



# TOWN of FALMOUTH

DEPARTMENT OF PUBLIC WORKS, WASTEWATER DIVISION

416 GIFFORD STREET, FALMOUTH, MASSACHUSETTS 02540

TELEPHONE (508) 457-2543 x 3018

AMY LOWELL  
WASTEWATER SUPERINTENDENT

April 10, 2024

**Re: Request for Determination of Applicability for Marine Soil Borings for Outfall Data Collection**

Dear Falmouth Conservation Commission,

In November of 2023, Town Meeting voted (under Article 3) to fund data collection needed for evaluation and permitting of an outfall for discharge of tertiary-treated wastewater.

One of the critical data needs is information about the soils along the potential outfall route offshore from Kite Park. This data will help determine the feasibility and cost of outfall construction.

Attached is a Request for Determination of Applicability for marine soil borings, for your consideration. Several of the proposed soil boring locations are of necessity within eelgrass beds. The intent is to conduct the soil borings in the fall to avoid the peak of the eelgrass growing season.

Sincerely,

Amy Lowell

Wastewater Superintendent





Proactive by Design



## Request for Determination of Applicability (RDA) Application

### Falmouth Outfall Geotechnical Test Borings Falmouth, Massachusetts

April 2024

File No. 03.0035366.00



#### PREPARED FOR:

GHD, Inc. (on behalf of the Town of Falmouth)  
1545 Iyannough Road  
Hyannis, Massachusetts 02601

#### GZA GeoEnvironmental, Inc.

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April 10, 2024  
File No. 03.0035366.00

Falmouth Conservation Commission  
59 Town Hall Square  
Falmouth, MA 02540

Re: Request for Determination of Applicability Application  
Falmouth Outfall Geotechnical Test Borings  
Falmouth, Massachusetts

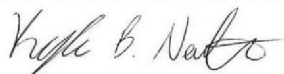
Dear Conservation Commission Members:


On behalf of our client, GHD, Inc. (who is working on behalf of the Town of Falmouth), GZA GeoEnvironmental, Inc. (GZA) is pleased to submit the enclosed Wetlands Protection Act Form 1 – Request for Determination of Applicability (RDA) application for the proposed geotechnical test borings performed within Nantucket Sound, off the southern coast of Falmouth, Massachusetts (Site). As described in the attached application narrative, the Town of Falmouth is proposing to construct a new treated wastewater outfall into Nantucket Sound. In support of the outfall design, geotechnical subsurface test borings are proposed to be performed over water utilizing a drill rig positioned on a barge (Project). This RDA is only in relation to the test boring work and not the proposed outfall installation.

Some of the proposed water-based test boring locations coincide with eelgrass mapped in Nantucket Sound by MassDEP (2019-2022, MassMapper). We believe that the proposed work is not subject to the 310 CMR 10.0: Wetlands Protection Act (WPA) Regulations because the soil borings are temporary, have negligible impacts, and are essential for planning and design purposes. We are seeking your feedback on whether or not you agree with that determination (that the proposed work is not subject to WPA Regulations). Enclosed is an RDA application and supporting documentation for your review and feedback. If you have any questions, please feel free to contact Kayla Newton at (646)-294-7359 or [Kayla.Newton@gza.com](mailto:Kayla.Newton@gza.com). Thank you for your assistance with this project.

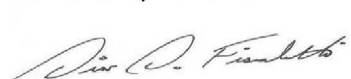
Very truly yours,

GZA GEOENVIRONMENTAL, INC.

  
Kayla Newton, P.E.<sup>RI</sup>  
Project Manager

  
Matthew Page, P.E.  
Associate Principal

  
Stephen Lecco, AICP, CEP, PWS  
Consultant/Reviewer

  
Dino Fiscaletti, P.E.  
Consultant/Reviewer

Enclosed: WPA Form 1 – Request for Determination of Applicability (Application and Supplemental Information)

CC: MassDEP – Southeast Regional Office  
Amy Lowell, Town of Falmouth  
Anastasia Rudenko, GHD



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**1.0 INTRODUCTION AND SITE DESCRIPTION .....1**

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**FIGURE 1** LOCUS

**FIGURE 2** PROPOSED BORING LOCATION PLAN

**APPENDIX A** WPA FORM 1 – REQUEST FOR DETERMINATION OF APPLICABILITY





## 1.0 INTRODUCTION AND SITE DESCRIPTION

The Town of Falmouth is proposing to construct a new outfall for discharge of treated wastewater to Nantucket Sound, off the southern coast of Falmouth Massachusetts (Site). Refer to the Site locus provided as **Figure 1**. This approximately 2,300-foot-long proposed outfall pipe will originate from Grand Avenue/Kite Park and extend southward into the Sound. In support of the outfall design, geotechnical subsurface investigations (borings) are necessary to understand the subsurface conditions at the proposed outfall location. The following test borings are proposed in support of the outfall design:

