYP)

CHILDREN'S PLAY AREA

WOOD BRIDGE

I.ROD FND

I.PIPE FND

I.PIN SET

RR SPIKE FND

CUT OFF POLE (TYP)

36" CMP

36" CMP INV. = 13.0± BURIED

24" RCP

FIRE DEPT. CONNECTION

GAS METER

APPROX. LOCATION OF 36" DRAIN LINE PLAN 198/76

IN SO MUCH AS IT MAY STILL BE IN EFFECT, REMAINDER OF 30' WIDE DRAIN EASEMENT BK 7819, PG 390 & PLAN 198/76.

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 5574, PG. 662 PLAN 412 OF 1971 (SEE ALSO BK. 3225, PG. 321)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

EXISTING 20' WIDE SEWER EASEMENT BK. 6465 PG. 237 & PLAN 113 OF 1978

EXISTING 20' WIDE SEWER EASEMENT BK. 5552, PG. 604 PLAN 397 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6554, PG 326 PLAN 151/76 & PLAN 292/73

APPROXIMATE SEWER EASEMENT BK. 2167, PG 212 (PER TOWN OF AMESBURY SEWER PLANS)

APPROXIMATE SEWER EASEMENT BK 6468 PG. 133 PLAN 423/7 & PLAN 122 OF 1978

APPROXIMATE RIVERWALK EASEMENT PLAN 423/7

APPROXIMATE SEWER EASEMENT BK 6468 PG. 133 PLAN 122 OF 1978

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 666 PLAN 413 OF 1971

FLOWAGE RIGHTS AND OTHER RIGHTS FOR PATTEN'S POND TO THE RIVER BK. 2883 PG. 392 BK. 735 PG. 166

40 FT PIPE LINE EASEMENT LAID OUT MARCH 31 1998 AS WATER MAIN ARTICLE 31 SEE PLAN BOOK 350 PLAN 35 ON FILE AT ASSESSORS OFFICE

LEGEND

- LEASED PARCEL BOUNDARY
- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER LINE (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE LINE
- FEMA FLOODWAY LINE
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- X — PROPOSED FENCE (PRIVACY)
- PROPOSED FENCE (NON PRIVACY)
- 10 FT. LANDSCAPE BUFFER
- STAGING AREA
- ACCESS CORRIDOR

0 30 60
SCALE, FEET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
GEI CONSULTANTS, INC.
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BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME: **SITE PREPARATION PLAN (8 NOEL STREET)**

SHEET NO.: C-10

PERMIT SET

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EXISTING PERMANENT EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

I.PIN FND

20 FT

EXISTING RIVERWALK AND BIKEWAY EASEMENT BK. 14831 PG. 466 PLAN BK. 321 PG. 47

EXISTING ACTIVITY AND USE LIMITATION AREA BK. 14367 PG. 247 PLAN BK. 321 PG. 47

18" RCP

PAVED BIKE PATH

I.PIN FND

1/4" I.PIN FND .5FT B.G.

SQ. ROD FND

I.PIN FND

RWACC

4'x4' BOX CULVER

I.PIN SET

EXISTING TEMPORARY EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

ACCESS CORRIDOR TO REMEDIATION AREA

39 WATER STREET IMPORTED MATERIAL LAYDOWN AREA BOUNDARY

AUL AREA 1
1,519 SF

MEAN HIGH WATER (EL 4.8 NGVD 29)

FLOOD WAY

RIVERFRONT PROTECTION BOUNDARY

100 FT. WETLAND BUFFER ZONE (TYP)

FLOOD ZONE AE

100YR

MHW

LEGEND

- LEASED PARCEL BOUNDARY
- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER LINE (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE LINE
- FEMA FLOODWAY LINE
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- PROPOSED FENCE (PRIVACY)
- PROPOSED FENCE (NON PRIVACY)
- 10 FT. LANDSCAPE BUFFER
- STAGING AREA
- ACCESS CORRIDOR

0 20 40
SCALE, FEET

PERMIT SET

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BOSTON GAS COMPANY DBA NATIONAL GRID
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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SHEET NAME

SITE PREPARATION PLAN (39 WATER STREET)

SHEET NO.

C-11

ACCESS CORRIDOR TO REMEDIATION AREA

50-FOOT WIDE CONSTRUCTION ACCESS CORRIDOR

LEASED PREMISES BOUDARY

SEE SHEET C-10 FOR SITE PREPARATION AT 8 NOEL STREET

POWWOW RIVER

THALWEG OF RIVER

EXISTING LICENSE TO CROSS RIVER BK 3226 PG 218 PLAN 169 OF 1940

APPROX. EXISTING ELECTRIC UTILITY EASEMENT 0.7 BK. 4412 PG. 35 PLAN 670 OF 1957 (SEE ALSO BK. 3225, PG. 321)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 5574 PG. 662 PLAN 412 OF 1971 (SEE ALSO BK. 3225, PG. 321)

EXISTING 20' WIDE SEWER EASEMENT 1252 PG. 69H PLAN 391 OF 1918

APPROXIMATE SEWER EASEMENT BK. 6554, PG 325 PLAN 151/76 & PLAN 292/73

APPROXIMATE SEWER EASEMENT BK. 2167, PG 212 (PER TOWN OF AMESBURY SEWER PLANS)

ABANDONED 20" SEWER

WOOD BRIDGE

FLOOD WAY

FLOOD ZONE AE

100 FT WETLAND BUFFER ZONE (TYP)

100 FT RIVERFRONT PROTECTION AREA (TYP)

RIVERFRONT PROTECTION AREA

I.P.I.N SET

B100 B101 B102 B103 B104 B105 B106 B107 B108 B109 B110 B111 B112 B113 B114 B115 B116

MHW OHW 100YR

OAK STREET

FLOOD WAY

SEE PLANS 6-1, 33 NO ACCEPTANCE FOUND FOR THIS PORTION, PRESUMED TO BE PRIVATE

L.C. 404284

RIVER ST FORMER (PUBLIC) WATER STREET EXTENSION

30' LAYOUT AS LAID OUT PLAN 28, 1907, ACCEPTED MAY 1, 1907 WARRANT ARTICLE 6

LEGEND

- LEASED PARCEL BOUNDARY
- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER LINE (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE LINE
- FEMA FLOODWAY LINE
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- PROPOSED FENCE (PRIVACY)
- PROPOSED FENCE (NON PRIVACY)
- 10 FT. LANDSCAPE BUFFER
- STAGING AREA
- ACCESS CORRIDOR

0 30 60
SCALE, FEET

PERMIT SET

Attention:
0 1"
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

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SHEET NAME

SITE PREPARATION PLAN (1 FIELD STREET)

SHEET NO.

C-12

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POWWOW RIVER

THALWEG OF RIVER

NOEL STREET

50-FOOT WIDE CONSTRUCTION ACCESS CORRIDOR

ACCESS CORRIDOR TO REMEDIATION AREA

TEMPORARY DOCKING AREA ACCESS

TEMPORARY 70LF 12" Ø HDPE CULVERT @ 1.0%

STAGING AREA

STORMWATER BASIN AREA

LAWN AREA

ABANDONED

WOOD BRIDGE

CHILDREN'S PLAY AREA

EXISTING BUILDING

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

APPROX. EXISTING ELECTRIC UTILITY EASEMENT (SEE ALSO BK. 3335, PG. 321)

EXISTING 60' WIDE SEWER EASEMENT BK. 6588 PG. 604 PLAN 391 OF 1978

EXISTING 20' WIDE SEWER EASEMENT BK. 6466 PG. 237 & PLAN 113 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6554, PG 355 PLAN 157T76 & PLAN 282T73

APPROXIMATE SEWER EASEMENT BK. 2467 PG 178 (PER TOWN OF AMESBURY SEWER PLANS)

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 423T & PLAN 123 OF 1978

APPROXIMATE SEWER EASEMENT BK. 6468 PG. 133 PLAN 122 OF 1978

APPROXIMATE RIVERWALK EASEMENT PLAN 157T

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

40 FT WIDE LAYOUT - LAID OUT MARCH 31 1966 ACCEPTED MARCH 31 1966 SEE PLAN BK. 350 PLAN 35 ON FILE AT TOWN CLERK'S OFFICE

IN SO MUCH AS IT MAY STILL BE IN EFFECT, REMAINDER OF 30' WIDE DRAIN EASEMENT BK 7819, PG 390 & PLAN 198/76.

VARIABLE-WIDTH PUBLIC ROW LAID OUT 1997 BK. 27035 PG. 416 AND 419 PLAN BK. 350 PLAN 35

FLOWAGE RIGHTS AND OTHER RIGHTS FOR PATTEN'S POND TO THE RIVER BK. 2883 PG. 392 BK. 785 PG. 166

100 FT WETLAND BUFFER ZONE (TYP)

200 FT RIVERFRONT PROTECTION AREA (TYP)

FLOOD ZONE AE

FLOOD WAY

FLOOD ZONE AE (100 FT WETLAND BUFFER)

1 PIN SET

1 PIPE FND

1 ROD FND

RR SPIKE FND

CUT OFF POLE (TYP)

24" ROP

36" CMP

48" CMP

INV: 13.20

INV: 13.90

INV: = 13.0± BURIED

HP: 28.73

HP: 29.67

17.20

16.03

22.30

22.50

17.37

LEGEND

- LEASED PARCEL BOUNDARY
- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE LINE
- FEMA FLOODWAY LINE
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- STAGING AREA
- PROPOSED FENCE (PRIVACY)
- PROPOSED FENCE (NON PRIVACY)
- 25 — PROPOSED MAJOR CONTOUR
- 28 — PROPOSED MINOR CONTOUR
- 39.42 — EXISTING SPOT ELEVATION
- 39.60' / 2.5% — PROPOSED SPOT ELEVATION / PROPOSED SLOPE

0 30 60

SCALE, FEET

PERMIT SET

Attention:

0 1"

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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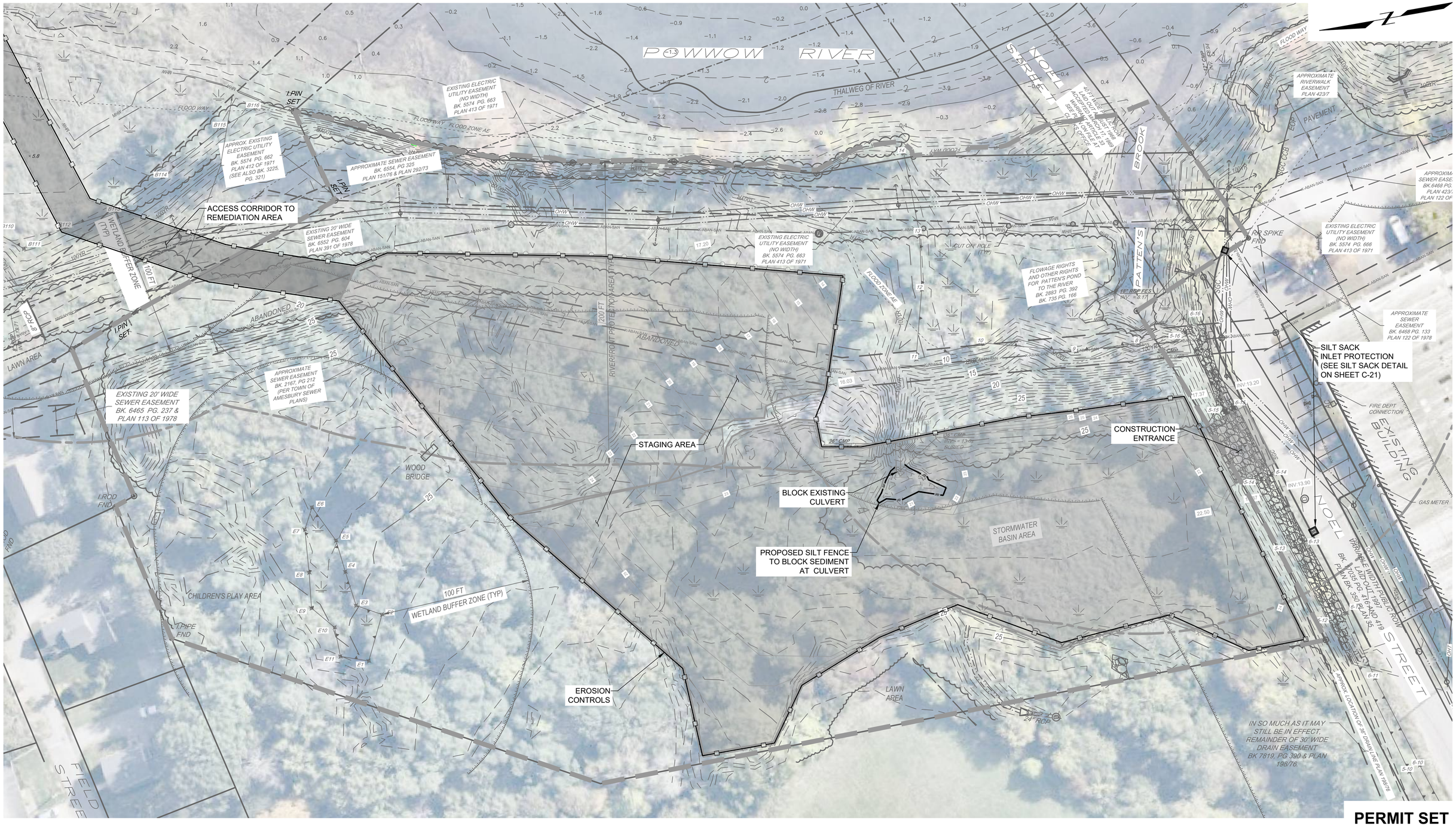
SHEET NAME

CONSTRUCTION ACCESS - GRADING PLAN (8 NOEL STREET)

SHEET NO.

C-13

HOWES, JODI b:\Working\national grid\1804576 amesbury mgp\00_CAD\Design\Sheets\2026-10 FOR PERMIT USE ONLY\1804577_C-13 CONSTRUCTION ACCESS - GRADING PLAN (8 NOEL STREET).dwg - 10/15/2026



PERMIT SET

LEGEND

- STAGING AREA
- SILT FENCE
- EROSION CONTROLS

0 30 60
SCALE, FEET

Attention:
0 1"
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Checked:	MWS
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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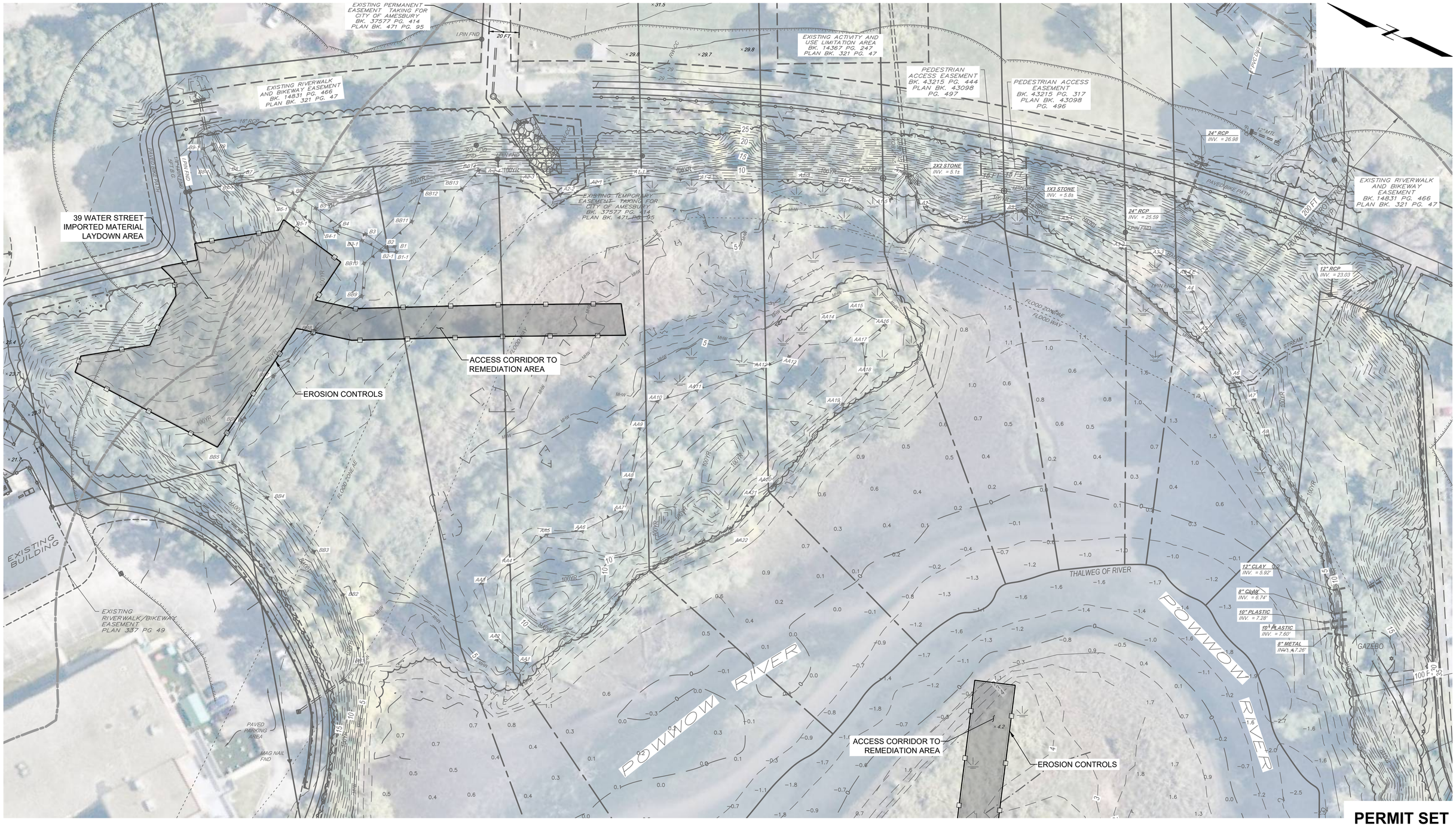
SHEET NAME

EROSION & SEDIMENT CONTROL PLAN (8 NOEL STREET)

SHEET NO.

