



MAINE GENERAL PERMIT APPLICATION

to the

Army Corps of Engineers

for

Woodford Street & Forest
Avenue/Woodford Corner Sewer
Separation Project
Portland, Maine

Prepared for

Portland Department of Public Works
55 Portland Street
Portland, ME 04101

September 2016

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Exhibit 1

Application Letter/Narrative



September 21, 2016
16067

Mr. Rodney Howe
Maine Project Office
675 Western Avenue #3
Manchester, ME 04351

Maine General Permit Application
Woodford Street Storm Drain Outfall, Portland, Maine

Dear Mr. Howe:

On behalf of the City of Portland, please find the enclosed application package for natural resource impacts associated with the installation of a 36" storm drain outfall which discharges into Back Cove near the Intersection of Vannah Avenue and Baxter Boulevard in Portland, Maine. The outfall pipe is at the end of a sewer separation project that the City will begin in November of 2016. We are submitting for an Army Corps of Engineers (ACOE) Category II General Permit authorization for the construction of a 36" storm drain with a rip rap outlet.

The sewer separation work will include the installation of approximately 1,700 linear feet of new storm drains servicing approximately 50 acres of residential and commercial development in the vicinity of Woodford Street and Forest Avenue. This renovation of infrastructure will relieve these service areas by redirecting storm water out of the combined sewer system and discharging it into Back Cove. The other project improvements include replacing sanitary sewer and water lines.

Back Cove is a tidal estuary basin that discharges into the Atlantic Ocean. It is identified by the Maine Department of Environmental Protection as a Tidal Wading Waterfowl Habitat and a Shorebird Feeding Area Habitat, but is not identified as a shorebird roosting area. The storm drain installation will be constructed within the already disturbed slope associated with Baxter Boulevard. Based on the anticipated construction schedule, the work within the waterbody will occur between November of 2016 and March of 2017. Along with this submission, the project will also require a Natural Resource Protection Act (NRPA) Permit by Rule for "Outfall pipes" and "Activities located in, on or over high or moderate value inland waterfowl and wading bird habitat, or shorebird nesting, feeding, and staging areas," which will be submitted concurrent with this application.

This project encompasses improvements to an area that is already developed, therefore no trees larger than 4" caliper shall be removed from the site. It is understood that parts of Baxter Boulevard and Back Cove are recognized by the state of Maine and the U.S. as historic places. The City of Portland will review the project plans in conjunction with the local Historic Preservation Commission to ensure that the design preserves the historic features.

Enclosed is one (1) copy of the Submittal Package including copies of the notification letters to the Historical and Tribal agencies. We will transmit a complete PDF copy of the submission so that it can be transmitted to other federal agencies with which ACOE coordinates. Please feel free to contact us if additional information is needed. Thank you for your time and consideration relative to this project.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Daniel L. Riley". The signature is written in a cursive style with a large, stylized "R".

Daniel L Riley, P.E., C.F.M.
Senior Project Manager

DLR:llg
Enc.

Exhibit 2

Application & Checklist

U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
 (33 CFR 325)

OMB APPROVAL NO. 0710-0003
 EXPIRES: 31 AUGUST 2012

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Brad Middle - Last - Roland Company - City of Portland E-mail Address - brad@portlandmaine.gov		8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Daniel Middle - Last - Riley Company - Sebago Technics, Inc. E-mail Address - driley@sebagotechnics.com	
6. APPLICANT'S ADDRESS: Address- 55 Portland Street City - Portland State - Maine Zip - 04101 Country -USA		9. AGENT'S ADDRESS: Address- 75 John Roberts Road, Suite 1A City - South Portland State - Maine Zip - 04106 Country -USA	
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 207-874-8801		10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 207-200-2080	

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Sebago Technics, Inc. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.


 SIGNATURE OF APPLICANT 2016 09-21
 DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Woodford Street Stormdrain Outfall			
13. NAME OF WATERBODY, IF KNOWN (if applicable) Back Cove, Atlantic Ocean		14. PROJECT STREET ADDRESS (if applicable) Address	
15. LOCATION OF PROJECT Latitude: °N 43° 40' 15.0" Longitude: °W 70° 60' 39.0"		City - State - Zip-	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Map: 128 Lot: X001 Municipality Portland, Maine Section - Township - Range -			

17. DIRECTIONS TO THE SITE

From I-295, take exit 6B and continue north on Forest Avenue. Right on Baxter Boulevard and continue 1 mile to the intersection of Vannah Avenue. The outfall pipe location is on the east side of Baxter Boulevard, SE of the intersection of Baxter Boulevard and Vannah Avenue.

18. Nature of Activity (Description of project, include all features)

Installation of a 36" storm drain outfall pipe with rip rap apron discharging into Back Cove directly adjacent to existing outfall, as part of a larger CSO separation along Woodford Street.

Construction will impact approximately 620 sf of existing shoreline and existing riprap embankment. No tree clearing is proposed.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Outfall for a new separated storm drain constructed to relieve inflow to an adjacent existing combined sewer overflow (CSO) location

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Minor excavation is required to install the storm drain and riprap apron outfall protection. Approximately 620 sf of area below the HAT will be impacted for the installation of the storm drain pipe and construction of the riprap apron. The proposed outfall is directly adjacent to an existing outfall and will minimize impact by discharging both pipes to a shared apron.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Excavation 103 cy	Riprap Installed 103 cy	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 620 square feet (.014 acres)
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The outfall has been located on an existing, developed slope immediate adjacent to an existing outfall constructed in 2001 and the Back Cove Trail. The proposed impact is limited to the construction required to modify the existing outfall location with a new, widened riprap apron and slope protection sized to protect the outfall of the co-located storm drain outfalls.

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

a. Address- See Attached

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Maine DEP	Permit By Rule	N/A	9/23/2016	TBD	

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE *Paul Rij* 9-21-2016
SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



**US Army Corps
of Engineers**®
New England District

**REGULATORY DIVISION
APPLICATION AND PLAN GUIDELINE CHECKLIST**

The following checklist is designed to assist applicants and their consultants when preparing applications and plans and when requesting sampling plans and suitability determinations for dredge projects. This is not a comprehensive list, nor are all items mandatory for all projects. However, the list contains some frequently omitted information often necessary to process a permit application and provides some direction for plan preparation. Applicants are only required to furnish such additional information as deemed essential to make a public interest determination. Please consult with the Corps Regulatory Project Manager assigned to your project to determine which information is required.

I. APPLICATION INFORMATION:

- Application Form:** All applicants must submit a Corps application form (ENG FORM 4345) or some state forms are acceptable. Please see the PGP for your state at www.nae.usace.army.mil and select “Regulatory/ Permitting,” and then “State Programmatic General Permits.”
- Include the name and address of the applicant. We address any issued permit to this person.
- Historical and Tribal Notification:** All Category 2 applicants shall submit a copy of their application materials to the State Historic Preservation Officer and the appropriate Federally recognized Indian tribes in their state when applicable. See the Corps PGP for your state for addresses. The PGP’s for each of the six New England states are located at www.nae.usace.army.mil. Please go to “Regulatory/ Permitting,” and then “State Programmatic General Permits.”
- Describe the intended use; public, private, commercial. If it is for multiple uses (multi-family, industrial complex, etc.) indicate whether the entire development is existing or proposed.
- Provide names and complete mailing addresses, including zip code, for adjacent property owners. This information may be obtained from local tax roles/assessors’ offices.
- Provide the street address of the proposed work site. If there is no street address, provide directions to the site using landmarks, types of roads, mileage, etc.
- Provide the longitude and latitude, township, county, and state location of the project site.
- Provide a list of State and local permits or approvals for which you have applied. if none, indicate the basis for determining that no state or local approvals are required. Provide the current zoning classification.
- Provide a list of previous applications applied for and state the outcome of the application; issued, denied, deactivated, and the date. Also reference any nearby activities and/or property owners that may have recently received a Corps permit.
- Provide a signed statement from the property owner giving the Corps permission to enter the site.
- Sign and date the application.
- Describe the proposed activity.
- Structures:**
 - Describe the need and intended use of the structure.
 - Describe the plans for sewage pump-out facilities, fueling facilities and contingency plans for oil spills.
 - Describe the type of vessel to use the facility
 - Describe and give dimensions of adjoining structures.
 - Provide the width of the waterway and the distance to Federal or other navigation channels.
- Fill Projects:** N/A - Riprap cut slope
 - State the project’s purpose to include the intended use & the structures proposed to be erected on the fill.
 - Describe the impact area, i.e. wetlands or open water & give the area’s dimensions in SF and/or acres.
 - Describe the quantity of dredged material in cubic yards.
 - Describe the type and composition of the fill material and it's source.
 - Describe any temporary construction or access fills possibly required to complete the proposed project.