- One Land-Based Test Boring: A single test boring will be conducted on land in or near Kite Park utilizing a truck-mounted drill rig to characterize the soil conditions onshore.
- Six Water-Based Test Borings: To evaluate the subsurface conditions along the outfall alignment within Nantucket Sound, six additional test borings will be performed. These borings will be conducted from a drill rig positioned on barge suitable for the offshore environmental conditions and water depths.

Some of the proposed water-based test boring locations coincide with areas mapped as containing eelgrass beds by the Massachusetts Department of Environmental Protection (MassDEP) (2019-2022, MassMapper). We acknowledge the potential environmental sensitivity of the project area and emphasize that this RDA pertains solely to the geotechnical investigation activities and not the outfall installation itself. The approximate locations of the proposed borings overlaid on the MassDEP mapped eelgrass beds are shown on the attached **Figure 2**.

Based on Massachusetts Wetlands Protection Act (WPA) Regulations (310 CMR 10.02(2)(b)) as stipulated by MassDEP, we understand that test borings necessary for planning and design purposes are considered exploratory and temporary in nature, typically with negligible impacts and may be exempt from the regulations. We are seeking your feedback on whether or not you agree with that determination (that the proposed work is not subject to WPA Regulations)

## 2.0 PROPOSED WORK

Qualified drillers will be engaged to execute test borings within the vicinity of the proposed outfall pipe. The project includes a total of seven test borings, encompassing one land-based boring at Kite Park and six water-based borings within Nantucket Sound. We understand that the land-based test boring is not subject to the regulations in question because that test boring is outside of WPA and Town Wetland Bylaw jurisdiction.

The water-based test borings in Nantucket Sound will be conducted utilizing a drill rig positioned on either a jack-up barge or a spud barge, contingent upon equipment availability and water depth constraints based on our current understanding of the bathymetry in this area. These borings will be spaced approximately 500 feet apart, commencing from the land-based boring at/near Kite Park and extending southward into Nantucket Sound.

As shown on **Figure 2**, four of the six proposed locations of the water-based test borings fall within eelgrass habitat mapped by MassDEP (2019-2022, MassMapper). It is anticipated that these boring locations will be executed utilizing a jack-up barge. The potential impact area at each of these boring locations includes the jack-up barge pads (approximately 4-ft by 8-ft, four per barge setup location) or the barge spuds (approximately 2-ft in diameter, four per barge setup location) and the borehole (approximately 6-inch diameter casing), resulting in a total potential impact area of between



approximately 13 square feet to 128 square feet at each boring location. Considering four borings fall within the limits of the mapped eelgrass, the total potential eelgrass impact area for the project may be approximately 52 to 512 square feet.

Drilling methodologies will involve rotary methods and typical drive and wash techniques, with each test boring extending up to 100 feet below the existing ground surface. While bedrock is not anticipated, the possibility of encountering boulders is acknowledged. Standard Penetration Tests (SPT) will be conducted continuously to a depth of 10 feet, or the bottom of the marine sediment stratum, followed by sampling at five-foot intervals thereafter. Spoils generated will be stored in steel drums with secured lids on the barge, with provision for waste characterization samples for off-site disposal.

The retained driller will contact Dig-Safe at least 72 hours before commencing fieldwork to locate underground utilities within the anticipated work area. Additionally, notifications will be sent to relevant authorities, including the Coast Guard/harbormaster and the Steamship Authority, and other ferry operations in the Sound prior to the start of water-based test borings, in adherence with maritime protocols.

### **3.0 REGULATION COMPLIANCE**

The proposed test boring activities fall under the purview of the Massachusetts Department of Environmental Protection (MassDEP) 310 CMR 10.0: Wetlands Protection Act Regulations. According to this regulation, activities that are temporary, have negligible impacts, and are essential for planning and design purposes, such as exploratory borings and sediment sampling, are not subject to these regulations. We respectfully request your feedback as to whether or not you concur that the proposed test boring work described herein is not subject to the WPA regulations.