C-14

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Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
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PHASE IV REMEDY IMPLEMENTATION PLAN

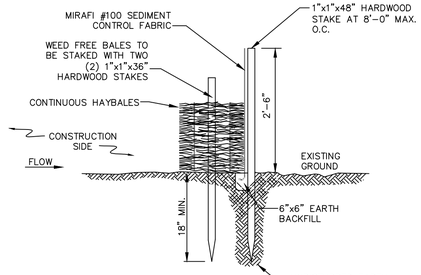
AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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SHEET NAME
EROSION & SEDIMENT CONTROL PLAN (39 WATER STREET)

SHEET NO.
C-15

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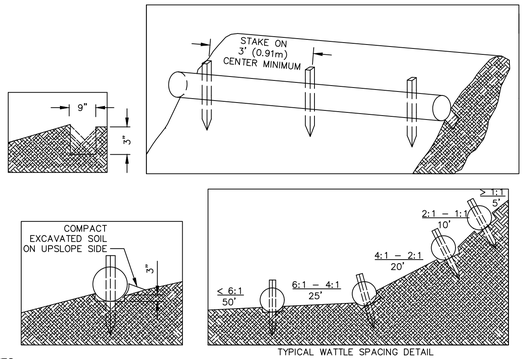
NOTES:

1. BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO (2) 1"x1"x36" HARDWOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. BALES SHALL BE REMOVED AND REPLACED WHEN THEY BECOME FILLED WITH SEDIMENT AND BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
5. BALES SHALL BE REMOVED WHEN THE EMBANKMENTS STABILIZE.
6. BALES TO BE TWINE BOUND.



SILT FENCE / WEED FREE BARRIER DETAIL

NOT TO SCALE



NOTES:

1. PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH OWNER'S REPRESENTATIVE.
3. MINIMUM 12" DIAMETER WATTLES SHOULD BE USED FOR HIGHLY DISTURBED AREAS (IE., HEAVILY USED ACCESS ROAD WITH ADJACENT WETLAND) AND MINIMUM 9-10" WATTLES SHOULD BE USED FOR LESS DISTURBED SOILS.

INSTALLATION NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18-24" HARDWOOD STAKES EVERY 3-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.



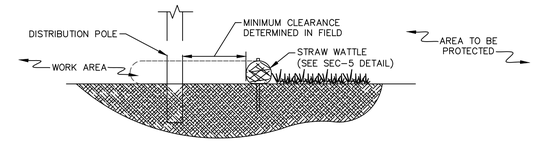
STRAW WATTLE – SHALLOW SLOPE (≤4:1)
(ALTERNATE STAKING)

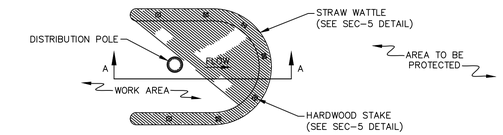
ALTERNATE STAKING INSTALLATION NOTES:

1. ON SHALLOW SLOPES (≤4:1), STRAW WATTLE MAY BE SECURED WITH 18–24" HARDWOOD STAKES DRIVEN AGAINST THE SIDES OF THE WATTLE INSTEAD OF THROUGH. STAKES SHALL ALTERNATE SIDES, AND BE SPACED 3–4' MAX.
2. TWINE SHALL BE TIED FROM STAKE TO STAKE, CRISS–CROSSING THE STRAW WATTLE. TIE TWINE TO STAKES BELOW THE HEIGHT OF THE WATTLE.

STRAW WATTLE DETAIL

NOT TO SCALE





NOTES

1. PRODUCT TO BE STRAW WATTLE OR APPROVED EQUAL BY OWNER'S REPRESENTATIVE (SEE SEC-5 BMP DETAIL).
2. STRAW BALE BARRIER PER SEC-1 BMP DETAIL TO BE AN AVAILABLE ALTERNATE DEPENDING ON SITE CONDITIONS AT THE DIRECTION OF OWNER'S REPRESENTATIVE (SEE FIGURE 2).
3. MINIMUM CLEARANCE BETWEEN POLE AND EROSION CONTROL TO BE DETERMINED BY CONDITIONS OF POLE INSTALLATION/REPLACEMENT WORK AND ASSOCIATED DISTURBANCE.



FIGURE 1: TYP. STRAW WATTLE APPLICATION



FIGURE 2: ALT. STRAW BALE APPLICATION

DISTRIBUTION POLE SEDIMENT CONTROL DETAIL

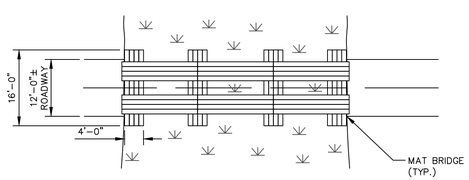
NOT TO SCALE

NOTES:

1. PRODUCT TO BE ALTURNAMATS' PREFABRICATED MATS OR APPROVED EQUAL BY OWNER'S REPRESENTATIVE.
2. PRODUCT AVAILABLE IN 4X8' UNITS.
3. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

PREFABRICATED MAT DETAIL

NOT TO SCALE



NOTES:

1. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.





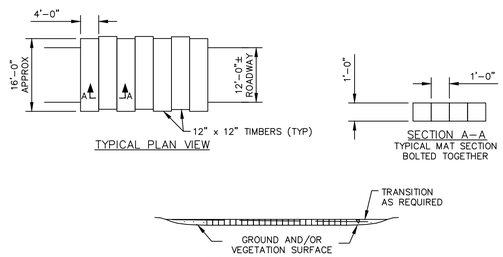


NOTES:

1. WHERE STREAM WIDTH ALLOWS, INSTALL CONSTRUCTION MATS TO SPAN THE WATERCOURSE IN ITS ENTIRETY WITHOUT STRINGER PLACEMENT IN THE WATER OR ANY RESTRICTION OF STREAM FLOW.
2. INSTALLATION OF THE CONSTRUCTION MAT BRIDGE SHALL NOT DAMAGE THE STREAM BED AND BANKS. WHERE POSSIBLE, FOOTERS SHALL BE PLACED PARALLEL TO THE TOP OF THE STREAM BANKS, WITH ACCESS MATTING PLACED ACROSS THE TOP OF THE STRINGERS DISTRIBUTING THE WEIGHT OF THE CONSTRUCTION EQUIPMENT.
3. AT STREAM CROSSINGS THAT CANNOT BE SPANNED BY A SINGLE SECTION OF CONSTRUCTION MATTING, AND WHERE PERMITS ALLOW, STRINGERS SHALL BE PLACED ATOP THE STREAM BED PARALLEL TO THE FLOW OF WATER.

CONSTRUCTION MAT BRIDGE DETAIL

NOT TO SCALE



NOTES:

1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING, TO ACCESS STRUCTURES.
2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTOR'S CONSTRUCTION MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF CONSTRUCTION MATS MAY BE INSTALLED.



CONSTRUCTION MAT LAYOUT DETAIL

WITH TRANSITION

NOT TO SCALE

PERMIT SET

Attention:

0 1"

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Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
GEI CONSULTANTS, INC.
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BOSTON GAS COMPANY DBA NATIONAL GRID
170 DATA DRIVE
WALTHAM, MA 02451

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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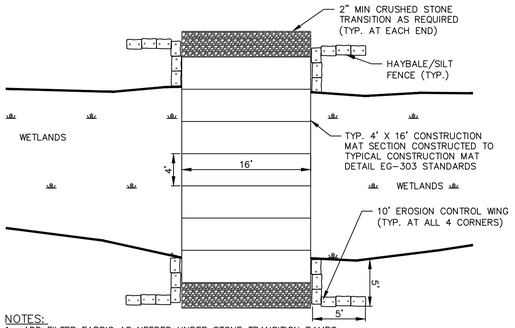
SHEET NAME

TEMPORARY CONSTRUCTION DETAILS (1 OF 4)

SHEET NO.

C-16

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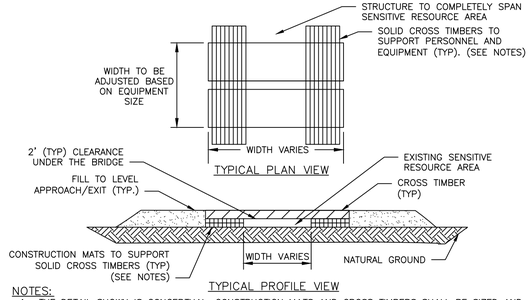


NOTES:
1. ADD FILTER FABRIC AS NEEDED UNDER STONE TRANSITION RAMPS.
2. ALL MEASUREMENTS AND LOCATIONS ARE APPROXIMATE.



CONSTRUCTION MAT LAYOUT DETAIL
WITH TRANSITION AND BMPS

NOT TO SCALE

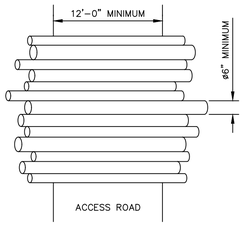


NOTES:
1. THE DETAIL SHOWN IS CONCEPTUAL. CONSTRUCTION MATS AND CROSS TIMBERS SHALL BE SIZED AND SELECTED BASED ON SPAN WIDTH, CROSSING EQUIPMENT AND FIELD CONDITIONS.
2. THE NUMBER OF CONSTRUCTION MATS MAY VARY DEPENDING ON THE CLEARANCE HEIGHT.
3. EQUIPMENT AND PERSONNEL LOAD SHALL BE DISTRIBUTED ON ALL TIMBERS.
4. EACH EQUIPMENT OPERATOR AND USER OF THE FIELD BRIDGE SHALL BE FAMILIAR WITH THE DESIGN AND THE MAXIMUM EQUIPMENT AND PERSONNEL LOADS.
5. THIS DETAIL MAY NOT BE APPLICABLE IN ALL FIELD CONDITIONS.
6. INSTALL EROSION CONTROLS ADJACENT TO THE CULVERT ENDS TO PROTECT THE WATERWAY FROM ROADWAY DEBRIS.



CONSTRUCTION MAT - AIR BRIDGE DETAIL

NOT TO SCALE



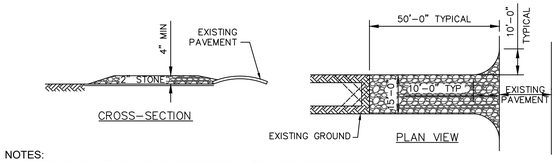
RANDOM LENGTH AND DIAMETER LOGS PLACED ACROSS AN ACCESS ROAD

NOTE:
1. A SIMILAR BRUSH MAT INSTALLATION CONSISTING OF SMALLER DIAMETER STEMS AND LOGS CAN BE USED.
2. CORDUROY ROADS SHALL ONLY BE USED IN EMERGENCIES OR AFTER APPROVAL FROM OWNER'S REPRESENTATIVE.



CORDUROY DETAIL

NOT TO SCALE

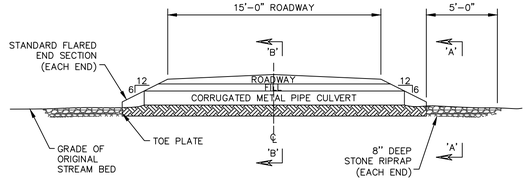


NOTES:
1. STONE SIZE - USE 2" STONE (MINIMUM) TO 6" STONE (MAXIMUM)
2. LENGTH - GREATER THAN OR EQUAL TO 50 FEET
3. THICKNESS - 4"
4. WIDTH - FIFTEEN (15) FOOT TYP., BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS ENTRANCE. IF PIPING IS IMPRACTICAL, MOUNTABLE BERM SHALL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.
8. THE CLEAN STONE SHOULD BE INSTALLED OVER A GEOTEXTILE FABRIC, GEOTEXTILE FABRIC MAY BE OMITTED FOR PERMANENT CONSTRUCTION ENTRANCES/EXITS ON A CASE-BY-CASE BASIS WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
9. FOLLOWING CONSTRUCTION, THE CONSTRUCTION ENTRANCE/EXIT SHALL BE REMOVED AND THE AREA GRADED, SEEDED, AND MULCHED AS NEEDED. ENTRANCE/EXITS MAY REMAIN DEPENDING UPON FUTURE ACCESS NEEDS AND/OR PROJECT-SPECIFIC APPROVALS BUY REQUIRES APPROVALS FROM OWNER'S REPRESENTATIVE.



TEMPORARY CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT TO SCALE



NOTES:
1. CULVERT DESIGN AND LAYOUT SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE.
2. CROWN ROADWAY 1/2 INCH PER FOOT.
3. LAY THE CULVERT STRAIGHT AND AS NEARLY AS POSSIBLE ALONG THE EXISTING STREAM BED AND WITH THE INVERTS AT OR SLIGHTLY BELOW BED ELEVATION.
4. CORRUGATED METAL PIPE IS TO BE GALVANIZED STEEL, OR ALUMINIZED STEEL (TYPE 2), WITH BOLTED CONNECTORS.
5. DIAMETERS SHALL BE AS PER THE PROJECT DRAWINGS AND THE SPECIFICATION. THE PIPE GAGE SHALL BE AS FOLLOWS:

DIAMETER (INCHES)	GAGE
12" – 15"	.004"
18" – 24"	.079"
30" – 36"	.109"

6. INSTALLATION OF CULVERTS LARGER THAN 36 INCH DIAMETER SHALL REQUIRE SPECIAL ENGINEERING DESIGN.
7. SELECT SUBGRADE SHALL BE A GRANULAR MATERIAL AS DESCRIBED IN NYSDOT SPECIFICATION ITEM 03-2.02C, OR AS APPROVED BY A NGES.
8. STONE RIPRAP SHALL BE AS DESCRIBED IN NYSDOT SPECIFICATION ITEM 203-2.02D, WITH 8 INCH MAXIMUM SIZE, OR AS APPROVED BY A NGES. EXCEPT WHERE PROTECTED BY STONE, ALL EMBANKMENT SLOPES ARE TO BE STABILIZED, MULCHED AND SEEDED AS PER PROJECT SPECIFICATIONS.
9. OUTLET SHOULD BE CONFIGURED NOT TO CREATE HYDRAULIC JUMP OR PLUNGE POOL.
10. INSTALL EROSION CONTROLS ADJACENT TO THE CULVERT ENDS TO PROTECT THE WATERWAY FROM ROADWAY DEBRIS.



TEMPORARY CONSTRUCTION CULVERT DETAIL

NOT TO SCALE



NOTE:
1. PICTURE SHOWS VIEW OF ACCESS WAY STABILIZATION ADJACENT TO A WETLAND. COORDINATE STABILIZATION DESIGN AND PRODUCT WITH OWNER'S REPRESENTATIVE.