N/A **Dredging Projects:** Information accompanying sampling plan or suitability determination requests may be submitted before the application, and should include the following:

- State the purpose of the proposed dredging.
- Date the area was last dredged
- Volume (CY) and area (SF) for each dredge location
- Character of the dredge area, including the type of existing bottom material, biota and vegetation.
- Existing or nearby test results. Don't perform new testing without Corps input. Bulk sediment analysis, elutriate and bioassay tests may be required. We will provide detailed instructions should a review of the submitted information indicate further testing is required.
- Describe the dredging purpose – new, maintenance or both
- Describe the dredging method (e.g. mechanical or hydraulic) and what equipment will be used.
- Method of handling/transporting
- Information on any recent spills of oil and/or other hazardous materials and on nearby outfalls. Document the information source. A good source is the harbormaster or fire chief.
- For open-water disposal, provide a brief alternatives analysis showing why inland or beneficial reuse sites aren't practicable.
- Describe methods to retain or prevent dredged material from running back into the wetland or waterway.
- Describe the size of the disposal site in area (square feet) and volume (cubic yards) for beach nourishment
- Describe the area to be dredged, i.e. open water, existing channel, wetlands, uplands, etc. and indicate the surface area to be dredged in square feet and the volume of material to be removed in cubic yards.
- Provide information on any wetland, intertidal or submerged aquatic vegetation that may be affected.

Plans (sketches are acceptable for this preapplication request) must accompany the sampling plan or suitability determination request, and must include the following:

- Plan and cross-section views
- Dredge boundaries
- Bathymetry: existing, proposed and historical (include dates and Corps permits) dredge depths
- Location and dimensions or SF of the dredged material disposal area, including the HTL for beach nourishment. A map should be included for upland disposal areas.
- Dewatering methods and areas
- Sampling locations for existing or nearby test results
- Outfall locations
- Proposed detention levees, weirs, and/or other devices for retaining hydraulically placed materials.
- Capacity and the points of runback into the aquatic system.

II. PLAN INFORMATION:

General Requirements:

- 8.5x11" plans on white paper, suitable for copying. Larger plans for clarity are ok, but not required.
- Ch.91 plans may be cut to 8.5x11" - ensure proper margins (at least ½ inch).
- Avoid reducing plans. If so, adjust the graphic and numerical scale. Scale should be in common units (1" = 10', 20', 50', 100', etc.) so drawings can be measured with a standard engineering scale.
- Drawings clear enough and of sufficient scale to read, and dark enough to allow clear reproduction.
- For large sites, use a Key Sheet of entire project w/numbered reference to attached detailed sheets.
- Submit the fewest number of sheets necessary to show the proposed work.
- Provide detailed sheets of work in Corps jurisdiction. Don't cut full-size drawings into even sections.
- Try to fit work in a particular area on one sheet. Don't use match lines, unless absolutely necessary.
- Only construction details related to Corps program are necessary.
- Don't use color shading. Use dot shading, hatching or similar graphics to clarify line drawings.
- P.E. stamp isn't required

Plans for all projects should include:

- Vicinity Map. This should be the first page of the plan set. Location in upper right-hand corner of the plan is ok, but not preferred. Using a USGS Quad Sheet photocopy or a local road map is ok. A person should be able to find the site from the plan set alone.
 - Include names or numbers of all roads in the site’s vicinity
 - Clearly indicate the project location on the map.

Each sheet of the project plan set, including the vicinity map, should contain:

- Title block - project title, address, activity (existing conditions, proposed conditions, etc.)
- Date and revision date, if necessary
- Sheet number indicating total number of sheets in the set (i.e. 2 of 9).
- Numerical *and* graphic scale – avoid reduction and enlargement
- North arrow
- Existing property lines.
- Show the dimensions of the applicant’s property.
- On plan view, show the names of adjoining property owners.
- Ebb and flood in tidal waters and direction of flow in non-tidal waters
- Indicate the relationship of the proposed work site to waters of the U.S., i.e. adjacent wetlands, tidal influence through culverts, etc. Include the name of the waterbody and of the large waterbody to which the waterbody is an immediate tributary.
- One set of coordinates to locate the project
- Typical pipeline cross-sections with details of the bedding and backfill to be used in wetlands and waterways. Show proposed trench dams and detail for inland projects.
- Show the dimensions of the work; dimensions of pier, length of bulkhead or shoreline stabilization, dimensions of area to be dredged, dimensions of disposal area, dimensions of fill area, etc. Include all temporary impact areas.
- Show the location and dimensions of culverts.
- Indicate the location of cross-sectional views.
- Cross-sectional views:
 - Show the mean high and low waterlines or the ordinary high and low water elevations.
 - Show the existing contours and the proposed contours indicating existing and proposed elevations.
- Show the depth of water at the waterward end of piers.
- Show the dimensions of the work.
- Show the disposal area for dredged material, including retention dikes and overflow route.
- Show the finished top elevation of the disposal site.
- Show the top width, bottom width, and side slopes of road crossings. Include bottom and invert elevations of culverts and the finished top elevation.

N/A Plans for Section 10 projects should include:

- Shoreline/limits of waterways on all views [labels: HTL (fill projects), MHW (structures) & MLW]
- Delineate and place specific labels on biological resources. E.g. special aquatic sites: salt marsh, mudflats, riffles and pools, and vegetated shallows (eelgrass, etc.); and endangered species and shellfish habitat.
- Datum in plan and elevation views
 - Standard Coordinate Systems – Grid lines or marginal hash marks should be based on a standard coordinate system, i.e. Geographic (at least to the nearest tenth of a second), State Plane or UTM. Indicate on the plan legend the coordinate system (and zone for UTM), units (English or metric) and the corresponding geodetic datum, either NAD27 or NAD83.
 - Vertical Datum – On each plan show the NGVD 1929 equivalent for the project’s vertical datum (MLW, MLLW or NGVD) with the vertical units.
 - Don’t use local datum.
- If near a Federal project call your Corps Regulatory Project Manager (PM).
- Dimensions of the existing and proposed structures

- Cross-section view for piers, floats and other projects, if necessary
- For piers and other structures, show minimal height of structure above the marsh.
- For floats, show methods of securing (piles, bottom anchors) and keeping off substrate (skids, stops).
- Water depths around the project in all views
- Show distance waterward of the MHW line for proposed structures.
- Show distances from two fixed upland points to the landward end of proposed structures.
- Show any existing structures and moorings in waters adjacent to the proposed activity and show the distance to the proposed work. If no structures exist (or are proposed), state this on the project plans.
- Show the location and dimensions of existing bulkheads and/or shoreline stabilization on adjacent properties and, if applicable, how the proposed work will tie into existing structures.
- Shoreline of adjacent properties
- Distance to opposite shoreline. In narrow waterbodies, show water width and show structures across from proposed work.
- State plane coordinates of seaward end(s) of structures near a Federal Navigation Project (FNP) (anchorage or channel). Contact Corps PM for details.
- Show adjacent FNP and/or state/local navigation projects, distance to them and the authorized depths.
- Delineate and place specific labels on special aquatic sites: salt marsh, mudflats, riffles and pools, and vegetated shallows (eelgrass, etc.).
- Provide existing Corps permit numbers. Provide the names under which the permits were obtained if the permit numbers are unknown. Provide construction dates and proof of existence (aerials, photos, town hall records, affidavits, state or local permits, etc.) to verify “grandfathering.”
- For reconfiguration zones, provide the coordinates of the corners and specify the maximum number of vessels moored within the zone.