Considering four of the six proposed water-based test boring locations coincide with mapped eelgrass habitats (2019-2022, MassMapper), the total potential eelgrass impact area for the project is approximately 52 to 512 square feet, including jack-up barge pad areas/barge spuds and boreholes. Scheduling of the water-based test borings will be based on regulatory approval of the work, barge/driller availability, and safe working conditions under adverse weather (i.e., strong winds). We plan to conduct the borings in the fall of 2024 in the more dormant eelgrass period. The proposed land-based test boring will take two to three days to complete, and the water-based test borings will take four to six weeks to complete without weather delays.

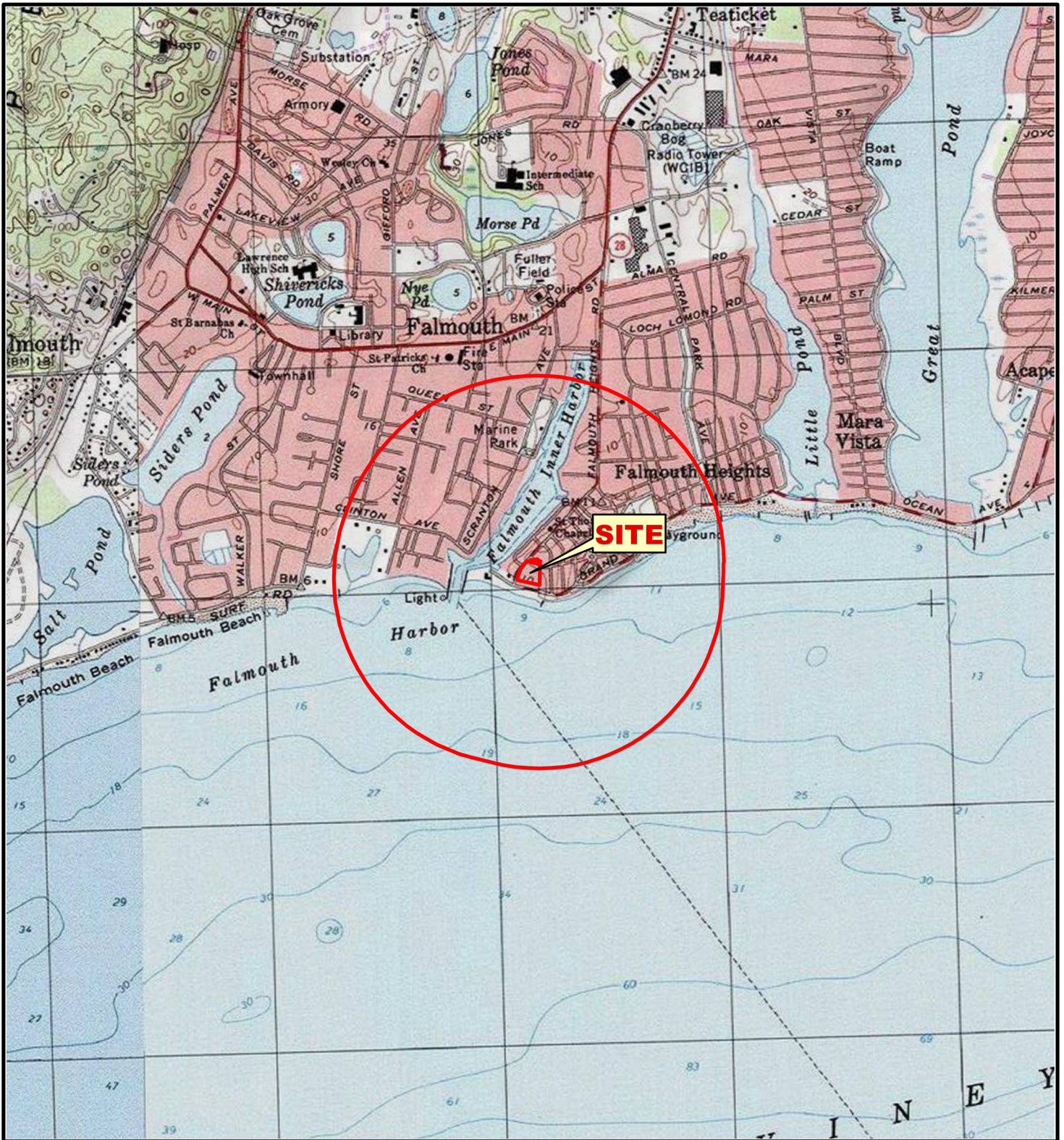
We understand that should the Town and/or MassDEP determine that the work is subject to WPA regulations, there is potential for the following permit applications to be triggered:

- Notice of Intent (NOI) application submitted to the Falmouth Conservation Commission and MassDEP to obtain a permit (Order of Conditions).
- U.S. Army Corps of Engineers (USACE) Pre-Construction Notification (PCN) or Self Verification Form.





