Jacobs

Final East Zone 2 & East Zone 3 Remedial Action Report

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U S Army Corps of Engineers, New England District

New Bedford Harbor Superfund Site
August 2024

Final East Zone 2 & East Zone 3 Remedial Action Report

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Acronyms and abbreviations

ARR	Acushnet River Reserve, Inc.
CDE	Cornell Dubilier Electronic, Inc.
cy	cubic yards
DDA	debris disposal area
EPA	U.S. Environmental Protection Agency
EZ2	East Zone 2
EZ3	East Zone 3
EZ4	East Zone 4
EZ5	East Zone 5
ft	feet
GPS	global positioning system
Jacobs	Jacobs Engineering Group, Inc.
LH	Lower Harbor
mg/kg	milligrams per kilogram
NAE	New England District
NAVD88	North American Vertical Datum of 1988
NBHSS	New Bedford Harbor Superfund Site
NPL	Superfund National Priorities List
OH	Outer Harbor
PCB	polychlorinated biphenyl
ppm	parts per million
RBG	risk-based goals
ROW	right-of-way
RTK	real-time kinematic
SES	Sevenson Environmental Services, Inc.
TCL	target cleanup level
The Site	New Bedford Harbor
TSCA	Toxic Substances Control Act
UH	Upper Harbor
USACE	U.S. Army Corps of Engineers
WZ	West Zone

1. Introduction

Remediation and restoration of the East Zone 2 and East Zone 3 intertidal zones were conducted by Jacobs Engineering Group, Inc. (Jacobs) under U.S. Army Corps of Engineers – New England District (NAE) Remediation Action Contract No. W912WJ-15-D-0001 between September 2022 through June 2024. The primary objective of remedial action at both East Zones 2 and 3 was to remove soils and sediments containing concentrations of polychlorinated biphenyl (PCB) above the New Bedford Harbor Superfund Site (NBHSS or Site) site-specific cleanup level (TCL) of 50 milligrams per kilogram[1] (mg/kg) in areas of remote wetland, and to subsequently restore the Zones to a condition comparable to their natural baseline.

East Zone 2 includes two tax parcels (25-43 and 25-319), separated by a right-of-way (ROW) and a total remediation area of 278,613 square feet (6.4 acres) (Figure 1a). From this remediation area, approximately 15,017 cubic yards (cy) of contaminated soils and sediments were excavated.

East Zone 3 includes six tax parcels (25-49, 25-356, 25-358, 25-56, 25-55Y in Acushnet and the northern portion of Parcel 20-005 in Fairhaven), and a total remediation area of 178,119 square feet (4.1 acres) (Figure 1b). From this remediation area, approximately 8,116 cy of contaminated soils and sediments were excavated.

In total, the remediation and restoration of East Zones 2 and 3 required the excavation of approximately 23,133 cy of contaminated soils and sediments as well as the placement of an equivalent quantity of clean backfill material. The purpose of this Remedial Action Report is to document this remediation activity as well as to document the final disposition of the restored East Zones 2 and 3 areas, involving the transport and disposal of contaminated soils and sediments off-site and the restoration of the remediated areas as described in the parcel-specific work plans.

1.1 Site History

The Site was proposed for the Superfund National Priorities List (NPL) in 1982 and finalized on the NPL in 1983. Pursuant to 40 CFR 300.425 (c)(2), the Commonwealth of Massachusetts nominated the harbor as its priority site for listing on the NPL. The Site is located approximately 55 miles south of Boston, in Bristol County, Massachusetts and is bounded to the east by the Town of Acushnet and the Town of Fairhaven; and bounded to the west by the City of New Bedford and the Town of Dartmouth. The Site covers approximately 18,000 acres, extending from the shallow northern reaches of the Acushnet River Estuary, southward through the commercial harbor of New Bedford and into the adjacent section of Buzzards Bay. Based on the different geographic, environmental, and man-made features in the harbor, it has been subdivided into three sections identified as the Upper Harbor (UH), Lower Harbor (LH), and the Outer Harbor (OH).

The subtidal area and impacted intertidal zones of the UH comprise approximately 250 acres and is bounded to the North by the Wood Street Bridge area and to the South by the Coggeshall Street Bridge.

[1] This TCL was established in the *1998 Record of Decision for the New Bedford Harbor Superfund Site, Upper and Lower Harbor Operable Unit* (EPA 1998)

The LH comprises approximately 750 acres and is bounded to the north by the Coggeshall Street Bridge and to the south by the New Bedford Hurricane Barrier. The OH (approximately 17,000 acres) begins at the Hurricane Barrier and extends southward into Buzzards Bay to an imaginary line extending from Rock Point (the southern tip of West Island in Fairhaven) southwesterly to a New Bedford Harbor navigational channel buoy, Buoy C3 and then southwesterly to Mishaum Point in Dartmouth.

PCB contamination of the sediments and seafood in and around New Bedford Harbor was first identified in the mid-1970s. Site-specific investigations by the U.S. Environmental Protection Agency (EPA) began in 1983 and 1984 and included pilot dredging and disposal studies and extensive physical and chemical computer modeling. These earlier studies are summarized in the *Draft Final Public Health Risk Assessment*, the *Draft Final Feasibility Study of Remedial Alternatives for the Estuary and Lower Harbor/Bay*, and the *Draft Final Supplemental Feasibility Study Evaluation for Upper Buzzards Bay* (Ebasco Services Inc.,1989, 1990, 1992). In 1990, the *Record of Decision Summary New Bedford Harbor/Hot Spot Operable Unit* was issued by EPA to address hotspots within the Upper Harbor, and in 1998, the *Record of Decision for the Upper and Lower Harbor Operable Unit* was issued to address the remaining contamination throughout the harbor (EPA, 1990, 1998).

Based on the results of these investigations and knowledge of the operations at the former Aerovox Site at 740 Belleville Avenue in New Bedford, the Aerovox Site was identified as the principal source of PCB contamination in the UH. During operations at this facility (1940s – 1970s), PCB wastes were discharged directly to the UH through open trenches/spills and direct dumping, and indirectly via the City's sewerage system. During the same general time period, inputs of PCBs were also contributed to the Site by operations at the Cornell Dubilier Electronics, Inc. (CDE) facility, located just south of the New Bedford Hurricane Barrier in the OH.

Operations at the Aerovox Site resulted in significantly elevated PCB concentrations in UH sediments that generally decreased from north to south across the Site. Prior to the completion of remedial efforts, UH sediments contained PCB concentrations that ranged from below detection to more than 100,000 parts per million (ppm) in localized areas. As a tidal embayment with diurnal 4-foot (ft) tides, UH intertidal mudflats and vegetated saltmarshes became contaminated with PCBs, as did localized areas of LH shoreline.

This report documents the Remedial Action that occurred between 2022 and 2024 in two UH intertidal areas, East Zones 2 and 3.

The intertidal management area referred to as East Zone 2 is located on the eastern shore of the UH in Acushnet, MA (Figure 1a). Parcel 25-43 is predominately comprised of undeveloped land, with an electrical substation operated by Eversource in the southeastern portion. The undeveloped portion consists of vegetative cover; primarily clusters of trees and shrubs, saltmarsh, and the invasive grass, *Phragmites australis*. Three tidal channels with fringing saltmarsh are located in the northwest, west, and southwest portions of the parcel. The parcel is bounded to the north by Parcel 25-34, to the east by Parcel 25-36, to the south by a ROW and Parcel 25-319, and to the west by the UH. On the west side of the parcel there is a buried concrete electrical cable conduit, with live high voltage electrical cables inside it, that crosses beneath the harbor to New Bedford. Also on the parcel are numerous aerial electrical lines associated with the substation. Parcel 25-319 is predominately comprised of undeveloped land consisting of vegetative cover;

primarily saltmarsh with clusters of trees and shrubs, and a small area of *Phragmites australis*. One major tidal channel with fringing saltmarsh is located in the central portion of the parcel and drains to the northwest into the UH. The parcel is bounded to the north by a ROW and Parcel 25-43, to the east by Parcel 25-291, to the south by a ROW and Parcel 25-49, and to the west by the UH.

The intertidal management area referred to as East Zone 3 is located on the eastern shore of the UH in Acushnet and Fairhaven, MA (Figure1b). Parcels 25-356 and 25-358 are comprised of undeveloped land consisting of vegetative cover, primarily saltmarsh with scattered trees and shrubs. Man-made mosquito control ditches traverse both parcels. Parcel 25-356 is bounded to the north by Parcel 25-49, to the east by Parcel 25-355, to the south by a ROW, and to the east by Parcel 25-357. Parcel 25-358 is bounded to the north by a ROW, to the east by Parcel 25-359, to the south by Parcel 25-56, and to the west by New Bedford Harbor. Parcels 25-49, 25-56, and 20-005 are comprised of undeveloped land consisting of vegetative cover, primarily saltmarsh with a few scattered trees and shrubs. Man-made mosquito control ditches traverse all three parcels. Parcel 25-49 is bounded to the north by a ROW, to the east by Parcels 25-338, 25-339, 25-353 and several ROWs, to the south by parcels 25-356 and 25-357, and to the west by New Bedford Harbor. Parcel 25-56 is bounded to the north by Parcels 25-358 and 25-359, to the east by Parcels 25-360 and 25-55Z and a ROW, to the south by Parcel 25-55Y, and to the west by the UH. The northern portion of Parcel 20-005 is bounded to the north by Parcel 25-55Y, to the east by Parcel 20-007, to the south by Parcel 20-001, and to the west by the UH. Parcel 25-55Y is privately owned and is comprised of undeveloped land consisting of vegetative cover, primarily saltmarsh with scattered trees and shrubs. Man-made mosquito control ditches traverse the parcel and an area of gravel fill abuts the saltmarsh. The parcel is bounded to the north by Parcels 25-56 and 25-55Z, to the east by Parcel 25-59, to the south by Parcels 20-005 and 20-007, and to the west by the UH.

2. Remedial Activities

The methods used to complete the remedial activities at East Zones 2 and 3 are presented below and outlined in their respective work plans, *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (Jacobs 2022a) and *Draft Final Intertidal Work Plan for East Zone 3* (Jacobs, 2020a)

2.1 Pre-Remediation Environmental Sampling and Site Preparation

Sampling of sediment and soil from the subtidal, intertidal, and upland areas around East Zone 2 was conducted from 1999-2001, 2015, and 2017-2018, while sampling of East Zone 3 sediments was conducted from 1999-2001, 2014-2015, and 2017-2019. The resulting data allowed determination of the horizontal and vertical boundaries of the areas requiring remediation. Figures 2-1a through 2-1g and Tables 2-1a through 2-1e present all characterization sample locations and results used to determine the final remedial boundaries in East Zones 2 and 3. These figures also identify those characterization locations used as the basis of post-excavation compliance.

Pre-existing conditions at East Zones 2 and 3 were documented (Figures 2-2a through 2-2g) prior to the initiation of remedial activities in each respective Zone in order to establish baseline conditions for backfill, contouring, re-establishment of native vegetation, and deterrence of invasive species. This documentation

included pre-excavation elevation surveys as well as mapping of wetland cover type within the intertidal area. Other pre-excavation preparation activities included clearing of trees and removal of debris, construction of access roads and staging areas, mobilization of equipment and coordination with property owners.

2.1.1 East Zone 2 Specific Preparations

Access to the portions of the parcels that required remediation was achieved through private property under access agreements obtained by EPA. Temporary roads were built to create equipment access to the remediation and staging areas. A construction site plan showing the excavation areas, staging/containment cell areas, and temporary access roads is provided in the *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (Jacobs, 2022a). The temporary access road in the northeastern portion of Parcel 25-319 traversed a patch of *Phragmites* and as such, the access road was constructed using a layer of geotextile fabric covered by 12 inches of dense-grade aggregate and supplemented as needed with construction mats, preventing contact between construction vehicles that traversed the road and existing vegetation.

On Parcel 25-43, active buried power distribution cables, as well as remnants of derelict (de-powered) buried power distribution cables, traverse the excavation area. This presented a unique challenge specific to excavation in the area. As part of the Superfund remedy at the NBHSS, EPA, U.S. Army Corps of Engineers (USACE), and Commonwealth Electric Company (now known as Eversource), installed two electrical conduit banks and two 115 kilovolt (kV) pipe-type cables, all encased in flowable-fill/concrete, across the Acushnet River. This work occurred intermittently from 2001 to 2016. The armored electrical cables which previously crossed the river were then disconnected and removed in 2016 by Jacobs and Sevenson Environmental Services (SES) to allow for remedial dredging of the area. Details on excavation around the buried electrical cables is provided in the project note *Draft Final EZ2 Excavation Plan Over Eversource Concrete Encased Electrical Cables* (Jacobs, 2022b)

During September 2022, Jacobs/SES hired a third-party utility locator to physically locate the buried cables within the intertidal zone. The locations were marked in the field with paint and pin flags, and then surveyed by Jacobs. Due to soft sediments and a water filled stream channel, the cable area was not able to be completely surveyed to the west side of East Zone 2. Figures provided in the *Draft Final EZ2 Excavation Plan Over Eversource Concrete Encased Electrical Cables* (Jacobs, 2022b) show the horizontal extent of the buried cables as detected by the utility locator.

During September and October 2022, Jacobs/SES performed test-pitting with fiberglass handled tools to locate the centerline and edges of the concrete. This included finding the edges of the concrete west of where the utility locator surveyed the cables. Once located, the ground surface elevations and top of concrete elevations were surveyed via real-time kinematic global positioning system (RTK GPS) at each test-pit location.

During a phone conversation with Vinh Dang of Eversource (Pipe Type Cable Supervisor) on October 3, 2022, Mr. Dang told Joshua Cummings (Jacobs) that Eversource would prefer that any mechanical excavation be restricted to 2 ft from the cables. During the conversation, it was discussed that the 1 ft of concrete over and beside the cables would be included in this offset and Jacobs/SES would restrict

mechanical excavation to within 1 ft of the concrete. By following this guidance (i.e., staying greater than 1 ft away from the concrete) Jacobs/SES was able to maintain a minimum 2 ft of clearance from the cables.

The original excavation prism from the *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (Jacobs 2022a), over the area of delineated concrete/flowable fill was revised to remove all soil or sediments from the ground surface to within 1.0 ft of the concrete surface. This revision was based on the results of the test pitting conducted by Jacobs personnel. Soil or sediments within 1.0 ft of the concrete were left in place.

Following the development of the excavation prism, cross sections were created crosswise and lengthwise comparing the top of the concrete, the existing ground surface, and the excavation prism. These sections were used to verify that the planned prism did not intersect with the 1 ft offset over the top of the concrete.

To account for any horizontal uncertainty, the revised excavation prism over the concrete was extended by an additional 2.5 linear ft on each side, resulting in the final width of the prism reaching 30 ft The approximate volume excavated over the concrete area was 560 cy (Jacobs 2022b).

2.1.2 East Zone 3 Specific Preparations

Additional *de minimis* excavation and disposal services were provided to Buzzards Bay Coalition (BBC)/Acushnet River Reserve, Inc. (ARR) by Jacobs and SES at 1 Beech Street, Acushnet, MA, on behalf of the USEPA. This excavation was conducted on Parcel 25-338 adjacent to the NBHSS East Zone 3 (EZ3) intertidal area (Jacobs, 2023a). This parcel was used as a staging and equipment storage area in support of the EZ3 remediation effort. The property, a former automobile repair/junkyard area, was undergoing a separate remediation process for PCB-impacted soils pursuant to the USEPA Toxic Substances and Control Act (TSCA) program (i.e., not part of the NBHSS). Since this parcel was being used for staging and equipment storage as part of the NBHSS EZ3 remediation, and since the TSCA volume of impacted material was *de minimis* compared to the volume of NBHSS EZ3 material, USEPA and USACE directed Jacobs and SES to perform this TSCA-related excavation and disposal for BBC/ARR starting on March 29, 2023. The goal of the TSCA-related excavation was to reduce PCB contamination at 1 Beech Street to <10 mg/kg total PCBs, and success was determined by confirmatory sampling performed by Weston & Sampson on behalf of BBC/ARR. Waste soil generated by this excavation effort was disposed via inclusion into the ongoing NBHSS/EZ3 waste stream. Sampling data provided by Weston & Sampson prior to the start of excavation confirmed that the TSCA related waste soil fit within the existing NBHSS waste characterization profile.

2.2 Removal of Contaminated Sediments

Excavation was conducted by SES with track-mounted amphibious excavators operated in the intertidal zone and guided by RTK GPS. Target elevations were guided by the cut depth figures presented in the parcel-specific work plans (Jacobs, 2020a, 2022a) and by manual surveying conducted via RTK GPS by Jacobs and SES personnel to confirm the target elevations and planting zones prior to the start of soil and sediment removal.

Excavated material was loaded into Hydrema all-terrain dump trucks and moved to staging areas for stabilization with Portland cement and load out or transported to the Debris Disposal Area (DDA) in Area C for stabilization and load out. See Section 3 below for disposal details.

A total of 17,848 tons of contaminated sediment (stabilized with Portland cement) was removed from East Zone 2, while a total of 9,378 tons of stabilized sediment was removed from East Zone 3. These values are derived from waste shipping records provided by Republic Services. The as-built limits of excavation in both Zones are presented in the post-excavation and restoration record drawings (Figures 2-3a through 2-3d).

2.3 Remedial Environmental Sampling

As documented in the *Final Pre-Excavation Confirmatory Pilot Test Technical Memorandum* (Jacobs 2020b), post excavation compliance elevations were used for establishing that the applicable TCLs were achieved. This pilot test, which was conducted in 2018 and 2020, demonstrated that compliance with the excavation design prism, post excavation total PCB congener concentrations were shown to be below pre-excavation sample concentrations and meet the proper TCLs. The pre- and post-excavation compliance survey data are shown in Tables 2-2a and 2-2b, and compliance locations are shown in Figures 3-1a through 3-1g.

Ambient air monitoring for PCBs was conducted by an independent party (Cashins & Associates, Inc.) at fixed monitoring locations during East Zone 2 and 3 remedial activities in accordance with the *Draft Final Ambient Air Monitoring Plan for Remediation Activities* (Jacobs 2022c). No exceedances to air Risk-Based Goals (RBGs) were identified during excavation in the East Zone 2 and East Zone 3 intertidal areas (EPA 2024).

2.4 Site Restoration

Site restoration activities were completed following the removal of contaminated sediments according to the methods defined in the Zone-specific work plans, project notes, and final planting plans (Jacobs 2020a, 2022a, 2022b, 2023b – 2023e, 2024a, 2024b). The final planting plans for East Zone 2 and 3 can be found in Attachment A which includes species information on saltmarsh grasses, native shrubs, and trees. Restoration activities included installation of coir logs and gravel for erosion protection, backfill, planting of native shrubs, trees and saltmarsh grasses, and broadcasting a conservation seed mix which included a fast germinating winter rye to provide soil stabilization until arrival of respective Spring growing seasons. Planting summaries for East Zone 2 and 3 are presented in Tables 2-3a and 2-3b respectively.

Backfill of excavated areas was performed by SES using fill material as specified in the *Draft Final Generic Upper Harbor Intertidal Work Plan* (Jacobs 2019a). All topsoil was tested for quality requirements identified in the *Draft Final Topsoil Acceptance Plan* (Jacobs 2019b). A summary of the topsoil analysis results by vendor batch is provided in Attachment B.

2.4.1 East Zone 2 Work Plan and Planting Plan Revisions

Planting quantities were revised for the East Zone 2 intertidal zone due to an adjustment to the East Zone 2 elevation range of low and high marsh. The elevation range for low marsh was established as 0.0-2.0 ft, and

the range for high marsh was established as 2.0-3.4 ft (North American Vertical Datum of 1988 (NAVD88)). Original and revised estimates of East Zone 2 plant quantities are outlined in the project note *Draft Final EZ2 Planting Plan Revision* (Jacobs 2023d). Estimates were derived from acreages within each planting elevation range, converted to square feet, and determined by a planting density of approximately 1 plant per square foot. Planting at East Zone 2 (EZ2) was completed May 31st, 2024 (Table 2-3a).

The original planting plan presented in the East Zone 2 work plan (Jacobs 2022a) was generated based on an aerial survey and limited field reconnaissance. The work plan was not elevation-specific but was based on existing conditions determined from these surveys. During previous restorations and consultation with a wetland scientist, previous restorations exhibited a high degree of success of marsh planting establishment when specific species were planted within specific elevation ranges. The elevation ranges used were similar to elevation ranges planted with success at other adjacent and nearby Site intertidal remediation zones (e.g., East Zone 2, East Zone 4, East Zone 5 (EZ5) as well as across the river at West Zones 4 and 5).

Below is a list of deviations from the original design drawings for East Zone 2 as outlined in the project note *Draft Final EZ2 Planting Plan Revisions* (Jacobs, 2023d)

- Stream near 'Area 3' on Parcel 25-43: This area required elevation-based adjustments to the restoration design due to inaccuracies in the pre-excavation survey created by Phragmites cover. A larger area of upland plantings was substituted based on elevation instead of the originally proposed high marsh plantings.
- The following areas received an elevation-based change requiring a greater quantity of high marsh species due to the revised high marsh elevation range (see above):
  - Northern polygon on Parcel 25-43
  - Southern polygon on Parcel 25-43
  - Northern polygon on Parcel 25-319
- In addition to the change of utilizing elevation to determine appropriate plants to install, high marsh plants were interplanted with shrubs in the scrub shrub zones. The purpose of this change was to re-create the existing habitat removed during excavation as well as provide for additional ground cover to minimize the potential for erosion.

2.4.2 East Zone 3 Work Plan and Planting Plan Revisions

Planting quantities were also adjusted for the East Zone 3 intertidal zone, based on the discussion above regarding revised planting elevation ranges for East Zone 2. Original and revised estimates of East Zone 3 plant quantities and actual plants installed are shown in Attachment A. Estimates were derived from acreages within each planting elevation range, converted to square feet, and determined by a planting density of approximately 1 plant per square foot. Planting at East Zone 3 was completed June 30th, 2024 (Table 2-3b).

Deviations from the original East Zone 3 work plan (Jacobs 2020a) are outlined in the project note *Draft Final East Zone 3 Planting Plan Revisions* (Jacobs 2023e). Further, in East Zone 3, additional streams that did not exist in pre-construction conditions were added to create more favorable tidal inundation and drainage conditions, and these in turn led to a slight increase in suitable low marsh habitat as the subsequent

polygons contained gentle pitches towards the streams to allow for positive drainage. This is why planted low marsh quantities increased from the estimates generated during the pre-construction survey. Per the landowner's request, the original planting plans in the 2020 Work Plan (Jacobs 2020a) were created with a bias towards an increase in high marsh as a means to adapting to rising sea level. To aid in that goal, the high marsh-low marsh transition was set at 2.0 ft NAVD88 compared to the original design between 2.2 and 2.4 ft. This was intended to maximize the high marsh habitat to the greatest extent while maintaining elevation ranges which have been observed to be successful in this area. It should be noted that the transition from high marsh to low marsh in naturally established saltmarshes are typically a blended zone of high marsh and low marsh species. This blended zone is an indicator that there is a degree of flexibility in assigning the transition elevation.

2.5 Restoration Monitoring and Maintenance

Monitoring and maintenance will continue through the first five full growing seasons (Fall 2029) in both East Zone 2 and East Zone 3. The extent to which the wetland restoration and, where applicable, upland restoration goals of the project are being met will be documented in annual reports. The monitoring and maintenance protocols are described in the *Draft Final Generic Upper Harbor Intertidal Work Plan* (Jacobs 2019a).

3. Waste Management

Sediment generated from the East Zones 2 and 3 Intertidal Remediations was disposed of in accordance with TSCA. 17,848 tons of stabilized sediment generated during the East Zone 2 Intertidal Remediation as well as approximately 9,378 tons of stabilized sediment generated during the East Zone 3 Intertidal Remediation were transported via truck from the respective work sites or from the Sawyer Street facility to MHF-LS Transload, Inc. in Worcester, Massachusetts. Once in Worcester, the waste material was transloaded to rail cars for transport to and ultimate disposal at the Wayne Disposal, Inc. Site #2 Landfill, operated by Republic Services in Belleville, Michigan.