N/A In addition to the above, plans for Section 10 dredge projects should include:

- See Section I (Dredging Projects) and Section III (40 CFR 230 Guideline) for additional required dredge info.
- Dredge boundaries
- Volume (CY) and area (SF) for each dredge location
- Cross-section
- Based on the physical characterization of the material to be dredged and based upon the high/ medium/low, wave or current energy of the location, identify the likely final angle of repose of the sidecuts. Incorporate total final footprint of dredged area in characterizing impact to resources.
- Disposal location on a separate sheet
 - For beach disposal: the disposal footprint, existing and proposed nourishment profiles (include profiles for each site for multiple non-contiguous sites. Multiple profiles may also be appropriate if the placement site is more than 50 meters long), total fill area (SF) and volume (CY), fill area and volume below the HTL, and delineation of dunes, banks, existing beach vegetation, and contours. Sediment sample analysis for beach should typically consist of standard grain size analysis with results presented in graphical form using the Unified Soils and Wentworth Classification systems.
 - For upland sites, provide a vicinity map in the plan set. If immediately adjacent to wetlands, provide plan with wetland delineation.
 - For open-water sites, provide a vicinity map.

Plans for Section 404 projects should include:

- Limits of wetlands (label: wetland boundary) and waterways (labels: OHW or HTL) on all views.
- Area (SF) of each fill area in waters and wetlands. State if fill is permanent or temporary.
- N/A** Volume (CY) and area (SF) for each fill area below the OHW line.
- Show limits of temporary and permanent fill to be used in any wetlands or waterway, including construction access and work areas, cofferdams, bedding, and backfill.
- Show the total plan of development, including the proposed use of upland and wetland areas.
- The 100, 500-year and regulatory floodway boundaries as shown on the community’s current National Flood Insurance Program maps, if applicable.

- Datum in plan and elevation views.
 - Standard Coordinate Systems – Grid lines or marginal hash marks should be based on a standard coordinate system, i.e. Geographic (at least to the nearest tenth of a second), State Plane or UTM. Indicate on the plan legend the coordinate system (and zone for UTM), units (English or metric) and the corresponding geodetic datum, either NAD27 or NAD83.
 - Vertical Datum – On each plan show the NGVD 1929 equivalent for the project’s vertical datum with the vertical units.
 - Don’t use local datum.

N/A Show the disposal site of the excess excavated material. If necessary, submit an additional sheet showing the location of the proposed disposal site. Provide quantity of excess excavated material.

- Show the existing and proposed ground contours or spot elevations on all views.
- Wetland delineation report showing the delineation was performed in conformance with the 1987 Corps wetlands delineation manual or the Massachusetts DEP three-parameter delineation.

N/A Provide any known vernal pool information. How do you know an area is or isn’t a vernal pool? It is a tidal waterbody

N/A Show and label the mitigation areas. Clearly show boundaries and provide SF of each area.

- Copies of sections of National Wetland Inventory Maps, marked to show locations and site boundaries. Please be sure to ID the quad name and year.
- Copies of County Soil Surveys, marked to show locations and site boundaries. Please be sure to ID the County, Sheet Number, and year.

III. OTHER INFORMATION:

- Please submit a copy of any environmental assessments or impact statements done by or for any local, state, or federal agencies.

40 CFR 230 Guidelines for Specification of Disposal Sites for Dredged or Fill Material

- Waterways and wetlands are vital areas that constitute productive and valuable public resource, the unnecessary alteration or destruction of which is to be discouraged. Therefore, federal regulations state that no discharges of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.
- An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.
- Where the activity associated with a discharge that is proposed for a special aquatic site (as defined in at 40 CFR 230, Subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not “water dependent”), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

Flood Zone

- The following questions pertain to your project's potential impact on flooding. Where appropriate, the information should also be included on your plan.

- Is the project located in a flood zone designated on the current Flood Insurance Rate Map or Flood Hazard Boundary Map?

What Zone?

What is the 100-year flood elevation?

Date of Map?

N/A Is the project partially or wholly located in the floodway on the Flood Boundary & Floodway Map?

N/A If the project is located in the floodway, how much does the project increase the 100-year frequency flood level?

How much effective floodplain storage will be removed from the 100-year floodplain by fill? None

Commonly Used Terms

Section 10 of the Rivers and Harbors Act of 1899 [33 U.S.C. 403] authorizes the Corps to regulate certain structures or work in or affecting navigable waters of the United States.

Section 404 of the Clean Water Act [33 U.S.C. 1344] authorizes the Corps to regulate the discharge of dredged or fill material into waters of the United States.

Navigable Waters of the United States [33 CFR 329.4] are those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water line and/or those waters that are presently used, or have been used in the past or may be susceptible to use for interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. These are waters that are navigable in the traditional sense. Permits are required in these waters pursuant to Section 10 of the Rivers and Harbors Act. This term should not be confused with the term waters of the United States (below).

Waters of the United States [33 CFR 328.3] is a broader term than navigable waters of the United States defined above. This term includes navigable waters and all their tributaries, adjacent wetlands and other waters or wetlands where degradation or destruction could affect interstate or foreign commerce. Permits are required for the discharge of dredged or fill material in these waters pursuant to Section 404 of the Clean Water Act.

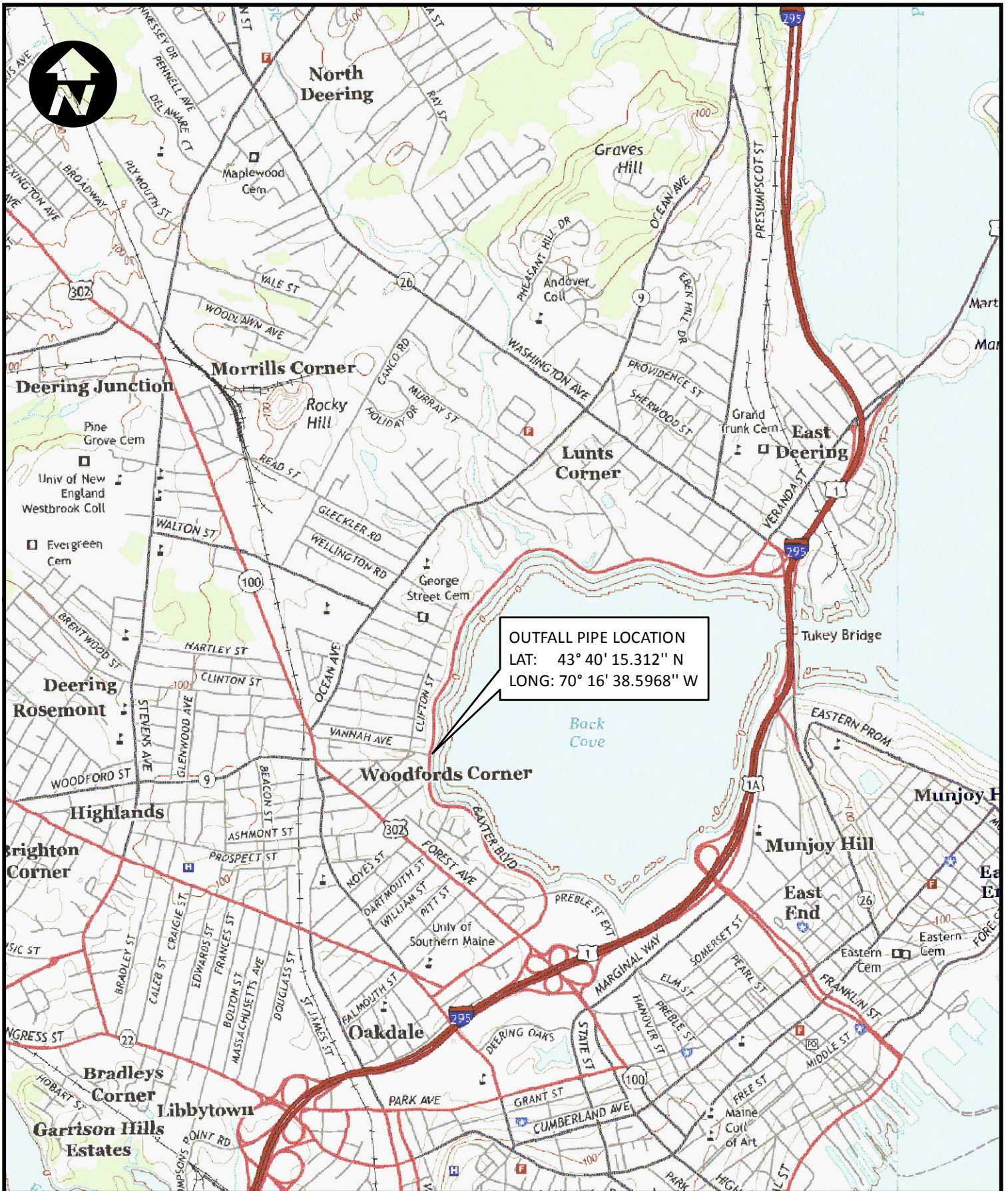
High Tide Line (HTL) [33 CFR 328.3(d)] is a line or mark left upon tidal flats, beaches, or along shore objects that indicates the intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined by tidal gages, physical markings or characteristics, vegetation lines, a more or less continuous deposit of fine shell or debris on the foreshore or berm, or other suitable means such as a line of oil or scum along the shore that delineate the general height reached by a rising tide. The term includes spring high tides and other high tides that occur with periodic frequency, but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm. *We frequently receive questions regarding the HTL. We often verify the HTL using the current year's NOAA Tide Tables, which provides the elevation of the highest predicted tide in a given year. This elevation can be used to draw the HTL on the project plans. Note: the NOAA Tide Tables reference a MLLW datum.*