ACCESS WAY STABILIZATION DETAIL

NOT TO SCALE



NO ACCESS – WETLAND/STREAM CROSSING MATS REQUIRED



NO ACCESS – A.) PROJECT LIMITS E.G. ROW LIMITS
B.) HISTORICAL/CULTURAL
C.) ENVIRONMENTALLY SENSITIVE E.G. THREATENED & ENDANGERED
D.) OTHER



APPROVED ACCESS

CONSTRUCTION SIGNAGE

NOT TO SCALE

PERMIT SET

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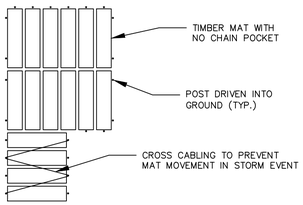
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AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

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SHEET NAME
TEMPORARY CONSTRUCTION DETAILS (2 OF 4)

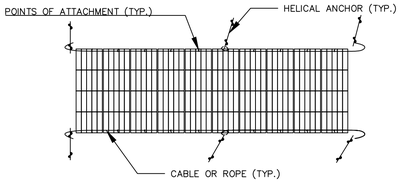
SHEET NO.
C-17



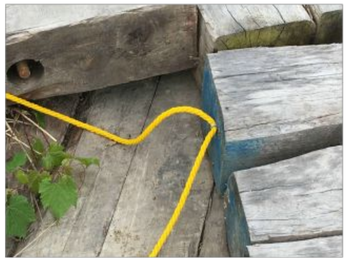
TYPICAL PLAN VIEW

NOTES:
1. EXAMPLES OF ANCHORING ONLY. MATTING CONTRACTOR SHALL PROPOSE THE METHOD OF ANCHORING BASED ON FIELD CONDITIONS.
2. ANCHORING METHOD TO BE APPROVED BY THE OWNER'S REPRESENTATIVE.

NOTES:
1. TYPICAL HELICAL ANCHOR AND CABLE CONFIGURATION FOR MAT CONTAINMENT IN FLOODPLAINS/LAND SUBJECT TO FLOODING.
2. TYPICAL POINTS OF ATTACHMENT HEAVY STAPLES, EYE BOLTS OR OTHER SUITABLE HARDWARE TO SECURE ATTACHMENT OF MAT TO LINEAR CABLE. IF CHAIN POCKETS ARE PRESENT IN THE MATS CABLE OR ROPE CAN BE LOOPED THROUGH RODS.







CONSTRUCTION MAT ANCHORING DETAIL

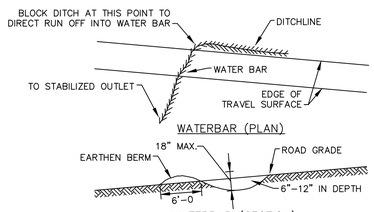
NOT TO SCALE



NOTE:
1. PICTURE SHOWS SEDIMENT FILTER WITHIN A WETLAND.

SEDIMENT FILTER DETAIL

NOT TO SCALE



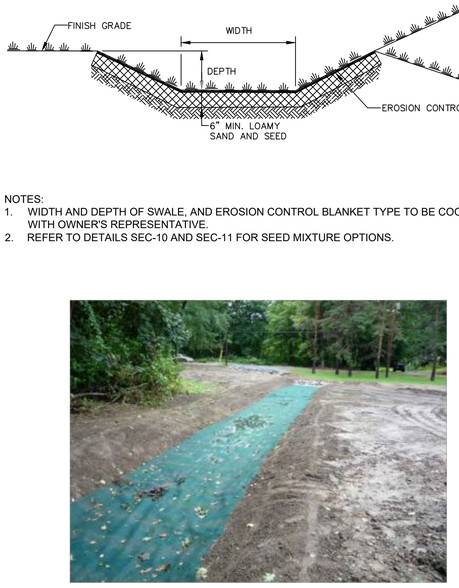
NOTE:
1. LINE WITH 2"-6" STONE UNDERLAIN BY GEOTEXTILE FILTER FABRIC, KEYED INTO ROAD SURFACE AT LEAST 10 FEET EACH SIDE OF WATERBAR.
2. COORDINATE SPACING WITH OWNER'S REPRESENTATIVE.





WATERBAR DETAIL

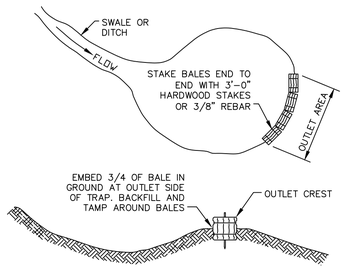
NOT TO SCALE



NOTES:
1. WIDTH AND DEPTH OF SWALE, AND EROSION CONTROL BLANKET TYPE TO BE COORDINATED WITH OWNER'S REPRESENTATIVE.
2. REFER TO DETAILS SEC-10 AND SEC-11 FOR SEED MIXTURE OPTIONS.

DRAINAGE SWALE AND LINED DITCH DETAIL

NOT TO SCALE



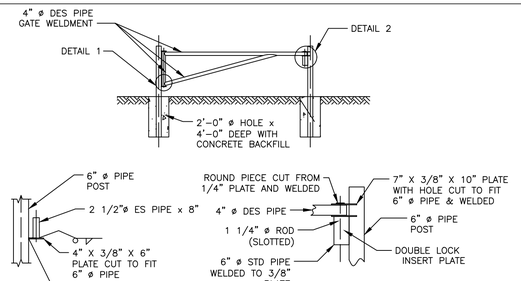
TYPICAL PROFILE

NOTES
1. SIZE, SHAPE AND PROFILE OF SEDIMENT WILL VARY ACCORDING TO ANTICIPATED FLOW VOLUME AND SURROUNDING TERRAIN AND SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE
2. THE BASIN SHALL BE CUT BELOW THE GROUNDLINE. FILL SHALL NOT BE USED TO HOLD WATER UNLESS ROLLED AND COMPACTED.
3. OUTLET AREA IS TO REMAIN FREE OF EXCAVATION SPOILS.
4. OUTLET CREST ELEVATION SHALL BE LOWER THAN INLET ELEVATION AND AT LEAST 1'-0" BELOW THE TOP OF THE BASIN.ARMOUR SLOPES >8% IN OUTLET AREA WITH STONE OF APPROPRIATE SIZE TO PREVENT SCOUR.
5. ARMOUR SLOPES >8% IN OUTLET AREA WITH STONE OF APPROPRIATE SIZE TO PREVENT SCOUR.



SEDIMENTATION DETAIL

NOT TO SCALE



DETAIL 1
SIMILAR DETAIL AT TOP

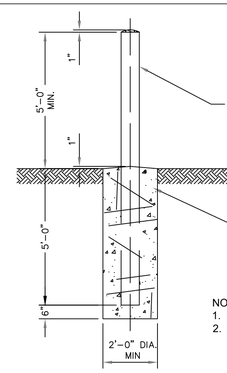
DETAIL 2

NOTES:
1. ALL GATE STEEL PIPES SHALL BE IN ACCORDANCE WITH ASTM A-501, PLATES SHALL BE ASTM A-36.
2. ALL STEEL PIPES SHALL BE PRIMED WITH ZINC-CHROMATE PRIMER AND FINISHED WITH AN APPROVED OSHA "SAFETY YELLOW" TOP COAT COMPATIBLE WITH THE PRIMER AND FOR EXTERIOR EXPOSURE.
3. REFLECTORS SHALL BE SPACED AT 3 FEET ALONG THE LENGTH OF THE CROSSBAR AND BRACE
4. BACKFILL AT POSTS TO BE COMPACTED.



ROW GATE / FENCE DETAIL

NOT TO SCALE



NOTES:
1. ALL CONCRETE TO BE 2500 P.S.I. MINIMUM.
2. COORDINATE LOCATIONS WITH OWNER'S REPRESENTATIVE.



BOLLARD DETAIL
WITH TRANSITION

NOT TO SCALE

PERMIT SET

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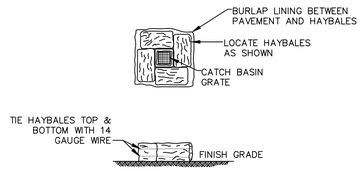
PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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SHEET NAME
TEMPORARY CONSTRUCTION DETAILS (3 OF 4)

SHEET NO.
C-18



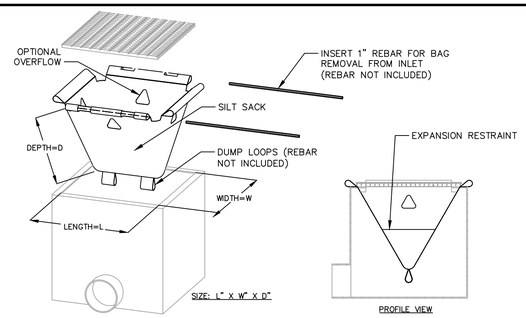
NOTES:

1. SURROUND STREET DRAINAGE STRUCTURE INLET WITH HAY BALES PRIOR TO CONSTRUCTION AND MAINTAIN UNTIL CONSTRUCTION IS COMPLETED. ACCUMULATED SEDIMENTS SHALL BE REMOVED.
2. HAYBALES PLACED ON PAVEMENT SHALL HAVE BURLAP PLACED BETWEEN PAVEMENT AND HAYBALE



CATCH BASIN INLET PROTECTION DETAIL

NOT TO SCALE



NOTES:

1. PRODUCT TO BE SILT SACK OR APPROVED EQUAL BY OWNER'S REPRESENTATIVE.
2. THE USE OF A SILT SACK OPTIONAL OVERFLOW AND OVERALL DIMENSIONS ARE TO BE COORDINATED WITH A NATIONAL GRID ENVIRONMENTAL SCIENTIST OWNER'S REPRESENTATIVE.



SILT SACK DETAIL

NOT TO SCALE

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SHEET NAME

TEMPORARY CONSTRUCTION DETAILS (4 OF 4)

SHEET NO.

C-19

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WETLAND EXCAVATION/DREDGE FOOTPRINT

MUDFLAT EXCAVATION/DREDGE FOOTPRINT

RIVER 2 DREDGE FOOTPRINT

RIVER 1 DREDGE FOOTPRINT

SHEET C-21

SHEET C-22

SHEET C-23

SHEET C-24

POWWOW RIVER

RIVER COURT

OAK STREET

RIVER STREET

CHASE STREET

FIELD STREET

CHILD STREET

MCLEOD COURT

EAST GREENWOOD STREET

EXISTING BUILDING

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- SUBAQUEOUS CAP AREA
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)

0 80 160
SCALE, FEET

PERMIT SET

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SHEET NAME

POWWOW RIVER DREDGING OVERALL PLAN

SHEET NO.

C-20

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MAG NAIL
FND

PAVED PATH

1.5
MEAN HIGH WATER PER
TOPOGRAPHIC SURVEY BY
HAYNER/SWANSON INC. 2023
ELEV.= 4.80FT (NGVD29)

EXISTING 20' WIDE
SEWER EASEMENT
PLAN 149 PG 75

EXISTING
RIVERWALK/BIKEWAY
EASEMENT
PLAN 337 PG 49

I-PIN
FND

RIVER 1 DREDGE AREA

THALWEG OF RIVER

POWWOW RIVER

SEE SHEET C-22

MATCH LINE

BOAT RAMP

EXISTING 20' WIDE SEWER EASEMENT
BK. 6465 PG. 237
PLAN 113 OF 1978

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- 25 — PROPOSED MAJOR CONTOUR
- 28 — PROPOSED MINOR CONTOUR

0 20 40
SCALE, FEET

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SHEET NAME
POWWOW RIVER DREDGING PLAN (1 OF 4)

SHEET NO.
C-21

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MUDFLAT DREDGE AREA - BELOW MHW

MUDFLAT EXCAVATION AREA - ABOVE MHW

WETLAND DREDGE AREA - BELOW MHW

WETLAND EXCAVATION AREA - ABOVE MHW

ACCESS CORRIDOR TO REMEDIATION AREA

RIVER 2 DREDGE AREA

ACCESS CORRIDOR TO REMEDIATION AREA

THALWEG OF RIVER

POWWOW RIVER

FLOOD ZONE AE
FLOOD WAY

GAZEBO

100 FT

I.PIN FND

I.PIN SET

1X3 STONE
INV. = 5.8±

2X3 STONE
INV. = 5.1±

12" CLAY
INV. = 5.92

8" CLAY
INV. = 6.74

10" PLASTIC
INV. = 7.28

10" PLASTIC
INV. = 7.60

8" METAL
INV. = 7.06

EXISTING ACTIVITY AND USE LIMITATION AREA 1,567 SQ. FT. PLAN BK. 321 PG. 47

EXISTING TEMPORARY TAKING AREA 1,414 SQ. FT. FOR CIRCLE K PLAN BK. 321 PG. 99

PROFESSIONAL ENGINEER EASEMENT PLAN BK. 4309 PG. 47

SEE SHEET C-23

SEE SHEET C-21

MATCH LINE

MATCH LINE

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- 25 — PROPOSED MAJOR CONTOUR
- 28 — PROPOSED MINOR CONTOUR

0 20 40
SCALE, FEET

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WALTHAM, MA 02451

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME

POWWOW RIVER DREDGING PLAN (2 OF 4)

SHEET NO.

C-22

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RIVER 2 DREDGE AREA

THALWEG OF RIVER

POWWOW RIVER

FLOOD WAY

FLOOD ZONE AE

OAK STREET

RIVER STREET

MATCH LINE

SEE SHEET C-22

SEE SHEET C-24

ACCESS CORRIDOR TO REMEDIATION AREA

EXISTING LICENSE TO CROSS RIVER BK 3226 PG 218 PLAN 169 OF 1940

APPROX. EXISTING ELECTRIC UTILITY EASEMENT BK. 4412 PG. 35 PLAN 670 OF 1957 (SEE ALSO BK. 3225, PG. 321)

EXISTING ELECTRIC UTILITY EASEMENT (NO WIDTH) BK. 5574 PG. 663 PLAN 413 OF 1971

33 FT WIDE SEE PLANS 6-HY AND LC 4042BA NO ACCEPTANCE FOUND FOR THIS PORTION PRESUMED TO BE PRIVATE

PUBLIC WATER FOR FIRE PROTECTION ONLY

SCPT RELAY OCC APRIL 23, 1907 ACCEPTED MAY 13, 1907 WARRANT ARTICLE 6

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- 25 — PROPOSED MAJOR CONTOUR
- 28 — PROPOSED MINOR CONTOUR

0 20 40
SCALE, FEET

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

GEI Consultants
GEI CONSULTANTS, INC.
100 QUANNAPOWITT PARKWAY
WAKEFIELD, MA 01880
781.721.4000

BOSTON GAS COMPANY DBA NATIONAL GRID
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WALTHAM, MA 02451

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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SHEET NAME

POWWOW RIVER DREDGING PLAN (3 OF 4)

SHEET NO.