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Figures

Legend

- Proposed Limits of Excavation
- East Zone 2 Management Area
- Parcel Boundary

0 250 500 Feet

Basemap Source: Aerial Imagery MassGIS 2023

East Zone 2
Site Location Map

New Bedford Harbor Superfund Site

Jacobs

Figure 1a

Path: Y:\NBH\Projects\35BG1001\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 1a EZ2 Site Location_RA_Report_20240726.mxd

Legend

- Proposed Limits of Excavation
- East Zone 3 Management Area
- Parcel Boundary

0 250 500 Feet

Basemap Source: Aerial Imagery MassGIS 2023

East Zone 3
Site Location Map

New Bedford Harbor Superfund Site

Jacobs

Figure 1b

Path: Y:\NB\HP\roiects\35BG100\\20240726_EZ2_EZ3_Draft Final_RA_Report\ArcGIS\Figure 1b EZ3 Site Location_RA_Report_20240726.mxd

Legend

- Pre-Excavation PCB Characterization Samples
- Eversource Concrete Vaults
- Property Boundary
- MHHW (1.99 ft NAVD88)
- MLLW (-1.97 ft NAVD88)
- Proposed Limits of Excavation
- Concrete Vault

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft.
(Nearview, 2018)

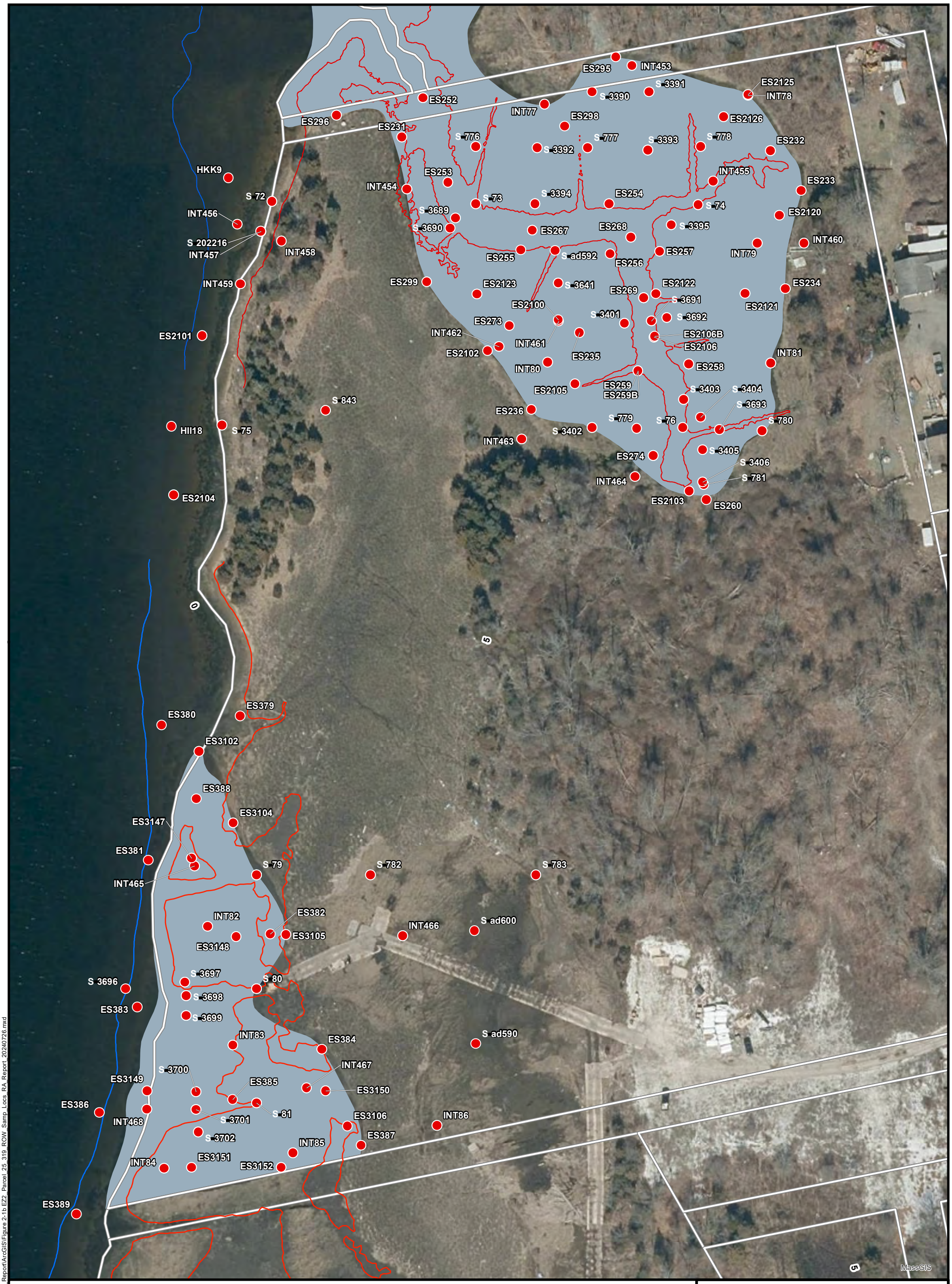
Jacobs

Intertidal East Zone 2
Parcel 25-43
Sampling Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1a

Path: Y:\NBH\Projects\35BG100\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1a EZ2_Parcel_25_43_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Parcel Boundary
- MHHW (1.99 ft NAVD88)
- MLLW (-1.97 ft NAVD88)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 80 160 Feet

MHHW and MLLW Elevations NAVD88 ft.
(Nearview, 2018)

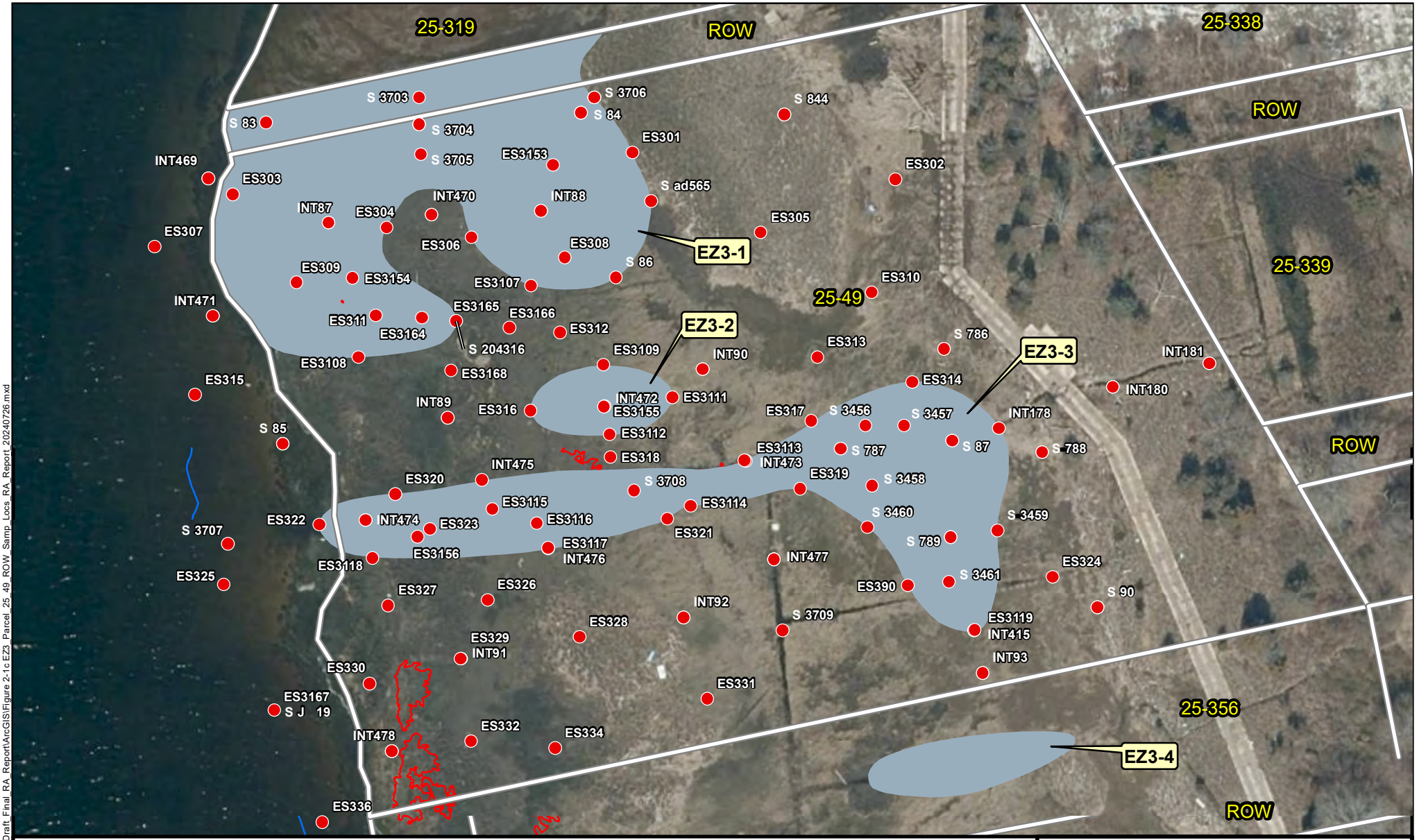
Jacobs

Intertidal East Zone 2 ROW and Parcel 25-319 Sampling Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1b

Path: Y:\NBH\Projects\35BG10012\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1b EZ2_Parcel_25_319_ROW_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Property Boundary
- MHHW (1.99 ft)
- MLLW (-1.97 ft)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft. (Nearview, 2018)

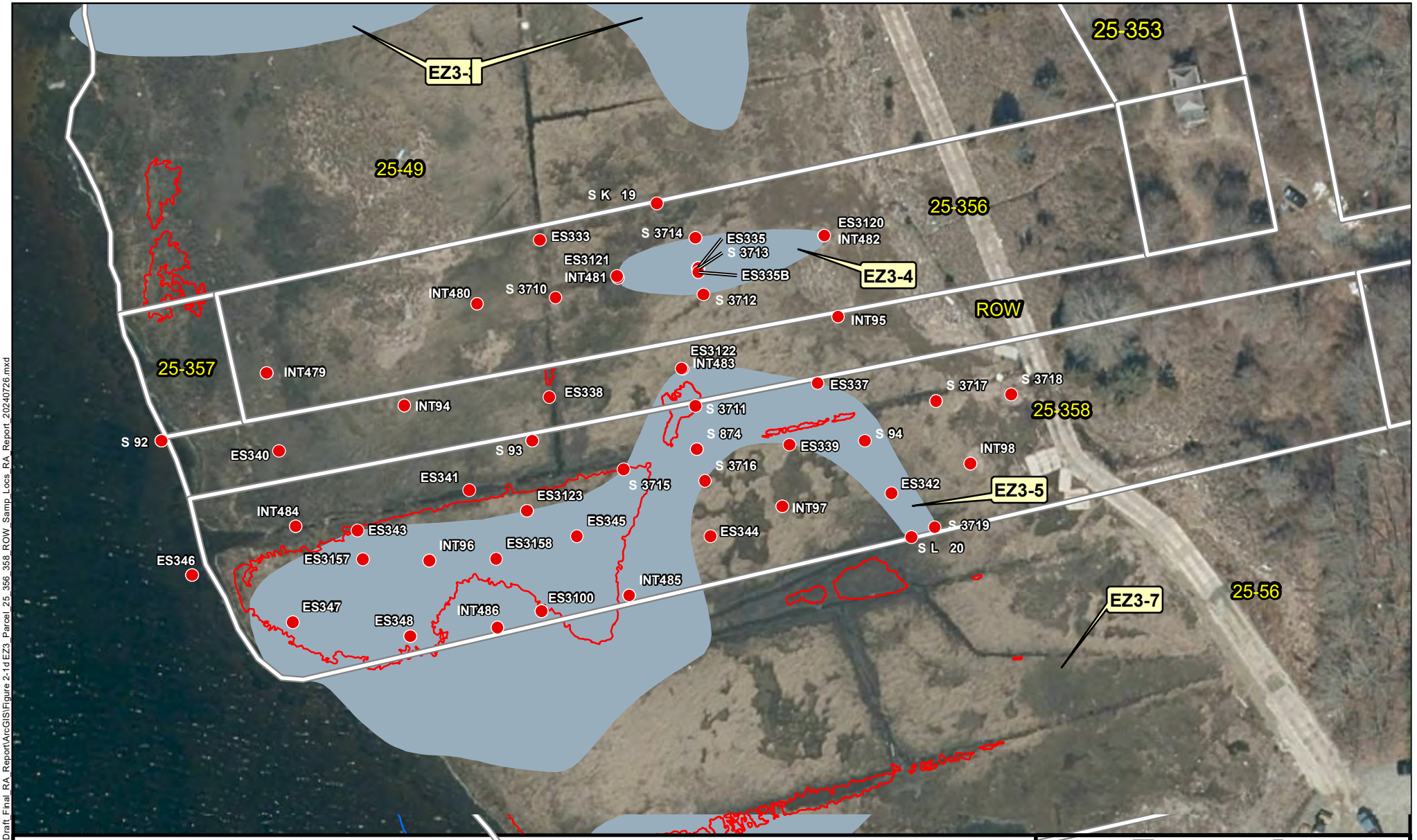
Jacobs

Intertidal East Zone 3
Parcel 25-49 and ROW
Sampling Locations with
Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1c

Path: Y:\NBH\Projects\35BG10012\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1c EZ3_Parcel_25_49_ROW_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Property Boundary
- MHHW (1.99 ft)
- MLLW (-1.97 ft)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft. (Nearview, 2018)

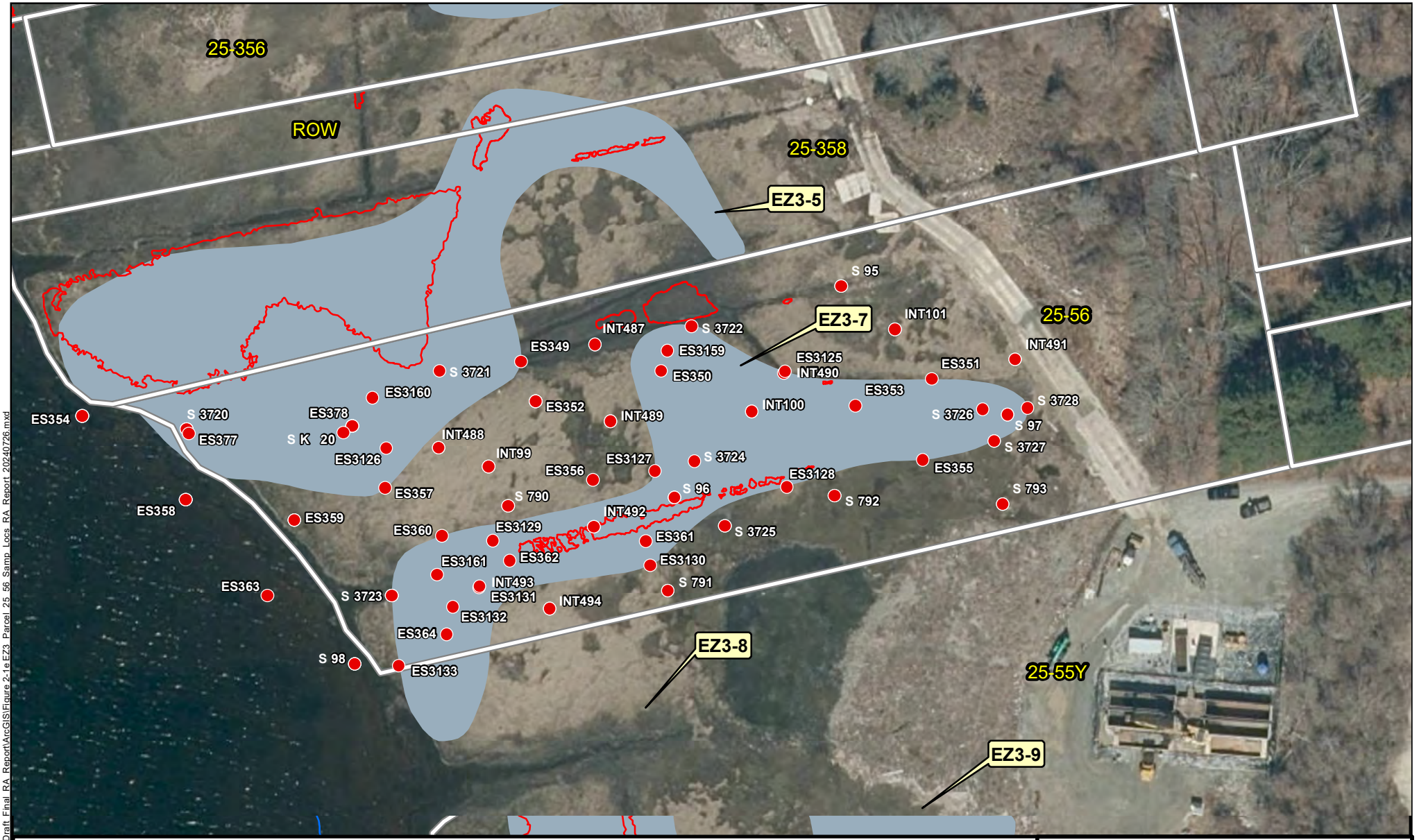
Jacobs

Intertidal East Zone 3
Parcel 25-356, 25-358 and ROW
Sampling Locations with
Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1d

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1d EZ3_Parcel_25_356_358_ROW_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Property Boundary
- MHHW (1.99 ft)
- MLLW (-1.97 ft)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft. (Nearview, 2018)

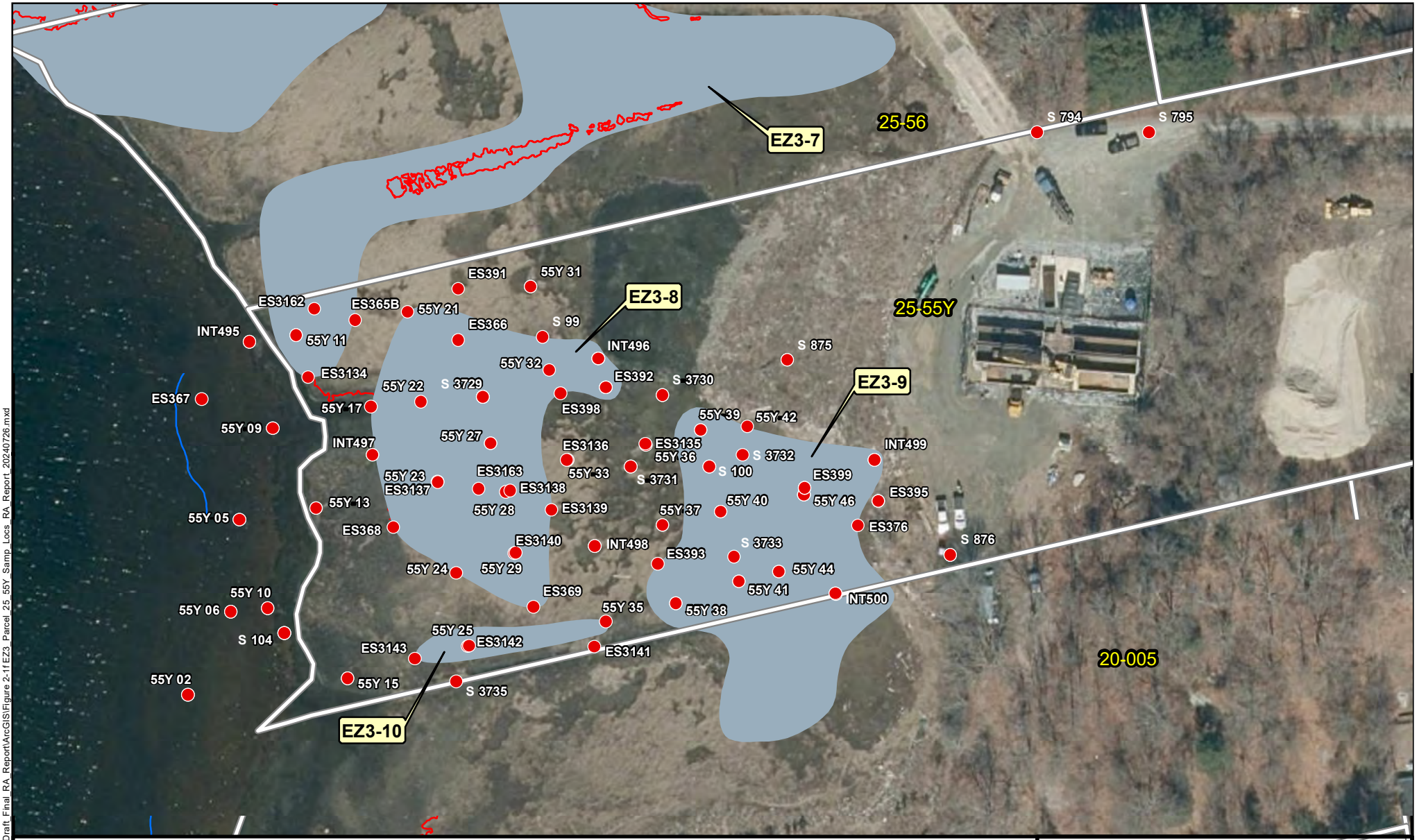
Jacobs

Intertidal East Zone 3
Parcel 25-56
Sampling Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1e

Path: Y:\NBH\Projects\35BG100120240726_EZ2_EZ3_Draft Final_RA_Report\ArcGIS\Figure 2-1e EZ3_Parcel 25_56_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Property Boundary
- MHHW (1.99 ft)
- MLLW (-1.97 ft)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft. (Nearview, 2018)

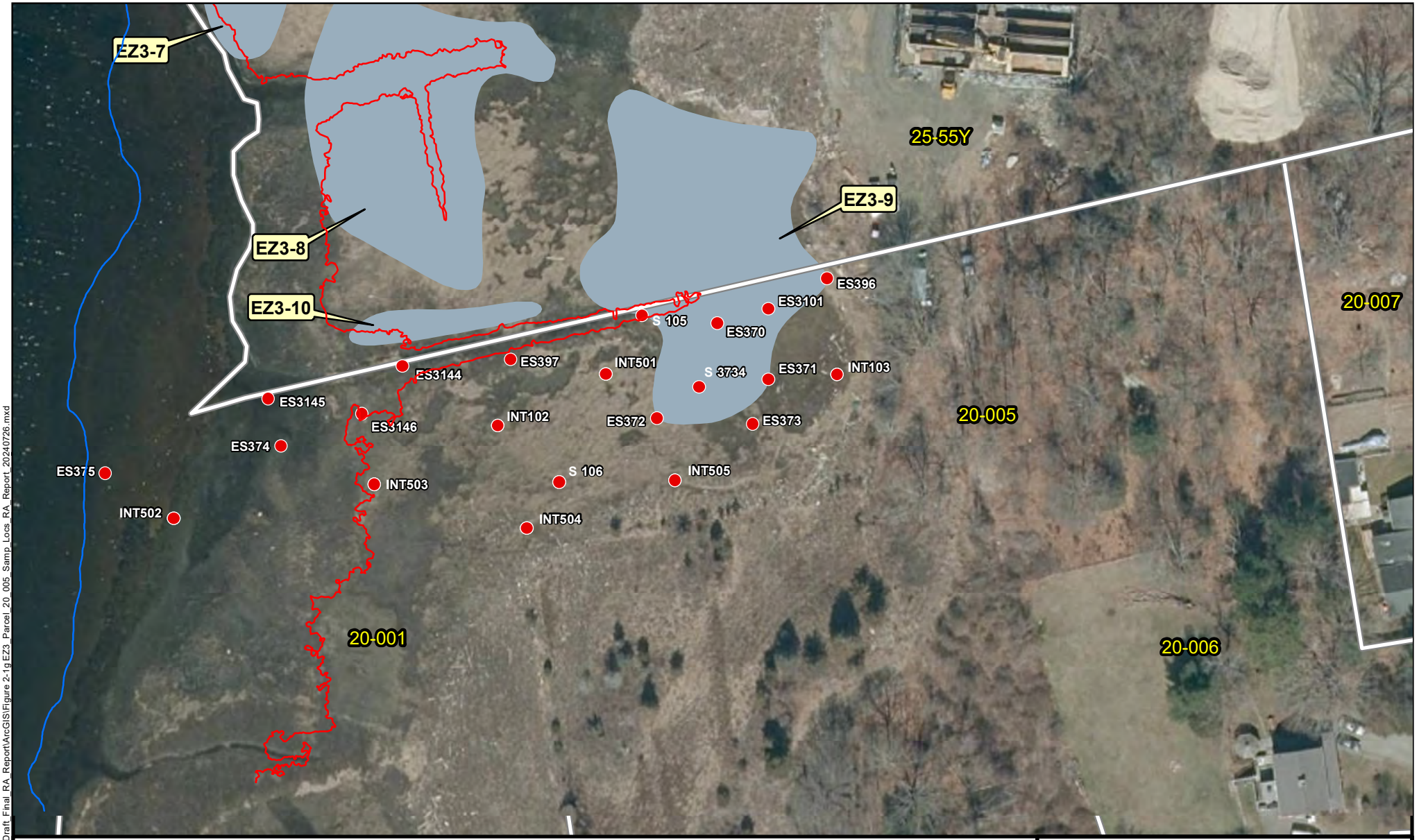
Jacobs

Intertidal East Zone 3
Parcel 25-55Y
Sampling Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1f

Path: Y:\NBH\Projects\35BG10012\240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1f EZ3_Parcel_25_55Y_Samp_Locs_RA_Report_20240726.mxd



Legend

- Pre-Excavation PCB Characterization Samples
- Property Boundary
- MHHW (1.99 ft)
- MLLW (-1.97 ft)
- Proposed Limits of Excavation

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

MHHW and MLLW Elevations NAVD88 ft. (Nearview, 2018)

Jacobs

Intertidal East Zone 3
Parcel 20-005
Sampling Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 2-1g

Path: Y:\NBH\Projects\35BG10012\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-1g EZ3_Parcel_20_005_Samp_Locs_RA_Report_20240726.mxd

by Nearview, LLC (October 2017).