Mean High Water (MHW) Line, [33 CFR 329.12(a)(2)] with respect to ocean and coastal waters, is the line on the shore established by the average of all high tides. It is established by survey based on available tidal data (preferably averaged over a period of 18.6 years because of the variations in tide). In the absence of such data, less precise methods to determine the mean high water mark are used, such as physical markings, lines of vegetation or comparison of the area in question with an area having similar physical characteristics for which tidal data are readily available.

Ordinary High Water (OHW) Line, [33 CFR 328.3(d)] with respect to non-tidal waters, is the line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Exhibit 3

Site Location Map



OUTFALL PIPE LOCATION
 LAT: 43° 40' 15.312" N
 LONG: 70° 16' 38.5968" W

SEBAGO
 TECHNICS

WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd. - Suite 1A
 South Portland, ME 04106
 Tel: 207-209-2100

250 Goddard Rd. - Suite B
 Lewiston, ME 04240
 Tel: 207-783-5656

**SITE LOCATION MAP OF:
 WOODFORD STREET SEWER SEPARATION**

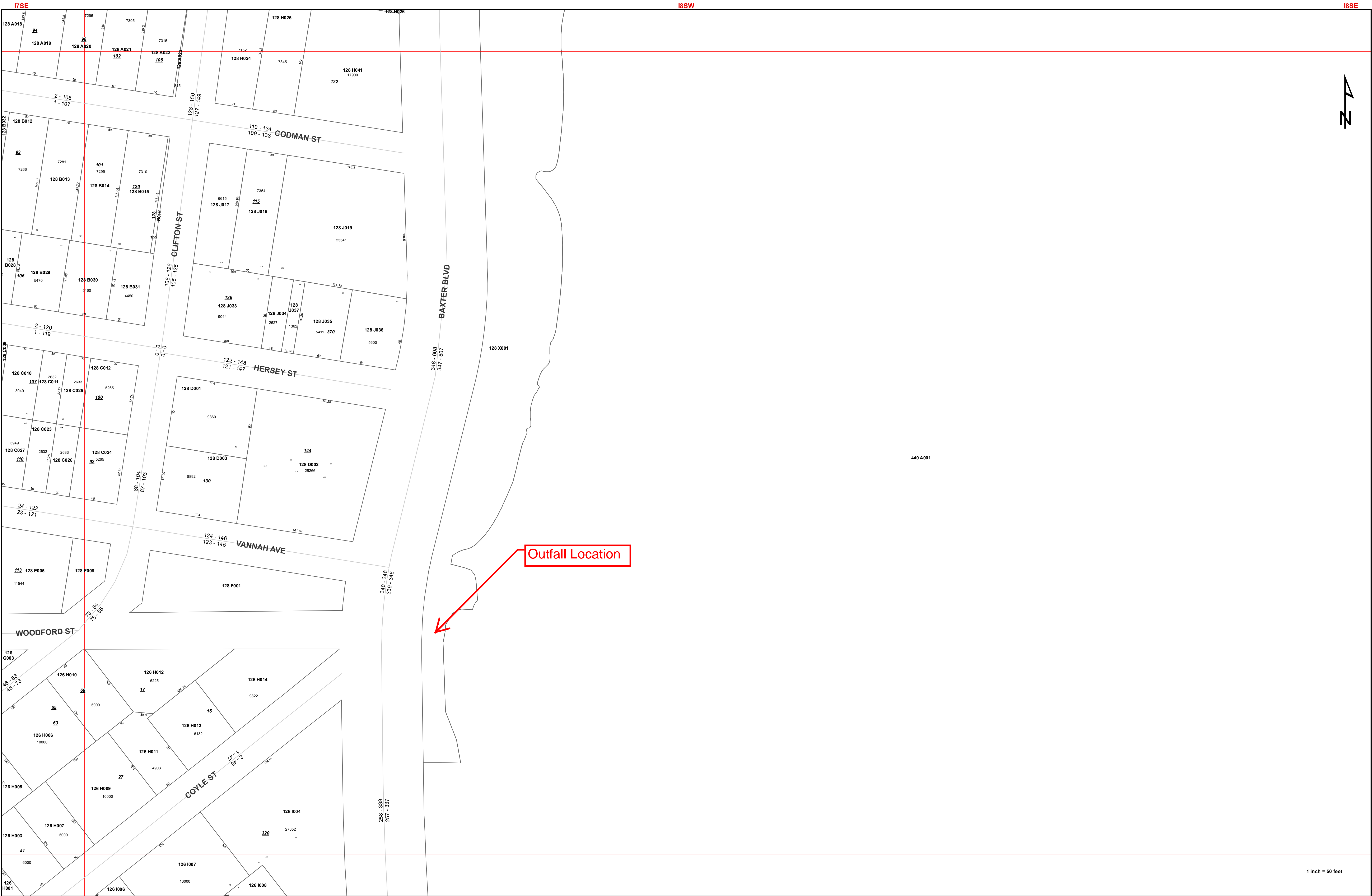
LOCATION: WOODFORD STREET
 PORTLAND, MAINE

INFORMATION: 2011 USGS QUADRANGLE
 (-PORTLAND-WEST -PORTLAND-EAST)