C-23

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LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- MHW — *MEAN HIGH WATER (EL 4.80 FT NGVD 29)*
- 25 — *EXISTING MAJOR CONTOUR*
- 27 — *EXISTING MINOR CONTOUR*
- 25 — PROPOSED MAJOR CONTOUR
- 28 — PROPOSED MINOR CONTOUR

0 20 40
SCALE, FEET

PERMIT SET

Attention:
0 1"
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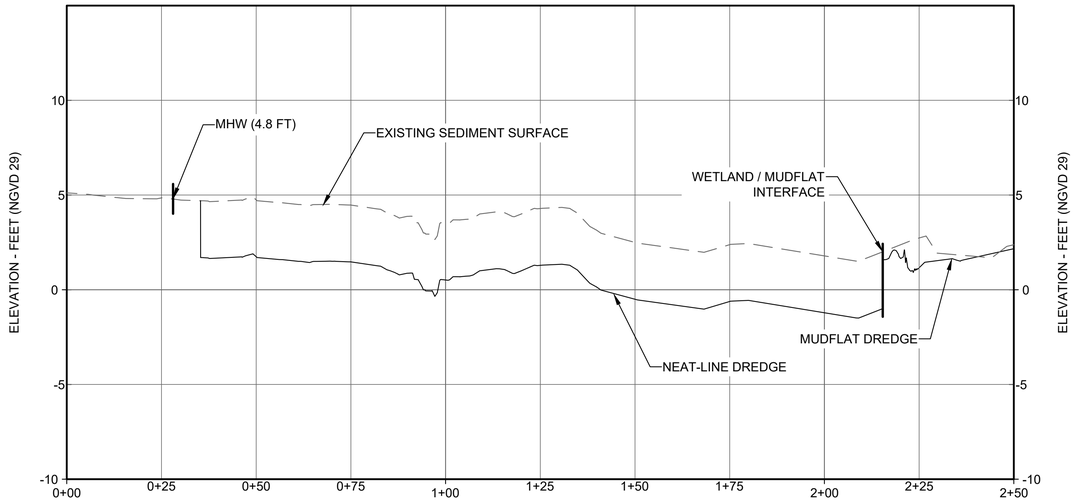
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AMESBURY, MASSACHUSETTS

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0	10/15/2026	PERMIT SET	RSH

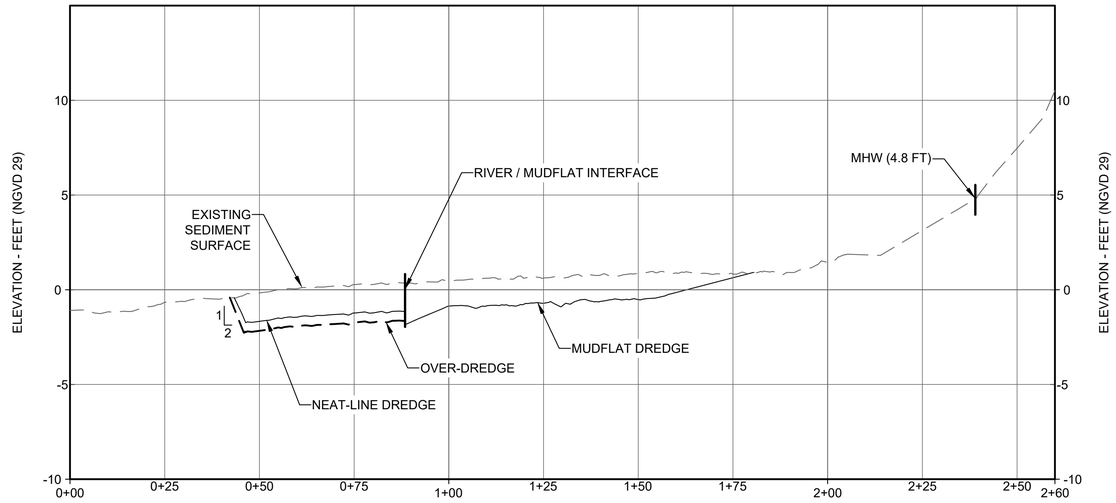
SHEET NAME
POWWOW RIVER DREDGING PLAN (4 OF 4)

SHEET NO.
C-24

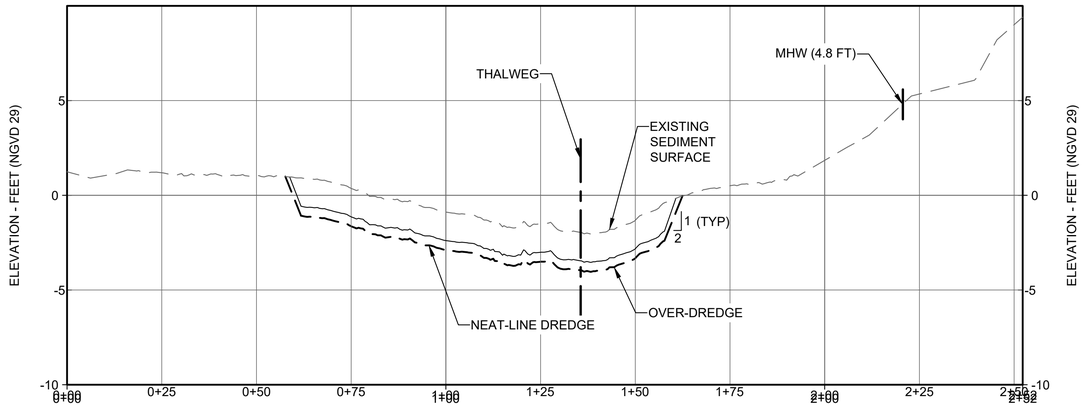
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TYPICAL SECTION
WETLAND AND MUDFLAT AREA



TYPICAL SECTION
MUDFLAT AND RIVER AREA



TYPICAL SECTION
RIVER AREA

PERMIT SET

HORIZONTAL SCALE, FEET
0 20 40
0 4 8
VERTICAL SCALE, FEET
NOTE: 5x VERTICAL EXAGGERATION

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
TYPICAL DREDGE SECTIONS

SHEET NO.
C-25

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MUDFLAT EXCAVATION/DREDGE FOOTPRINT

WETLAND EXCAVATION/DREDGE FOOTPRINT

SUBAQUEOUS CAP/MUDFLAT INTERFACE AREA (SEE TYPICAL DETAIL SHEET C-27)

SUBAQUEOUS CAP AREA (RIVER 2) (SEE TYPICAL DETAIL SHEET C-27)

SUBAQUEOUS CAP AREA (RIVER 1) (SEE TYPICAL DETAIL SHEET C-27)

LEGEND

- RIVER 1 DREDGE AREA
- WETLAND EXCAVATION AREA - ABOVE MHW
- WETLAND DREDGE AREA - BELOW MHW
- MUDFLAT EXCAVATION AREA - ABOVE MHW
- MUDFLAT DREDGE AREA - BELOW MHW
- RIVER 2 DREDGE AREA
- SUBAQUEOUS CAP
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)

0 80 160
SCALE, FEET

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
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PHASE IV REMEDY IMPLEMENTATION PLAN

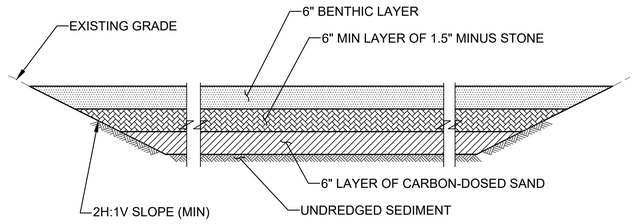
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AMESBURY, MASSACHUSETTS

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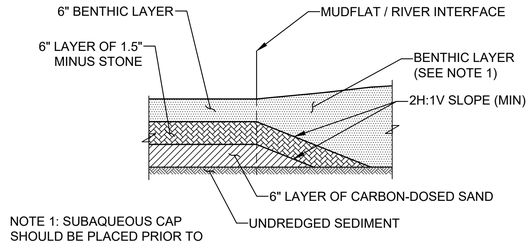
SHEET NAME: **SEDIMENT CAP PLAN**

SHEET NO.: C-26

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TYPICAL DETAIL
SUBAQUEOUS CAP NOT TO SCALE



NOTE 1: SUBAQUEOUS CAP SHOULD BE PLACED PRIOR TO BACKFILLING OF MUDFLAT

TYPICAL DETAIL
SUBAQUEOUS CAP
MUDFLAT INTERFACE NOT TO SCALE

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
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PHASE IV REMEDY IMPLEMENTATION PLAN

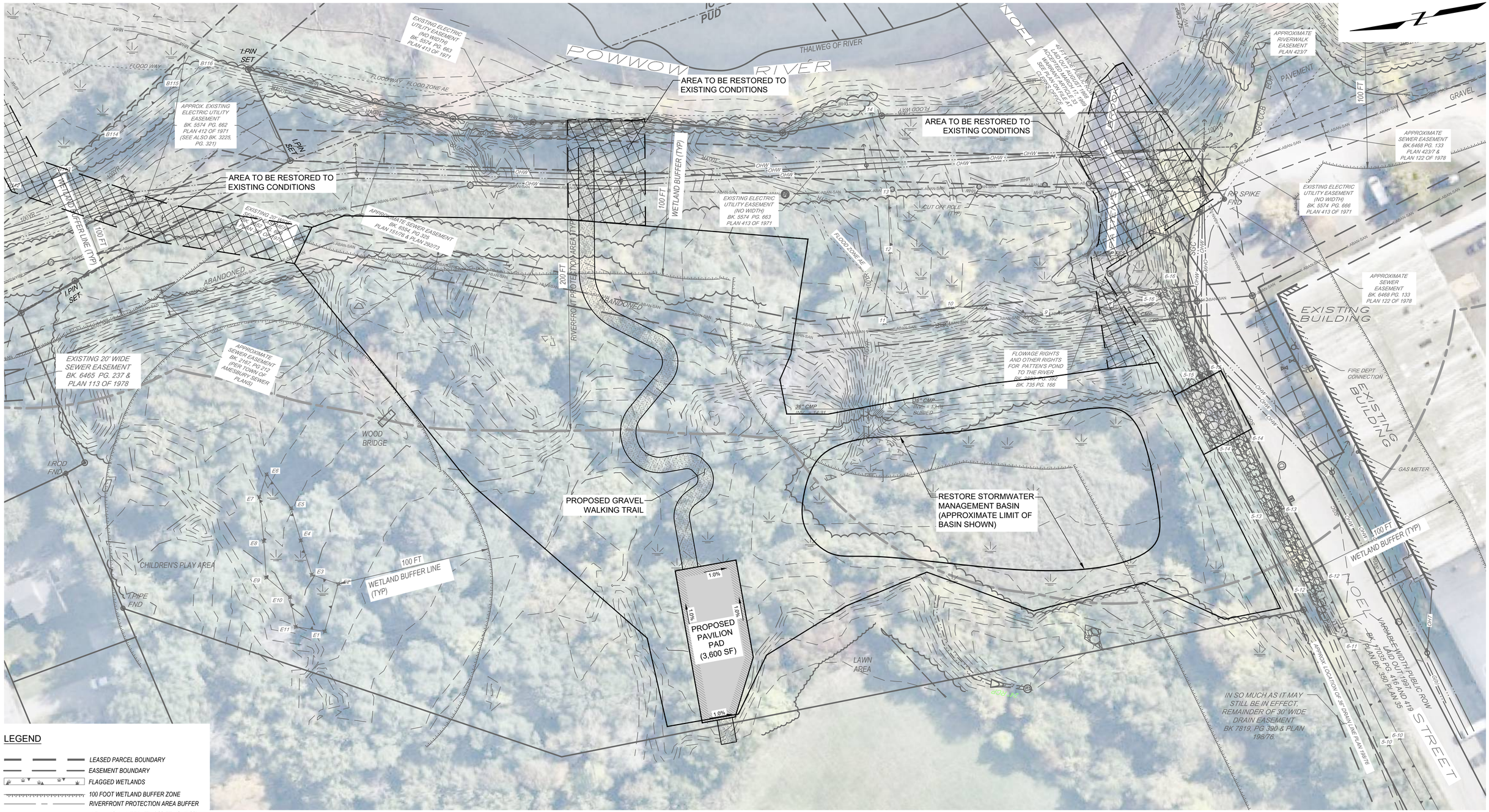
AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

SHEET NAME
SEDIMENT CAP DETAILS

SHEET NO.
C-27

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LEGEND

- LEASED PARCEL BOUNDARY
- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- PROPOSED WALKING TRAIL
- PROPOSED PAVILION PAD
- RESTORE TO EXISTING CONDITIONS
- PROPOSED SLOPE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

0 30 60
SCALE, FEET

GENERAL RESTORATION PLAN
8 NOEL STREET SCALE: 1" = 30'

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
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SHEET NAME
GENERAL RESTORATION PLAN (8 NOEL STREET)

SHEET NO.
C-28

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EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

I.PIN FND

20 FT

EXISTING USE LIM... BK. 14... PLAN BK. 321 PG. 47

EXISTING RIVERWALK AND BIKEWAY EASEMENT BK. 14831 PG. 466 PLAN BK. 321 PG. 47

18" RCP

PAVED BIKE PATH

I.PIN FND 1/4"+ 5FT B.G.

SQ ROD END

I.PIN FND

RIP RAP

RW-CC

EXISTING TEMPORARY EASEMENT TAKING FOR CITY OF AMESBURY BK. 37577 PG. 414 PLAN BK. 471 PG. 95

I.PIN SET

ACCESS CORRIDOR TO REMEDIATION AREA

39 WATER STREET IMPORTED MATERIAL LAYDOWN AREA BOUNDARY

RESTORE TO EXISTING CONDITIONS

FLOOD WAY

FLOOD ZONE AE

100YR

MHW

B9-1 B9 B8-1 B8 B7 B7-1 B6 B6-1 B5 B5-1 B4 B4-1 B3 B3-1 B2 B2-1 B1 B1-1 BB14 BB13 BB12 BB11 BB10 BB9 BB8 BB7 BB5 BB4 BB3

A2-4 A2-3 A2-2 A2-1 A1-1 A1-2 A1-3 A1-4 A1-5

AA15 AA14 AA16 AA17 AA18 AA13 AA12 AA11 AA10 AA19 AA9 AA8 AA20 AA21 AA7 AA6 AA5 AA22

× 29.8 × 29.7 × 29.8 × 23.7 × 22.3 × 21.9 × 21.7

30 29 29 25 20 15 10 5 5

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- RESTORE TO EXISTING CONDITIONS

0 20 40
SCALE, FEET

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

Designed:	JES
Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

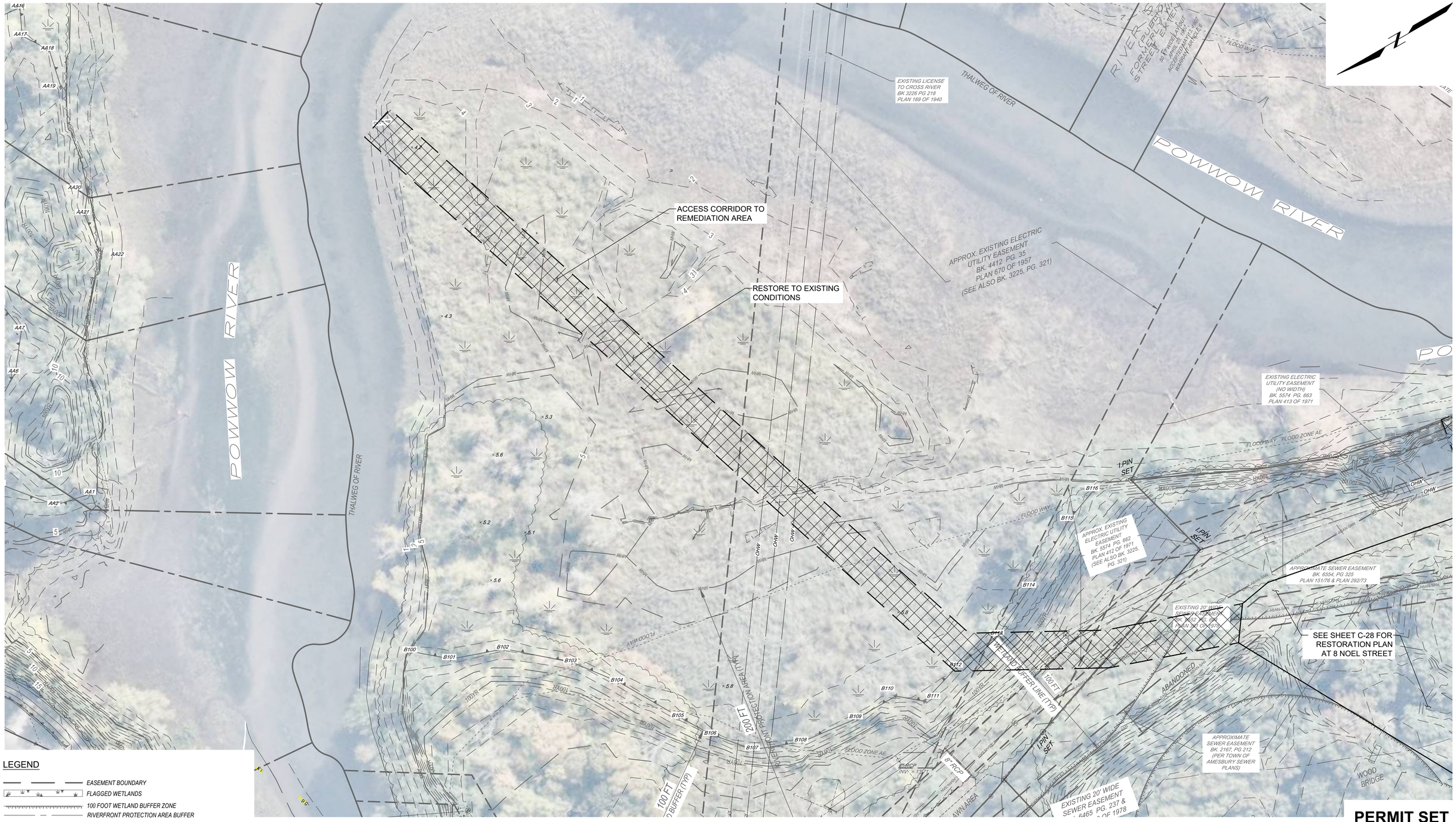
SHEET NAME

GENERAL RESTORATION PLAN (39 WATER STREET)

SHEET NO.