Eversource Substation

Concrete Vault

ROW

25-34

25-43

25-319

MassGIS

Legend

- Concrete Vault
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- 1-foot Contour
- Mean Lower Low Water
- Mean Higher High Water
- Parcel Boundary
- Beach
- High Marsh
- Low Marsh
- Mudflat
- Pannes
- Phragmites
- Scrub-Shrub Marsh
- Stream
- Upland

0 50 100 Feet

Basemap Source: Aerial Imagery MassGIS 2023

Vertical Datum: NAVD88

Intertidal East Zone 2 Parcel 25-43 Pre-Existing Vegetation, Topography, and Excavation Areas

New Bedford Harbor Superfund Site

Jacobs

Figure 2-2a

Path: Y:\NBH\Projects\35BG1001\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-2a EZ2_Parcel_25_43_Pre_Existing_RA_Report_20240726.mxd

Notes:

Existing vegetative cover was surveyed by Nearview, LLC (October 2017).

25-49

25 319

25 43

25 319

ROW

ROW

5

10

15

0

-5

MassGIS

Legend

- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- 3-4' Excavation Depth
- 1-foot Contour
- Mean Lower Low Water
- Mean Higher High Water
- Parcel Boundary
- High Marsh
- Low Marsh
- Mudflat
- Pannes
- Phragmites
- Scrub-Shrub Marsh
- Stream
- Upland
- Beach

0 50 100 Feet

Basemap Source: Aerial Imagery MassGIS 2023

Vertical Datum: NAVD88

Intertidal East Zone 2 Parcel 25-319 and ROW Pre-Existing Vegetation, Topography, and Excavation Areas

New Bedford Harbor Superfund Site

Jacobs

Figure 2-2b

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-2b EZ2_Parcel_25_319_ROW_Pre_Existing_RA_Report_20240726.mxd

Notes:

Existing vegetative cover was surveyed by Nearview, LLC (October 2017).

25-319

ROW1

EZ3-1

0'

5'

EZ3-2

25-49

EZ3-3

0'

Legend

- Mean Lower Low Water
- Mean Higher High Water
- 0-1' Excavation Depth
- 1-foot Contour
- Parcel Boundary
- High Marsh
- Low Marsh
- Scrub-Shrub Marsh

0 50 100 Feet

Basemap Source: Aerial Imagery MassGIS 2023

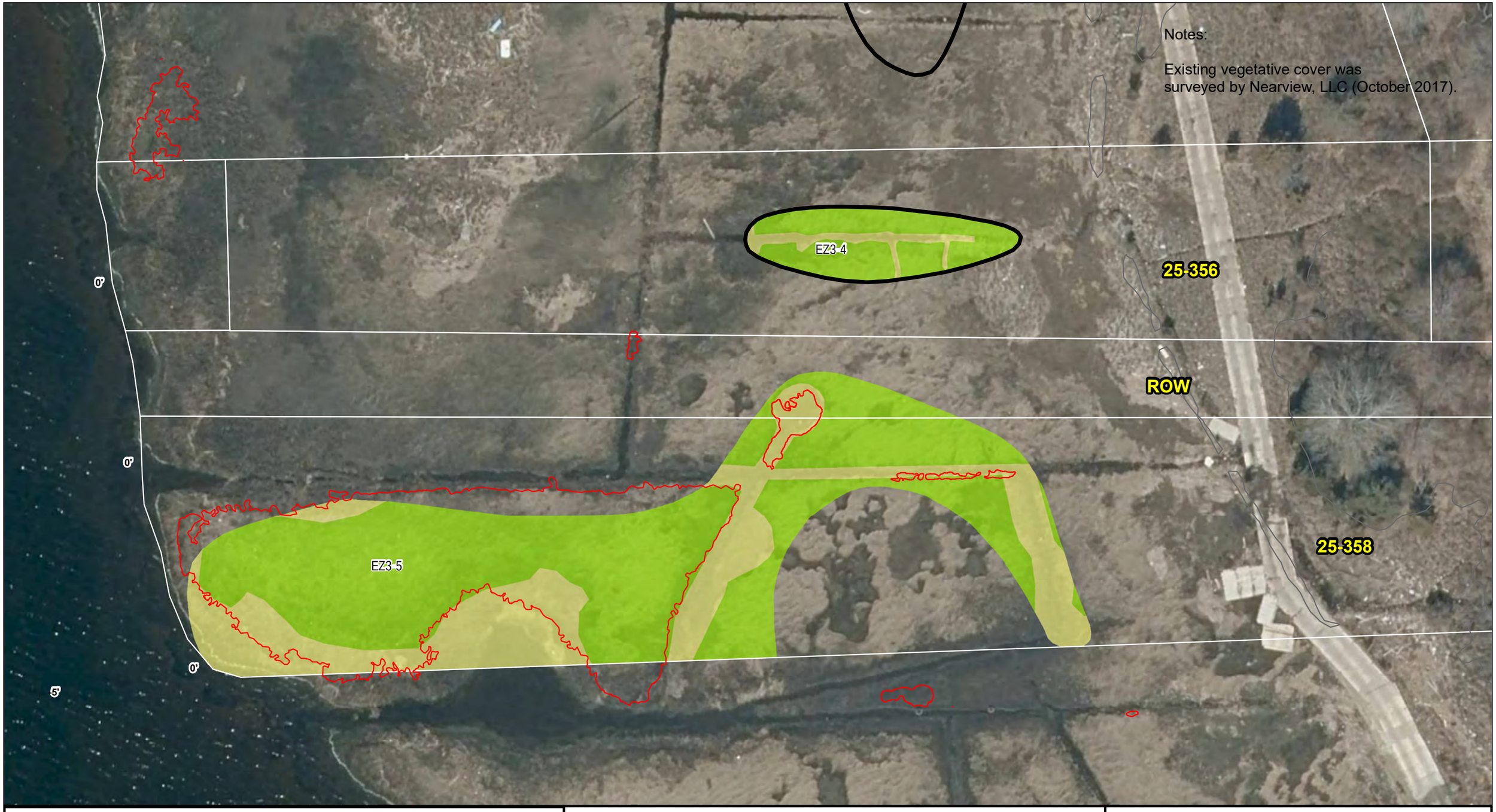
Vertical Datum: NAVD88

Intertidal East Zone 3
Parcel 25-49 and ROW
Pre-Existing Vegetation and Topography

New Bedford Harbor Superfund Site

Jacobs

Figure 2-2c



Legend

- Mean Lower Low Water
- Mean Higher High Water
- 1-foot Contour
- Parcel Boundary
- 0-1' Excavation Depth
- Low Marsh
- High Marsh

0 50 100 Feet

Basemap Source: Aerial Imagery MassGIS 2023

Vertical Datum: NAVD88

Intertidal East Zone 3
Parcels 25-356, 25-358, and ROW
Pre-Existing Vegetation and Topography
New Bedford Harbor Superfund Site

Jacobs

Figure 2-2d

Notes:

Existing vegetative cover was surveyed by Nearview, LLC (October 2017).

25-358

25-56

25-55Y

EZ3-5

EZ3-7

0'

0'

5'

5'

5

Legend

- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- Mean Lower Low Water
- Mean Higher High Water
- 1-foot Contour
- High Marsh
- Low Marsh
- Parcel Boundary

0 50 100 Feet

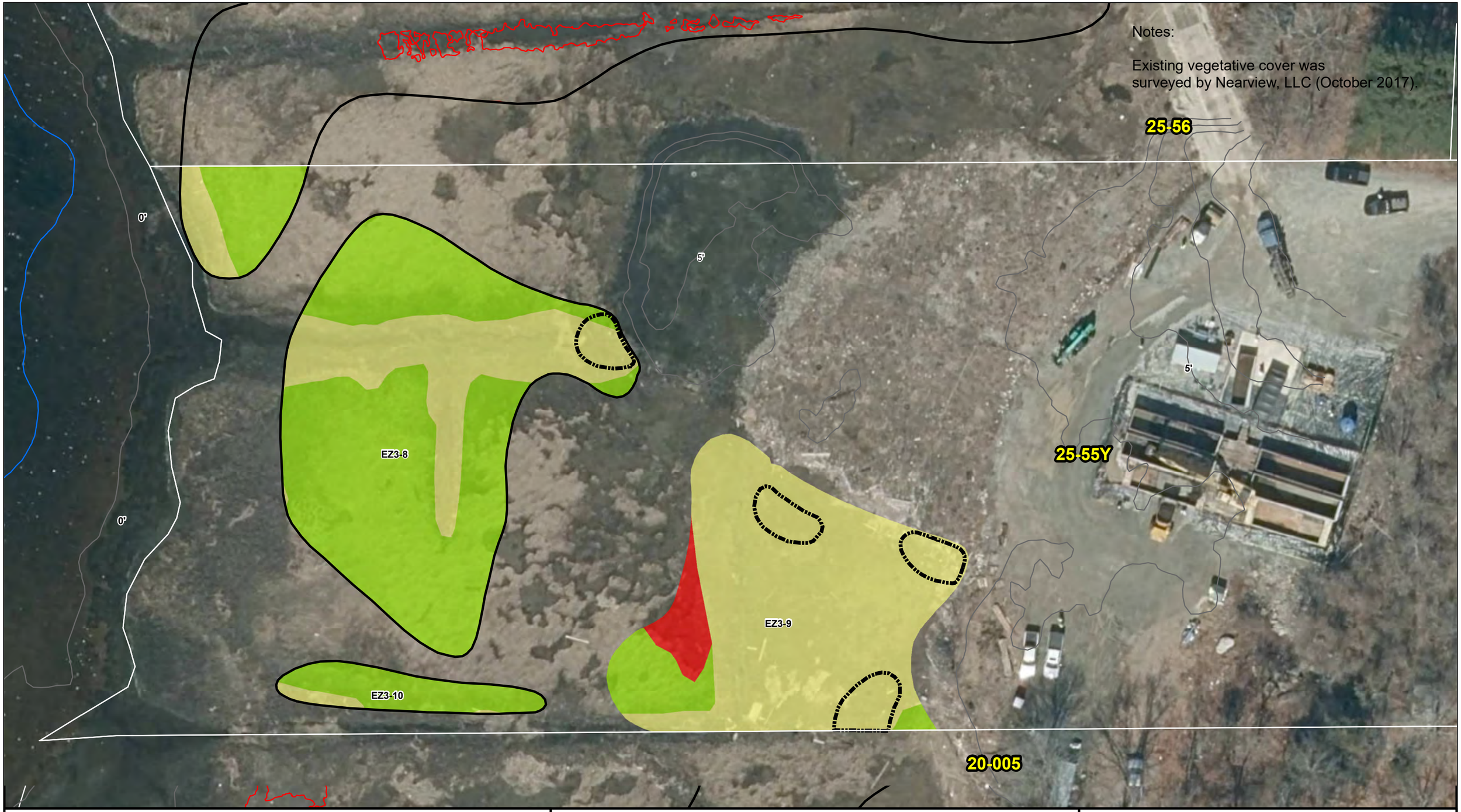
Basemap Source: Aerial Imagery MassGIS 2023

Vertical Datum: NAVD88

Intertidal East Zone 3
Parcel 25-56
Pre-Existing Vegetation and Topography
New Bedford Harbor Superfund Site

Jacobs

Figure 2-2e



Legend

- 0-1' Excavation Depth
- 1-2' Excavation Depth
- Mean Lower Low Water
- Mean Higher High Water
- 1-foot Contour
- Parcel Boundary
- Low Marsh
- Pannes
- High Marsh

0 50 100 Feet

Vertical Datum: NAVD88

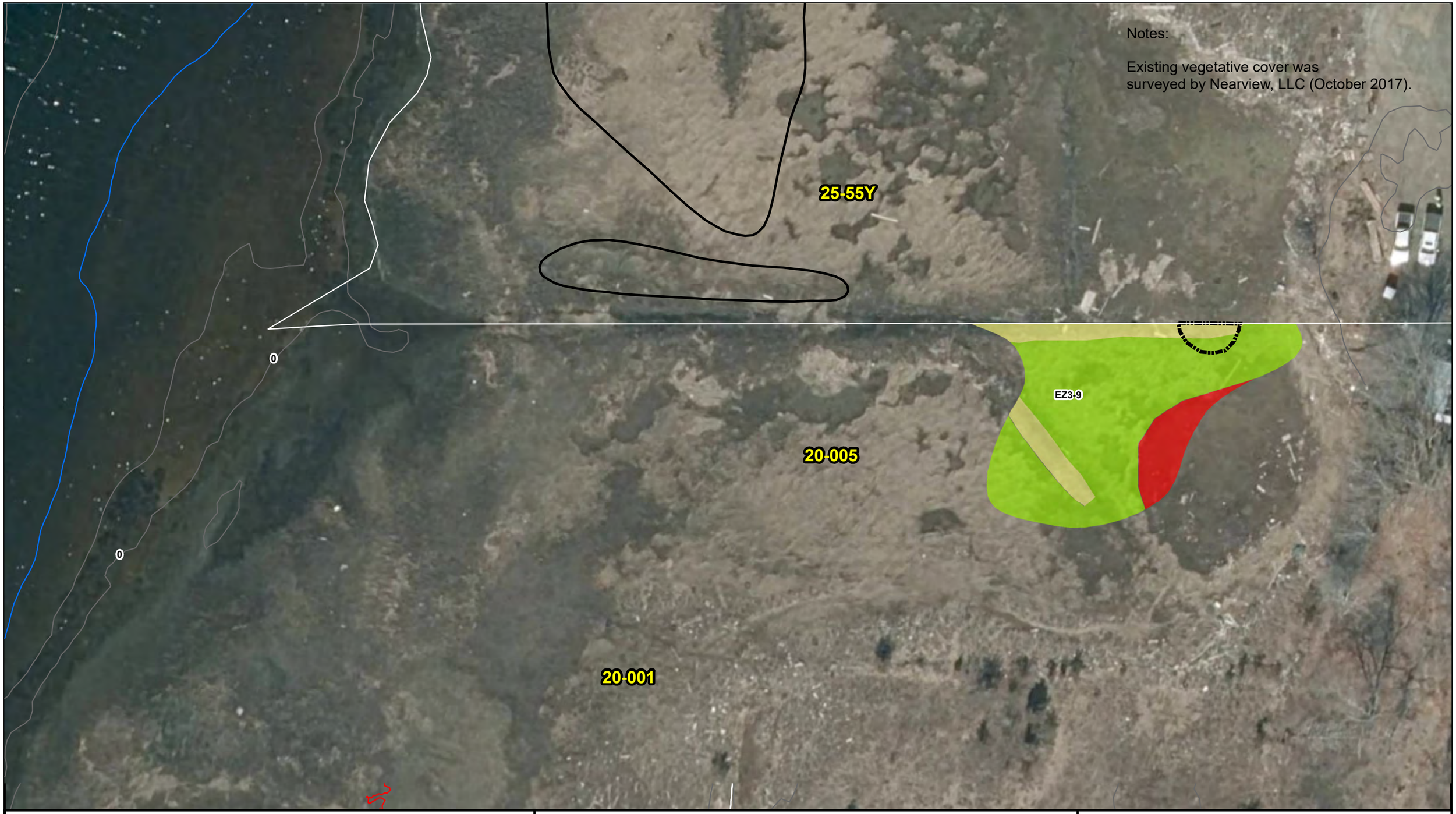
Basemap Source: Aerial Imagery MassGIS 2023

Intertidal East Zone 3
Parcel 25-55Y
Pre-Existing Vegetation and Topography

New Bedford Harbor Superfund Site

Jacobs

Figure 2-2f



Legend

- 0-1' Excavation Depth
- 1-2' Excavation Depth
- Mean Lower Low Water
- Mean Higher High Water
- 1-foot Contour
- Parcel Boundary
- High Marsh
- Low Marsh
- Pannes

0 50 100 Feet

Basemap Source: Aerial Imagery MassGIS 2023

Vertical Datum: NAVD88

Intertidal East Zone 3
Parcel 20-005
Pre-Existing Vegetation and Topography

New Bedford Harbor Superfund Site

Jacobs

Figure 2-2g

25-34

25-43

Eversource Substat on

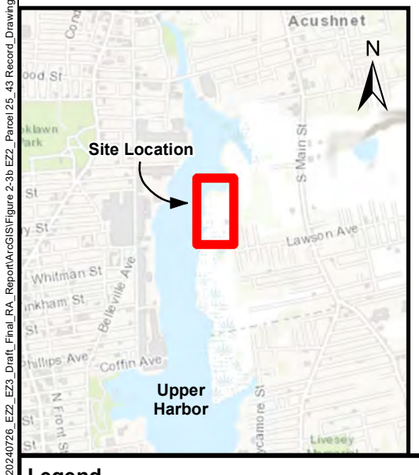
ROW

25-291

25-319

Wetland Cover Types

- Low Marsh
- High Marsh
- Upland
- Mudflat
- 4-6 inch Stone
- Beach
- Pannes
- Scrub Shrub Marsh
- Conservation Seed Mix



Legend

- Post-Restoration 1-foot Contours
- Post-Restoration 5-foot Contours
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- As-built Limits of Excavation
- Parcel Boundary
- Coir Log @ 0.5 ft. NAVD88
- Trees & Shrubs (planted during restoration)
- Stream

Restoration Aerial: Meridian March 2024

Datum Info:
Vertical - NAVD88, feet
Horizontal - NAD83 StatePlane MA, feet

0 50 100 Feet

Basemap Data Source:
MassGIS, ESRI and
Meridian (Mar. 2024)

East Zone 2 Parcels 25-43 and 25-319
Post-Excavation and Restoration Record Drawing

New Bedford Harbor Superfund Site

Jacobs

Figure 2-3a

Path: Y:\NBH\Projects\35BG100\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-3b EZ2_Parcel 25_43 Record_Drawing_RA_Report_20240726.mxd

25-339

ROW

25-49

25-43

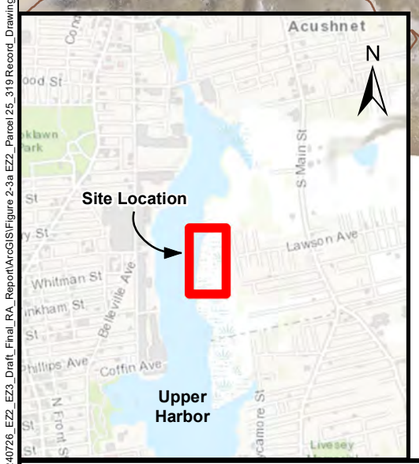
ROW

25 319

25-43

Wetland Cover Types

- Low Marsh
- High Marsh
- Upland
- Mudflat
- Beach
- Pannes
- Scrub Shrub Marsh
- Conservation Seed Mix



Legend

- Post-Restoration 1-foot Contours
- Post-Restoration 5-foot Contours
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- As-built Limits of Excavation
- Parcel Boundary
- Coir Log @ 0.5 ft. NAVD88
- Trees & Shrubs (planted during restoration)
- Stream

Restoration Aerial: Meridian March 2024

Datum Info:
Vertical - NAVD88, feet
Horizontal - NAD83 StatePlane MA, feet

0 50 100 Feet

Basemap Data Source:
MassGIS, ESRI and
Meridian (Mar. 2024)

East Zone 2 Parcels 25-43 and 25-319
Post-Excavation and Restoration Record Drawing

New Bedford Harbor Superfund Site

Jacobs

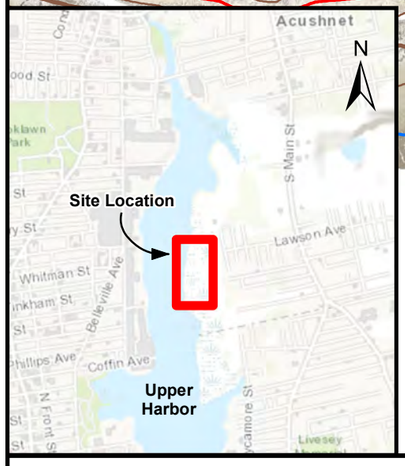
Figure 2-3b

Path: Y:\NBH\Projects\35BG1001\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 2-3a EZ2_Parcel 25_319 Record_Drawing_RA_Report_20240726.mxd

Wetland Cover Types

- Low Marsh
- High Marsh
- Mudflat
- Scrub Shrub Marsh
- Conservation Seed Mix

25-319
25-338
25-339
25-358
25-49
25-356
25-357
ROW
ROW
ROW
EZ3 1
EZ3-2
EZ3 3
EZ3 4



Legend

- Post-Restoration 1-foot Contours
- Post-Restoration 5-foot Contours
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- As-built Limits of Excavation
- Parcel Boundary
- Coir Log @ 0.5 ft. NAVD88
- Trees & Shrubs (planted during restoration)
- Stream

Restoration Aerial: Meridian March 2024

Datum Info:
Vertical - NAVD88, feet
Horizontal - NAD83 StatePlane MA, feet

0 50 100 Feet

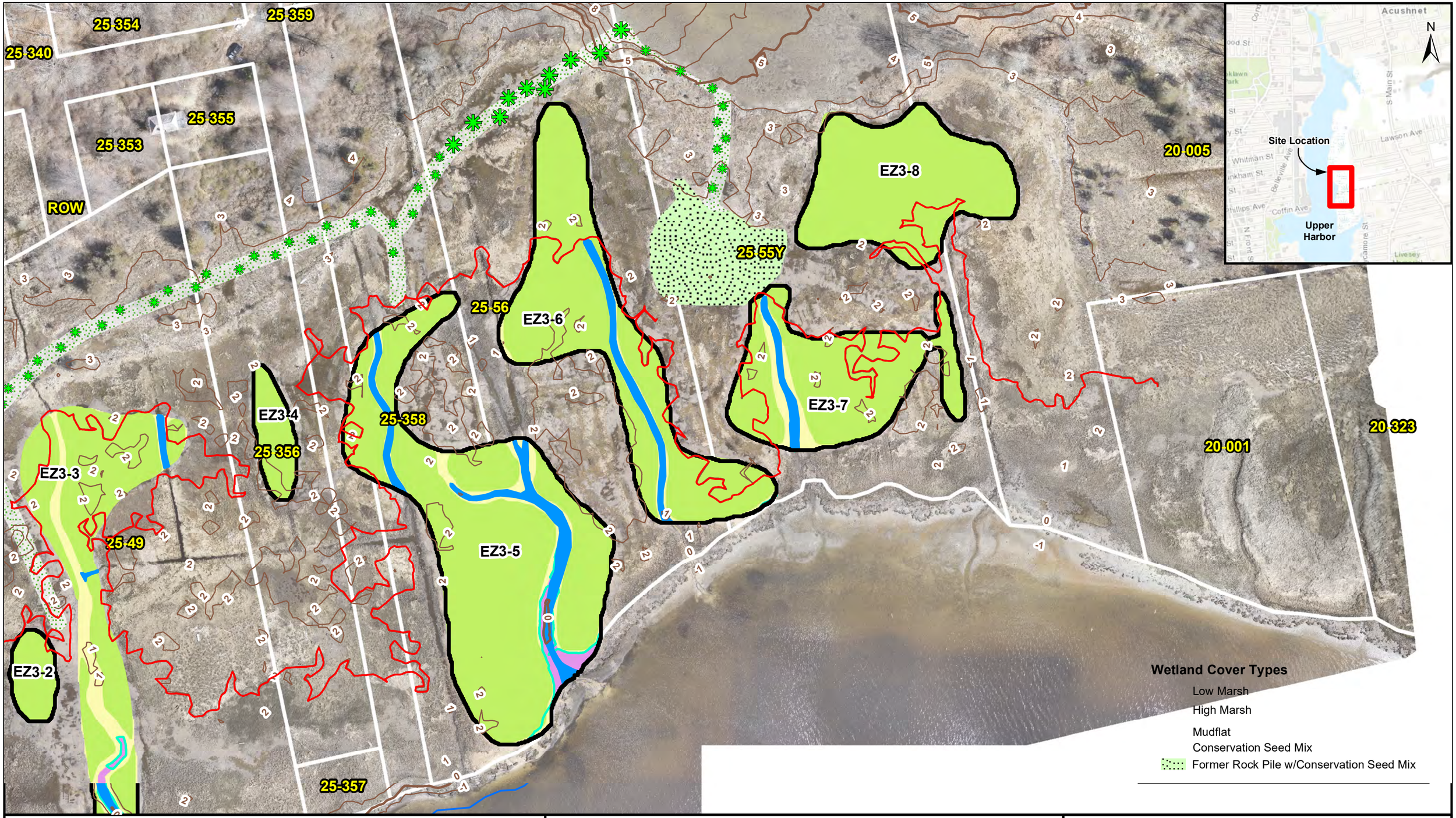
Basemap Data Source:
MassGIS, ESRI and
Meridian (Mar. 2024)