SCALE: 1" = 2,000'
 DATE: 9/15/2016

Exhibit 4

Property Tax Map & List of Abutters



42

1 inch = 50 feet

Outfall Location

I7SE

I8SW

I8SE

H7NE

O7NE

H7SE

H8SW

H8SE

Abutters List

Parcel ID	Name and Mailing Address	Property Location
126 I004001	NELSON SUSAN C & BARRY W NELSON JTS 320 BAXTER BLVD PORTLAND ME 04101	320 BAXTER BLVD
126 H013001	SELLERS RICHARD F & BARBARA J SELLERS JTS 15 COYLE ST PORTLAND ME 04101	15 COYLE ST
128 F001001	CITY OF PORTLAND 389 CONGRESS ST PORTLAND ME 04101	125 VANNAH AVE
128 D003001	HARRINGTON-HOWES KENNETH & ELIZABETH ARRINGTON-HOWES JTS 138 5 MILE RIVER RD DARIEN CT 06820	130 VANNAH AVE
128 D002001	PIO JOSEPH P 144 VANNAH AVE PORTLAND ME 04103	144 VANNAH AVE

Exhibit 5

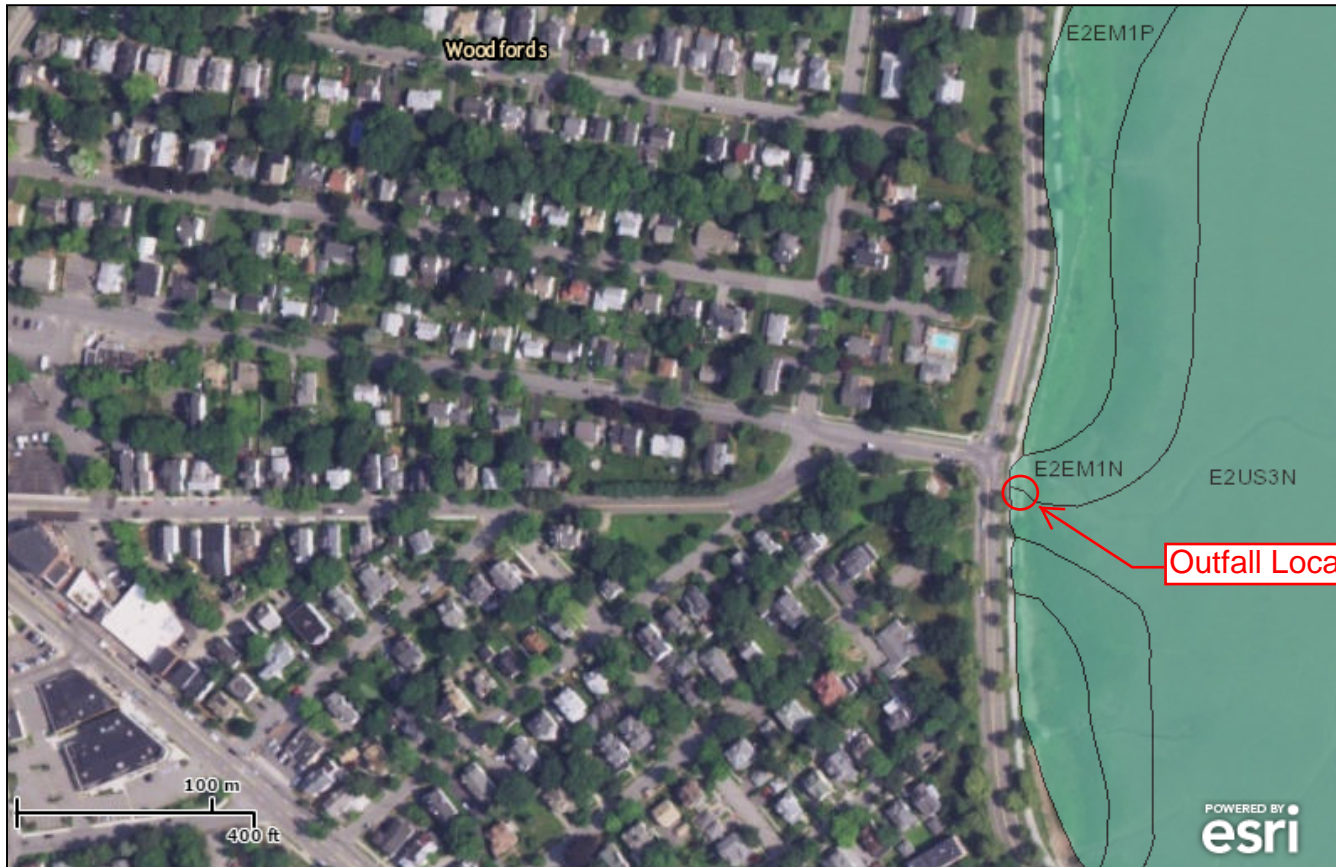
National Wetlands Inventory Map



U.S. Fish and Wildlife Service National Wetlands Inventory

Woodford Street Outfall

Sep 15, 2016



Wetlands

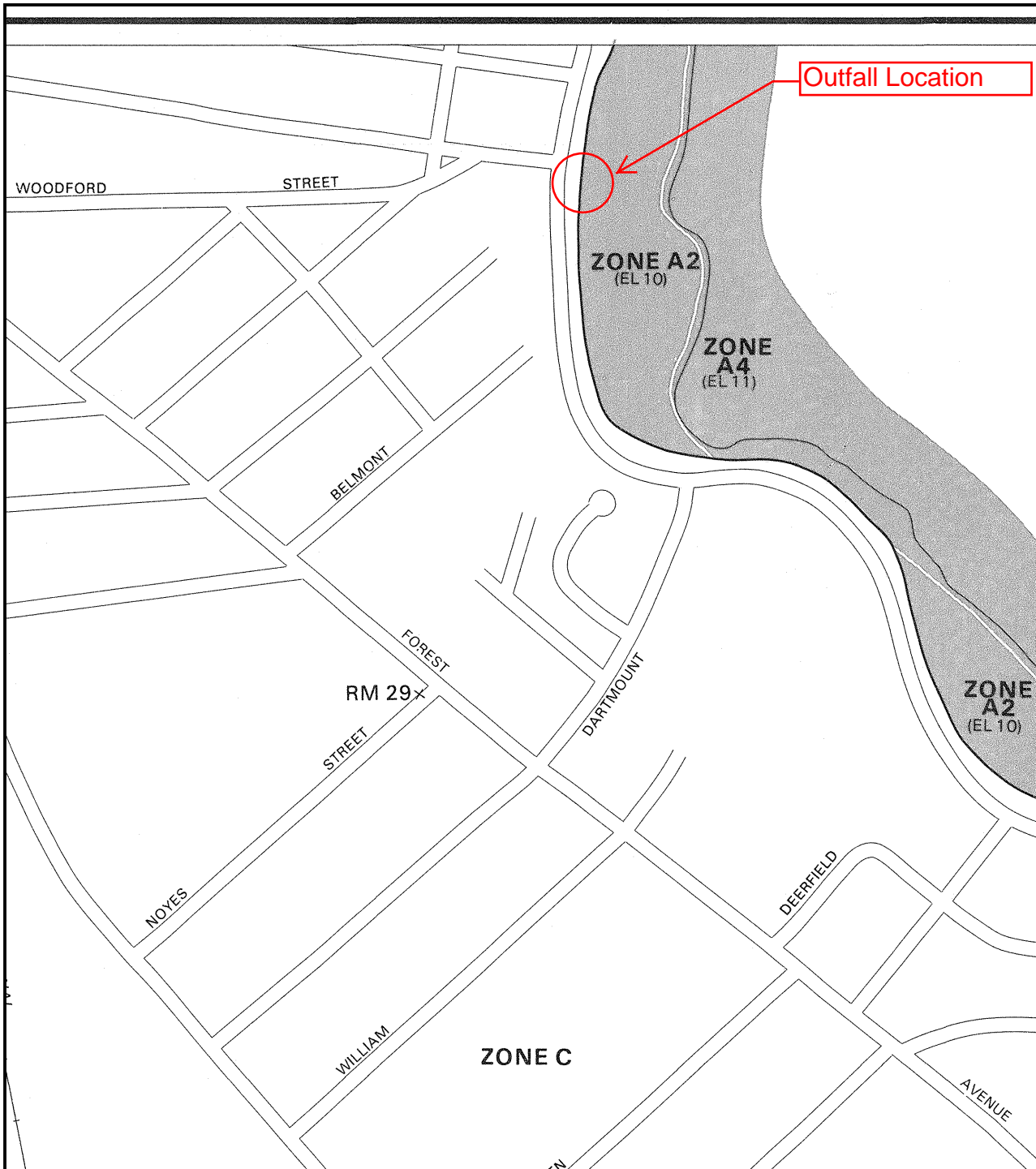
- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