C-29

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PERMIT SET

LEGEND

- EASEMENT BOUNDARY
- FLAGGED WETLANDS
- 100 FOOT WETLAND BUFFER ZONE
- RIVERFRONT PROTECTION AREA BUFFER
- MHW — MEAN HIGH WATER (EL 4.80 FT NGVD 29)
- 100YR — FEMA ZONE 'AE' 100-YEAR FLOOD ZONE (EL 11.6 FT NGVD 29)
- FEMA FLOOD ZONE
- FEMA FLOODWAY
- 25 — EXISTING MAJOR CONTOUR
- 27 — EXISTING MINOR CONTOUR
- RESTORE TO EXISTING CONDITIONS

0 30 60
SCALE, FEET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

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Drawn:	JAH
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
0	10/15/2026	PERMIT SET	RSH

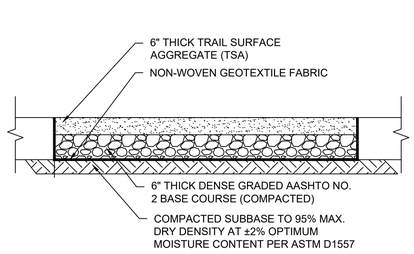
SHEET NAME

GENERAL RESTORATION PLAN (1 FIELD STREET)

SHEET NO.

C-30

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Sieve Size	TSA Percent Passing
1/2"	100%
3/8"	90-100
#4	75-90
#8	55-75
#16	35-50
#200	12-20

TSA SPECIFICATIONS:

- 1 PART AASHTO #8
- 4 PARTS UNWASHED AASHTO #10 OR (B3 SAND)
- 1 PAR >200 FINES

NOTES:

- WHEN MIXING AGGREGATES TO CREATE TSA, TAKE CARE NOT TO PRE-WET ANY #200 FINES. PRE-WETTING MAY CAUSE FINES TO CLUMP INTO BALLS.
- SMALL PAVER SHALL BE USED TO PLACE TSA MATERIAL

STONE WALKWAY AND PAVILION DETAIL

NOT TO SCALE

PERMIT SET

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

DRAFT

Designed:	[illegible]
Drawn:	[illegible]
Checked:	MWS
Approved:	RSH
P.E. No:	
GEI Project	1804576

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PHASE IV REMEDY IMPLEMENTATION PLAN

AMESBURY FORMER MGP SITE
AMESBURY, MASSACHUSETTS

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SHEET NAME: **GENERAL RESTORATION NOTES & DETAILS**

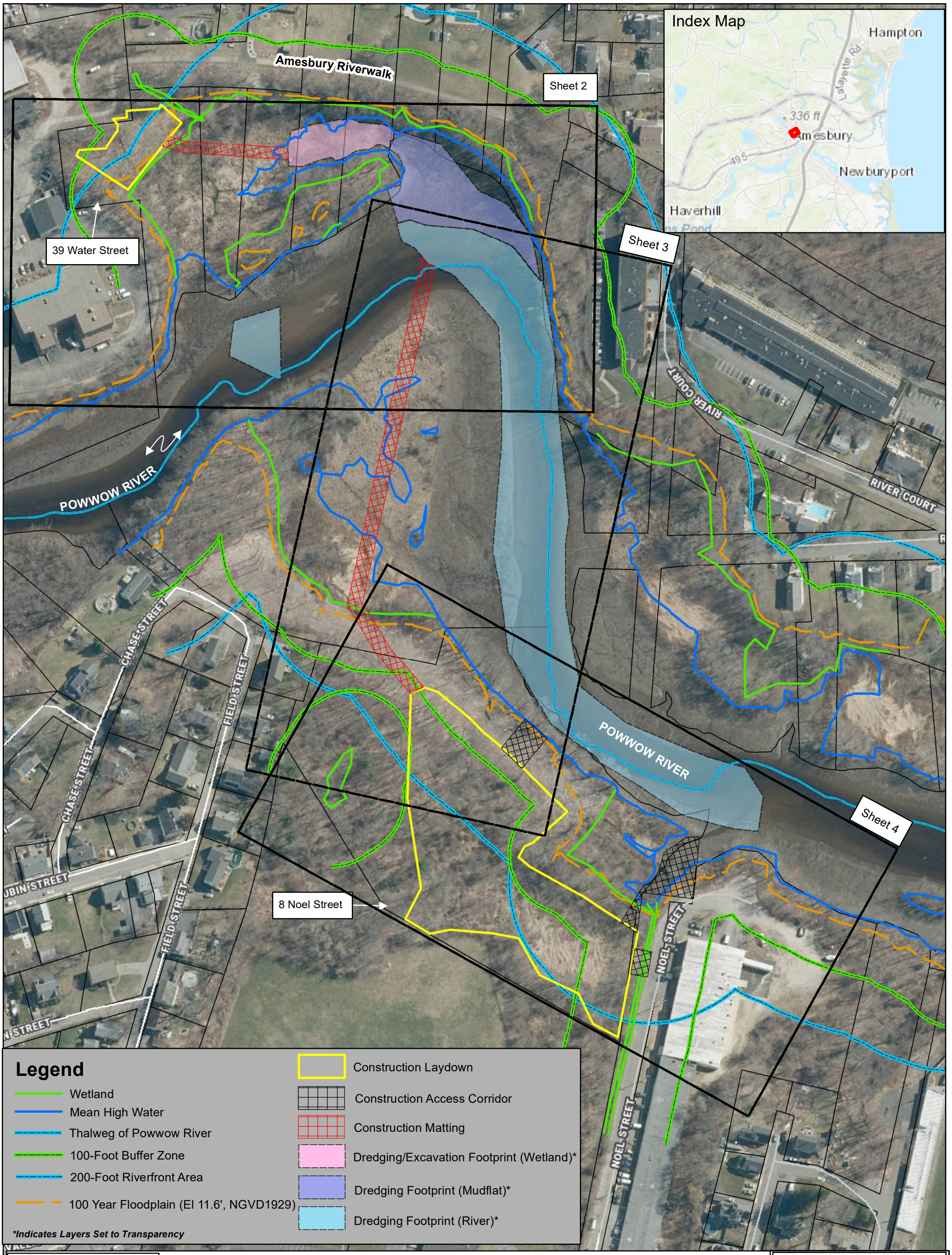
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Appendix F

Environmental Resources Map, Prepared by LEC, Dated September 17, 2026

File Location: C:\Users\AndreaKendall\LEC Environmental Consultants, Inc\LEC - Documents\SS_SHARED\PROJECTS\13-000\13-162 GEIC Amesbury\ERM\ArcMap\NationalGrid_ERMapLayout_Amesbury Former MGP Site cover sheet.mxd
Date Saved: 9/18/2026 10:50:06 AM



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1 inches = 150 feet

(Page Size 11 x 17)

0 75 150

Feet

AMESBURY FORMER MGP REMEDIATION PROJECT

Amesbury, Massachusetts

Environmental Resources Map

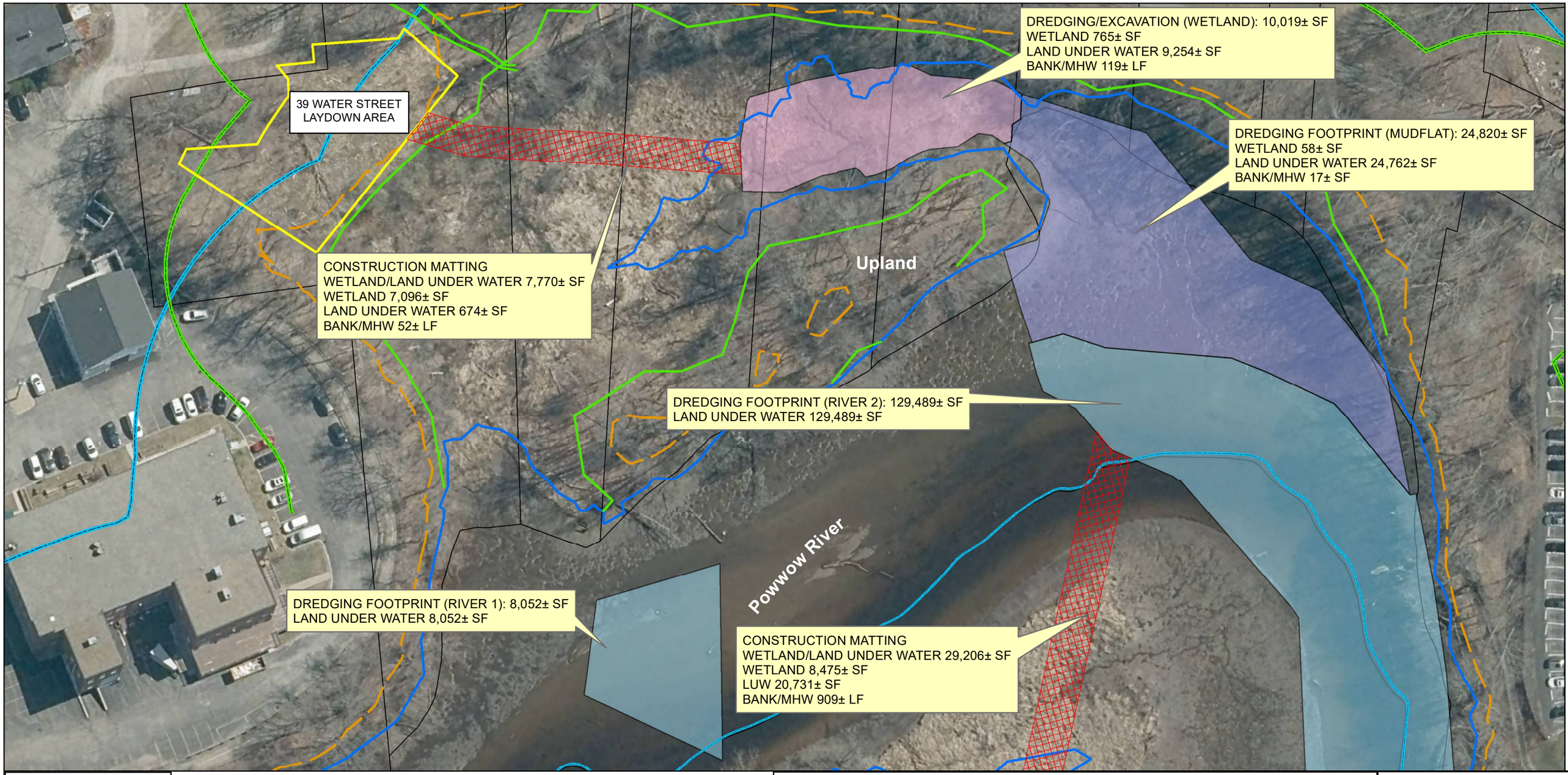
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Sheet 1 of 4

Created by: LEC

Resource Areas Reviewed:
Areas of Critical Environmental Concern; Census 2000 Streams; Ch. 91 Tidelands Jurisdiction; Environment Justice Populations & Language Overlay; FEMA 100yr Floodplain; Hiking Trails; Interim Wellhead Protection Area; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed); MADEP Hydrologic Connections; MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Wetlands; MADFW Coldwater Fisheries Resources; MHC Inventory; NHD Hydrography; NHESP Certified & Potential Vernal Pools; NHESP Priority & Estimated Habitats; NRCS Hydric Soils; Open Space Article 97 Land; Outstanding Resource Water; Public Water Supply; Surface Water Protection Zone; USGS Wild & Scenic Rivers; Watershed Protection Act Zones; WsPA Affected Parcels; Zone II Wellhead Protection Area.

THIS DOCUMENT IS INTENDED FOR GENERAL PLANNING & INFORMATION PURPOSES ONLY. ALL MEASUREMENTS & LOCATIONS ARE APPROXIMATE



N

1 inch = 60 feet

(Page Size 11 x 17)

0 30 60

Feet

Legend

- Wetland
- Mean High Water
- Thalweg-Powwow River
- 100-Foot Buffer Zone
- 200-Foot Riverfront Area
- 100 YR Floodplain (El 11.6', NGVD29)
- Construction Laydown
- Construction Access Corridor
- Construction Matting
- Dredging/Excavation Footprint (Wetland)*
- Dredging Footprint (Mudflat)*
- Dredging Footprint (River)*

Indicates Layers Set to Transparency

AMESBURY FORMER MGP REMEDIATION PROJECT

Amesbury, Massachusetts

Environmental Resources Map

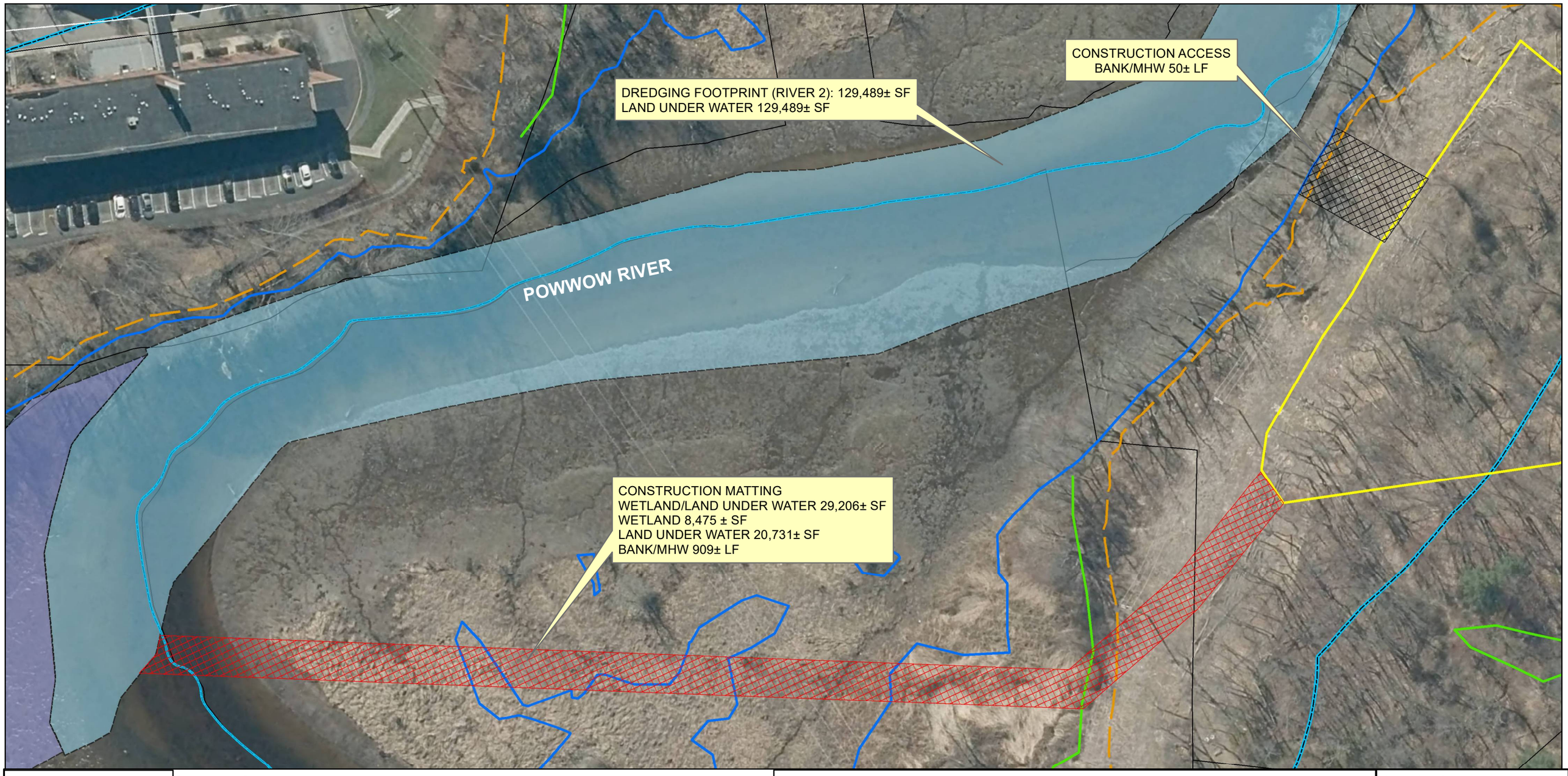
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Sheet 2 of 4

Resource Areas Reviewed:
Areas of Critical Environmental Concern; Census 2000 Streams; Ch. 91 Tidelands Jurisdiction; Environment Justice Populations & Language Overlay; FEMA 100yr Floodplain; Hiking Trails; Interim Wellhead Protection Area; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed); MADEP Hydrologic Connections; MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Wetlands; MADFW Coldwater Fisheries Resources; MHC Inventory; NHD Hydrography; NHESP Certified & Potential Vernal Pools; NHESP Priority & Estimated Habitats; NRCS Hydric Soils; Open Space Article 97 Land; Outstanding Resource Water; Public Water Supply; Surface Water Protection Zone; USGS Wild & Scenic Rivers; Watershed Protection Act Zones; WsPA Affected Parcels; Zone II Wellhead Protection Area.