East Zone 3 Northeast
Post-Excavation and Restoration Record Drawing

New Bedford Harbor Superfund Site

Jacobs

Figure 2-3c



Legend

- Post-Restoration 1-foot Contours
- Post-Restoration 5-foot Contours
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- As-built Limits of Excavation
- Parcel Boundary
- Coir Log @ 0.5 ft. NAVD88
- Trees & Shrubs (planted during restoration)
- Stream

Restoration Aerial: Meridian March 2024

Datum Info:
Vertical - NAVD88, feet
Horizontal - NAD83 StatePlane MA, feet

0 50 100 Feet

Basemap Data Source:
MassGIS, ESRI and
Meridian (Mar. 2024)

East Zone 3 Southeast
Post-Excavation and Restoration Record Drawing

New Bedford Harbor Superfund Site

Jacobs

Figure 2-3d

Legend

- Eversource Concrete Vaults
- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- Inland Reach of Dredge
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location
- Concrete Vault

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

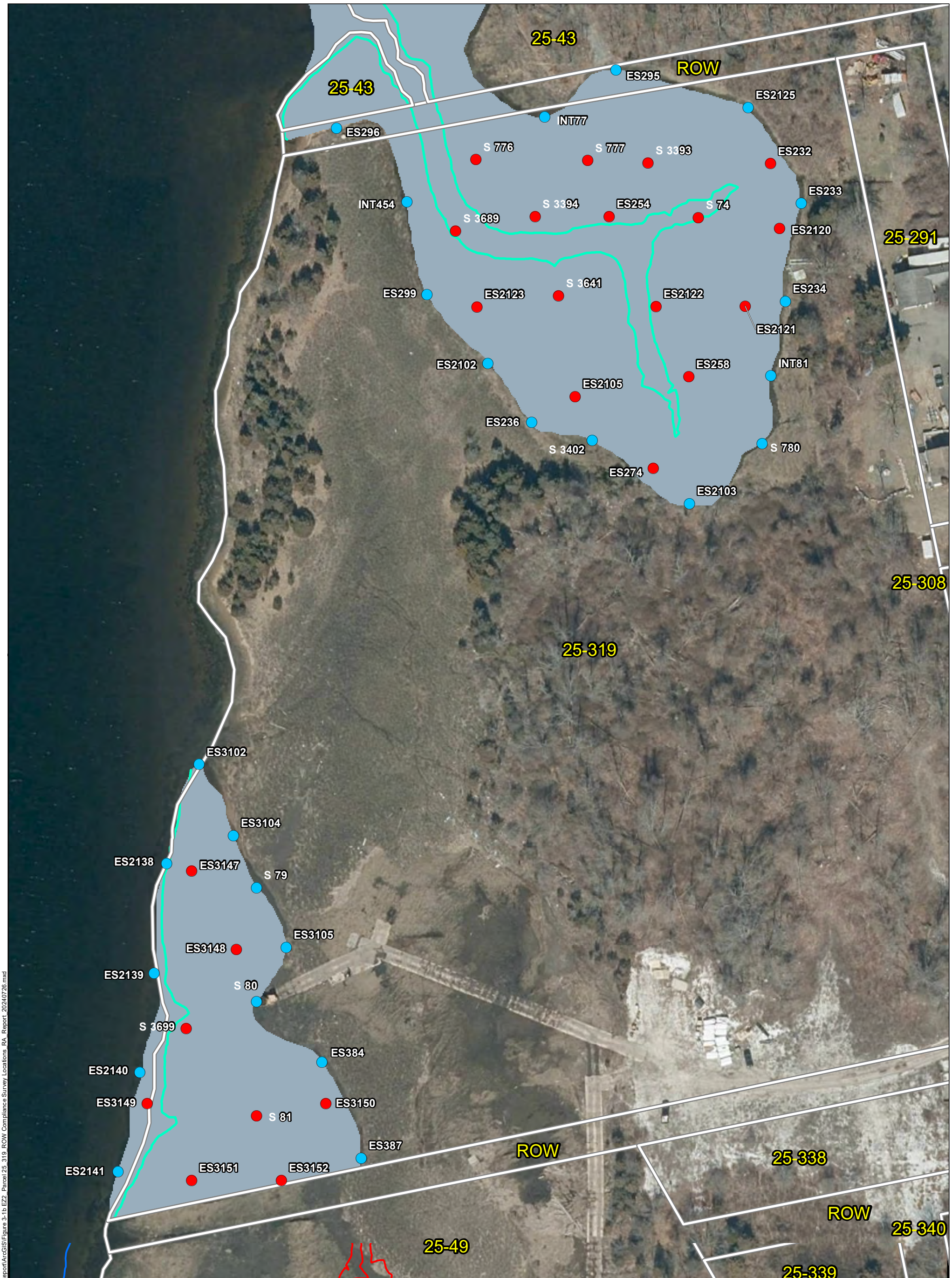
Jacobs

Intertidal East Zone 2
Parcel 25-43
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1a

Path: Y:\NBH\Projects\35BG1001\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1a EZ2_Parcel 25_43 Compliance Survey Locations_RA_Report_20240726.mxd



Path: Y:\NBH\Projects\35BG10011\20240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1b EZ2_Parcel 25_319_ROW Compliance Survey Locations_RA_Report_20240726.mxd

Legend

- Parcel Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

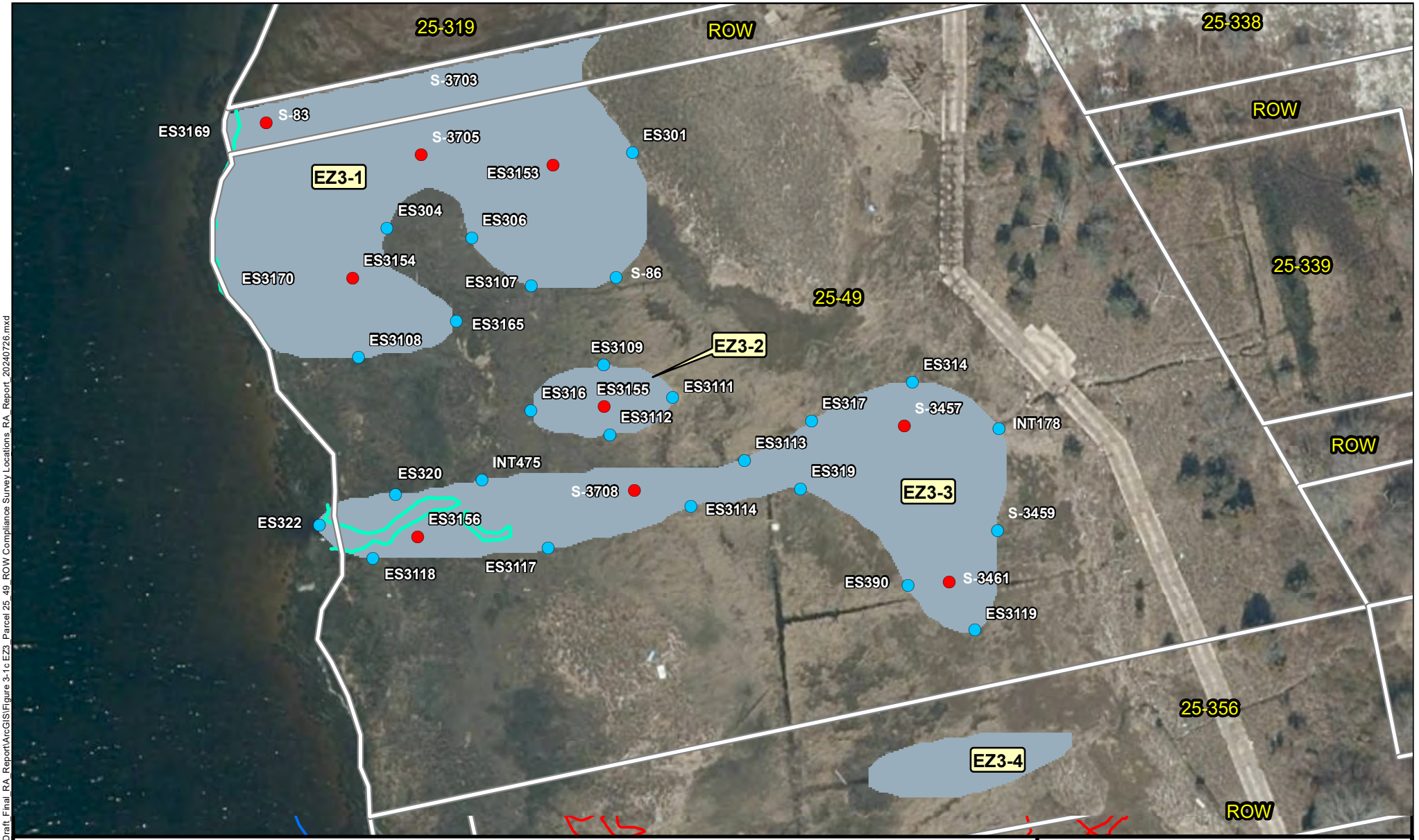
0 80 160 Feet

Jacobs

Intertidal East Zone 2
ROW and Parcel 25-319
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1b



Legend

- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

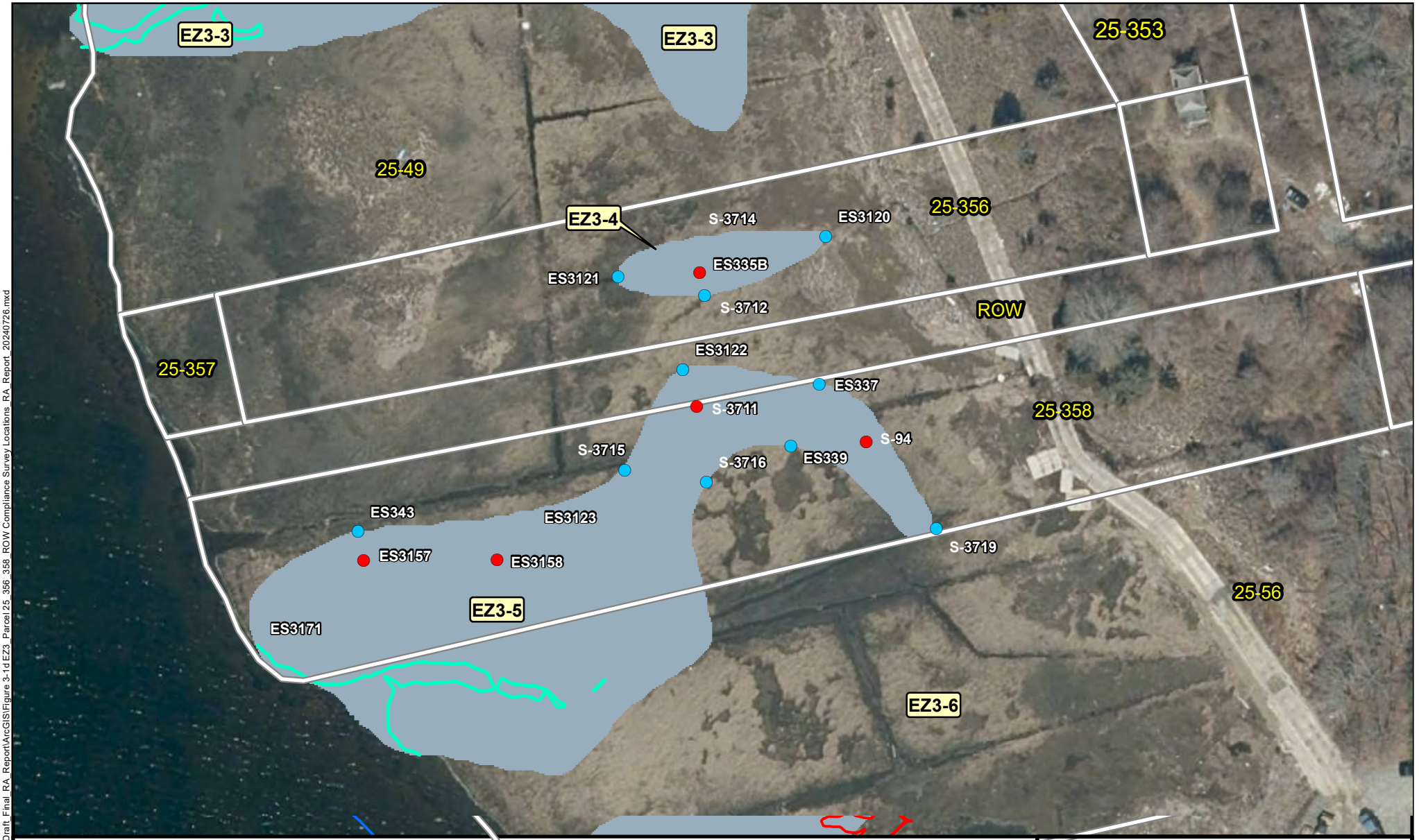
Jacobs

Intertidal East Zone 3
Parcel 25-49 and ROW
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1c

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1c EZ3_Parcel 25_49_ROW Compliance Survey Locations_RA_Report_20240726.mxd



Legend

- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

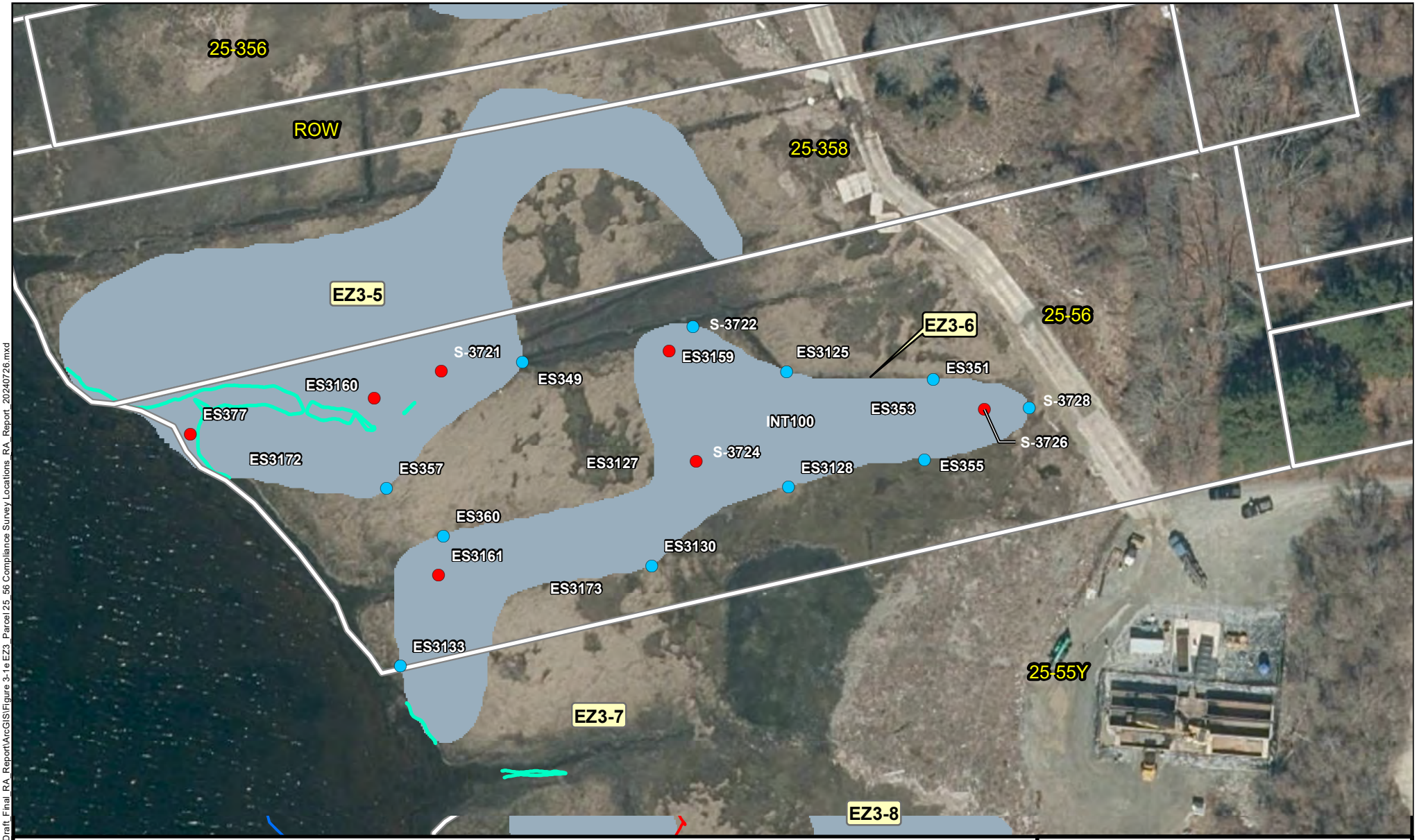
Jacobs

Intertidal East Zone 3
Parcel 25-356, 25-358 and ROW
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1d

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1d EZ3_Parcel 25_356_358_ROW Compliance Survey Locations_RA_Report_20240726.mxd



Legend

- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

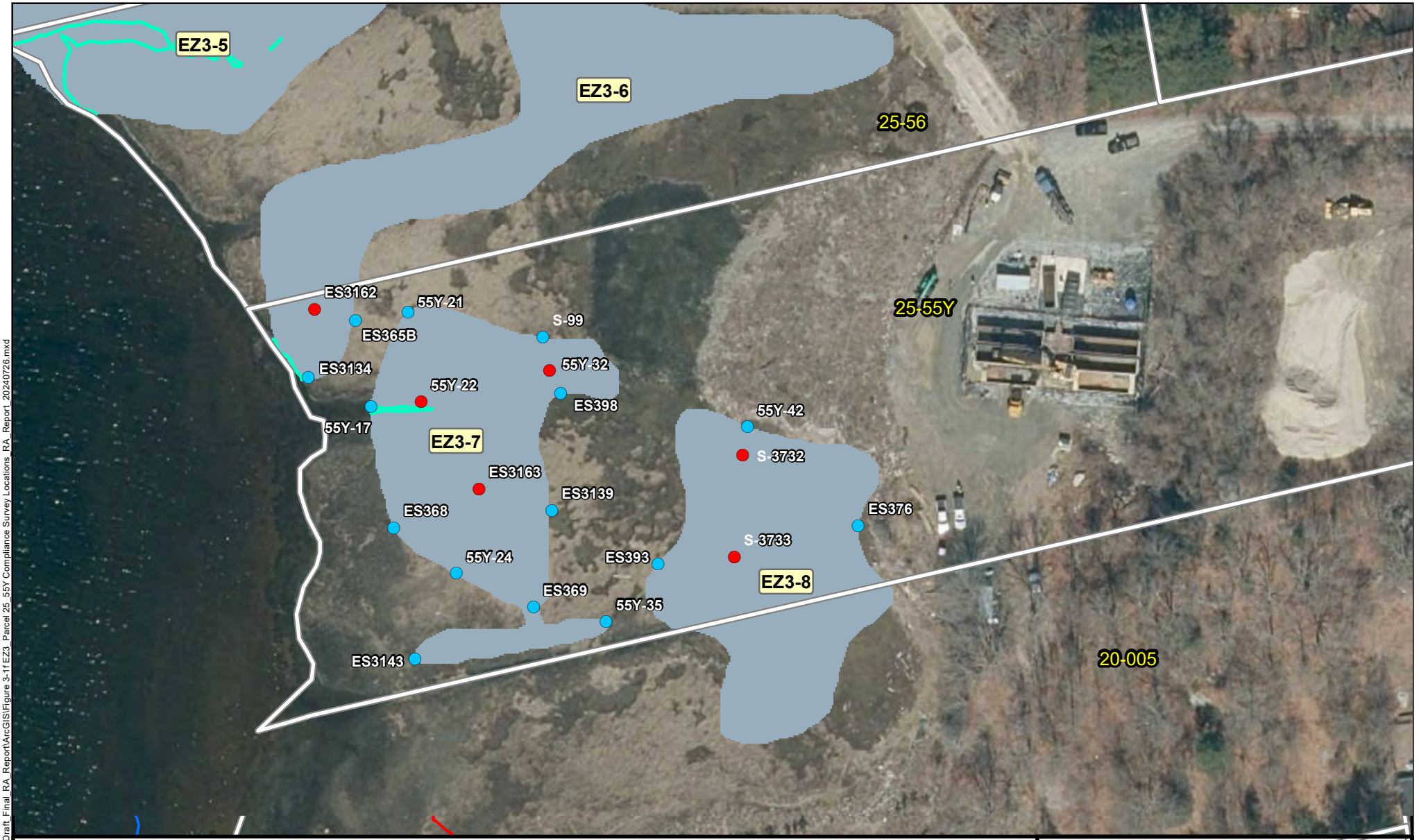
Jacobs

Intertidal East Zone 3
Parcel 25-56
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1e

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1e EZ3_Parcel 25_56 Compliance Survey Locations_RA_Report_20240726.mxd



Legend

- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

0 40 80 120 Feet

Jacobs

Intertidal East Zone 3
Parcel 25-55Y
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1f

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1f EZ3_Parcel 25_55Y Compliance Survey Locations_RA_Report_20240726.mxd

Path: Y:\NBH\Projects\35BG100\120240726_EZ2_EZ3_Draft_Final_RA_Report\ArcGIS\Figure 3-1g EZ3_Parcel 20_005 Compliance Survey Locations_RA_Report_20240726.mxd

Legend

- Property Boundary
- MHHW (1.99 ft. Post-Restoration)
- MLLW (-1.97 ft. Post-Restoration)
- Coir Log @ 0.5 ft. NAVD88
- As-built Limits of Excavation

Compliance Location

- Sidewall Survey Compliance Location
- Floor Survey Compliance Location

Basemap Source: Aerial Imagery MassGIS 2023

N

0 40 80 120 Feet

Jacobs

Intertidal East Zone 3
Parcel 20-005
Compliance Survey Locations with Excavation Footprint