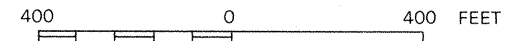
User Remarks:

Exhibit 6

FEMA FIRMette



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986



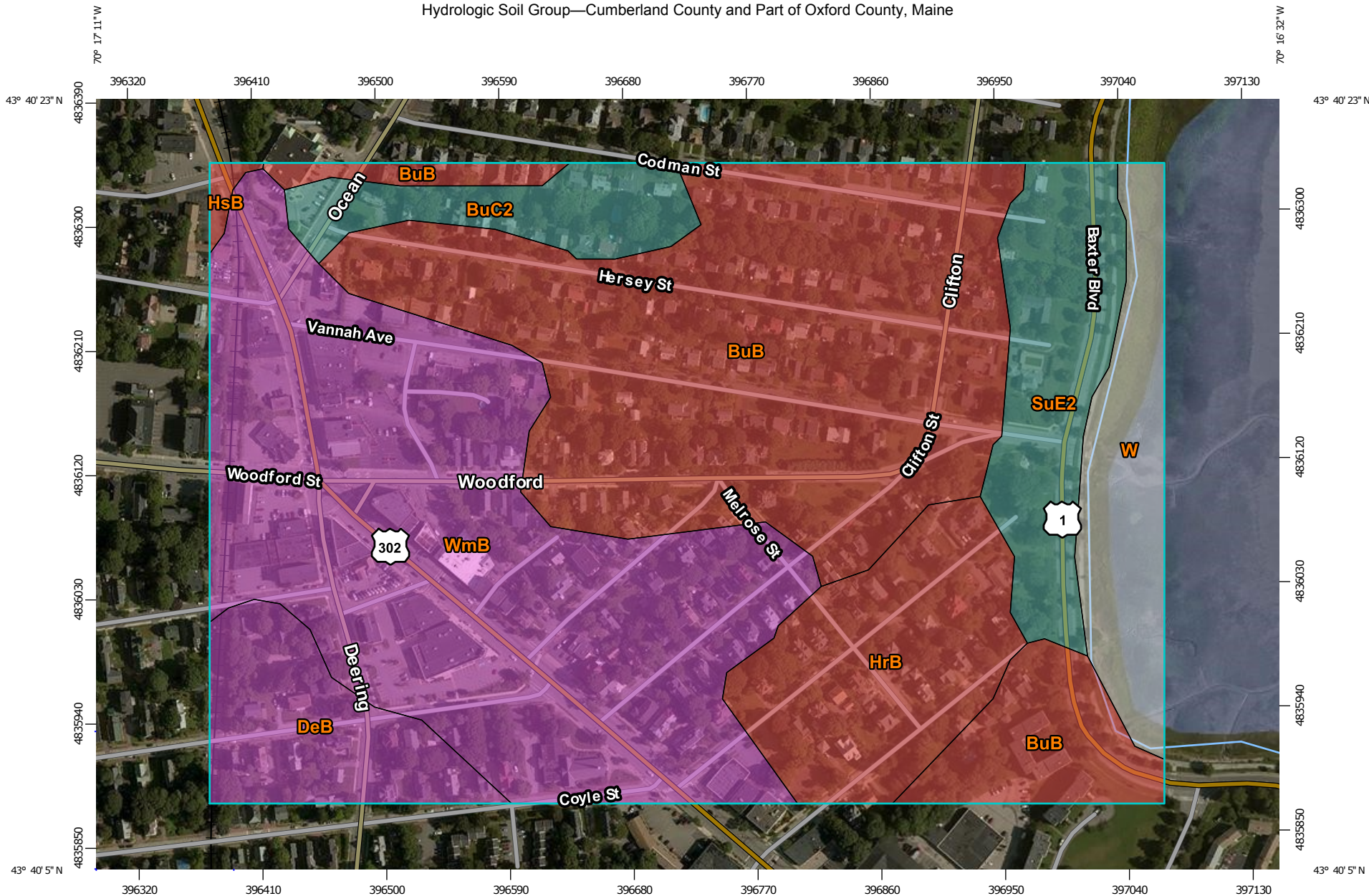
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

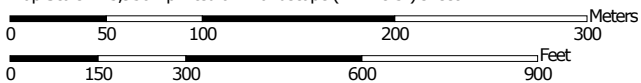
Exhibit 7

NRCS Soils Map

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine



Map Scale: 1:3,930 if printed on A landscape (11" x 8.5") sheet.




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 Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


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 1:24,000.

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: <http://websoilsurvey.nrcs.usda.gov>
 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: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 11, Sep 17, 2015

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

Date(s) aerial images were photographed: Jun 20, 2010—Aug 11, 2013

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.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Cumberland County and Part of Oxford County, Maine (ME005)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BuB	Buxton silt loam, 3 to 8 percent slopes	D	27.6	34.5%
BuC2	Buxton silt loam, 8 to 15 percent slopes, eroded	C	3.3	4.1%
DeB	Deerfield loamy sand, 3 to 8 percent slopes	A	4.6	5.8%
HrB	Hollis fine sandy loam, 3 to 8 percent slopes	D	7.4	9.3%
HsB	Hollis very rocky fine sandy loam, 3 to 8 percent slopes	D	0.3	0.3%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	C	5.9	7.4%
W	Water		4.9	6.1%
WmB	Windsor loamy sand, 0 to 8 percent slopes	A	26.0	32.5%
Totals for Area of Interest			80.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Exhibit 8

Historical & Tribal Notification Letters



September 20, 2016
16067

Robin K. Reed
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04039-0065

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

Dear Ms. Reed:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a copy of the Category 2 Maine General Permit application for a 36" storm drain outfall discharging into Back Cove as part of a combined sewer separation project along Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager



September 20, 2016
16067

Susan Young, Historic Preservation Officer/Natural Resources Director
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, Maine 04730

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

Dear Ms. Young:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a location map and the plan for a project located on Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager



September 20, 2016
16067

Ms. Victoria Higgins, Chief
Aroostook Band of Micmacs
7 Northern Road
Presque Isle, ME 04769

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

To whom it may concern:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a location map and the plan for a project located on Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager



September 20, 2016
16067

Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point Reservation
P.O. Box 343
Perry, Maine 04667

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

Dear Mr. Soctomah:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a location map and the plan for a project located on Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager



September 20, 2016
16067

Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Indian Township Reservation
P.O. Box 301
Princeton, Maine 04668

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

Dear Mr. Soctomah:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a location map and the plan for a project located on Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager



September 20, 2016
16067

Chris Sockalexis, THPO
Penobscot Nation
Cultural & Historic Preservation
12 Wabanaki Way
Indian Island, ME 04468

U.S. Army Corps of Engineers Permit Application
Woodford Street Combined Sewer Separation, Portland, Maine

Dear Mr. Sockalexis:

On behalf of the City of Portland, and as required by the U.S Army Corps of Engineers (ACOE), we are submitting to you a location map and the plan for a project located on Woodford Street and Forest Avenue in Portland, Maine. We request a review of your files for any significance in the vicinity of the site.

It would be greatly appreciated if, at your earliest convenience, you review the material and let me know of your findings. If you have any questions or need additional information, please do not hesitate to contact me at driley@sebagotechnics.com or on my direct line at (207) 200-2080.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Dan L. Riley".

Dan L. Riley, P.E.
Senior Project Manager

Exhibit 9

Photographs



Image 1: Looking East from the existing outfall toward Back Cove (taken by Gary Fullerton on 9/16/16).