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N

1 inch = 60 feet

(Page Size 11 x 17)

0 30 60

Feet

Legend

- Wetland
- Mean High Water
- Thalweg of Powwow River
- 100-Foot Buffer Zone
- 200-Foot Riverfront Area
- 100 YR Floodplain (El 11.6', NGVD29)
- Construction Laydown
- Construction Access Corridor
- Construction Matting
- Dredging/Excavation Footprint (Wetland)*
- Dredging Footprint (Mudflat)*
- Dredging Footprint (River)*

Indicates Layers Set to Transparency

AMESBURY FORMER MGP REMEDIATION PROJECT

Amesbury, Massachusetts

Environmental Resources Map

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Sheet 3 of 4

Created by: LEC

Resource Areas Reviewed:
Areas of Critical Environmental Concern; Census 2000 Streams; Ch. 91 Tidelands Jurisdiction; Environment Justice Populations & Language Overlay; FEMA 100yr Floodplain; Hiking Trails; Interim Wellhead Protection Area; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed); MADEP Hydrologic Connections; MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Wetlands; MADFW Coldwater Fisheries Resources; MHC Inventory; NHD Hydrography; NHESP Certified & Potential Vernal Pools; NHESP Priority & Estimated Habitats; NRCS Hydric Soils; Open Space Article 97 Land; Outstanding Resource Water; Public Water Supply; Surface Water Protection Zone; USGS Wild & Scenic Rivers; Watershed Protection Act Zones; WsPA Affected Parcels; Zone II Wellhead Protection Area.

THIS DOCUMENT IS INTENDED FOR GENERAL PLANNING & INFORMATION PURPOSES ONLY. ALL MEASUREMENTS & LOCATIONS ARE APPROXIMATE



N

1 inch = 60 feet

(Page Size 11 x 17)

0 30 60

Feet

Legend

- Wetland
- Mean High Water
- Thalweg of Powwow River
- 100-Foot Buffer Zone
- 200-Foot Riverfront Area
- 100 YR Floodplain (El 11.6', NGVD29)
- Construction Laydown
- Construction Access Corridor
- Construction Matting
- Dredging/Excavation Footprint (Wetland)*
- Dredging Footprint (Mudflat)*
- Dredging Footprint (River)*

Indicates Layers Set to Transparency

AMESBURY FORMER MGP REMEDIATION PROJECT

Amesbury, Massachusetts

Environmental Resources Map

Created for: nationalgrid

Sheet 4 of 4

Created by: LEC

Resource Areas Reviewed:
Areas of Critical Environmental Concern; Census 2000 Streams; Ch. 91 Tidelands Jurisdiction; Environment Justice Populations & Language Overlay; FEMA 100yr Floodplain; Hiking Trails; Interim Wellhead Protection Area; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed); MADEP Hydrologic Connections; MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Wetlands; MADFW Coldwater Fisheries Resources; MHC Inventory; NHD Hydrography; NHESP Certified & Potential Vernal Pools; NHESP Priority & Estimated Habitats; NRCS Hydric Soils; Open Space Article 97 Land; Outstanding Resource Water; Public Water Supply; Surface Water Protection Zone; USGS Wild & Scenic Rivers; Watershed Protection Act Zones; WsPA Affected Parcels; Zone II Wellhead Protection Area.

THIS DOCUMENT IS INTENDED FOR GENERAL PLANNING & INFORMATION PURPOSES ONLY. ALL MEASUREMENTS & LOCATIONS ARE APPROXIMATE

Appendix G

Determination of Applicability, Dated October 29, 2025

Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

WPA Form 2 – Determination of Applicability

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

Amesbury
Municipality

A. General Information

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



From:

Amesbury
Conservation Commission

To: Applicant

Boston Gas Company
Name
170 Data Drive
Mailing Address
Waltham | MA | 02451-2222
City/Town | State | Zip Code
(781) - 906 - 3992
Phone Number
Kenneth.lento@nationalgrid.com
Email Address

Property Owner (if different from applicant):

Coastal Connections, Inc.
Name
35 Water Street
Mailing Address
Amesbury | |
City/Town | State | Zip Code
Phone Number
Email Address (if known)

1. Project Location:

8 Noel Street
Street Address
Amesbury
City/Town

How to find Latitude and Longitude

Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)
Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)

and how to convert to decimal degrees

65
Assessors Map/Plat Number
87
Parcel/Lot Number

2. Date Request Filed:

8.12.2025

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

N/A

Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Existing Conditions Plan 8 Noel Stree, prepared by GEI Consultants, Inc. | August 2025
Title | Date

Title | Date

Title | Date

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination
Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

☐ 1. The area described on the referenced plan(s) is an area subject to jurisdiction under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.

☐ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

☐ 2b. The boundaries of Wetlands Resource Area(s) and Buffer Zone(s) listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to jurisdiction under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.

☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to jurisdiction under the Act. Therefore, said work requires the filing of a Notice of Intent

☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

Name | Ordinance or Bylaw Citation

B. Determination (cont.)

☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:

☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)(c) 2. for more information about the scope of alternatives requirements):

- ☐ Alternatives limited to the lot on which the project is located.
- ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
- ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
- ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

☒ 1. The area described in the Request is not an area subject to jurisdiction under the Act or the Buffer Zone.

☐ 2. The work described in the Request is within an area subject to jurisdiction under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.

☐ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to jurisdiction under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

☐ 4. The work described in the Request is not within an Area subject to jurisdiction under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to jurisdiction under the Act.

B. Determination (cont.)

☐ 5. The area described in the Request is subject to jurisdiction under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statutory/regulatory provisions)

☒ 6. The area and/or work described in the Request is not subject to additional review and approval by:

Amesbury Conservation Commission
Name of Municipality

Pursuant to a municipal wetlands' ordinance or bylaw.

Amesbury Wetland Ordinance
Name

AWO
Ordinance or Bylaw Citation

C. Authorization

This Determination is issued to the applicant and delivered as follows:

☐ By hand delivery on

Date

☒ By certified mail, return receipt request on

10/29/25
Date

9589 0710 5270 0730 0258 13
Certified Mail Number

A copy of this Determination has been sent on the same date, considered the date of issuance, **to** the appropriate DEP Regional Office and the property owner (if not the applicant) in the manner as follows:

DEP

☐ By eDEP DOA Submittal Platform (Attach this form and supporting documents)

☒ By USPS mail

10/29/25
Date

☐ By hand delivery

Date

Property Owner (if not applicant)

☐ By mail

Date

☐ By hand delivery

Date

C. Authorization (cont.)

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. As noted above, a copy must be sent to the appropriate DEP Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community) and the property owner (if different from the applicant) on the same date that the Applicant is issued this Determination.

Amesbury Conservation Commission
Issuing Authority By vote on 04/03/2023 the Amesbury Conservation Commission authorized the use of their electronic signatures pursuant to the certificate of vote recorded with the Essex south Registry of Deeds in Book 41530 Page 251. They intend for their typed names to serve as electronic signatures."

Signatures:

Fred Zackon Signature	Fred Zackon Printed Name
Jamie McCarthy Signature	Jamie McCarthy Printed Name
Bob Manseau Signature	Bob Manseau Printed Name
Delaney Kingsland Signature	Delaney Kingsland Printed Name
Maya gakidis Signature	Maya gakidis Printed Name
Matt Mohr Signature	Matt Mohr Printed Name
Signature	Printed Name
Signature	Printed Name

D. Appeals

The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Request for Departmental Action Fee Transmittal Form

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

DEP File Number:

Provided by DEP

A. Request Information

1. Location of Project

a. Street Address

b. City/Town, Zip

c. Check number

d. Fee amount

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



2. Person or party making request (if appropriate, name the citizen group's representative):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

4. DEP File Number:

B. Instructions

1. When the Departmental action request is for (check one):

☐ Superseding Order of Conditions – Fee: $120 (single family house projects) or $245 (all other projects)

☐ Superseding Determination of Applicability – Fee: $120

☐ Superseding Order of Resource Area Delineation – Fee: $120

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

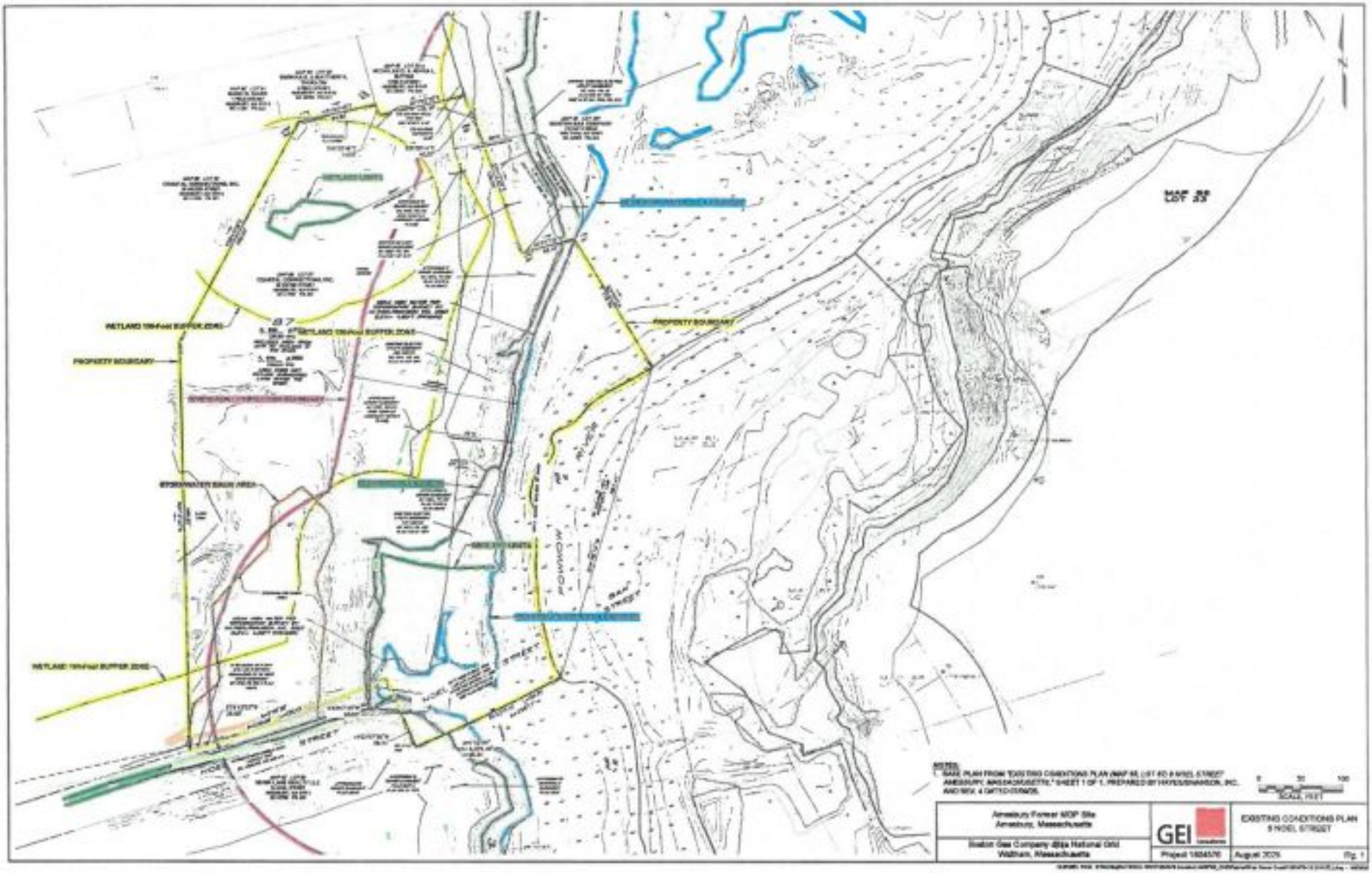
Department of Environmental Protection
Box 4062
Boston, MA 02211

B. Instructions (cont.)

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see https://www.mass.gov/service-details/massdep-regional-offices-by-community).

4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.


MAP 55
LOT 33
PROPERTY BOUNDARY
WETLAND 100-Foot BUFFER ZONE
STORMWATER BASIN AREA
MICHAEL
STREET
NOTES:
1. BASE PLAN FROM "EXISTING CONDITIONS PLAN (MAP 55, LOT 60) 9 NOEL STREET" AMESBURY, MASSACHUSETTS," SHEET 1 OF 1, PREPARED BY HAYES ENGINEER, INC. AND WSI, 4 DATED 03/09/05.
0
50
100
SCALE: FEET
Amesbury Former MGP Site
Amesbury, Massachusetts
Boston Gas Company dba National Grid
Waltham, Massachusetts
GEI
Project 1804576
August 2026
EXISTING CONDITIONS PLAN
9 NOEL STREET
Fig. 1

8 Noel St Determination with exhibits

Final Audit Report 2025-10-22

Created:	2025-10-21
By:	Rebecca Frey (freyr@amesburyma.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAQSw2y3_ArLyY6Z08VYSHtkQqRybKO7jV

"8 Noel St Determination with exhibits" History

Document created by Rebecca Frey (freyr@amesburyma.gov)
2025-10-21 - 4:02:33 PM GMT

Document emailed to Fred Zackon (fredzackon@gmail.com) for signature
2025-10-21 - 4:02:38 PM GMT

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Document emailed to Bob Manseau (bobmanseau1950@gmail.com) for signature
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Adobe Acrobat Sign

Email viewed by Delaney Kingsland (delaney.kingsland@gmail.com)
2025-10-21 - 5:57:18 PM GMT

Document e-signed by Delaney Kingsland (delaney.kingsland@gmail.com)
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2025-10-22 - 2:46:23 PM GMT

Document e-signed by Bob Manseau (bobmanseau1950@gmail.com)
Signature Date: 2025-10-22 - 2:47:06 PM GMT - Time Source: server

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2025-10-22 - 4:16:26 PM GMT

Document e-signed by Matt Mohr (mattwmohr.23@gmail.com)
Signature Date: 2025-10-22 - 4:16:43 PM GMT - Time Source: server

Email viewed by Fred Zackon (fredzackon@gmail.com)
2025-10-22 - 5:05:30 PM GMT

Document e-signed by Fred Zackon (fredzackon@gmail.com)
Signature Date: 2025-10-22 - 5:06:33 PM GMT - Time Source: server

Agreement completed.
2025-10-22 - 5:06:33 PM GMT

Adobe Acrobat Sign

Appendix H

MHC Project Notification Form Submittal, Dated August 25, 2026

RECEIVED
AUG 28 2026
MASS. HIST. COMM
RC.49487

Public Archaeology Laboratory

August 25, 2026

Brona Simon
State Historic Preservation Officer
Executive Director, State Archaeologist
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, Massachusetts 02125

Re: Amesbury Former MGP Site Remediation Project – Amesbury, MA
PNF and Cultural Resource Due Diligence
PAL #4833.01

Dear Ms. Simon:

Boston Gas Company (BGC) is proposing the remediation of contaminated sediments within the Powwow River that are downstream of the former Amesbury Manufactured Gas Plant property located at 39 Water Street in Amesbury, Massachusetts (the Project). The proposed project will involve the dredging of sediments within the river and the adjacent wetlands, the capping of some sediments to remain with sand and gravel, and the construction of a temporary haul road using timber mats for dredge access and laydown areas on the west side of the river (see enclosed USGS quadrangle map).

On behalf of the BGC, enclosed please find a Project Notification Form (PNF) and a Cultural Resource Due Diligence Report prepared by The Public Archaeology Laboratory, Inc. (PAL) for the above-referenced project. The Project will also require work within Waters of the United States and BGC plans to file for Section 404/Section 10 authorization with the U.S. Army Corps of Engineers. Therefore, the Project is subject to review pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800. The Public Archaeology Laboratory, Inc. (PAL) has been contracted by BGC to address the Section 106 obligations of the USACE.

BGC has contracted PAL to seek the comments of the Massachusetts Historical Commission (MHC), office of the State Historic Preservation Officer (SHPO). PAL staff conducted background research and a review of the Project workspace and impact areas. Background research involved a review of cultural resources reports, correspondence, and previously recorded archaeological sites on file at the MHC via the Massachusetts Cultural Resource Information System (MACRIS) and PAL. The proposed Project area is within the general vicinity of 67 aboveground inventoried resources and there is one inventoried archaeological site within ½ mile of the Project area. None of these resources are within or overlap with the Project area (see enclosed cultural resources due diligence report).