New Bedford Harbor Superfund Site

Figure 3-1g

Tables

Table 2-1a
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-43

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-43	Mudflat	S-ES202-18FSP11-00-10	ES202	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	2680	
25-43	Mudflat	S-ES202-18FSP11-10-20	ES202	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	0.5	U
25-43	Saltmarsh	S-ES203-18FSP11-00-10	ES203	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	472	
25-43	Saltmarsh	S-ES203-18FSP11-10-20	ES203	1.0	2.0	6/4/2018	Total 209 PCB cong (excl non-detects)	42.9	
25-43	Mudflat	S-ES204-18FSP11-00-10	ES204	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	14	
25-43	Mudflat	S-ES204-18FSP11-10-20	ES204	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	0.5	U
25-43	Saltmarsh	S-ES205-18FSP11-00-10	ES205	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	1.41	
25-43	Saltmarsh	S-ES205R-18FSP11-00-10-REP	ES205	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	1.77	
25-43	Saltmarsh	S-ES206-18FSP11-00-10	ES206	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	8.51	
25-43	Saltmarsh	S-ES206-18FSP11-10-20	ES206	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	3.7	J
25-43	Saltmarsh	S-ES207-18FSP11-00-10	ES207	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	440	
25-43	Saltmarsh	S-ES207-18FSP11-10-20	ES207	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	640	JD
25-43	Saltmarsh	S-ES208-18FSP11-00-10	ES208	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	48.1	
25-43	Saltmarsh	S-ES208R-18FSP11-00-10-REP	ES208	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	78.9	
25-43	Saltmarsh	S-ES208-18FSP11-10-20	ES208	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	9.1	J
25-43	Saltmarsh	S-ES208R-18FSP11-10-20-REP	ES208	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	10	J
25-43	Saltmarsh	S-ES209-18FSP11-00-10	ES209	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	1.07	
25-43	Saltmarsh	S-ES210-18FSP11-00-10	ES210	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	6.82	
25-43	Saltmarsh	S-ES2107-18FSP11-10-20	ES2107	1.0	2.0	9/11/2018	Total 209 PCB cong (excl non-detects)	50.2	
25-43	Saltmarsh	S-ES2107-18FSP11-20-30	ES2107	2.0	3.0	9/11/2018	Total 209 PCB cong (excl non-detects)	28.5	
25-43	Saltmarsh	S-ES2108-18FSP11-10-20	ES2108	1.0	2.0	9/12/2018	Total 209 PCB cong (excl non-detects)	0.015	
25-43	Saltmarsh	S-ES2109-18FSP11-10-20	ES2109	1.0	2.0	9/12/2018	Total 209 PCB cong (excl non-detects)	2.27	
25-43	Saltmarsh	S-ES211-18FSP11-00-10	ES211	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	2.35	
25-43	Saltmarsh	S-ES211-18FSP11-10-20	ES211	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	4.4	J
25-43	Saltmarsh	S-ES2110-18FSP11-20-30	ES2110	2.0	3.0	9/12/2018	Total 209 PCB cong (excl non-detects)	0.0124	
25-43	Saltmarsh	S-ES2111-18FSP11-10-20	ES2111	1.0	2.0	9/11/2018	Total 209 PCB cong (excl non-detects)	529	
25-43	Saltmarsh	S-ES2111-18FSP11-20-30	ES2111	2.0	3.0	9/11/2018	Total 209 PCB cong (excl non-detects)	324	
25-43	Saltmarsh	S-ES2111B-18FSP11-30-40	ES2111B	3.0	4.0	12/17/2018	Total 209 PCB cong (excl non-detects)	0.104	
25-43	Saltmarsh	S-ES2112-18FSP11-10-20	ES2112	1.0	2.0	9/11/2018	Total 209 PCB cong (excl non-detects)	321	
25-43	Saltmarsh	S-ES2112-18FSP11-20-30	ES2112	2.0	3.0	9/11/2018	Total 209 PCB cong (excl non-detects)	178	
25-43	Saltmarsh	S-ES2112B-18FSP11-30-40	ES2112B	3.0	4.0	12/17/2018	Total 209 PCB cong (excl non-detects)	0.00124	
25-43	Saltmarsh	S-ES2113-18FSP11-10-20	ES2113	1.0	2.0	9/17/2018	Total 209 PCB cong (excl non-detects)	0.229	
25-43	Saltmarsh	S-ES2114-18FSP11-10-20	ES2114	1.0	2.0	9/6/2018	Total 209 PCB cong (excl non-detects)	3.33	
25-43	Saltmarsh	S-ES2115-18FSP11-10-20	ES2115	1.0	2.0	9/6/2018	Total 209 PCB cong (excl non-detects)	54.4	
25-43	Saltmarsh	S-ES2115-18FSP11-20-30	ES2115	2.0	3.0	9/6/2018	Total 209 PCB cong (excl non-detects)	2.99	
25-43	Saltmarsh	S-ES2116-18FSP11-10-20	ES2116	1.0	2.0	9/6/2018	Total 209 PCB cong (excl non-detects)	12	
25-43	Saltmarsh	S-ES2117-18FSP11-20-30	ES2117	2.0	3.0	8/28/2018	Total 209 PCB cong (excl non-detects)	4420	
25-43	Saltmarsh	S-ES2117-18FSP11-30-40	ES2117	3.0	4.0	8/28/2018	Total 209 PCB cong (excl non-detects)	9.06	
25-43	Saltmarsh	S-ES2118-18FSP11-20-30	ES2118	2.0	3.0	10/12/2018	Total 209 PCB cong (excl non-detects)	60.9	
25-43	Saltmarsh	S-ES2118-18FSP11-30-40	ES2118	3.0	4.0	10/12/2018	Total 209 PCB cong (excl non-detects)	49.8	
25-43	Saltmarsh	S-ES2119-18FSP11-10-20	ES2119	1.0	2.0	9/5/2018	Total 209 PCB cong (excl non-detects)	127	
25-43	Saltmarsh	S-ES2119-18FSP11-20-30	ES2119	2.0	3.0	9/5/2018	Total 209 PCB cong (excl non-detects)	27	
25-43	Saltmarsh	S-ES212-18FSP11-00-10	ES212	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	0.667	
25-43	Saltmarsh	S-ES2124-18FSP11-00-10	ES2124	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	72.6	
25-43	Saltmarsh	S-ES2127-18FSP11-00-10	ES2127	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	1.12	
25-43	Saltmarsh	S-ES213-18FSP11-00-10	ES213	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	221	
25-43	Saltmarsh	S-ES213-18FSP11-10-20	ES213	1.0	2.0	6/6/2018	Aroclor 1254 - Immunoassay	81.81	
25-43	Saltmarsh	S-ES213B-18FSP11-20-30	ES213B	2.0	3.0	10/12/2018	Total 209 PCB cong (excl non-detects)	1.91	
25-43	Saltmarsh	S-ES214-18FSP11-00-10	ES214	0.0	1.0	6/6/2018	Aroclor 1254 - Immunoassay	190	JD
25-43	Saltmarsh	S-ES214-18FSP11-10-20	ES214	1.0	2.0	6/6/2018	Total 209 PCB cong (excl non-detects)	98.70	
25-43	Saltmarsh	S-ES215-18FSP11-00-10	ES215	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	40.3	
25-43	Saltmarsh	S-ES216-18FSP11-00-10	ES216	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	7.84	
25-43	Saltmarsh	S-ES217-18FSP11-00-10	ES217	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	13.1	
25-43	Saltmarsh	S-ES218-18FSP11-00-10	ES218	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	116	
25-43	Saltmarsh	S-ES218-18FSP11-10-20	ES218	1.0	2.0	6/6/2018	Total 209 PCB cong (excl non-detects)	7.28	
25-43	Saltmarsh	S-ES219-18FSP11-00-10	ES219	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	90	
25-43	Saltmarsh	S-ES219-18FSP11-10-20	ES219	1.0	2.0	6/6/2018	Total 209 PCB cong (excl non-detects)	54.50	
25-43	Saltmarsh	S-ES220-18FSP11-00-10	ES220	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	170	
25-43	Saltmarsh	S-ES220-18FSP11-10-20	ES220	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	8.9	J
25-43	Saltmarsh	S-ES220-18FSP11-20-30	ES220	2.0	3.0	6/4/2018	Aroclor 1254 - Immunoassay	2.8	J
25-43	Saltmarsh	S-ES221-18FSP11-00-10	ES221	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	1.41	
25-43	Saltmarsh	S-ES222-18FSP11-00-10	ES222	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	3.08	
25-43	Saltmarsh	S-ES223-18FSP11-00-10	ES223	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	58.2	
25-43	Saltmarsh	S-ES223-18FSP11-10-20	ES223	1.0	2.0	6/4/2018	Total 209 PCB cong (excl non-detects)	14.9	
25-43	Saltmarsh	S-ES224-18FSP11-00-10	ES224	0.0	1.0	6/4/2018	Aroclor 1254 - Immunoassay	66	JD
25-43	Saltmarsh	S-ES224-18FSP11-10-20	ES224	1.0	2.0	6/4/2018	Total 209 PCB cong (excl non-detects)	12.30	
25-43	Saltmarsh	S-ES225-18FSP11-00-10	ES225	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	34.6	
25-43	Saltmarsh	S-ES225-18FSP11-10-20	ES225	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	77	JD
25-43	Saltmarsh	S-ES226-18FSP11-00-10	ES226	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	183	
25-43	Saltmarsh	S-ES226-18FSP11-10-20	ES226	1.0	2.0	6/4/2018	Total 209 PCB cong (excl non-detects)	68.7	
25-43	Saltmarsh	S-ES227-18FSP11-00-10	ES227	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	198	
25-43	Saltmarsh	S-ES227-18FSP11-10-20	ES227	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	3.9	J
25-43	Mudflat	S-ES228-18FSP11-00-10	ES228	0.0	1.0	6/6/2018	Total 209 PCB cong (excl non-detects)	22	
25-43	Saltmarsh	S-ES229-18FSP11-00-10	ES229	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	10.5	
25-43	Mudflat	S-ES230-18FSP11-00-10	ES230	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	57.7	
25-43	Mudflat	S-ES230-18FSP11-10-20	ES230	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	4.66	
25-43	Saltmarsh	S-ES237-18FSP11-10-20	ES237	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	80	JD
25-43	Saltmarsh	S-ES237-18FSP11-20-30	ES237	2.0	3.0	6/8/2018	Aroclor 1254 - Immunoassay	20.92	
25-43	Mudflat	S-ES238-18FSP11-10-20	ES238	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	8.2	J
25-43	Saltmarsh	S-ES239-18FSP11-10-20	ES239	1.0	2.0	6/8/2018	Total 209 PCB cong (excl non-detects)	44.8	
25-43	Saltmarsh	S-ES239-18FSP11-20-30	ES239	2.0	3.0	6/8/2018	Total 209 PCB cong (excl non-detects)	0.17	
25-43	Saltmarsh	S-ES240-18FSP11-10-20	ES240	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	4.1	J
25-43	Saltmarsh	S-ES240-18FSP11-20-30	ES240	2.0	3.0	6/8/2018	Aroclor 1254 - Immunoassay	2.1	J
25-43	Mudflat	S-ES241-18FSP11-00-10	ES241	0.0	1.0	6/8/2018	Aroclor 1254 - Immunoassay	660	JD
25-43	Mudflat	S-ES241-18FSP11-10-20	ES241	1.0	2.0	6/8/2018	Total 209 PCB cong (excl non-detects)	49.4	
25-43	Mudflat	S-ES241B-18FSP11-20-30	ES241B	2.0	3.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	3.8	J
25-43	Saltmarsh	S-ES242-18FSP11-00-10	ES242	0.0	1.0	6/8/2018	Total 209 PCB cong (excl non-detects)	6.79	
25-43	Saltmarsh	S-ES242-18FSP11-10-20	ES242	1.0	2.0	6/8/2018	Aroclor 1254 - Immunoassay	10	J
25-43	Saltmarsh	S-ES243-18FSP11-00-10	ES243	0.0	1.0	6/7/2018	Aroclor 1254 - Immunoassay	210	JD
25-43	Saltmarsh	S-ES243-18FSP11-10-20	ES243	1.0	2.0	6/7/2018	Total 209 PCB cong (excl non-detects)	11.9	
25-43	Saltmarsh	S-ES243-18FSP11-20-30	ES243	2.0	3.0	6/7/2018	Aroclor 1254 - Immunoassay	13	JD
25-43	Saltmarsh	S-ES244-18FSP11-00-10	ES244	0.0	1.0	6/7/2018	Aroclor 1254 - Immunoassay	79	JD
25-43	Saltmarsh	S-ES244-18FSP11-10-20	ES244	1.0	2.0	6/7/2018	Aroclor 1254 - Immunoassay	93	JD
25-43	Saltmarsh	S-ES244-18FSP11-20-30	ES244	2.0	3.0	6/7/2018	Total 209 PCB cong (excl non-detects)	79	
25-43	Saltmarsh	S-ES244B-18FSP11-30-40	ES244B	3.0	4.0	10/12/2018	Total 209 PCB cong (excl non-detects)	2.74	
25-43	Saltmarsh	S-ES245-18FSP11-10-20	ES245	1.0	2.0	6/6/2018	Total 209 PCB cong (excl non-detects)	49.5	
25-43	Saltmarsh	S-ES245-18FSP11-20-30	ES245	2.0	3.0	6/6/2018	Aroclor 1254 - Immunoassay	1.64	
25-43	Saltmarsh		ES246	1.0	2.0	6/7/2018	Total 209 PCB cong (excl non-detects)	12.5	
25-43	Saltmarsh	S-ES246-18FSP11-10-20	ES246	1.0	2.0	6/7/2018	Aroclor 1254 - Immunoassay	15	J
25-43	Saltmarsh	S-ES246-18FSP11-20-30	ES246	2.0	3.0	6/7/2018	Aroclor 1254 - Immunoassay	9.9	J
25-43	Saltmarsh	S-ES247-18FSP11-10-20	ES247	1.0	2.0	6/7/2018	Aroclor 1254 - Immunoassay	16	JD
25-43	Saltmarsh	S-ES247-18FSP11-20-30	ES247	2.0	3.0	6/7/2018	Aroclor 1254 - Immunoassay	14	JD
25-43	Saltmarsh	S-ES248-18FSP11-10-20	ES248	1.0	2.0	6/7/2018	Total 209 PCB cong (excl non-detects)	23.8	
25-43	Saltmarsh	S-ES248-18FSP11-20-30	ES248	2.0	3.0	6/7/2018	Total 209 PCB cong (excl non-detects)	12.6	
25-43	Saltmarsh	S-ES249-18FSP11-00-10	ES249	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	1.43	
25-43	Saltmarsh	S-ES249-18FSP11-10-20	ES249	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	1.4	J
25-43	Saltmarsh	S-ES250-18FSP11-00-10	ES250	0.0	1.0	6/7/2018	Total 209 PCB cong (excl non-detects)	20	
25-43	Saltmarsh	S-ES250-18FSP11-10-20	ES250	1.0	2.0	6/7/2018	Total 209 PCB cong (excl non-detects)	15	JD
25-43	Channel	S-ES251-18FSP11-00-10	ES251	0.0	1.0	6/5/2018	Aroclor 1254 - Immunoassay	11	JD
25-43	Channel	S-ES251-18FSP11-10-20	ES251	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	1.6	J
25-43	Channel	S-ES251-18FSP11-20-26	ES251	2.0	2.6	6/5/2018	Aroclor 1254 - Immunoassay	0.74	J
25-43	Saltmarsh	S-ES261-18FSP11-10-20	ES261	1.0	2.0	6/8/2018	Total 209 PCB cong (excl non-detects)	29.5	

Table 2-1a
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-43

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-43	Saltmarsh	S-ES261-18FSP11-20-30	ES261	2.0	3.0	6/8/2018	Aroclor 1254 - Immunoassay	23	JD
25-43	Mudflat	S-ES262-18FSP11-20-30	ES262	2.0	3.0	6/6/2018	Aroclor 1254 - Immunoassay	4.6	J
25-43	Mudflat	S-ES262-18FSP11-30-40	ES262	3.0	4.0	6/6/2018	Aroclor 1254 - Immunoassay	15	JD
25-43	Mudflat	S-ES263-18FSP11-20-30	ES263	2.0	3.0	6/6/2018	Aroclor 1254 - Immunoassay	7.3	JD
25-43	Mudflat	S-ES263-18FSP11-30-39	ES263	3.0	3.9	6/6/2018	Aroclor 1254 - Immunoassay	4.6	J
25-43	Saltmarsh	S-ES264-18FSP11-10-20	ES264	1.0	2.0	6/7/2018	Aroclor 1254 - Immunoassay	100	JD
25-43	Saltmarsh	S-ES264-18FSP11-20-30	ES264	2.0	3.0	6/7/2018	Aroclor 1254 - Immunoassay	10	J
25-43	Saltmarsh	S-ES265-18FSP11-10-20	ES265	1.0	2.0	6/6/2018	Aroclor 1254 - Immunoassay	300	JD
25-43	Saltmarsh	S-ES265-18FSP11-20-30	ES265	2.0	3.0	6/6/2018	Total 209 PCB cong (excl non-detects)	17	
25-43	Saltmarsh	S-ES266-18FSP11-20-30	ES266	2.0	3.0	6/7/2018	Aroclor 1254 - Immunoassay	23	JD
25-43	Saltmarsh	S-ES266-18FSP11-30-40	ES266	3.0	4.0	6/7/2018	Aroclor 1254 - Immunoassay	10	J
25-43	Mudflat	S-ES270-18FSP11-00-10	ES270	0.0	1.0	6/7/2018	Aroclor 1254 - Immunoassay	540	JD
25-43	Mudflat	S-ES270-18FSP11-10-20	ES270	1.0	2.0	6/7/2018	Total 209 PCB cong (excl non-detects)	0.104	
25-43	Mudflat	S-ES270-18FSP11-20-30	ES270	2.0	3.0	6/7/2018	Total 209 PCB cong (excl non-detects)	0.0458	
25-43	Saltmarsh	S-ES271-18FSP11-00-10	ES271	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	0.168	
25-43	Mudflat	S-ES272-18FSP11-00-10	ES272	0.0	1.0	6/7/2018	Total 209 PCB cong (excl non-detects)	28.3	
25-43	Saltmarsh	S-ES275-18FSP11-00-10	ES275	0.0	1.0	6/5/2018	Aroclor 1254 - Immunoassay	230	JD
25-43	Saltmarsh	S-ES275-18FSP11-10-20	ES275	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	6.67	
25-43	Mudflat	S-ES276-17ADD5-00-10	ES276	0.0	1.0	7/17/18	Aroclor 1254 - Immunoassay	5.28	
25-43	Mudflat	S-ES276-17ADD5-10-20	ES276	1.0	2.0	7/17/18	Aroclor 1254 - Immunoassay	0.80	
25-43	Mudflat	S-ES277-17ADD5-00-10	ES277	0.0	1.0	7/17/18	Aroclor 1254 - Immunoassay	6.54	
25-43	Mudflat	S-ES277-17ADD5-10-20	ES277	1.0	2.0	7/17/18	Aroclor 1254 - Immunoassay	1.19	
25-43	Saltmarsh	S-ES278-18FSP11-00-10	ES278	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	2.4	
25-43	Saltmarsh	S-ES279-18FSP11-00-10	ES279	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	1.74	
25-43	Mudflat	S-ES280-18FSP11-00-10	ES280	0.0	1.0	9/27/2018	PCB from Immunoassay (Aroclor 1254)	8.3	J
25-43	Mudflat	S-ES280-18FSP11-10-20	ES280	1.0	2.0	9/27/2018	PCB from Immunoassay (Aroclor 1254)	1.2	JB
25-43	Saltmarsh	S-ES281-18FSP11-00-10	ES281	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	0.129	
25-43	Saltmarsh	S-ES282-18FSP11-00-10	ES282	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	11.4	
25-43	Saltmarsh	S-ES283-18FSP11-00-10	ES283	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	40.1	
25-43	Mudflat	S-ES284-18FSP11-00-10	ES284	0.0	1.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	4.1	J
25-43	Mudflat	S-ES284-18FSP11-10-20	ES284	1.0	2.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	1	J
25-43	Saltmarsh	S-ES285-18FSP11-00-10	ES285	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	10	
25-43	Saltmarsh	S-ES285-18FSP11-10-20	ES285	1.0	2.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	6.6	J
25-43	Saltmarsh	S-ES286-18FSP11-00-10	ES286	0.0	1.0	9/6/2018	Total 209 PCB cong (excl non-detects)	4.01	
25-43	Mudflat	S-ES287-18FSP11-00-10	ES287	0.0	1.0	10/5/2018	PCB from Immunoassay (Aroclor 1254)	3.4	J
25-43	Mudflat	S-ES287-18FSP11-10-19	ES287	1.0	1.9	10/5/2018	PCB from Immunoassay (Aroclor 1254)	4	J
25-43	Saltmarsh	S-ES288-18FSP11-00-10	ES288	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	14.1	
25-43	Saltmarsh	S-ES288R-18FSP11-00-10-REP	ES288	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	8.93	
25-43	Saltmarsh	S-ES289-18FSP11-00-10	ES289	0.0	1.0	10/5/2018	Total 209 PCB cong (excl non-detects)	2.87	
25-43	Mudflat	S-ES290-18FSP11-00-10	ES290	0.0	1.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	0.92	J
25-43	Mudflat	S-ES290-18FSP11-10-21	ES290	1.0	2.1	10/12/2018	PCB from Immunoassay (Aroclor 1254)	0.56	J
25-43	Saltmarsh	S-ES291-18FSP11-00-10	ES291	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	21.7	
25-43	Saltmarsh	S-ES291-18FSP11-10-20	ES291	1.0	2.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	2.5	J
25-43	Saltmarsh	S-ES292-18FSP11-00-10	ES292	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	1.34	
25-43	Saltmarsh	S-ES292-18FSP11-10-15	ES292	1.0	1.5	9/11/2018	PCB from Immunoassay (Aroclor 1254)	1.8	J
25-43	Mudflat	S-ES293-18FSP11-00-10	ES293	0.0	1.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	1.6	J
25-43	Mudflat	S-ES293-18FSP11-10-20	ES293	1.0	2.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	0.82	J
25-43	Saltmarsh	S-ES294-18FSP11-00-10	ES294	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	9.52	
25-43	Mudflat	2018 Intertidal Data Gaps	ES297	0.0	1.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	7.8	J
25-43	Mudflat	2018 Intertidal Data Gaps	ES297	1.0	2.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	0.44	J
25-43	Mudflat	S-15L-HJJ6-00-05	HJJ6	0.0	0.5	7/24/2015	Total 139 PCB cong (excl non-detects)	1.90	
25-43	Mudflat	S-15L-HNN2-00-04	HNN2	0.0	0.4	7/24/2015	Aroclor 1254 - Immunoassay	47.0	D
25-43	Mudflat	S-15L-HNN2-04-09	HNN2	0.4	0.9	7/24/2015	Aroclor 1254 - Immunoassay	2.10	
25-43	Saltmarsh	S-15N-INT323-00-10	INT323	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	274	D
25-43	Saltmarsh	S-15N-INT323-10-20	INT323	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	1.80	
25-43	Saltmarsh	S-15N-INT324-00-10	INT324	0.0	1.0	11/20/2015	Total 139 PCB cong (excl non-detects)	170	
25-43	Saltmarsh	S-15N-INT324-10-20	INT324	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	0.80	
25-43	Saltmarsh	S-15N-INT325-00-10	INT325	0.0	1.0	11/20/2015	Total 139 PCB cong (excl non-detects)	160	
25-43	Saltmarsh	S-15N-INT325-10-20	INT325	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	1.80	
25-43	Saltmarsh	S-15N-INT326-00-10	INT326	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	5.80	D
25-43	Saltmarsh	S-15N-INT326-10-20	INT326	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	2.60	
25-43	Saltmarsh	S-15N-INT327-00-10	INT327	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	1596	D
25-43	Saltmarsh	S-15N-INT327-10-20	INT327	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	115	D
25-43	Saltmarsh	S-15N-INT327-20-29	INT327	2.0	2.9	11/20/2015	Aroclor 1254 - Immunoassay	57.9	D
25-43	Saltmarsh	S-15N-INT328-00-10	INT328	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	1.20	
25-43	Saltmarsh	S-15N-INT328-10-20	INT328	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	0.60	
25-43	Saltmarsh	S-15N-INT329-00-10	INT329	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	866	D
25-43	Saltmarsh	S-15N-INT329-00-10-REP	INT329	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	15.6	D
25-43	Saltmarsh	S-15N-INT329-10-20	INT329	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	989	D
25-43	Saltmarsh	S-15N-INT329-10-20-REP	INT329	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	905	D
25-43	Saltmarsh	S-15N-INT329-20-30	INT329	2.0	3.0	11/20/2015	Aroclor 1254 - Immunoassay	7.90	D
25-43	Saltmarsh	S-15N-INT329-20-30-REP	INT329	2.0	3.0	11/20/2015	Aroclor 1254 - Immunoassay	5.80	
25-43	Saltmarsh	S-15N-INT330-00-10	INT330	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	830	D
25-43	Saltmarsh	S-15N-INT330-10-20	INT330	1.0	2.0	11/20/2015	Total 139 PCB cong (excl non-detects)	65.0	
25-43	Saltmarsh	S-15N-INT330-20-30	INT330	2.0	3.0	11/20/2015	Aroclor 1254 - Immunoassay	886	D
25-43	Saltmarsh	S-15N-INT331-00-10	INT331	0.0	1.0	11/20/2015	Aroclor 1254 - Immunoassay	8.70	
25-43	Saltmarsh	S-15N-INT331-10-20	INT331	1.0	2.0	11/20/2015	Aroclor 1254 - Immunoassay	1.30	
25-43	Saltmarsh	S-17U-INT436-00-10	INT436	0.0	1.0	6/1/2017	Aroclor 1254 - Immunoassay	76.3	
25-43	Saltmarsh	S-17U-INT436-00-10-REP	INT436	0.0	1.0	6/1/2017	Aroclor 1254 - Immunoassay	131	
25-43	Saltmarsh	S-17U-INT436-10-20	INT436	1.0	2.0	6/1/2017	Total 139 PCB cong (excl non-detects)	1.02	
25-43	Saltmarsh	S-17U-INT436-10-20-REP	INT436	1.0	2.0	6/1/2017	Total 139 PCB cong (excl non-detects)	1.32	
25-43	Saltmarsh	S-17U-INT437-00-10	INT437	0.0	1.0	6/1/2017	Aroclor 1254 - Immunoassay	1.85	
25-43	Saltmarsh	S-17U-INT437-10-20	INT437	1.0	2.0	6/1/2017	Aroclor 1254 - Immunoassay	0.62	
25-43	Saltmarsh	S-17U-INT438-00-10	INT438	0.0	1.0	6/1/2017	Total 139 PCB cong (excl non-detects)	87.3	
25-43	Saltmarsh	S-17U-INT438-10-20	INT438	1.0	2.0	6/1/2017	Aroclor 1254 - Immunoassay	7.96	
25-43	Saltmarsh	S-17U-INT438-20-30	INT438	2.0	3.0	6/1/2017	Aroclor 1254 - Immunoassay	1.29	
25-43	Mudflat	S-17U-INT439-00-10	INT439	0.0	1.0	6/2/2017	Total 139 PCB cong (excl non-detects)	4980	
25-43	Mudflat	S-17U-INT439-10-20	INT439	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	124	
25-43	Mudflat	S-17U-INT439-20-23	INT439	2.0	2.3	6/2/2017	Aroclor 1254 - Immunoassay	0.5	U
25-43	Saltmarsh	S-17U-INT440-00-10	INT440	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	2.70	
25-43	Saltmarsh	S-17U-INT440-10-20	INT440	1.0	2.0	6/2/2017	Total 139 PCB cong (excl non-detects)	9.17	
25-43	Saltmarsh	S-17U-INT441-00-10	INT441	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	186	
25-43	Saltmarsh	S-17U-INT441-10-20	INT441	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	3.93	
25-43	Saltmarsh	S-17U-INT442-00-10	INT442	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	712	
25-43	Saltmarsh	S-17U-INT442-10-20	INT442	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	0.59	
25-43	Saltmarsh	S-17U-INT443-00-10	INT443	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	656	
25-43	Saltmarsh	S-17U-INT443-10-20	INT443	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	1444	
25-43	Saltmarsh	S-17U-INT443-20-32	INT443	2.0	3.2	6/2/2017	Aroclor 1254 - Immunoassay	46.9	
25-43	Saltmarsh	S-17U-INT444-00-10	INT444	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	12.0	
25-43	Saltmarsh	S-17U-INT444-10-20	INT444	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	1.23	
25-43	Saltmarsh	S-17U-INT445-00-10	INT445	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	9.07	
25-43	Saltmarsh	S-17U-INT445-10-20	INT445	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	1.94	
25-43	Saltmarsh	S-17U-INT446-00-10	INT446	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	4.34	
25-43	Saltmarsh	S-17U-INT446-10-20	INT446	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	3.11	
25-43	Saltmarsh	S-17U-INT447-00-10	INT447	0.0	1.0	6/2/2017	Total 139 PCB cong (excl non-detects)	100	
25-43	Saltmarsh	S-17U-INT447-10-20	INT447	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	4.08	
25-43	Saltmarsh	S-17U-INT448-00-10	INT448	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	2.65	
25-43	Saltmarsh	S-17U-INT448-10-20	INT448	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	1.87	
25-43	Saltmarsh	S-17U-INT449-00-10	INT449	0.0	1.0	6/1/2017	Aroclor 1254 - Immunoassay	22.5	
25-43	Saltmarsh	S-17U-INT449-10-20	INT449	1.0	2.0	6/1/2017	Total 139 PCB cong (excl non-detects)	129	
25-43	Mudflat	S-17U-INT450-00-10	INT450	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	7.82	
25-43	Mudflat	S-17U-INT450-10-20	INT450	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	1.31	