Image 2: Looking East, a visual of the soil and vegetation near the existing outfall (taken by Gary Fullerton on 9/16/16).



Image 3: Looking Northwest at the existing 36" outfall pipe (taken by Gary Fullerton on 9/16/16).



Image 4: Looking Southwest at the existing 36" outfall pipe (taken by Gary Fullerton on 9/16/16).

Exhibit 10

Project Plans (8.5"x11")

**BACK
COVE**

INSTALL RIPRAP APRON AT
OUTLET, PROTECT EXISTING
OUTLET & EXTEND RIPRAP TO
LIMITS SHOWN, MINIMIZE
DISTURBANCE TO EXISTING
VEGETATION, REFER TO RIPRAP
OUTLET CONSTRUCTION NOTES
FOR DISTURBANCE OF COASTAL
WETLAND VEGETATION OUTSIDE
RIPRAP LIMITS

GRADE PAVED AREAS WITHIN
BAXTER BOULEVARD TO MATCH
EXISTING CONDITIONS

LOW PERMEABILITY
DAM

Pipe - (128)

36" STORMDRAIN

10' WIDE RIPRAP
D50=24"
DEPTH=4.5'
TYPICAL BOTH SIDES

BP: -1+00.00

BP: -0+70.00

BAXTER BOULEVARD

gravel w

40" oak
lp
mastarm

CROSS WALK

9014



**PLAN VIEW - 36" OUTFALL PIPE
OF WOODFORD STREET CSO SEPARATION**

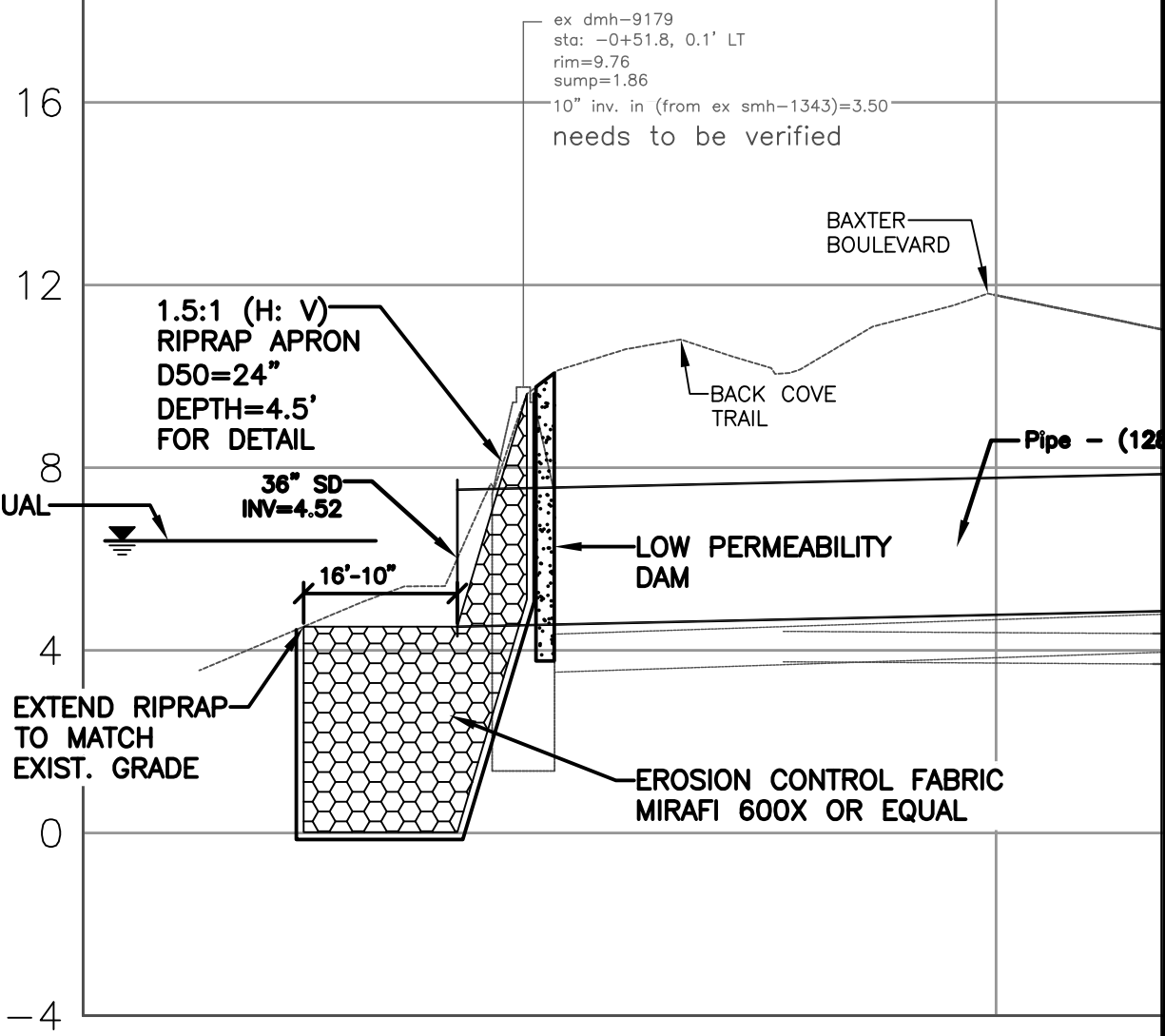
SCALE: AS NOTED

DATE: 09-19-16

LOCATION:
BAXTER BOULEVARD
PORTLAND, MAINE

FOR:
CITY OF PORTLAND
MAINE

SHEET:
1 OF 4



9.82	9.825	11.78	11.777
0+00			

PROFILE
 SCALE: HORZ. 1"=20'
 VERT 1"=4'