PAL's due diligence review and archaeological sensitivity assessment, which involved a pedestrian walkover, indicated that the Project area has been subject to significant ground disturbance; PAL has therefore assessed the Project area as having no/low sensitivity for the presence of archaeological resources and is unlikely to contain potentially significant archaeological deposits. PAL has therefore assessed the proposed Project area as having no/low archaeological sensitivity and recommends that no further archaeological survey is warranted.

PAL's professional recommendation to BGC and the USACE is that the use of workspace and access within and adjacent to the Powwow River to facilitate the remediation of contaminated sediments in Amesbury, Massachusetts will not affect any historic properties (36 CFR 800.4[d][1]). With this letter, we are requesting the Massachusetts SHPO's concurrence with this recommendation.

By copy of this letter, we are providing the enclosed documentation to the Massachusetts Board of Underwater Archaeological Resources (MBUAR), Native American Tribal Historic Preservation Officers, and the Amesbury Historical Commission for their concurrent review. If you have any questions or require additional information, please do not hesitate to contact John M. Kelly, Principal Investigator, at your convenience.

Concur:
15 September 2026
Edward L. Bell
Deputy SHPO
Massachusetts Historical Commission

Sincerely,

Gregory R. Dubell, RPA
Energy Projects Manager

cc: Kenneth Lento, BGC (w/encl. – via email)
Michael Retter, BGC (w/encl. – via email)
David Robinson, MBUAR (w/encl. – via email)
Michael Wierbonics, USACE (w/encl. – via email)
Nancy Komulainen-Dillenburg, USACE (w/encl. – via email)
Joseph Finn (Attn., Meghan Fahey), Amesbury Historical Commission (w/encl. – via email)
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah) (w/encl. – via email)
Adahy Gonsalves, Wampanoag Tribe of Gay Head (Aquinnah) (w/encl. – via email)
David Weeden, Mashpee Wampanoag Tribe (w/encl. – via email)
John Brown, III, Narragansett Indian Tribe, (w/encl. – via email)
Cora Peirce, Narragansett Indian Tribe (w/encl.)
Mark Andrews, Narragansett Indian Tribe (w/encl.)
Muckquashim Hopkins, Narragansett Indian Tribe (w/encl. – via email)

APPENDIX A
MASSACHUSETTS HISTORICAL COMMISSION
220 MORRISSEY BOULEVARD
BOSTON, MASS 02125
617-727-8470, FAX: 617-727-5128

PROJECT NOTIFICATION FORM

Project Name: Amesbury Former MGP Site Remediation Project

Location / Address: 39 Water Street

City / Town: Amesbury, Massachusetts

Project Proponent

Name: Boston Gas Company

Address: 170 Data Drive

City/Town/Zip/Telephone: Waltham, Massachusetts 02451

Agency license or funding for the project (list all licenses, permits, approvals, grants or other entitlements being sought from state and federal agencies).

Agency Name:	Type of License or funding (specify)
U.S. Army Corps of Engineers	Section 404 of the Clean Water Act Nationwide Permit, Pre-Construction Notification
MA Historical Commission	Chapter 26-27C (950 CMR 71)
Amesbury Conservation Commission	Notice of Intent (NOI)

Project Description (narrative):

Boston Gas Company (BGC) is proposing the remediation of contaminated sediments within the Powwow River that are downstream of the former Amesbury Manufactured Gas Plant property located at 39 Water Street in Amesbury, Massachusetts. The proposed project will involve the dredging of sediments within the river and the adjacent wetlands, as the capping of some sediments to remain with sand and gravel, and the construction of a temporary haul road using timber mats for dredge access and laydown areas on the west side of the river.

The Massachusetts Historical Commission (MHC) reviews the Project in accordance with Massachusetts General Laws, Chapter 9, Sections 26-27C and regulations that guide MHC review of state funded, licensed, and permitted projects (950 CMR 71).

Does the project include demolition? If so, specify nature of demolition and describe the building(s) which are proposed for demolition.

No demolition is proposed as part of the Project.

Does the project include rehabilitation of any existing building? If so, specify nature of rehabilitation and describe the building(s) which are proposed for rehabilitation.

No rehabilitation of existing buildings is proposed as part of the Project.

Does the project include new construction? If so, describe (attach plans and elevations if necessary).

No, the project will involve temporary construction of access roads, including timber mat roads, and temporary staging areas.

APPENDIX A (continued)

To the best of your knowledge, are any historic or archaeological properties known to exist within the project's area of potential impact? If so, specify.

Review of files maintained at MHC and The Public Archaeology Laboratory, Inc. (PAL) indicate that there is 1 previously recorded archaeological site, the post-contact Mill No. 6–Power Plant No. 5 Station Site (AME.HA.2), and 67 previously-recorded historic architectural properties within ½-mile of the proposed project area, including the Amesbury and Salisbury Mills Village Historic District (AME.M), the Walker Body Company Factory (AME.P), and the Elm Street Area (AME.H) (see attached Cultural Resource Due Diligence prepared by PAL). PAL's due diligence review and archaeological sensitivity assessment has indicated that the project area has no/low sensitivity for the presence of archaeological resources and is unlikely to contain potentially significant archaeological deposits. Based on the nature of the proposed Project activities that will involve the subsurface remediation of contaminated soils, PAL recommends that the Project will not affect aboveground historic architectural properties, including the above-referenced historic districts. Therefore, PAL recommends that the project will not affect historic properties.

What is the total acreage of the project area? Estimated acreages are below; total project area represents the maximum extents of project limits identified during conceptual design but final areas may be reduced during final design and construction.

Woodland	0	acres	Productive Resources:		
Wetland	0.83	acres	Agriculture	0	acres
Floodplain	9.69	acres	Forestry	0	acres
Open Space	0	acres	Mining	0	acres
Developed	5.51	acres	Total Project Acreage	15.65	acres

What is the acreage of the proposed new construction?

No new construction is planned; only temporary construction impacts. A subaqueous cap will be installed in a portion of the river but the surficial component will be a benthic layer that is similar to existing surficial sediment conditions.

What is the present land use of the project area

Private property used for industrial, commercial, and residential use

Please attach a copy of the section of the USGS quadrangle map which clearly marks the project location.

See attached.

This Project Notification Form has been submitted to the MHC in compliance with 950 CMR 71.00.

Signature of Person submitting this form Gregory R. Dahl Date: 8/25/2026

Name: The Public Archaeology Laboratory, Inc.

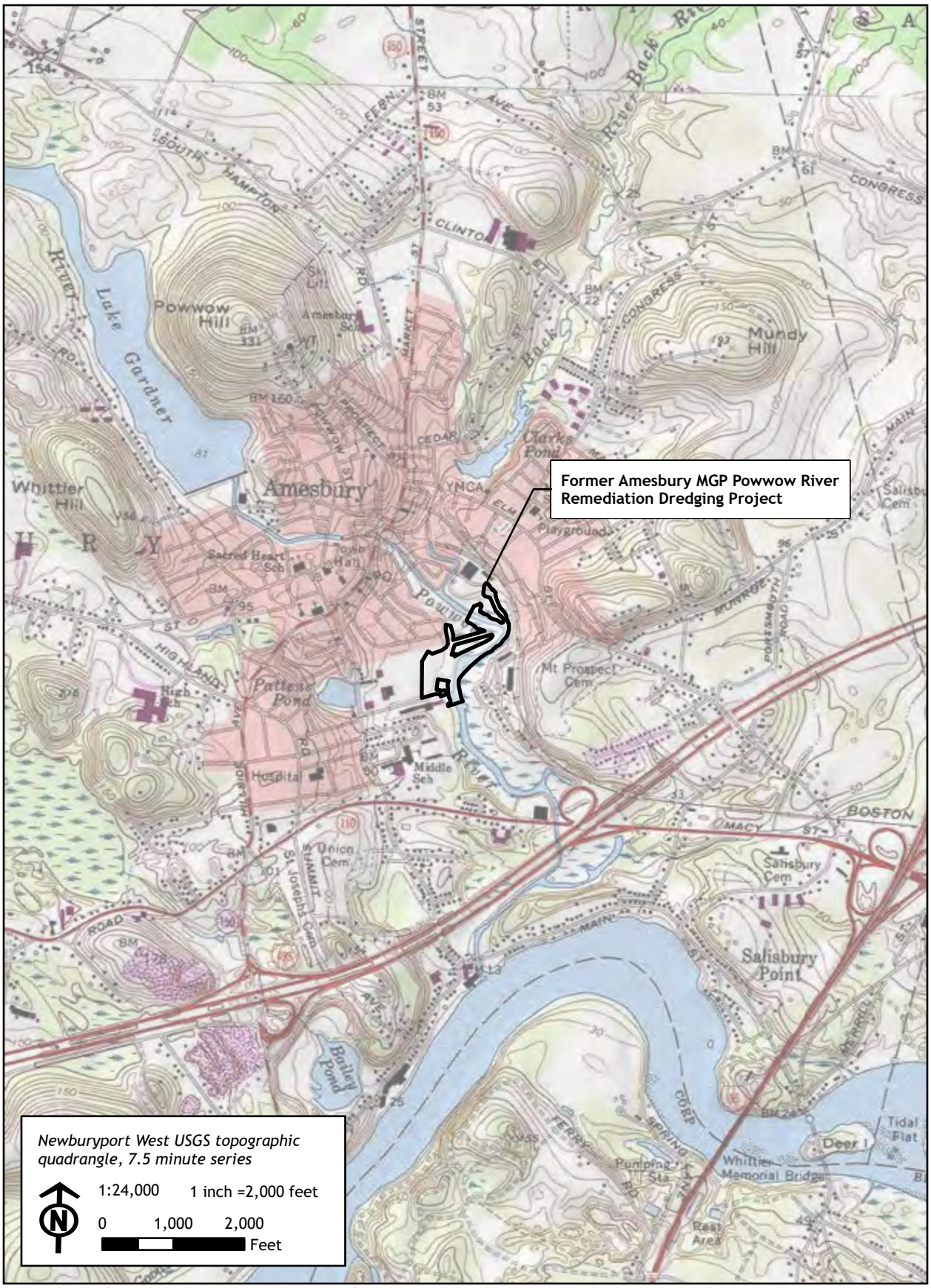
Address: 26 Main Street

City / Town: Pawtucket, Rhode Island 02860

Telephone: 401-728-8780

REGULATORY AUTHORITY

930CMR 71.00: M.G.L. c. 9, §§ 26-27C as amended by St.1988, c.254.



Location of the Former Amesbury MGP Powwow River Remediation Dredging Project on the Newburyport West USGS topographic quadrangle, 7.5 minute series.



Location of the Former Amesbury MGP Powwow River Remediation Dredging Project on 2025 aerial imagery.

Appendix I

Draft Section 61 Findings

DRAFT

Findings Pursuant to

MGL Chapter 30, Section 61

Project Name: Amesbury Former Manufactured Gas Plant Remediation

Project Location: Powwow River, Amesbury, MA

Project Proponent: Boston Gas Company (BGC)

EEA Number: _____

Date Noticed in Monitor: October 23, 2026

Applicable State Action: Section 401 Water Quality Certificate and Chapter 91 Waterways License(s)

This Section 61 Finding for the above project (EEA 16735) has been prepared in accordance with the provisions of Chapter 30, Section 61 and 301 CMR 11.07(6)(k).

The potential environmental impacts of the project are characterized by and quantified in the Expanded Environmental Notification Form (EENF) and Rollover Environmental Impact Report (SEIR) which are incorporated by reference into this Section 61 Finding. BGC has taken all required and feasible measures to avoid and/or minimize adverse environmental impacts of the project. Where impacts are not avoidable, BGC has worked through the planning and environmental permitting process to develop measures to mitigate impacts of the project to the extent practicable and to restore all resource areas and other areas impacted by construction. With implementation of the proposed mitigation and cooperation with state agencies, the Massachusetts Department of Environmental Protection (MassDEP) finds that there are no significant unmitigated impacts.

BGC has prepared a Comprehensive List of Commitments, including the following which are applicable to the Section 401 Water Quality Certificate and Chapter 91 License(s).

- The purpose of the project is to remediate a contaminated site to a standard of No Significant Risk (NSR) to human health and the environment.
- Construction activities in wetlands will be scheduled and planned to avoid and minimize potential disturbances to wildlife and water quality to the extent practical.
- Silt/sediment entering the water column from construction activities will be avoided by the use of turbidity curtains and perimeter siltation controls around the limit of work, including all excavations, material stockpiles and construction access routes where practical.
- Comprehensive restoration measures are proposed to replace the excavated soil with clean, organic-rich topsoil, native plantings to replace lost vegetation, and native seed mixes to restore groundcover.

- Upland/Buffer Zone remediation areas and all disturbed upland/Buffer Zone areas associated with construction activities will be restored with native plantings and seed mix.
- Environmental monitoring during construction by a qualified Wetland Scientist hired by BGC will ensure the plans and construction sequence are followed by the contractor and adjacent resource areas are protected during construction.
- Post-construction monitoring by a qualified Wetland Scientist will include a minimum of two full growing seasons to ensure successful restoration of resource areas and upland/buffer zones. Replacement plantings and other measures to ensure success will be implemented if recommended by the Wetland Scientist.
- Removal of temporary mooring structures in the Powwow River and restoration to existing river grades/depths.

MassDEP has reviewed the MEPA filing for the project and finds that the environmental impacts resulting from construction of the project are those impacts described in the EENF and EIR, which would be updated as needed in permit applications submitted for compliance with federal and state environmental laws. Pursuant to M.G.L. Chapter 30, Section 61, MassDEP finds that implementation of mitigation measures described in the EENF/EIR and above, all practicable and feasible means and measures of mitigation have been taken to avoid or minimize potential damage to the environment due to the construction of the project. In making this finding, MassDEP has considered reasonably foreseeable climate change impacts and environmental justice impacts.

Appendix J

Comprehensive List of Commitments

Comprehensive List of Commitments

Subject Matter	Commitment	Schedule for Implementation	Estimated Cost
Wetlands	BGC has completed a comprehensive alternatives analysis to ensure the project activities avoid and minimize impacts to wetlands to the greatest extent practical. The altered wetlands and buffers will be fully restored by implementation of a comprehensive restoration plan, including importing topsoil, installing shrub and sapling plantings, and spreading seed mixes.	Before Construction	Part of overall construction costs
Wetlands	In order to remediate contaminated soils, removal of existing vegetation is necessary but has been limited to the smallest footprint necessary for remediation and construction equipment access/staging. Existing trees and other vegetation around the limit of work will be preserved.	During Construction	Part of overall construction costs
Wetlands	A turbidity curtain will be deployed in the river to prevent sediment/silt from leaving the work footprint. This measure will further protect surrounding wetlands and waterbodies.	During Construction	Part of overall construction costs
Waterways	Removal of temporary mooring structures in the Powwow River and restoration to existing river grades/depths.	During and Post Construction	Part of overall construction costs

Stormwater	The plans include an erosion and sediment control plan to ensure impacts are limited to the limit of work. A SWPPP plan will be prepared prior to construction with additional stormwater controls to be implemented by the contractor. The project will be subject to conditions of a stormwater management permit/special permit issued by the Amesbury Planning Board under the local Stormwater Bylaw.	During Construction	Part of overall construction costs
Climate Change and Resiliency	The project has been designed to prevent or minimize transport of contaminants during construction and post-construction. For example, the project occurs in the 100-year floodplain but will not result in any changes to existing topography that would displace floodwaters during exteme flooding events. Remaining contamination will be securely buried under the proposed replacement soils and will not mobilize during future flooding or rainfall events. Temporary stockpiles of material will be limited and able to be moved out of the floodplain in the event of a flood event. Stockpiles will be secured to ensure no contamination will be transported by heavy storm events.	During Construction	Part of overall construction costs

Construction	The project will take measures to reduce emissions and impacts from construction vehicles by using ultra low sulphur diesel for all construction vehicles, and limiting vehicle idling to 5 minutes or less in accordaince with the MA Anti-Idling Law. "No Idling" signs will be placed in strategic locations within the limit of work.	During Construction	Part of overall construction costs
Construction	Construction will be performed so as to minimize potential soil erosion and sedimentation. Work will be performed in accordance with an Order of Conditions from the Amesbury Conservation Commission and a Water Quality Certification from MassDEP. The project will follow a SWPPP prepared as part of a NPDES filing with the EPA.	During construction	Part of overall construction costs
Construction	Construction traffic will be routed from the site to Route 495 to avoid and minimize disturbances to local neighborhoods.	During Construction	Part of overall construction costs
Construction	Contaminated soil will be taken from the site and disposed of at an appropriate disposal site in accordance with the MCP. Debris and solid waste will be removed from the site and disposed of in accordance with the MCP and Solid Waste Reglulations as applicable.	During Construction	Part of overall construction costs

Public Health and Safety	A Health and Safety Plan (HASP) will be prepared for the contractor to ensure safe working conditions for workers during construction and to protect surrounding neighborhoods from disturbance.	During Construction	Part of overall construction costs
Public Health and Safety	The project involves remediation of a contaminated site with the goal of achieving a condition of no significant risk under the MCP. After the project is complete, the result will be a substantial environmental improvement and suitable conditions for passive recreational use of the property. The improvements will affect adjacent property owners and the community in general by eliminating a threat to public health and the environment.	During and Post Construction	Part of overall construction costs
Public Health and Safety	Access to the construction area will be restricted and monitored to prevent public access/exposure during the construction period. Signage will placed in key locations notifying the public of the construction activity.	During Construction	Part of overall construction costs
Public Health and Safety	Noise impacts will be mitigated by following local construction time limits, typically between 7:00 a.m. and 6:00 p.m.	During Construction	Part of overall construction costs

Appendix K

Fast Track Agreement

COMPLEX PROJECT
ALTERNATIVE FEE AND SCHEDULE AGREEMENT
POWWOW RIVER, AMESBURY

I. THE PARTIES

1.1 The Massachusetts Department of Environmental Protection ("MassDEP" or "the Department") is a duly constituted agency of the Commonwealth of Massachusetts, established pursuant to M.G.L. c. 21A, §7, with its principal office located at 100 Cambridge Street, Boston, Massachusetts 02114. MassDEP implements the provisions of M.G.L. c. 21A, §18 and the regulations promulgated thereunder at 310 CMR 4.00, as well as applicable environmental statutes.