Table 2-1a
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-43

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-43	Saltmarsh	S-17U-INT451-00-10	INT451	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	20.5	
25-43	Saltmarsh	S-17U-INT451-10-20	INT451	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	3.62	
25-43	Saltmarsh	S-17U-INT452-00-10	INT452	0.0	1.0	6/2/2017	Aroclor 1254 - Immunoassay	180	
25-43	Saltmarsh	S-17U-INT452-10-20	INT452	1.0	2.0	6/2/2017	Aroclor 1254 - Immunoassay	2.44	
25-43	Saltmarsh	S-15A-INT69-00-10	INT69	0.0	1.0	4/20/2015	Aroclor 1254 - Immunoassay	1.40	
25-43	Saltmarsh	S-15A-INT69-10-20	INT69	1.0	2.0	4/20/2015	Aroclor 1254 - Immunoassay	0.90	
25-43	Mudflat	S-15A-INT70-00-10	INT70	0.0	1.0	4/21/2015	Aroclor 1254 - Immunoassay	1534	D
25-43	Mudflat	S-15A-INT70-10-20	INT70	1.0	2.0	4/21/2015	Aroclor 1254 - Immunoassay	2.80	
25-43	Mudflat	S-15A-INT71-00-10	INT71	0.0	1.0	4/21/2015	Aroclor 1254 - Immunoassay	1285	D
25-43	Mudflat	S-15A-INT71-10-20	INT71	1.0	2.0	4/21/2015	Aroclor 1254 - Immunoassay	1.40	
25-43	Saltmarsh	S-15A-INT72-00-10	INT72	0.0	1.0	4/20/2015	Aroclor 1254 - Immunoassay	1751	D
25-43	Saltmarsh	S-15A-INT72-00-10-REP	INT72	0.0	1.0	4/20/2015	Aroclor 1254 - Immunoassay	952	D
25-43	Saltmarsh	S-15A-INT72-10-20	INT72	1.0	2.0	4/20/2015	Aroclor 1254 - Immunoassay	5.00	
25-43	Saltmarsh	S-15A-INT72-10-20-REP	INT72	1.0	2.0	4/20/2015	Aroclor 1254 - Immunoassay	4.60	
25-43	Saltmarsh	S-15A-INT73-00-10	INT73	0.0	1.0	4/20/2015	Total 139 PCB cong (excl non-detects)	27.0	
25-43	Saltmarsh	S-15A-INT73-10-20	INT73	1.0	2.0	4/20/2015	Aroclor 1254 - Immunoassay	1.00	
25-43	Saltmarsh	S-15A-INT74-00-10	INT74	0.0	1.0	4/20/2015	Aroclor 1254 - Immunoassay	1.30	
25-43	Saltmarsh	S-15A-INT74-10-20	INT74	1.0	2.0	4/20/2015	Aroclor 1254 - Immunoassay	1.30	
25-43	Saltmarsh	S-15A-INT75-00-10	INT75	0.0	1.0	4/20/2015	Aroclor 1254 - Immunoassay	2232	D
25-43	Saltmarsh	S-15A-INT75-10-20	INT75	1.0	2.0	4/20/2015	Total 139 PCB cong (excl non-detects)	67.0	
25-43	Saltmarsh	S-15A-INT75-20-30	INT75	2.0	3.0	4/20/2015	Aroclor 1254 - Immunoassay	1.20	
25-43	Saltmarsh	S-201616	S-201616	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	800	
25-43	Mudflat	S-3349-2.9-3.4	S-3349	2.9	3.4	9/13/2001	Total 18 NOAA PCB cong (excl non-detects)	28.6	
25-43	Saltmarsh	S-3389-0.0-1.0	S-3389	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	198	
25-43	Saltmarsh	S-3389-1.0-2.0	S-3389	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	49.4	
25-43	Saltmarsh	S-3683-.8-1.0	S-3683	0.8	1.0	10/29/2001	Total 18 NOAA PCB cong (excl non-detects)	4.68	
25-43	Saltmarsh	S-3684-0.0-.8	S-3684	0.0	0.8	10/29/2001	Total 18 NOAA PCB cong (excl non-detects)	2392	
25-43	Saltmarsh	S-3685-0.0-.4	S-3685	0.0	0.4	10/29/2001	Total 18 NOAA PCB cong (excl non-detects)	91.0	
25-43	Saltmarsh	S-3685-.4-1.0	S-3685	0.4	1.0	10/29/2001	Total 18 NOAA PCB cong (excl non-detects)	16.1	
25-43	Saltmarsh	S-3685-1.0-2.0	S-3685	1.0	2.0	10/29/2001	Total 18 NOAA PCB cong (excl non-detects)	7.02	
25-43	Channel	S-3687-0.0-1.0	S-3687	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	146	
25-43	Saltmarsh	S-3688-0.0-1.0	S-3688	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	312	
25-43	Saltmarsh	S-3688-2.8-3.0	S-3688	2.8	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	5.72	
25-43	Saltmarsh	S-0054-1	S-54	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	820	
25-43	Saltmarsh	S-0054-2	S-54	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	8.00	
25-43	Saltmarsh	S-0057-1	S-57	0.0	1.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	10.0	
25-43	Saltmarsh	S-0057-2	S-57	1.0	2.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	3.00	
25-43	Mudflat	S-0058-1	S-58	0.0	1.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	38.0	
25-43	Mudflat	S-0058-2	S-58	1.0	2.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	6.80	
25-43	Saltmarsh	S-0059-1	S-59	0.0	1.0	9/7/1999	Total PCB Congeners (sum CONG x factor)	10000	
25-43	Mudflat	S-0061-1	S-61	0.0	1.0	9/2/1999	Total 18 NOAA PCB cong (excl non-detects)	338	
25-43	Saltmarsh	S-0062-1	S-62	0.0	1.0	9/2/1999	Total PCB Congeners (sum CONG x factor)	780	
25-43	Saltmarsh	S-0062-2	S-62	1.0	2.0	9/2/1999	Total PCB Congeners (sum CONG x factor)	9.20	
25-43	Saltmarsh	S-0064-1	S-64	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	4.00	
25-43	Saltmarsh	S-0064-2	S-64	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3.50	
25-43	Saltmarsh	S-0064-3	S-64	2.0	3.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3.20	
25-43	Saltmarsh	S-0064-3DUP	S-64	2.0	3.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3.00	
25-43	Mudflat	S-0067-1	S-67	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	12.0	
25-43	Mudflat	S-0067-2	S-67	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3.50	
25-43	Saltmarsh	S-0068-1	S-68	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	450	
25-43	Saltmarsh	S-0068-2	S-68	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3200	
25-43	Saltmarsh	S-0068-3	S-68	2.0	3.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	350	
25-43	Saltmarsh	S-0071-1	S-71	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	62.0	
25-43	Saltmarsh	S-0071-2	S-71	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	70.0	
25-43	Saltmarsh	S-0071-3	S-71	2.0	3.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	3.20	
25-43	Upland	S-0728-1	S-728	0.0	1.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	0.96	
25-43	Upland	S-0728-2	S-728	1.0	2.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	0.11	
25-43	Saltmarsh	S-0761-1	S-761	0.0	1.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	1.27	
25-43	Saltmarsh	S-0761-2	S-761	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.42	
25-43	Saltmarsh	S-0762-1	S-762	0.0	1.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.39	
25-43	Saltmarsh	S-0762-2	S-762	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-43	Saltmarsh	S-0763-1	S-763	0.0	1.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	780	
25-43	Saltmarsh	S-0763-2	S-763	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.86	
25-43	Saltmarsh	S-0764-1	S-764	0.0	1.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	364	
25-43	Saltmarsh	S-0764-2	S-764	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	5.72	
25-43	Saltmarsh	S-0764-2DUP	S-764	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	3.90	
25-43	Upland	S-0765-1	S-765	0.0	1.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	1.46	
25-43	Upland	S-0765-2	S-765	1.0	2.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	0.10	
25-43	Saltmarsh	S-0766-1	S-766	0.0	1.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	52.0	
25-43	Saltmarsh	S-0766-2	S-766	1.0	2.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	2.60	
25-43	Saltmarsh	S-0767-1	S-767	0.0	1.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	1.51	
25-43	Saltmarsh	S-0767-2	S-767	1.0	2.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	0.26	
25-43	Saltmarsh	S-0768-1	S-768	0.0	1.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	2.03	
25-43	Saltmarsh	S-0768-2	S-768	1.0	2.0	10/31/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-43	Upland	S-0769-1	S-769	0.0	1.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.70	
25-43	Upland	S-0769-2	S-769	1.0	2.0	10/10/2000	Total 18 NOAA PCB cong (excl non-detects)	0.08	
25-43	Mudflat	S-0770-1	S-770	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	5.20	
25-43	Mudflat	S-0770-2	S-770	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	4.68	
25-43	Mudflat	S-0771-1	S-771	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	9.10	
25-43	Mudflat	S-0771-2	S-771	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.52	
25-43	Mudflat	S-0772-1	S-772	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	70.2	
25-43	Mudflat	S-0772-2	S-772	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	6.76	
25-43	Saltmarsh	S-0773-1	S-773	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	226	
25-43	Saltmarsh	S-0773-2	S-773	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	138	
25-43	Saltmarsh	S-0774-1	S-774	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	364	
25-43	Saltmarsh	S-0774-2	S-774	1.0	2.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	572	
25-43	Saltmarsh	S-0775-1	S-775	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	1.20	
25-43	Saltmarsh	S-0775-2	S-775	1.0	2.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-43	Saltmarsh	S-0838-1	S-838	0.0	1.0	11/9/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-43	Saltmarsh	S-0838-2	S-838	1.0	2.0	11/9/2000	Total 18 NOAA PCB cong (excl non-detects)	0.44	
25-43	Saltmarsh	S-ad576 - 1	S-ad576	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	1.00	
25-43	Saltmarsh	S-ad576 - 2	S-ad576	1.0	2.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	9.00	
25-43	Saltmarsh	S-ad576 - 3	S-ad576	2.0	3.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	4.00	
25-43	Saltmarsh	S-ad579 - 1	S-ad579	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	66.0	
25-43	Saltmarsh	S-ad579 - 2	S-ad579	1.0	2.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	7.00	
25-43	Saltmarsh	S-ad579 - 3	S-ad579	2.0	3.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	1.00	
25-43	Mudflat	S-15D-VQQ10-00-05	VQQ10	0.0	0.5	11/30/2015	Aroclor 1254 - Immunoassay	0.80	
25-43	Mudflat	S-15D-VRR13-00-05	VRR13	0.0	0.5	11/30/2015	Aroclor 1254 - Immunoassay	1.20	
25-43	Mudflat	S-15D-VRR13-05-10	VRR13	0.5	1.0	11/30/2015	Aroclor 1254 - Immunoassay	1.10	
25-43	Mudflat	S-15D-VRR2-00-06	VRR2	0.0	0.6	11/30/2015	Total 139 PCB cong (excl non-detects)	21.0	
25-43	Mudflat	S-15D-VRR2-06-11	VRR2	0.6	1.1	11/30/2015	Aroclor 1254 - Immunoassay	0.60	

Notes:
Pre-excavation confirmatory congener (PECC) samples are highlighted green. See Section 3.3 of Draft Final Intertidal Work Plan for East Zone 2 Rev 1 (Jacobs, 2022) for more details
D - reported value is from a dilution; J - estimated value; U - not detected; JD - estimated from dilution.
Samples identified as “Total 18 NOAA PCB Cong” were multiplied by a site specific factor of 2.6 to obtain Total PCB results (Tetra Tech Foster Wheeler, 2004)
1. Pre-ROD sample result is most likely a total Aroclor value although it is reported in the project database as Sum 18 NOAA PCB congeners X factor.

Table 2-1b
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-319 and ROW

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-319	Saltmarsh	S-ES2100-18FSP11-00-10	ES2100	0.0	1.0	9/5/2018	Total 209 PCB cong (excl non-detects)	76.8	
25-319	Mudflat	S-ES2101-18FSP11-00-10	ES2101	0.0	1.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	0.84	J
25-319	Mudflat	S-ES2101-18FSP11-10-20	ES2101	1.0	2.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	0.44	J
25-319	Saltmarsh	S-ES2102-18FSP11-00-10	ES2102	0.0	1.0	9/5/2018	Total 209 PCB cong (excl non-detects)	8.19	
25-319	Saltmarsh	S-ES2103-18FSP11-00-10	ES2103	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	0.104	
25-319	Saltmarsh	S-ES2103R-18FSP11-00-10-REP	ES2103	0.0	1.0	10/12/2018	Total 209 PCB cong (excl non-detects)	0.226	
25-319	Mudflat	S-ES2104-18FSP11-00-10	ES2104	0.0	1.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	1.2	J
25-319	Mudflat	S-ES2104-18FSP11-10-20	ES2104	1.0	2.0	9/11/2018	PCB from Immunoassay (Aroclor 1254)	0.4	J
25-319	Saltmarsh	S-ES2105-18FSP11-10-20	ES2105	1.0	2.0	9/5/2018	Total 209 PCB cong (excl non-detects)	2.65	
25-319	Saltmarsh	S-ES2106-18FSP11-30-40	ES2106	3.0	4.0	10/12/2018	PCB from Immunoassay (Aroclor 1254)	76	JD
25-319	Saltmarsh	S-ES2106-18FSP11-40-50	ES2106	4.0	5.0	10/12/2018	Total 209 PCB cong (excl non-detects)	2.97	
25-319	Saltmarsh	S-ES2106B-18FSP11-50-60	ES2106B	5.0	6.0	12/17/2018	Total 209 PCB cong (excl non-detects)	0.063	
25-319	Saltmarsh	S-ES2120-18FSP11-10-20	ES2120	1.0	2.0	9/17/2018	Total 209 PCB cong (excl non-detects)	0.838	
25-319	Saltmarsh	S-ES2121-18FSP11-10-20	ES2121	1.0	2.0	8/30/2018	Total 209 PCB cong (excl non-detects)	9.04	
25-319	Saltmarsh	S-ES2122-18FSP11-20-30	ES2122	2.0	3.0	10/12/2018	Total 209 PCB cong (excl non-detects)	12.8	
25-319	Saltmarsh	S-ES2123-18FSP11-10-20	ES2123	1.0	2.0	9/5/2018	Total 209 PCB cong (excl non-detects)	0.434	
25-319	Saltmarsh	S-ES2125-18FSP11-00-10	ES2125	0.0	1.0	9/6/2018	Total 209 PCB cong (excl non-detects)	1.65	
25-319	Saltmarsh	S-ES2126-18FSP11-00-10	ES2126	0.0	1.0	8/28/2018	PCB from Immunoassay (Aroclor 1254)	87	JD
25-319	Saltmarsh	S-ES2126-18FSP11-10-20	ES2126	1.0	2.0	8/28/2018	PCB from Immunoassay (Aroclor 1254)	8.48	
25-319	Saltmarsh	S-ES231-18FSP11-00-10	ES231	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	74.5	
25-319	Saltmarsh	S-ES231-18FSP11-10-20	ES231	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	8.63	
25-319	Saltmarsh	S-ES232-18FSP11-00-10	ES232	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	98.8	
25-319	Saltmarsh	S-ES232-18FSP11-10-20	ES232	1.0	2.0	6/4/2018	Total 209 PCB cong (excl non-detects)	3.66	
25-319	Saltmarsh	S-ES233-18FSP11-00-10	ES233	0.0	1.0	6/4/2018	Total 209 PCB cong (excl non-detects)	27.4	
25-319	Saltmarsh	S-ES234-18FSP11-00-10	ES234	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	0.673	
25-319	Saltmarsh	S-ES235-18FSP11-00-10	ES235	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	50.6	
25-319	Saltmarsh	S-ES235R-18FSP11-00-10-REP	ES235	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	65.5	
25-319	Saltmarsh	S-ES235-18FSP11-10-20	ES235	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	1.07	
25-319	Saltmarsh	S-ES236-18FSP11-00-10	ES236	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	12.1	
25-319	Channel	S-ES253-18FSP11-00-10	ES253	0.0	1.0	6/4/2018	Aroclor 1254 - Immunoassay	93	JD
25-319	Channel	S-ES253-18FSP11-10-20	ES253	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	99	JD
25-319	Channel	S-ES253-18FSP11-20-29	ES253	2.0	2.9	6/4/2018	Aroclor 1254 - Immunoassay	1.9	J
25-319	Saltmarsh	S-ES254-18FSP11-10-20	ES254	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	94	JD
25-319	Saltmarsh	S-ES254-18FSP11-20-30	ES254	2.0	3.0	6/5/2018	Total 209 PCB cong (excl non-detects)	16.70	
25-319	Saltmarsh	S-ES255-18FSP11-10-20	ES255	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	8.2	JD
25-319	Saltmarsh	S-ES256-18FSP11-10-20	ES256	1.0	2.0	6/5/2018	Total 209 PCB cong (excl non-detects)	34.8	J+
25-319	Saltmarsh	S-ES256-18FSP11-20-30	ES256	2.0	3.0	6/5/2018	Aroclor 1254 - Immunoassay	12	JD
25-319	Saltmarsh	S-ES257-18FSP11-10-20	ES257	1.0	2.0	6/5/2018	Total 209 PCB cong (excl non-detects)	29.4	J+
25-319	Saltmarsh	S-ES257-18FSP11-20-30	ES257	2.0	3.0	6/5/2018	Aroclor 1254 - Immunoassay	3.14	
25-319	Saltmarsh	S-ES258-18FSP11-10-20	ES258	1.0	2.0	6/5/2018	Total 209 PCB cong (excl non-detects)	13.8	
25-319	Saltmarsh	S-ES258-18FSP11-20-30	ES258	2.0	3.0	6/5/2018	Aroclor 1254 - Immunoassay	9.2	J
25-319	Saltmarsh	S-ES259-18FSP11-10-20	ES259	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	84	JD
25-319	Saltmarsh	S-ES259-18FSP11-20-30	ES259	2.0	3.0	6/5/2018	Aroclor 1254 - Immunoassay	76	JD
25-319	Saltmarsh	S-ES259B-18FSP11-30-40	ES259B	3.0	4.0	10/12/2018	Total 209 PCB cong (excl non-detects)	7.76	
25-319	Saltmarsh	S-ES260-18FSP11-10-20	ES260	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	6.9	J
25-319	Channel	S-ES267-18FSP11-00-10	ES267	0.0	1.0	6/5/2018	Aroclor 1254 - Immunoassay	300	JD
25-319	Channel	S-ES267-18FSP11-10-20	ES267	1.0	2.0	6/5/2018	Total 209 PCB cong (excl non-detects)	18.8	
25-319	Channel	S-ES267-18FSP11-20-28	ES267	2.0	2.8	6/5/2018	Aroclor 1254 - Immunoassay	7.0	J
25-319	Channel	S-ES268-18FSP11-00-10	ES268	0.0	1.0	6/5/2018	Aroclor 1254 - Immunoassay	200	JD
25-319	Channel	S-ES268-18FSP11-10-20	ES268	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	640	JD
25-319	Channel	S-ES268-18FSP11-20-29	ES268	2.0	2.9	6/5/2018	Aroclor 1254 - Immunoassay	9.7	J
25-319	Channel	S-ES269-18FSP11-00-10	ES269	0.0	1.0	6/5/2018	Aroclor 1254 - Immunoassay	200	JD
25-319	Channel	S-ES269-18FSP11-10-20	ES269	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	170	JD
25-319	Channel	S-ES269-18FSP11-20-30	ES269	2.0	3.0	6/5/2018	Total 209 PCB cong (excl non-detects)	0.103	
25-319	Channel	S-ES269-18FSP11-30-39	ES269	3.0	3.9	6/5/2018	Aroclor 1254 - Immunoassay	5.8	J
25-319	Saltmarsh	S-ES273-18FSP11-00-10	ES273	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	93.1	
25-319	Saltmarsh	S-ES273-18FSP11-10-20	ES273	1.0	2.0	6/5/2018	Aroclor 1254 - Immunoassay	1.11	
25-319	Saltmarsh	S-ES274-18FSP11-00-10	ES274	0.0	1.0	6/5/2018	Total 209 PCB cong (excl non-detects)	139	
25-319	Saltmarsh	S-ES274-18FSP11-10-20	ES274	1.0	2.0	6/5/2018	Total 209 PCB cong (excl non-detects)	6.11	
25-319	Saltmarsh	S-ES298-18FSP11-00-10	ES298	0.0	1.0	9/11/2018	Total 209 PCB cong (excl non-detects)	70.8	
25-319	Saltmarsh	S-ES299-18FSP11-00-10	ES299	0.0	1.0	9/5/2018	Total 209 PCB cong (excl non-detects)	1.44	
25-319	Saltmarsh	S-ES299R-18FSP11-00-10-REP	ES299	0.0	1.0	9/5/2018	Total 209 PCB cong (excl non-detects)	1.86	
25-319	Saltmarsh	S-ES3102-18FSP9-00-10	ES3102	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	9.4	
25-319	Saltmarsh	S-ES3104-18FSP9-00-10	ES3104	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	17.7	
25-319	Saltmarsh	S-ES3104R-18FSP9-00-10-REP	ES3104	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	21.1	
25-319	Saltmarsh	S-ES3105-18FSP9-00-10	ES3105	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	17.8	
25-319	Saltmarsh	S-ES3106-18FSP9-00-10	ES3106	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	58.2	
25-319	Saltmarsh	S-ES3147-18FSP9-10-20	ES3147	1.0	2.0	7/2/2018	Total 209 PCB cong (excl non-detects)	9.17	
25-319	Saltmarsh	S-ES3148-18FSP9-10-20	ES3148	1.0	2.0	7/2/2018	Total 209 PCB cong (excl non-detects)	0.0239	
25-319	Saltmarsh	S-ES3149-18FSP9-10-20	ES3149	1.0	2.0	7/2/2018	Total 209 PCB cong (excl non-detects)	0.0115	
25-319	Saltmarsh	S-ES3150-18FSP9-10-20	ES3150	1.0	2.0	7/2/2018	Total 209 PCB cong (excl non-detects)	0.867	
25-319	Saltmarsh	S-ES3151-18FSP9-10-20	ES3151	1.0	2.0	6/22/2018	Total 209 PCB cong (excl non-detects)	0.0354	
25-319	Saltmarsh	S-ES3152-18FSP9-10-20	ES3152	1.0	2.0	6/22/2018	Total 209 PCB cong (excl non-detects)	0.333	
25-319	Saltmarsh	S-ES379-18FSP9-00-10	ES379	0.0	1.0	4/10/2018	Aroclor 1254 - Immunoassay	4.6	J
25-319	Mudflat	S-ES380-18FSP9-00-10	ES380	0.0	1.0	4/26/2018	Aroclor 1254 - Immunoassay	2.8	J
25-319	Mudflat	S-ES381-18FSP9-00-10	ES381	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	2.35	
25-319	Saltmarsh	S-ES382-18FSP9-00-10	ES382	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	125	
25-319	Mudflat	S-ES383-18FSP9-00-10	ES383	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	3.05	
25-319	Saltmarsh	S-ES384-18FSP9-00-10	ES384	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	37.4	
25-319	Saltmarsh	S-ES385-18FSP9-00-10	ES385	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	179	
25-319	Mudflat	S-ES386-18FSP9-00-10	ES386	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	4.76	
25-319	Saltmarsh	S-ES387-18FSP9-00-10	ES387	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	11.3	
25-319	Saltmarsh	S-ES388-18FSP9-00-10	ES388	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	57.2	
25-319	Mudflat	S-ES389-18FSP9-00-10	ES389	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	18.7	
25-319	Mudflat	S-ES389R-18FSP9-00-10-REP	ES389	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	16	
25-319	Mudflat	S-15L-HII18-00-05	HII18	0.0	0.5	7/22/2015	Total 139 PCB cong (excl non-detects)	5.80	
25-319	Mudflat	S-15L-HKK9-00-05	HKK9	0.0	0.5	7/24/2015	Aroclor 1254 - Immunoassay	2.40	
25-319	Saltmarsh	S-17Y-INT454-00-10	INT454	0.0	1.0	5/30/2017	Total 139 PCB cong (excl non-detects)	41.4	
25-319	Saltmarsh	S-17Y-INT454-10-20	INT454	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	1.31	
25-319	Saltmarsh	S-17Y-INT455-00-10	INT455	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	868	
25-319	Saltmarsh	S-17Y-INT455-10-20	INT455	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	4.12	
25-319	Mudflat	S-17Y-INT456-00-10	INT456	0.0	1.0	5/24/2017	Aroclor 1254 - Immunoassay	3.21	
25-319	Mudflat	S-17Y-INT456-10-20	INT456	1.0	2.0	5/24/2017	Aroclor 1254 - Immunoassay	0.5	U
25-319	Mudflat	S-17Y-INT457-00-10	INT457	0.0	1.0	5/24/2017	Aroclor 1254 - Immunoassay	0.76	
25-319	Mudflat	S-17Y-INT457-10-20	INT457	1.0	2.0	5/24/2017	Aroclor 1254 - Immunoassay	0.61	
25-319	Saltmarsh	S-17Y-INT458-00-10	INT458	0.0	1.0	5/24/2017	Aroclor 1254 - Immunoassay	6.73	
25-319	Saltmarsh	S-17Y-INT458-10-20	INT458	1.0	2.0	5/24/2017	Aroclor 1254 - Immunoassay	1.94	
25-319	Mudflat	S-17Y-INT459-00-10	INT459	0.0	1.0	5/24/2017	Aroclor 1254 - Immunoassay	0.5	U
25-319	Mudflat	S-17Y-INT459-10-20	INT459	1.0	2.0	5/24/2017	Aroclor 1254 - Immunoassay	1.55	
25-319	Saltmarsh	S-17Y-INT460-00-10	INT460	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	2.13	
25-319	Saltmarsh	S-17Y-INT460-10-20	INT460	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	0.81	
25-319	Saltmarsh	S-17Y-INT461-00-10	INT461	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	20.0	
25-319	Saltmarsh	S-17Y-INT461-10-20	INT461	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	1.06	
25-319	Saltmarsh	S-17Y-INT462-00-10	INT462	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	16.6	
25-319	Saltmarsh	S-17Y-INT462-10-20	INT462	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	1.00	
25-319	Saltmarsh	S-17Y-INT463-00-10	INT463	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	1.05	
25-319	Saltmarsh	S-17Y-INT463-10-20	INT463	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	0.64	
25-319	Saltmarsh	S-17Y-INT464-00-10	INT464	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	1.76	
25-319	Saltmarsh	S-17Y-INT464-10-20	INT464	1.0	2.0	5/30/2017	Total 139 PCB cong (excl non-detects)	32.2	