**FIGURE 1**  
LOCUS



SOURCE : USGS TOPOGRAPHIC QUADRANGLES SCANNED BY THE NATIONAL GEOGRAPHIC SOCIETY & I-CUBED, COPYRIGHT 2011

Data Supplied by :



PROJ. MGR.: KN  
 DESIGNED BY: KN  
 REVIEWED BY: MP  
 OPERATOR: KN  
 DATE: APRIL 2024

LOCUS

FALMOUTH OUTFALL GEOTECHNICAL TEST BORINGS  
 FALMOUTH, MA

JOB NO.  
 03.0035366.00

FIGURE NO.  
**1**

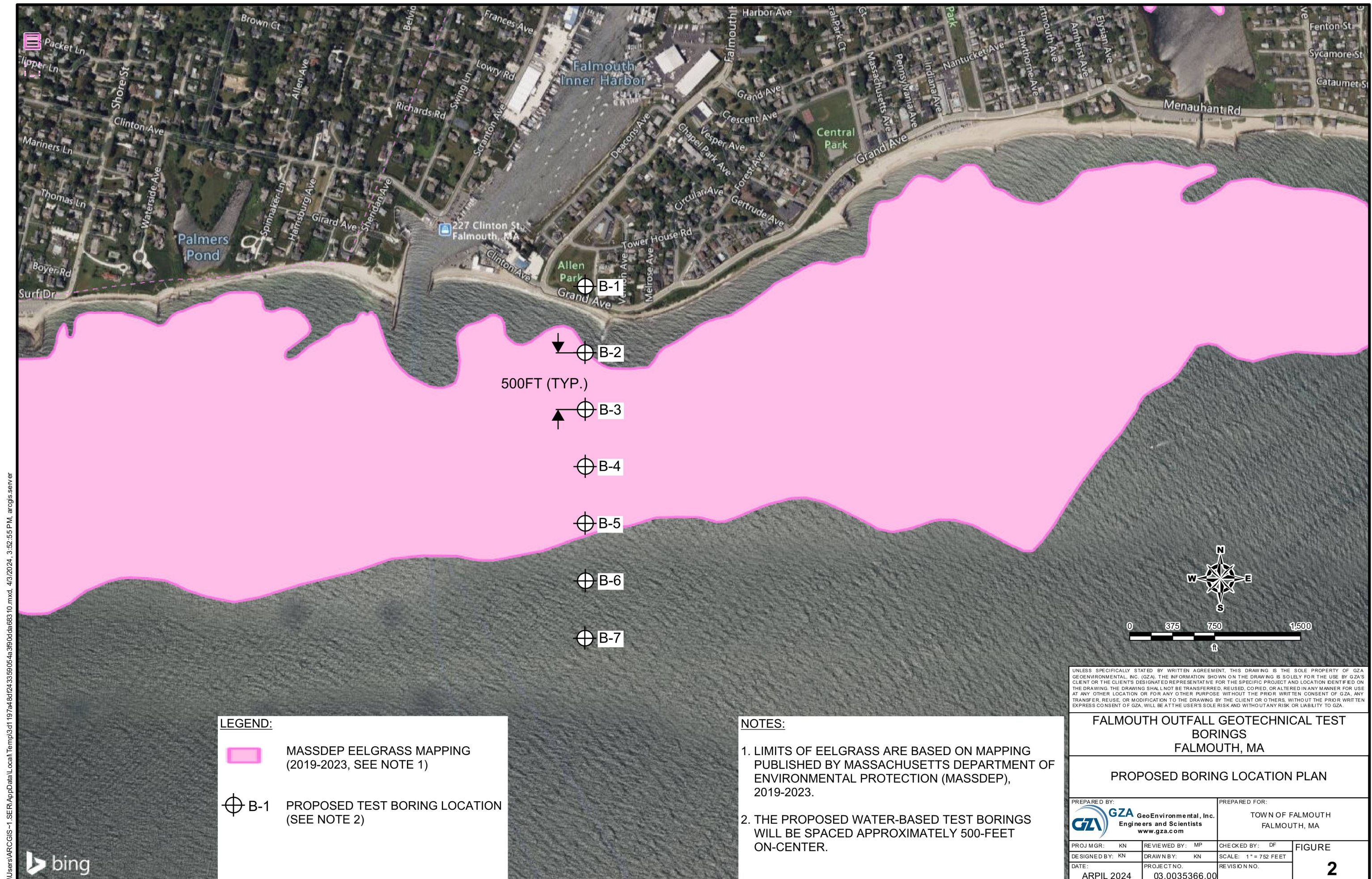




**FIGURE 2**


PROPOSED BORING LOCATION PLAN






C:\Users\ARC\GIS-1\SE\RA\ProjData\Local\Temp\3df1197a48d4243359054a3900da68310.mxd, 4/3/2024, 3:52:55 PM, arcgis.server