1.2 Boston Gas Company ("Applicant"), is a Massachusetts corporation with a principal place of business at 170 Data Drive, Waltham, Massachusetts 02451. The Applicant seeks Department approval of one or more Chapter 91 licenses and permits and a Water Quality Certification.

II. LEGAL AUTHORITY

2.1 Pursuant to M.G.L. c. 21A, §18(d)(2), MassDEP may: determine, based on the size, novelty, complexity or technical difficulty of certain projects for which applications are filed, that the amount of time required by the Department in processing such permit applications will exceed by a factor of two or more the amount of time assumed as the basis for MassDEP's standard permit application fee(s); and MassDEP's review cannot be completed within the schedule for timely action applicable for standard permit applications.

2.2 In accordance with M.G.L. c. 21A, §18(d)(2), MassDEP has notified the Applicant of MassDEP's determination that the above-referenced application is a complex project requiring the establishment of an alternative permit application fee and schedule for timely action. Pursuant to M.G.L. c. 21A, §§18(d)(3) and (d)(6), the parties have negotiated and agreed upon an appropriate permit application fee and alternative schedule for timely action, based upon the costs and time required to process the application(s) that are the subject of this Agreement.

III. TIMELY ACTION SCHEDULE

3.1 The provisions of 310 CMR 4.04(2) and 4.05 shall apply to the schedule and permit(s)/licenses set forth in this section.

3.2 Except as otherwise provided in this Agreement, the permit/license application(s), permitting activities, and any related environmental impact reviews subject to the schedule and fee provisions of this Agreement, shall include the following:

LIST OF PERMITS /LICENSES SUBJECT TO AGREEMENT

- **Chapter 91 Waterways License(s)**
- **Chapter 91 Dredge Permit(s)**
- **Section 401 Water Quality Certification**

3.3 Any necessary Department permits/licenses or environmental impact reviews related to this Project that are not identified in section 3.2 of this Agreement may be incorporated into this Agreement by written Amendment, or alternatively, the Applicant may follow the Department's conventional Timely Action and Fee Provisions found at 310 CMR 4.04(2). Any additional permit/license applications and related environmental impact reviews incorporated into this Agreement by Amendment may cause the timelines set forth in section 3.4 to be adjusted by the Parties. Nothing in this Agreement shall prohibit the Department from acting more promptly than specified in section 3.4.

3.4 M.G.L. c. 21A, §18(d)(6) authorizes MassDEP and the Applicant to agree on timelines for the Department's actions on application(s) for the Project that are different than the timelines established under M.G.L. c. 21A, §§18(d)(1) and (2) and 310 CMR 4.00. If the Department determines that there may be a significant deviation from these timelines, it will make every effort to provide advance notice to the Applicant and explain the reasons for the change. The Department will also afford the Applicant an opportunity to provide input on whether the change warrants any other modification to the future scope, timing and cost of the Department's activities under this Agreement. However, any failure on the part of the Department to meet the timelines set forth in section 3.4, or to provide prior notice of a significant deviation from such estimated timelines, shall not release the Applicant, in whole or in part, from its obligations to pay for all costs incurred by the Department pursuant to this Agreement.

The Timely Action Schedule for the application(s) subject to this Agreement is attached as Exhibit 1.

3.5 The Department will, at the earliest practicable opportunity, notify the Applicant when significant technical deficiencies in any submittal(s) are identified. If there is sufficient time remaining in the Timely Action Schedule to receive clarifying or additional materials and complete its action, the Department will offer the Applicant the opportunity to submit such materials to resolve the deficiency and specify a submission schedule that will allow the Department adequate time to complete its action within the stated timelines.

3.5.1 The following permits are necessary for the construction or operation of the Project:

- **Federal Permits:**
    - Section 404/Section 10 Permit – United States Army Corps of Engineers (including associated reviews under the Endangered Species Act and National Historic Preservation Act).

- **State Permits**
    - MEPA Review – MEPA Office.
    - Chapter 91 Water Dependent Waterways Licenses – MassDEP.
    - Section 401 Water Quality Certification – MassDEP.

- **Local Permits:**
    - Special Permit for Work in Water Resources Protection District, Zoning Ordinance, Section XIV.
    - Site Plan submittal, Zoning Ordinance Section XI.C(3)(a).
    - Earth Removal Permit, General Ordinance Ch. 260.
    - Earth Filling Special Permit, Zoning Ordinance Section XI (B.2) (only applies if we import >1,000 CY of earth material).

3.5.2 Through execution of this Agreement, the Applicant acknowledges that there are no other applicable permits required for this Project.

IV. PERMIT/LICENSE APPLICATION FEE

4.1 The application fee for the **permit(s)/license(s)** subject to this Agreement shall be based on the work required to review and process the application(s), including all direct and indirect costs, as reflected in the Department's current Cost Allocation Plan of Department personnel and contractors. The calculation of the estimated **permit/license** application fee is based upon the average fully loaded rate for a Full Time Equivalent ("FTE") MassDEP employee as calculated in Fiscal Year 2026. As of the effective date of this Agreement, the average fully loaded rate of a FTE MassDEP employee is $136.02 per hour or $1,020.15 per 7.5 hour day.

4.2 The permit/license application fee for this Project is $27,204.00, and is based upon the estimated cost to conduct a review of the application(s), as set forth in the Timely Action Schedule attached as EXHIBIT 1. Within sixty (60) days of the effective date of this Agreement, the Applicant shall pay to the Department 50% of the estimated permit/license application fee. Thereafter, MassDEP shall provide the Applicant with periodic statements of time worked and costs incurred, reflecting actual costs incurred on the Project against payments made toward these costs by the Applicant. MassDEP will periodically invoice the applicant for actual costs that exceed payments received. All payments referenced in this paragraph shall be submitted in accordance with the provisions of section 4.4 below. In the event that the Department's actual costs for project review exceed the cost of the estimated project application fee paid pursuant to this paragraph, MassDEP reserves the right to seek an amendment to this Agreement.

4.3 Pursuant to M.G.L. c. 21A, §18(d)(7), MassDEP will establish a separate account through the Special Projects Permitting and Oversight Trust Fund, for the purpose of providing a separate account for the accounting of monies received for the Project pursuant to this Agreement. As authorized by the statute, all amounts credited to the Fund may be expended by the Department, without further appropriation, for the purpose of permitting, technical

assistance, compliance, and other related activities associated with the Project, including all direct and indirect costs of department personnel or contractors. The Applicant agrees that any amount credited to the Fund in excess of the amount expended to complete the Department's permitting, technical assistance, compliance or other related activities associated with the Project may be retained by the Fund.

4.4 The Applicant shall pay the full amount of all sums owed pursuant to section 4.2 by certified check, bank check, money order or electronic fund transfer (ACH). All fees paid in conjunction with this Agreement must be identified by MassDEP Project Code TF-123. MassDEP shall provide electronic fund transfer instructions upon request. All payments by check or money order are to be submitted to:

Massachusetts Department of Environmental Protection
Special Projects Permitting and Oversight Trust Fund
P.O. Box 4062
Boston, MA 02211

4.5 Once the review process for the Project has been completed, MassDEP will generate a final invoice which indicates the outstanding amount, if any, owed by the Applicant for costs incurred by MassDEP for Project review. Notwithstanding the provisions of section 3.4, the Applicant must pay any outstanding amounts due, in full, prior to MassDEP's issuance of the final permit/license decision(s) for the Project that is subject to this Agreement.

4.6 In the event that the Applicant submits a written notice of withdrawal of its permit/license application(s) to MassDEP prior to the Department's completion of the Project review process, MassDEP shall retain all sums paid by the Applicant up through the date of withdrawal, and (if applicable) shall provide the Applicant with a final invoice indicating whether any sums are owed based upon actual costs incurred by MassDEP up to and including the date of the Applicant's written withdrawal notice. Upon receipt of MassDEP's final invoice pursuant to this section, the Applicant shall pay the invoice in accordance with the requirements set forth in section 4.4.

V. GENERAL PROVISIONS

5.1 This Agreement sets forth the entire understanding of the Parties with respect to the fee and the timeline for MassDEP's review of the application(s) which are the subject of this Agreement. The existence of this Agreement shall have no effect on MassDEP's determination on the merits of the Applicant's application(s).

5.2 This Agreement may be modified by the mutual written agreement of the Parties.

5.3 The Applicant and the Department agree to work with each other reasonably, cooperatively, and in good faith to effectuate the provisions of this Agreement.

5.4 This Agreement shall be binding upon the Department and the Applicant, and their respective successors, agents, and assigns. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts.

5.5 The Applicant hereby waives any right pursuant to M.G.L. c. 21A, §18(d)(4), 310 CMR 4.05(3), or any other right to review of the alternative timeline schedule and the permit/license application fee established in this Agreement.

5.6 This Agreement shall be effective as of the date last set forth below and shall terminate when the Applicant and MassDEP agree in writing that: (a) the activities related to the Project no longer warrant the use of this Agreement; and (b) all payments owed to MassDEP under this Agreement have been paid in full by the Applicant.

5.7 Authorization for Agreement Execution in Multiple Counterparts: The Parties expressly authorize and agree that this Agreement may be executed in one or more counterpart originals by the authorized signatories, all of which when executed shall constitute a single executed and legally binding Agreement.

5.8 Authorization of the use of Electronic Signatures for Agreement Execution: The Parties expressly authorize and agree that the execution of this Agreement by its authorized signatories through the use of Electronic Signatures, whether digital or encrypted, are intended to and will have the legal effect of authenticating this Agreement, and will have the same force and effect as manual signatures.

The undersigned representatives certify that they are fully authorized to enter into this Agreement and to legally bind the party on whose behalf they are signing this Agreement.

BOSTON GAS COMPANY:

_____

Peter Harley, Director – Environmental
National Grid
170 Data Drive
Waltham, Massachusetts 02451

Date: _____

MASSDEP

_____

Gary Moran, Deputy Commissioner
100 Cambridge St. Suite 900
Boston, MA 02114

Date: _____

EXHIBT 1

Timely Action Schedule Chapter 91 Consolidated Written Determination and Licenses				
Step	**MassDEP Max Duration (days)**	**Task**	**Staff Time (hrs)**	**DEP Cost[1]**
1	1	Prefiling meeting.	2	$272.04
2	1	Applicant submits Chapter 91 License Application (WW01) for water dependent use projects requesting a Consolidated Written Determination through EEA ePlace Portal.	0	$0
3	7	MassDEP performs an administrative review and notifies Applicant of any deficiencies for initiating processing to be addressed and corrected by the Applicant.	7.5	$1,020.15
4	7	Department prepares Public Notice, and associated cover letter and issues text of Public Notice to the Applicant (and MEPA) for publication in accordance with regulatory standards for the project.	7.5	$1,020.15
5	14	Applicant: (1) completes publication of Public Notice on or before the Notification Date in a newspaper of local circulation for a 30-day public comment period; and (2) sends Public Notice and project site plan to all required parties and in accordance with the Department's Cover Letter enclosed with the Public Notice (310 CMR 9.04).	0	$0
6	30	Mandatory 30-day public comment period commencing on the Notification Date (310 CMR 9.11(2).	0	$0
7	5	If comments are received during the Public Comment Period, MassDEP forwards all public comment letters received to the Applicant within 5 days of receipt. Within 5 days of the close of the Public Comment Period, Department performs Administrative Completeness Review (ACR) and drafts/issues ACR letter to Applicant detailing items/information yet to be provided.	15	$2,040.30

[1] The hourly rate is based upon the average employee rate for the current fiscal year. After the agreement is completed, applicants will be invoiced for the actual FTE costs.

Timely Action Schedule Chapter 91 Consolidated Written Determination and Licenses				
Step	**MassDEP Max Duration (days)**	**Task**	**Staff Time (hrs)**	**DEP Cost[1]**
8	5	Applicant provides written responses to public comments (if any received) within 5 days.	0	$0
9	7	Within 7 days of receiving ACR letter, Applicant submits the required items/information.	0	$0
10	3	Within 3 days of receiving the remaining ACR items/information, Department confirms administrative completeness or identifes remaining deficiencies.[2]	5	$680.10
11	5	Within 5 days of receiving a list of administrative deficiencies, Applicant submits the required items/information.	0	$0
12	15	Within 15 days of determining the application is administratively complete, Department performs preliminary technical review, and notifies applicant of any technical deficiencies.	15	$2,040.30
13	7	Within 7 days of receiving a list of technical deficiencies, Applicant submits the required items/information.	0	$0
14	30	Within 30 days of receipt of outstanding technical details, Department completes technical review, prepares CWD and draft license(s), reviews internally, and issues the CWD and draft license.	37.5	$5,100.75
15	21	21-day appeal period on CWD.	0	$0
16	14	Department shall prepare final license(s) and permits and submit for signature within 14 days or receipt of a request by the applicant. Licenses requiring Govenror's signature will be issued within 5 days of receipt of signed license from the Governor's Office.	15	$2,040.30
TOTAL	**172**	**---**	**104.5**	**$14,214.09**

[2] Given the complexity of the project and overlapping permitting requirements, MassDEP acknowledges that Applicant is not required to have an Order of Conditions or Water Quality Certification to make a determination of completeness and that the issuance of any licenses or permits shall be conditioned on the receipt of all state permits.

Timely Action Schedule 401 Water Quality Certificate				
Step	**MassDEP Max Duration (days)**	**Task**	**Staff Time (hrs)**	**DEP Cost**
1	TBD	Pre-application Sampling Analysis Plan Review.	15	$2,040.30
2	1	Applicant submits Application for Water Quality Certification to MassDEP through EEA ePlace Portal. **Timeline starts.**	0	$0
3	10	Department prepares Public Notice, and associated cover letter and issues text of Public Notice to the Applicant (and MEPA) for publication in accordance with regulatory standards for the project.	1	$136.02
4	21	Public Comment period for 401 WQC; Applicant provides copy of legal advertisement.	0	$0
5	7	MassDEP reviews and forwards all comment letters received during the public comment period to the applicant.	7.5	$1,020.15
6	14	Within 14 days applicant submits responses to public to MassDEP	0	$0
7	-	MEPA Certificate Issued.	0	$0
8	24	Upon issuance of MEPA Certificate, MassDEP completes Administrative Completeness Review (ACR) and notifies the Applicant of any deficiencies in the application.	15	$2,040.30
9	7	Within 7 days of receipt of applicants complete response to ACR, MassDEP will inform applicant of any defeciencies.	5	$680.10
10	40	MassDEP conducts technical review and may request additional information to decide whether or not the project meets the performance standards.	40	$5,440.80
11	15	MassDEP completes technical review, communicating with sister agencies such as NHDES/CZM/DFG.	10	$1,360.20
12	7	MassDEP issues final 401 WQC.	2	$272.04
---	**146**	---	**95.5**	**$12,989.91**