Table 2-1b
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-319 and ROW

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-319	Saltmarsh	S-17Y-INT465-00-10	INT465	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	529	D
25-319	Saltmarsh	S-17Y-INT465-10-20	INT465	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-319	Saltmarsh	S-17Y-INT466-00-10	INT466	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-319	Saltmarsh	S-17Y-INT466-10-20	INT466	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	2.1	
25-319	Saltmarsh	S-17Y-INT467-00-10	INT467	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	196	D
25-319	Saltmarsh	S-17Y-INT467-10-20	INT467	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-319	Saltmarsh	S-17Y-INT468-00-10	INT468	0.0	1.0	5/23/2017	Total 139 PCB cong (excl non-detects)	110	
25-319	Saltmarsh	S-17Y-INT468-10-20	INT468	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.8	
25-319	Saltmarsh	S-15Y-INT77-00-10	INT77	0.0	1.0	5/7/2015	Total 139 PCB cong (excl non-detects)	9.40	
25-319	Saltmarsh	S-15Y-INT77-10-20	INT77	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	3.90	
25-319	Saltmarsh	S-15Y-INT78-00-10	INT78	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	1.60	
25-319	Saltmarsh	S-15Y-INT78-10-20	INT78	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.5	U
25-319	Saltmarsh	S-15Y-INT79-00-10	INT79	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	83.3	D
25-319	Saltmarsh	S-15Y-INT79-10-20	INT79	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	1.30	
25-319	Saltmarsh	S-15Y-INT80-00-10	INT80	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	48.2	D
25-319	Saltmarsh	S-15Y-INT80-10-20	INT80	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.90	
25-319	Saltmarsh	S-15Y-INT81-00-10	INT81	0.0	1.0	5/7/2015	Total 139 PCB cong (excl non-detects)	24.0	
25-319	Saltmarsh	S-15Y-INT81-10-20	INT81	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	1.10	
25-319	Saltmarsh	S-15Y-INT82-00-10	INT82	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	334.30	D
25-319	Saltmarsh	S-15Y-INT82-10-20	INT82	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.60	
25-319	Saltmarsh	S-15Y-INT83-00-10	INT83	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	83.40	D
25-319	Saltmarsh	S-15Y-INT83-10-20	INT83	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.50	
25-319	Saltmarsh	S-15Y-INT84-00-10	INT84	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	990.60	D
25-319	Saltmarsh	S-15Y-INT84-10-20	INT84	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.70	
25-319	Saltmarsh	S-15Y-INT85-00-10	INT85	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	352.60	D
25-319	Saltmarsh	S-15Y-INT85-10-20	INT85	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.60	
25-319	Saltmarsh	S-15Y-INT86-00-10	INT86	0.0	1.0	5/7/2015	Aroclor 1254 - Immunoassay	9.50	D
25-319	Saltmarsh	S-15Y-INT86-10-20	INT86	1.0	2.0	5/7/2015	Aroclor 1254 - Immunoassay	0.70	
25-319	Mudflat	S-202216	S-202216	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	520	
25-319	Saltmarsh	S-3390-0.0-1.0	S-3390	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	203	
25-319	Saltmarsh	S-3391-0.0-1.0	S-3391	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	70.2	
25-319	Saltmarsh	S-3391-1.0-2.0	S-3391	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	2.00	
25-319	Saltmarsh	S-3391-2.0-3.0	S-3391	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	1.01	
25-319	Saltmarsh	S-3392-0.0-1.0	S-3392	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	7.02	
25-319	Saltmarsh	S-3392-2.0-3.0	S-3392	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	0.02	
25-319	Saltmarsh	S-3392-2.0-3.0REP	S-3392	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	0.04	
25-319	Saltmarsh	S-3393-0.0-1.0	S-3393	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	237	
25-319	Saltmarsh	S-3393-1.0-2.0	S-3393	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	5.46	
25-319	Saltmarsh	S-3393-2.0-3.0	S-3393	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	0.26	
25-319	Saltmarsh	S-3394-0.0-1.0	S-3394	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	190	
25-319	Saltmarsh	S-3394-1.0-2.0	S-3394	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	10.4	
25-319	Saltmarsh	S-3394-2.0-3.0	S-3394	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	1.64	
25-319	Saltmarsh	S-3395-0.0-1.0	S-3395	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	127	
25-319	Saltmarsh	S-3395-1.0-2.0	S-3395	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	7.02	
25-319	Saltmarsh	S-3395-2.0-3.0	S-3395	2.0	3.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	0.75	
25-319	Saltmarsh	S-3401-0.0-1.0	S-3401	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	59.8	
25-319	Saltmarsh	S-3401-1.0-2.0	S-3401	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	15.3	
25-319	Saltmarsh	S-3401-2.0-3.0	S-3401	2.0	3.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	2.86	
25-319	Saltmarsh	S-3402-0.0-1.0	S-3402	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	24.4	
25-319	Saltmarsh	S-3402-1.0-2.0	S-3402	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	0.23	
25-319	Saltmarsh	S-3403-0.0-1.0	S-3403	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	1430	
25-319	Saltmarsh	S-3403-2.0-3.0	S-3403	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	14.6	
25-319	Saltmarsh	S-3403-3.0-4.0	S-3403	3.0	4.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	7.54	
25-319	Saltmarsh	S-3404-0.0-1.0	S-3404	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	67.6	
25-319	Saltmarsh	S-3404-1.0-2.0	S-3404	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	1.53	
25-319	Saltmarsh	S-3405-0.0-1.0	S-3405	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	4.68	
25-319	Saltmarsh	S-3405-1.0-2.0	S-3405	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	4.94	
25-319	Saltmarsh	S-3406-1.0-2.0	S-3406	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	28.6	
25-319	Saltmarsh	S-3406-2.0-3.0	S-3406	2.0	3.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	13.0	
25-319	Saltmarsh	S-3641-0.0-1.0	S-3641	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	6.24	
25-319	Saltmarsh	S-3641-1.0-2.0	S-3641	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	4.94	
25-319	Saltmarsh	S-3641-2.0-3.0	S-3641	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	0.73	
25-319	Saltmarsh	S-3689-1.0-2.0	S-3689	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	1.53	
25-319	Saltmarsh	S-3690-0.0-1.0	S-3690	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	7.02	
25-319	Saltmarsh	S-3690-0.0-1.0REP	S-3690	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	12.5	
25-319	Saltmarsh	S-3691-0.0-1.0	S-3691	0.0	1.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	138	
25-319	Saltmarsh	S-3691-1.0-2.0	S-3691	1.0	2.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	2860	
25-319	Saltmarsh	S-3691-2.0-3.0	S-3691	2.0	3.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	93.6	
25-319	Saltmarsh	S-3691-3.0-4.0	S-3691	3.0	4.0	11/12/2001	Total 18 NOAA PCB cong (excl non-detects)	187	
25-319	Saltmarsh	S-3692-0.0-1.0	S-3692	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	224	
25-319	Saltmarsh	S-3692-1.0-2.0	S-3692	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	2.47	
25-319	Saltmarsh	S-3692-2.0-3.0	S-3692	2.0	3.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	1.92	
25-319	Saltmarsh	S-3693-0.0-1.0	S-3693	0.0	1.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	52.0	
25-319	Saltmarsh	S-3693-1.0-2.0	S-3693	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	4.94	
25-319	Saltmarsh	S-3693-1.0-2.0REP	S-3693	1.0	2.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	5.98	
25-319	Saltmarsh	S-3693-2.0-3.0	S-3693	2.0	3.0	10/26/2001	Total 18 NOAA PCB cong (excl non-detects)	1.95	
25-319	Mudflat	S-3696-1.0-1.5	S-3696	1.0	1.5	9/27/2001	Total 18 NOAA PCB cong (excl non-detects)	0.39	
25-319	Saltmarsh	S-3697-0.0-1.0	S-3697	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	117.00	
25-319	Saltmarsh	S-3697-1.0-2.0	S-3697	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-319	Saltmarsh	S-3697-2.0-3.0	S-3697	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-319	Saltmarsh	S-3698-0.0-1.0	S-3698	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	6.50	
25-319	Saltmarsh	S-3698-1.0-2.0	S-3698	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.78	
25-319	Saltmarsh	S-3698-2.0-3.0	S-3698	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-319	Saltmarsh	S-3699-0.0-1.0	S-3699	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	312.00	
25-319	Saltmarsh	S-3699-1.0-2.0	S-3699	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	1.33	
25-319	Saltmarsh	S-3699-2.0-3.0	S-3699	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.03	
25-319	Saltmarsh	S-3700-0.0-1.0	S-3700	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	23.14	
25-319	Saltmarsh	S-3700-1.0-2.0	S-3700	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	10.92	
25-319	Saltmarsh	S-3700-2.0-3.0	S-3700	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.29	
25-319	Saltmarsh	S-3701-0.0-1.0	S-3701	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	364.00	
25-319	Saltmarsh	S-3701-1.0-2.0	S-3701	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	1092.00	
25-319	Saltmarsh	S-3701-1.0-2.0REP	S-3701	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	572.00	
25-319	Saltmarsh	S-3701-2.0-3.0	S-3701	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	3.64	
25-319	Saltmarsh	S-3702-0.0-1.0	S-3702	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	260.00	
25-319	Saltmarsh	S-3702-1.0-2.0	S-3702	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.81	
25-319	Saltmarsh	S-3702-2.0-3.0	S-3702	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.39	
25-319	Mudflat	S-0072-1	S-72	0.0	1.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	2.80	
25-319	Mudflat	S-0072-2	S-72	1.0	2.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	1.00	
25-319	Mudflat	S-0072-3	S-72	2.0	3.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	0.05	
25-319	Saltmarsh	S-0073-1	S-73	0.0	1.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	1800	
25-319	Saltmarsh	S-0073-2	S-73	1.0	2.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	950	
25-319	Saltmarsh	S-0073-3	S-73	2.0	3.0	9/8/1999	Total PCB Congeners (sum CONG x factor)	1.40	
25-319	Saltmarsh	S-0074-1	S-74	0.0	1.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	3.00	
25-319	Saltmarsh	S-0074-2	S-74	1.0	2.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	100	
25-319	Saltmarsh	S-0074-3	S-74	2.0	3.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	0.12	
25-319	Mudflat	S-0075-1	S-75	0.0	1.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	1.80	
25-319	Mudflat	S-0075-2	S-75	1.0	2.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	1.70	
25-319	Saltmarsh	S-0076-1	S-76	0.0	1.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	240	
25-319	Saltmarsh	S-0076-1DUP	S-76	0.0	1.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	300	

Table 2-1b
East Zone 2 Pre-Excavation PCB Characterization Sample Results for Parcel 25-319 and ROW

Parcel	Type	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-319	Saltmarsh	S-0076-2	S-76	1.0	2.0	9/1/1999	Total PCB Congeners (sum CONG x factor)	2000	
25-319	Saltmarsh	S-0776-1	S-776	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	78.0	
25-319	Saltmarsh	S-0776-1DUP	S-776	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	46.8	
25-319	Saltmarsh	S-0776-2	S-776	1.0	2.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-319	Saltmarsh	S-0777-1	S-777	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	80.6	
25-319	Saltmarsh	S-0777-2	S-777	1.0	2.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	0.16	
25-319	Saltmarsh	S-0778-1	S-778	0.0	1.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	33.8	
25-319	Saltmarsh	S-0778-2	S-778	1.0	2.0	9/22/2000	Total 18 NOAA PCB cong (excl non-detects)	0.31	
25-319	Saltmarsh	S-0779-1	S-779	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	390	
25-319	Saltmarsh	S-0779-2	S-779	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	1.69	
25-319	Saltmarsh	S-0779-2DUP	S-779	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	4.42	
25-319	Saltmarsh	S-0780-1	S-780	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	18.2	
25-319	Saltmarsh	S-0780-2	S-780	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	3.12	
25-319	Saltmarsh	S-0781-1	S-781	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	49.4	
25-319	Saltmarsh	S-0781-2	S-781	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	80.6	
25-319	Saltmarsh	S-0782-1	S-782	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	13.26	
25-319	Saltmarsh	S-0782-2	S-782	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.05	
25-319	Saltmarsh	S-0783-1	S-783	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	3.12	
25-319	Saltmarsh	S-0783-2	S-783	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-319	Saltmarsh	S-0079-1	S-79	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	5.00	
25-319	Saltmarsh	S-0079-2	S-79	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.48	
25-319	Saltmarsh	S-0080-1	S-80	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	38.00	
25-319	Saltmarsh	S-0080-2	S-80	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	1.10	
25-319	Saltmarsh	S-0081-1	S-81	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	19.00	
25-319	Saltmarsh	S-0081-2	S-81	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	1.70	
25-319	Saltmarsh	S-0081-3	S-81	2.0	3.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.22	
25-319	Saltmarsh	S-0843-1	S-843	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.55	
25-319	Saltmarsh	S-0843-2	S-843	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.09	
25-319	Saltmarsh	S-ad590	S-ad590	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	0.00	U
25-319	Saltmarsh	S-ad592	S-ad592	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	130	
25-319	Saltmarsh	S-ad600	S-ad600	0.0	1.0	Pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	1.00	
ROW	Channel	S-ES252-18FSP11-00-10	ES252	0.0	1.0	6/4/2018	Aroclor 1254 - Immunoassay	96	JD
ROW	Channel	S-ES252-18FSP11-10-20	ES252	1.0	2.0	6/4/2018	Aroclor 1254 - Immunoassay	7.8	JD
ROW	Channel	S-ES252-18FSP11-20-25	ES252	2.0	2.5	6/4/2018	Aroclor 1254 - Immunoassay	3.6	J
ROW	Saltmarsh	S-ES295-18FSP11-00-10	ES295	0.0	1.0	9/6/2018	Total 209 PCB cong (excl non-detects)	3.5	
ROW	Saltmarsh	S-ES296-18FSP11-00-10	ES296	0.0	1.0	9/5/2018	Total 209 PCB cong (excl non-detects)	7.66	
ROW	Saltmarsh	S-17Y-INT453-00-10	INT453	0.0	1.0	5/30/2017	Aroclor 1254 - Immunoassay	12.7	
ROW	Saltmarsh	S-17Y-INT453-10-20	INT453	1.0	2.0	5/30/2017	Aroclor 1254 - Immunoassay	0.88	

Notes:
Pre-excavation confirmatory congener (PECC) samples are highlighted green. See Section 3.3 of Draft Final Intertidal Work Plan for East Zone 2 Rev 1 (Jacobs, 2022) for more details
D - reported value is from a dilution; J - estimated value; U - not detected; JD - estimated from dilution; J+ - high bias estimate.
Samples identified as “Total 18 NOAA PCB Cong” were multiplied by a site specific factor of 2.6 to obtain Total PCB results (Tetra Tech Foster Wheeler, 2004)
1. Pre-ROD sample result is most likely a total Aroclor value although it is reported in the project database as Sum 18 NOAA PCB congeners X factor.