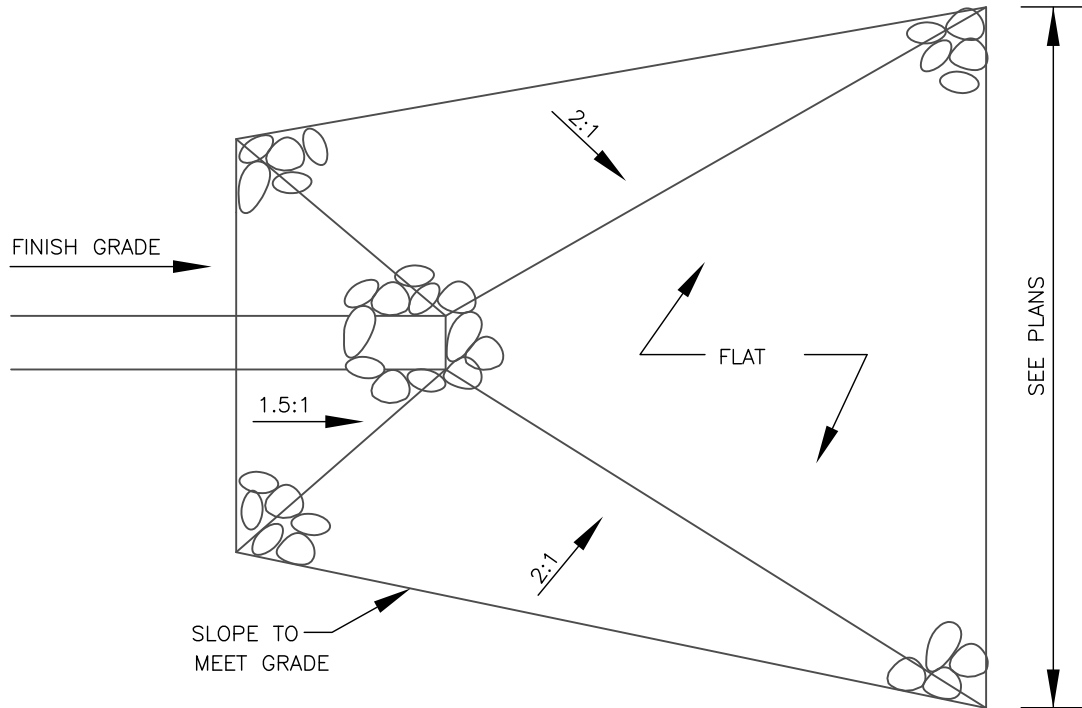


**PROFILE - 36" OUTFALL PIPE
 OF WOODFORD STREET CSO SEPARATION**

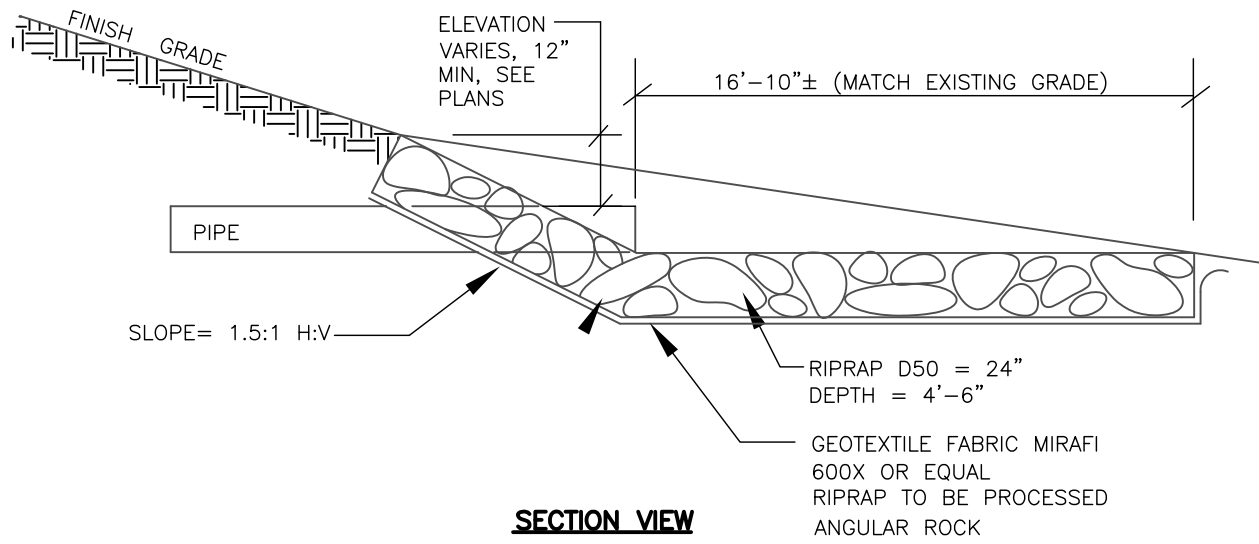
LOCATION:
 BAXTER BOULEVARD
 PORTLAND, MAINE

FOR:
 CITY OF PORTLAND
 MAINE

SCALE: AS NOTED
 DATE: 09-19-16
 SHEET:
2 OF 4



PLAN VIEW



SECTION VIEW

RIPRAP APRON

NOT TO SCALE



**DETAILS - 36" OUTFALL PIPE
OF WOODFORD STREET CSO SEPARATION**

LOCATION:
BAXTER BOULEVARD
PORTLAND, MAINE

FOR:
CITY OF PORTLAND
MAINE

SCALE: NOT TO SCALE
DATE: 09-19-16
SHEET:
3 OF 4

RIPRAP OUTLET CONSTRUCTION NOTES (REFER TO RIPRAP APRON DETAIL ON DETAIL SHEET)

PRE-CONSTRUCTION

1. MEET ON SITE WITH OWNER, SITE CONTRACTOR, AND THE DESIGN ENGINEER TO DISCUSS SCOPE OF WORK AND EXPECTATIONS. DETERMINE LIMITS OF TIDAL "SPARTINA" GRASS.
2. CONTRACTOR SHALL HAVE ALL MATERIALS APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION.

CONSTRUCTION PHASE

1. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION. SEE THE EROSION & SEDIMENT CONTROL NOTES AND PLAN FOR ADDITIONAL REQUIREMENTS. . PROTECT NEARBY TREES, WHICH ARE PROPOSED TO REMAIN. TO THE EXTENT PRACTICAL, PROTECT THE ROOT ZONE OF THESE TREES.
2. THE CONTRACTOR SHALL CONSIDER THE TIDE SCHEDULE CAREFULLY; AND SHALL SCHEDULE WORK TO AVOID INTERRUPTIONS OF DAYLIGHT WORKING HOURS WITH HIGH TIDES. WORKING WITHIN TIDAL WATERS IS NOT PERMITTED.
3. THE CONTRACTOR SHALL ONLY WORK IN AREAS THAT CAN BE COMPLETED DURING EACH CONSTRUCTION DAY. NO AREAS SHALL BE EXCAVATED BY THE CONTRACTOR AND LEFT EXPOSED, AS THESE AREAS WILL BE SUBJECT TO EROSION FROM TIDAL SURGES OR STORM EVENTS.
4. WITHIN VEGETATIVE AREA PROPOSED TO BE DISTURBED, CAREFULLY REMOVE THE TOP ORGANIC LAYER (12"±) BELOW ELEVATION DETERMINED AT PRECONSTRUCTION MEETING. REMOVE USING METHOD THAT WILL KEEP THE VEGETATION SYSTEM INTACT. STOCKPILE THE ORGANIC LAYER IN A MANNER SO THAT MATERIAL CAN BE REUSED. REMOVE ONLY ENOUGH VEGETATION NEEDED TO INSTALL THE TIDE GATE VAULT AND SEWER PIPE IN ACCORDANCE WITH THE CROSS-SECTION. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
5. PIPE INSTALLATION: LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 1 FOOT BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4 OR TOP OF FINISHED GRADE. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS. COSTS OF LOW PERMEABILITY DAMS SHALL BE INCIDENTAL TO THE CONTRACT.
6. INSTALL RIPRAP APRON IN ACCORDANCE WITH THE DETAILS. ONCE THE RIPRAP SLOPE IS COMPLETELY INSTALLED, THE CONTRACTOR SHALL GRADE THE DISTURBED AREAS UNIFORMLY TO MATCH EXISTING TOPOGRAPHY (U.N.O.) AND THE NEW RIPRAP EDGE.
7. PLACE EXISTING ORGANIC MATERIAL IN DISTURBED VEGETATIVE AREAS BELOW ELEVATION 10, WORKING FROM THE OUTFALL TO THE VAULT. DISTURBED VEGETATIVE AREAS ABOVE ELEVATION 10 SHALL HAVE LOAM AND SEED. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
8. INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION. REPAIR ERODED AREAS AND REPLANT VEGETATION TO ESTABLISH 75% VEGETATION CATCH, AS REQUIRED.
9. IN AREAS REQUIRING REPLANTING, INSTALL NORTH AMERICAN GREEN C125BN EROSION CONTROL FABRIC OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (PAY ITEM 613.319).
10. USING RAZOR BLADE, CAREFULLY CUT HOLES 1 FOOT O.C. AND IN ROWS SPACED 1 FOOT APART. LOOSELY OFFSET HOLES BETWEEN ROWS FOR APPROXIMATELY 6-8 HOLES PER SQUARE YARD. PLANT CORD GRASS SPARTINA PATENS (SALT MEADOW GRASS) AND SPARTINA ALTERNIFLORA (SMOOTH CORDGRASS) PLUGS IN ALTERNATING FASHION. COSTS ASSOCIATED WITH CUTTING FABRIC AND PLANTING GRASS PLUGS WILL BE PAID THROUGH THE BID ITEM 615.072.



NOTES - 36" OUTFALL PIPE OF WOODFORD STREET CSO SEPARATION

LOCATION:

BAXTER BOULEVARD
PORTLAND, MAINE

FOR:

CITY OF PORTLAND
MAINE

SCALE: N/A

DATE: 09-19-16

SHEET:

4 OF 4