**LEGEND:**

 MASSDEP EELGRASS MAPPING (2019-2023, SEE NOTE 1)

 B-1 PROPOSED TEST BORING LOCATION (SEE NOTE 2)


**NOTES:**

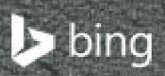
1. LIMITS OF EELGRASS ARE BASED ON MAPPING PUBLISHED BY MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MASSDEP), 2019-2023.
2. THE PROPOSED WATER-BASED TEST BORINGS WILL BE SPACED APPROXIMATELY 500-FOOT ON-CENTER.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR THE USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

**FALMOUTH OUTFALL GEOTECHNICAL TEST BORINGS FALMOUTH, MA**

**PROPOSED BORING LOCATION PLAN**

PREPARED BY:  <b>GZA</b> GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: TOWN OF FALMOUTH FALMOUTH, MA		
PROJ MGR: KN	REVIEWED BY: MP	CHECKED BY: DF	FIGURE <b>2</b>
DESIGNED BY: KN	DRAWN BY: KN	SCALE: 1" = 752 FEET	
DATE: APRIL 2024	PROJECT NO: 03.0035366.00	REVISION NO.	







## **APPENDIX A**

WPA FORM 1 – REQUEST FOR DETERMINATION OF APPLICABILITY



**Massachusetts Department of Environmental Protection**  
 Bureau of Water Resources - Wetlands

**WPA Form 1- Request for Determination of Applicability** Falmouth  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 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.



1. Applicant:

Amy	Lowell
First Name	Last Name
416 Gifford Street	
Address	
Falmouth	MA 02540
City/Town	State Zip Code
(508) 457-2543 ext. 3018	amy.lowell@falmouthma.gov
Phone Number	Email Address

2. Property Owner (if different from Applicant):

First Name	Last Name
Address	
City/Town	State Zip Code
Phone Number	Email Address (if known)

3. Representative (if any)

Matthew	Page
First Name	Last Name
GZA GeoEnvironmental, Inc.	
Company Name	
188 Valley Street, Suite 300	
Address	
Providence	RI 02909
City/Town	State Zip Code
401-427-2741	matthew.page@gza.com
Phone Number	Email Address (if known)

**B. Project Description**

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Grand Avenue	Falmouth
Street Address	City/Town
41.54269	-70.60404
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)
Assessors' Map Number	Assessors' Lot/Parcel Number

b. Area Description (use additional paper, if necessary):  
 Grand Avenue/Kite Park and Nantucket Sound. See attached narrative.

c. Plan and/or Map Reference(s): (use additional paper if necessary)

Figure 1 - Falmouth Outfall Geotechnical Test Borings - Locus Map	April 2024
Title	Date
Figure 2 - Proposed Boring Location Plan	April 2024
Title	Date

[How to find Latitude and Longitude](#)

[and how to convert to decimal degrees](#)





Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands

**WPA Form 1- Request for Determination of Applicability** Falmouth

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

**B. Project Description (cont.)**

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

Geotechnical test borings performed from a jack-up/spud barge within Nantucket Sound, off the southern coast of Falmouth, Massachusetts. See attached narrative.

- b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

310 CMR 10.02(2)

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

- b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

N/A



Massachusetts Department of Environmental Protection  
Bureau of Water Resources - Wetlands

**WPA Form 1- Request for Determination of Applicability** Falmouth  
Municipality

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**C. Determinations**

1. I request the Falmouth \_\_\_\_\_ make the following determination(s). Check any that apply:  
Conservation Commission

- a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.
- c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.
- d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance or bylaw** of:

\_\_\_\_\_  
Name of Municipality

- e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).
- \_\_\_\_\_

**D. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

*Amy Lowell*  
Signature of Applicant

4/10/24  
Date

\_\_\_\_\_  
Signature of Representative (if any)

4/10/24  
Date



GZA GeoEnvironmental, Inc.