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
ROW	S-3703-0.0-1.0	S-3703	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	218	
ROW	S-3703-1.0-2.0	S-3703	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	2.86	
ROW	S-3703-2.0-3.0	S-3703	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	1.69	
ROW	S-0083-1	S-83	0.0	1.0	9/14/1999	Total PCB Congeners (sum cong x factor)	95.0	
ROW	S-0083-2	S-83	1.0	2.0	9/14/1999	Total PCB Congeners (sum cong x factor)	1.20	
25-49	S-ES301-18FSP9-00-10	ES301	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	14.9	
25-49	S-ES302-18FSP9-00-10	ES302	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	25.5	
25-49	S-ES303-18FSP9-00-10	ES303	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	77.7	
25-49	S-ES304-18FSP9-00-10	ES304	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	31.2	
25-49	S-ES305-18FSP9-00-10	ES305	0.0	1.0	4/10/2018	Aroclor 1254 - Immunoassay	3.3	J
25-49	S-ES306-18FSP9-00-10	ES306	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	9.21	
25-49	S-ES307-18FSP9-00-10	ES307	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	8	J
25-49	S-ES308-18FSP9-00-10	ES308	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	96.7	
25-49	S-ES309-18FSP9-00-10	ES309	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	182	
25-49	S-ES310-18FSP9-00-10	ES310	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	22.6	
25-49	S-ES3107-18FSP9-00-10	ES3107	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	5.35	
25-49	S-ES3108-18FSP9-00-10	ES3108	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	43.2	
25-49	S-ES3109-18FSP9-00-10	ES3109	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	8.43	
25-49	S-ES311-18FSP9-00-10	ES311	0.0	1.0	4/10/2018	Aroclor 1254 - Immunoassay	95	DJ
25-49	S-ES3111-18FSP9-00-10	ES3111	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	23.9	
25-49	S-ES3112-18FSP9-00-10	ES3112	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	9.26	
25-49	S-ES3113-18FSP9-00-10	ES3113	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	24.6	
25-49	S-ES3114-18FSP9-00-10	ES3114	0.0	1.0	7/2/2018	Total 209 PCB cong (excl non-detects)	47.7	
25-49	S-ES3115-18FSP9-00-10	ES3115	0.0	1.0	7/2/2018	Total 209 PCB cong (excl non-detects)	487	
25-49	S-ES3116-18FSP9-00-10	ES3116	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	120	
25-49	S-ES3116R-18FSP9-00-10-REP	ES3116	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	131	
25-49	S-ES3117-18FSP9-00-10	ES3117	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	34.6	
25-49	S-ES3118-18FSP9-00-10	ES3118	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	13.2	
25-49	S-ES3119-18FSP9-00-10	ES3119	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	5.93	
25-49	S-ES312-18FSP9-00-10	ES312	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	21.6	
25-49	S-ES313-18FSP9-00-10	ES313	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	24.2	
25-49	S-ES314-18FSP9-00-10	ES314	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	14.5	
25-49	S-ES315-18FSP9-00-10	ES315	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	3.7	J
25-49	S-ES3153-18FSP9-10-20	ES3153	1.0	2.0	7/2/2018	Total 209 PCB cong (excl non-detects)	2.26	
25-49	S-ES3154-18FSP9-10-20	ES3154	1.0	2.0	6/22/2018	Total 209 PCB cong (excl non-detects)	5.99	
25-49	S-ES3155-18FSP9-10-20	ES3155	1.0	2.0	6/29/2018	Total 209 PCB cong (excl non-detects)	1.62	

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-49	S-ES3156-18FSP9-10-20	ES3156	1.0	2.0	6/29/2018	Total 209 PCB cong (excl non-detects)	0.642	
25-49	S-ES3164-18FSP9-00-10	ES3164	0.0	1.0	10/25/2019	Total 209 PCB cong (excl non-detects)	403	
25-49	S-ES3164-18FSP9-10-20	ES3164	1.0	2.0	10/25/2019	Aroclor 1254 - Immunoassay	15.3	J
25-49	S-ES3165-18FSP9-00-10	ES3165	0.0	1.0	10/25/2019	Total 209 PCB cong (excl non-detects)	36.6	
25-49	S-ES3166-18FSP9-00-10	ES3166	0.0	1.0	10/25/2019	Total 209 PCB cong (excl non-detects)	8.13	
25-49	S-ES3167-18FSP9-00-10	ES3167	0.0	1.0	10/25/2019	Total 209 PCB cong (excl non-detects)	0.746	
25-49	S-ES3168-18FSP9-00-10	ES3168	0.0	1.0	10/25/2019	Total 209 PCB cong (excl non-detects)	3.9	
25-49	S-ES316-18FSP9-00-10	ES316	0.0	1.0	4/11/2018	Total 209 PCB cong (excl non-detects)	39.3	
25-49	S-ES317-18FSP9-00-10	ES317	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	38.2	
25-49	S-ES318-18FSP9-00-10	ES318	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	10.1	
25-49	S-ES319-18FSP9-00-10	ES319	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	4.85	
25-49	S-ES320-18FSP9-00-10	ES320	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	7.86	
25-49	S-ES321-18FSP9-00-10	ES321	0.0	1.0	4/10/2018	Total 209 PCB cong (excl non-detects)	44.8	
25-49	S-ES322-18FSP9-00-10	ES322	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	36.9	
25-49	S-ES323-18FSP9-00-10	ES323	0.0	1.0	4/11/2018	Total 209 PCB cong (excl non-detects)	128	
25-49	S-ES323R-18FSP9-00-10-REP	ES323R	0.0	1.0	4/11/2018	Total 209 PCB cong (excl non-detects)	441	
25-49	S-ES324-18FSP9-00-10	ES324	0.0	1.0	4/11/2018	Aroclor 1254 - Immunoassay	9.6	J
25-49	S-ES325-18FSP9-00-10	ES325	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	0.3	J
25-49	S-ES326-18FSP9-00-10	ES326	0.0	1.0	4/11/2018	Total 209 PCB cong (excl non-detects)	28	
25-49	S-ES326R-18FSP9-00-10-REP	ES326R	0.0	1.0	4/11/2018	Aroclor 1254 - Immunoassay	9.6	DJ
25-49	S-ES327-18FSP9-00-10	ES327	0.0	1.0	4/12/2018	Aroclor 1254 - Immunoassay	4.4	DJ
25-49	S-ES328-18FSP9-00-10	ES328	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	2.5	J
25-49	S-ES329-18FSP9-00-10	ES329	0.0	1.0	4/12/2018	Total 209 PCB cong (excl non-detects)	44.1	
25-49	S-ES330-18FSP9-00-10	ES330	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	14	DJ
25-49	S-ES331-18FSP9-00-10	ES331	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	5.8	J
25-49	S-ES332-18FSP9-00-10	ES332	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	8.3	J
25-49	S-ES334-18FSP9-00-10	ES334	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	3.8	J
25-49	S-ES336-18FSP9-00-10	ES336	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	0.44	J
25-49	S-ES390-18FSP9-00-10	ES390	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	19.6	
25-49	S-15Y-INT178-00-10	INT178	0.0	1.0	5/14/2015	Total 139 PCB cong (excl non-detects)	13.0	
25-49	S-15Y-INT178-10-20	INT178	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.90	
25-49	S-15Y-INT180-00-10	INT180	0.0	1.0	5/14/2015	Total 139 PCB cong (excl non-detects)	7.10	
25-49	S-15Y-INT180-10-20	INT180	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.50	U
25-49	S-15Y-INT181-00-10	INT181	0.0	1.0	5/14/2015	Aroclor 1254 - Immunoassay	6.00	D
25-49	S-15Y-INT181-10-20	INT181	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.60	
25-49	S-17Y-INT415-10-20	INT415	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-49	S-17Y-INT469-00-10	INT469	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	16.9	D
25-49	S-17Y-INT469-10-20	INT469	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-49	S-17Y-INT470-00-10	INT470	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	9.3	D
25-49	S-17Y-INT470-10-20	INT470	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-49	S-17Y-INT471-00-10	INT471	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	4.6	
25-49	S-17Y-INT471-10-20	INT471	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.5	U
25-49	S-17Y-INT472-00-10	INT472	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	117	D
25-49	S-17Y-INT473-10-20	INT473	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.6	
25-49	S-17Y-INT474-00-10	INT474	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	98.6	D
25-49	S-17Y-INT474-10-20	INT474	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	7	
25-49	S-17Y-INT475-00-10	INT475	0.0	1.0	5/23/2017	Total 139 PCB cong (excl non-detects)	35.3	
25-49	S-17Y-INT475-10-20	INT475	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.69	
25-49	S-17Y-INT476-10-20	INT476	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	0.7	
25-49	S-17Y-INT477-00-10	INT477	0.0	1.0	5/19/2017	Total 139 PCB cong (excl non-detects)	33.0	
25-49	S-17Y-INT477-10-20	INT477	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	7.8	
25-49	S-17Y-INT477-20-24	INT477	2.0	2.4	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-49	S-17Y-INT478-00-10	INT478	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	10.4	D
25-49	S-17Y-INT478-10-20	INT478	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.6	
25-49	S-15Y-INT87-00-10	INT87	0.0	1.0	5/14/2015	Aroclor 1254 - Immunoassay	95.4	D
25-49	S-15Y-INT87-10-20	INT87	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.60	
25-49	S-15Y-INT88-00-10	INT88	0.0	1.0	5/14/2015	Aroclor 1254 - Immunoassay	456	D
25-49	S-15Y-INT88-10-20	INT88	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.60	
25-49	S-15Y-INT89-00-10	INT89	0.0	1.0	5/14/2015	Total 139 PCB cong (excl non-detects)	12.0	
25-49	S-15Y-INT89-10-20	INT89	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.70	
25-49	S-15Y-INT90-00-10	INT90	0.0	1.0	5/14/2015	Total 139 PCB cong (excl non-detects)	31.0	
25-49	S-15Y-INT90-10-20	INT90	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.50	U
25-49	S-15Y-INT91-10-20	INT91	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.80	
25-49	S-15Y-INT92-00-10	INT92	0.0	1.0	5/14/2015	Aroclor 1254 - Immunoassay	6.10	D
25-49	S-15Y-INT92-10-20	INT92	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.50	U
25-49	S-15Y-INT93-00-10	INT93	0.0	1.0	5/14/2015	Total 139 PCB cong (excl non-detects)	9.50	
25-49	S-15Y-INT93-10-20	INT93	1.0	2.0	5/14/2015	Aroclor 1254 - Immunoassay	0.50	U
25-49	S-204316	S-204316	0.0	1.0	pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	46.0	
25-49	S-3456-.5-1.0	S-3456	0.5	1.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	224	
25-49	S-3457-.5-1.0	S-3457	0.5	1.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	107	
25-49	S-3457-1.0-1.5	S-3457	1.0	1.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	1.12	
25-49	S-3457-1.5-2.0	S-3457	1.5	2.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.26	

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-49	S-3458-.0-.2	S-3458	0.0	0.2	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	101	
25-49	S-3458-.2-.7	S-3458	0.2	0.7	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	36.4	
25-49	S-3459-0.0-1.0	S-3459	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	33.8	
25-49	S-3459-1.0-1.5	S-3459	1.0	1.5	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.20	
25-49	S-3459-1.5-2.0	S-3459	1.5	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.44	
25-49	S-3459-2.0-3.0	S-3459	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.24	
25-49	S-3460-0.0-.5	S-3460	0.0	0.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	49.4	
25-49	S-3461-0.0-1.0	S-3461	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	57.2	
25-49	S-3461-1.0-2.0	S-3461	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.60	
25-49	S-3461-2.0-3.0	S-3461	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-49	S-3704-0.0-1.0	S-3704	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	46.8	
25-49	S-3704-1.0-2.0	S-3704	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	3.64	
25-49	S-3704-1.0-2.0REP	S-3704	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	4.16	
25-49	S-3704-2.0-3.0	S-3704	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	5.20	
25-49	S-3705-0.0-1.0	S-3705	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	151	
25-49	S-3705-1.0-2.0	S-3705	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	2.39	
25-49	S-3705-2.0-3.0	S-3705	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	1.22	
25-49	S-3706-0.0-1.0	S-3706	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	44.2	
25-49	S-3706-1.0-2.0	S-3706	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	1.46	
25-49	S-3706-2.0-3.0	S-3706	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.55	
25-49	S-3707-1.3-1.8	S-3707	1.3	1.8	10/2/2001	Total 18 NOAA PCB cong (excl non-detects)	11.7	
25-49	S-3708-0.2-.7	S-3708	0.2	0.7	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	832	
25-49	S-3708-1.0-1.5	S-3708	1.0	1.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	49.4	
25-49	S-3708-1.0-1.5REP	S-3708	1.0	1.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	16.9	
25-49	S-3708-1.5-2.0	S-3708	1.5	2.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	1.72	
25-49	S-3709-0.0-.5	S-3709	0.0	0.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	33.8	
25-49	S-3709-.5-.7	S-3709	0.5	0.7	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.52	
25-49	S-0786-1	S-786	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	4.94	
25-49	S-0786-2	S-786	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.62	
25-49	S-0787-1	S-787	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	468	
25-49	S-0787-2	S-787	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.20	
25-49	S-0788-1	S-788	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	4.16	
25-49	S-0788-2	S-788	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-49	S-0789-1	S-789	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	133	
25-49	S-0789-2	S-789	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-49	S-0084-1	S-84	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	250	

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-49	S-0084-2	S-84	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	1.40	
25-49	S-0844-1	S-844	0.0	1.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.22	
25-49	S-0844-2	S-844	1.0	2.0	9/25/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-49	S-0085-1	S-85	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.32	
25-49	S-0085-2	S-85	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.07	
25-49	S-0085-3	S-85	2.0	3.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.00	U
25-49	S-0086-1	S-86	0.0	1.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	23.0	
25-49	S-0086-2	S-86	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.72	
25-49	S-0086-2DUP	S-86	1.0	2.0	9/14/1999	Total PCB Congeners (sum CONG x factor)	0.50	
25-49	S-0087-1	S-87	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	110	
25-49	S-0087-2	S-87	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	0.10	
25-49	S-0090-1	S-90	0.0	1.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	0.00	U
25-49	S-0090-2	S-90	1.0	2.0	9/15/1999	Total PCB Congeners (sum CONG x factor)	0.00	U
25-49	S-ad565	S-ad565	0.0	1.0	pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	4.00	
25-49	S-J - 19 - - 1	S-J - 19 -	0.0	1.0	pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	39.0	
25-49	S-J - 19 - - 2	S-J - 19 -	1.0	2.0	pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	0.00	U
25-49	S-J - 19 - - 3	S-J - 19 -	2.0	3.0	pre-ROD	Total PCB Congeners (sum CONG x factor)[1]	1.00	
25-56	S-ES3125-18FSP9-00-10	ES3125	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	31.9	
25-56	S-ES3126-18FSP9-00-10	ES3126	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	143	
25-56	S-ES3126R-18FSP9-00-10-REP	ES3126	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	113	
25-56	S-ES3127-18FSP9-00-10	ES3127	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	46.5	
25-56	S-ES3128-18FSP9-00-10	ES3128	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	1.64	
25-56	S-ES3129-18FSP9-00-10	ES3129	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	101	
25-56	S-ES3130-18FSP9-00-10	ES3130	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	26.9	
25-56	S-ES3131-18FSP9-00-10	ES3131	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	51	
25-56	S-ES3132-18FSP9-00-10	ES3132	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	50.4	
25-56	S-ES3133-18FSP9-00-10	ES3133	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	31.3	
25-56	S-ES3159-18FSP9-10-20	ES3159	1.0	2.0	6/25/2018	Total 209 PCB cong (excl non-detects)	8.08	
25-56	S-ES3160-18FSP9-30-40	ES3160	3.0	4.0	6/26/2018	Total 209 PCB cong (excl non-detects)	0.13	
25-56	S-ES3161-18FSP9-10-20	ES3161	1.0	2.0	6/26/2018	Total 209 PCB cong (excl non-detects)	0.299	
25-56	S-ES349-18FSP9-00-10	ES349	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	25.9	
25-56	S-ES350-18FSP9-00-10	ES350	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	119	
25-56	S-ES351-18FSP9-00-10	ES351	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	14.8	
25-56	S-ES352-18FSP9-00-10	ES352	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	5	DJ
25-56	S-ES352-18FSP9-10-20	ES352	1.0	2.0	4/13/2018	Aroclor 1254 - Immunoassay	0.37	J
25-56	S-ES352-18FSP9-20-30	ES352	2.0	3.0	4/13/2018	Aroclor 1254 - Immunoassay	0.57	J

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-56	S-ES353-18FSP9-00-10	ES353	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	51.9	
25-56	S-ES354-18FSP9-00-10	ES354	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	0.91	J
25-56	S-ES354-18FSP9-10-20	ES354	1.0	2.0	4/25/2018	Aroclor 1254 - Immunoassay	0.58	J
25-56	S-ES354-18FSP9-20-30	ES354	2.0	3.0	4/25/2018	Aroclor 1254 - Immunoassay	0.23	J
25-56	S-ES355-18FSP9-00-10	ES355	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	26.1	
25-56	S-ES355R-18FSP9-00-10-REP	ES355R	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	24.8	
25-56	S-ES356-18FSP9-00-10	ES356	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	13.4	
25-56	S-ES357-18FSP9-00-10	ES357	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	21.5	
25-56	S-ES357-18FSP9-10-20	ES357	1.0	2.0	4/13/2018	Aroclor 1254 - Immunoassay	1.4	J
25-56	S-ES357-18FSP9-20-30	ES357	2.0	3.0	4/13/2018	Aroclor 1254 - Immunoassay	0.21	J
25-56	S-ES358-18FSP9-00-10	ES358	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	0.38	J
25-56	S-ES358-18FSP9-10-20	ES358	1.0	2.0	4/25/2018	Aroclor 1254 - Immunoassay	0.08	J
25-56	S-ES358-18FSP9-20-30	ES358	2.0	3.0	4/25/2018	Aroclor 1254 - Immunoassay	0.16	J
25-56	S-ES359-18FSP9-00-10	ES359	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	7.2	J
25-56	S-ES359-18FSP9-10-20	ES359	1.0	2.0	4/13/2018	Aroclor 1254 - Immunoassay	0.02	J
25-56	S-ES359-18FSP9-20-30	ES359	2.0	3.0	4/13/2018	Aroclor 1254 - Immunoassay	0.5	UJ
25-56	S-ES360-18FSP9-00-10	ES360	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	40.2	
25-56	S-ES361-18FSP9-00-10	ES361	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	93.0	
25-56	S-ES362-18FSP9-00-10	ES362	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	122	
25-56	S-ES363-18FSP9-00-10	ES363	0.0	1.0	4/26/2018	Aroclor 1254 - Immunoassay	0.46	J
25-56	S-ES364-18FSP9-00-10	ES364	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	188	
25-56	S-ES377-18FSP9-00-10	ES377	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	60.8	
25-56	S-ES377-18FSP9-10-20	ES377	1.0	2.0	4/13/2018	Total 209 PCB cong (excl non-detects)	17.7	
25-56	S-ES377-18FSP9-20-30	ES377	2.0	3.0	4/13/2018	Total 209 PCB cong (excl non-detects)	73.3	
25-56	S-ES377-18FSP9-30-40	ES377	3.0	4.0	4/13/2018	Total 209 PCB cong (excl non-detects)	12.8	
25-56	S-ES378-18FSP9-00-10	ES378	0.0	1.0	4/11/2018	Aroclor 1254 - Immunoassay	19	DJ
25-56	S-ES378-18FSP9-10-20	ES378	1.0	2.0	4/11/2018	Aroclor 1254 - Immunoassay	420	DJ
25-56	S-ES378-18FSP9-20-30	ES378	2.0	3.0	4/11/2018	Total 209 PCB cong (excl non-detects)	149	
25-56	S-ES378-18FSP9-30-37	ES378	3.0	3.7	4/11/2018	Aroclor 1254 - Immunoassay	3.5	J
25-56	S-15Y-INT100-00-10	INT100	0.0	1.0	5/4/2015	Aroclor 1254 - Immunoassay	54.1	D
25-56	S-15Y-INT100-10-20	INT100	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.50	U
25-56	S-15Y-INT101-00-10	INT101	0.0	1.0	5/4/2015	Aroclor 1254 - Immunoassay	6.40	D
25-56	S-15Y-INT101-10-20	INT101	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.50	U
25-56	S-17Y-INT487-00-10	INT487	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	10.4	D
25-56	S-17Y-INT487-10-20	INT487	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.52	
25-56	S-17Y-INT488-00-10	INT488	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	10.9	D

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-56	S-17Y-INT488-10-20	INT488	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.6	
25-56	S-17Y-INT489-00-10	INT489	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	13.7	D
25-56	S-17Y-INT489-00-10-REP	INT489	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	9	D
25-56	S-17Y-INT489-10-20	INT489	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-56	S-17Y-INT489-10-20-REP	INT489	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.6	
25-56	S-17Y-INT490-10-20	INT490	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-56	S-17Y-INT491-00-10	INT491	0.0	1.0	5/19/2017	Total 139 PCB cong (excl non-detects)	11	
25-56	S-17Y-INT491-10-20	INT491	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-56	S-17Y-INT492-00-10	INT492	0.0	1.0	5/19/2017	Total 139 PCB cong (excl non-detects)	130	
25-56	S-17Y-INT492-10-20	INT492	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	5.5	
25-56	S-17Y-INT493-10-20	INT493	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.8	
25-56	S-17Y-INT494-00-10	INT494	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	10.6	D
25-56	S-17Y-INT494-10-20	INT494	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.7	
25-56	S-15Y-INT99-00-10	INT99	0.0	1.0	5/4/2015	Aroclor 1254 - Immunoassay	5.90	D
25-56	S-15Y-INT99-10-20	INT99	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.5	U
25-56	S-3720-0.0-1.0	S-3720	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	44.2	
25-56	S-3720-1.0-2.0	S-3720	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	44.2	
25-56	S-3720-2.0-3.0	S-3720	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	75.4	
25-56	S-3720-3.0-4.0	S-3720	3.0	4.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	44.2	
25-56	S-3721-0.0-1.0	S-3721	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	832	
25-56	S-3721-1.0-2.0	S-3721	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	28.6	
25-56	S-3721-2.0-2.5	S-3721	2.0	2.5	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	67.6	
25-56	S-3721-2.5-3.0	S-3721	2.5	3.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	5.2	
25-56	S-3722-0.0-1.0	S-3722	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	39.0	
25-56	S-3723-0.0-1.0	S-3723	0.0	1.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	39.0	
25-56	S-3723-1.0-2.0	S-3723	1.0	2.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.34	
25-56	S-3723-2.0-3.0	S-3723	2.0	3.0	11/13/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-56	S-3724-0.0-1.0	S-3724	0.0	1.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	125	
25-56	S-3724-1.0-2.0	S-3724	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	41.6	
25-56	S-3724-2.0-3.0	S-3724	2.0	3.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	2.60	
25-56	S-3725-0.0-1.0	S-3725	0.0	1.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	41.6	
25-56	S-3725-1.0-2.0	S-3725	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	22.4	
25-56	S-3725-1.0-2.0REP	S-3725	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	0.36	
25-56	S-3726-0.0-1.0	S-3726	0.0	1.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	52.0	
25-56	S-3726-1.0-2.0	S-3726	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	4.16	
25-56	S-3726-2.0-2.5	S-3726	2.0	2.5	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	0.09	

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-56	S-3726-2.5-3.0	S-3726	2.5	3.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-56	S-3727-0.0-1.0	S-3727	0.0	1.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	46.8	
25-56	S-3727-1.0-2.0	S-3727	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	0.47	
25-56	S-3728-.0-1.0	S-3728	0.0	1.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	3.38	
25-56	S-3728-1.0-2.0	S-3728	1.0	2.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	4.16	
25-56	S-3728-2.0-3.0	S-3728	2.0	3.0	11/5/2001	Total 18 NOAA PCB cong (excl non-detects)	17.9	
25-56	S-0790-1	S-790	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	20.0	
25-56	S-0790-2	S-790	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.04	
25-56	S-0791-1	S-791	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	2.86	
25-56	S-0791-2	S-791	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-56	S-0792-1	S-792	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	31.2	
25-56	S-0792-2	S-792	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-56	S-0792-2DUP	S-792	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-56	S-0793-1	S-793	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	28.6	
25-56	S-0793-2	S-793	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	18.5	
25-56	S-0095-1	S-95	0.0	1.0	9/16/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-56	S-0095-2	S-95	1.0	2.0	9/16/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-56	S-0096-1	S-96	0.0	1.0	9/16/1999	Total PCB Congeners (sum cong x factor)	100	
25-56	S-0096-2	S-96	1.0	2.0	9/16/1999	Total PCB Congeners (sum cong x factor)	42.0	
25-56	S-0096-3	S-96	2.0	3.0	9/16/1999	Total PCB Congeners (sum cong x factor)	0.12	
25-56	S-0097-1	S-97	0.0	1.0	9/16/1999	Total PCB Congeners (sum cong x factor)	52.0	
25-56	S-0097-2	S-97	1.0	2.0	9/16/1999	Total PCB Congeners (sum cong x factor)	7.20	
25-56	S-0098-1	S-98	0.0	1.0	9/22/1999	Total PCB Congeners (sum cong x factor)	1.60	
25-56	S-0098-1DUP	S-98	0.0	1.0	9/22/1999	Total PCB Congeners (sum cong x factor)	2.90	
25-56	S-0098-2	S-98	1.0	2.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-56	S-0098-3	S-98	2.0	3.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-56	S-K - 20	S-K - 20	0.0	1.0	pre-ROD	Total PCB Congeners (sum cong x factor)[1]	60.0	
20-005	S-ES3101-18FSP9-00-10	ES3101	0.0	1.0	4/25/2018	Total 209 PCB cong (excl non-detects)	90.4	
20-005	S-ES3101-18FSP9-10-20	ES3101	1.0	2.0	4/25/2018	Total 209 PCB cong (excl non-detects)	6.48	
20-005	S-ES3101-18FSP9-20-30	ES3101	2.0	3.0	4/25/2018	Aroclor 1254 - Immunoassay	0.3	J
20-005	S-ES3144-18FSP9-00-10	ES3144	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	42.5	
20-005	S-ES3145-18FSP9-00-10	ES3145	0.0	1.0	6/26/2018	Total 209 PCB cong (excl non-detects)	5.15	
20-005	S-ES3146-18FSP9-00-10	ES3146	0.0	1.0	6/26/2018	Total 209 PCB cong (excl non-detects)	6.1	
20-005	S-ES370-18FSP9-00-10	ES370	0.0	1.0	4/16/2018	Total 209 PCB cong (excl non-detects)	69.8	
20-005	S-ES371-18FSP9-00-10	ES371	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	6.9	
20-005	S-ES372-18FSP9-00-10	ES372	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	10.5	

Table 2-1c
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-49, 25-56, 20-005, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
20-005	S-ES373-18FSP9-00-10	ES373	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	37.3	
20-005	S-ES374-18FSP9-00-10	ES374	0.0	1.0	4/26/2018	Aroclor 1254 - Immunoassay	7.8	J
20-005	S-ES375-18FSP9-00-10	ES375	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	0.92	J
20-005	S-ES396-18FSP9-00-10	ES396	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	24.1	
20-005	S-ES396-18FSP9-10-20	ES396	1.0	2.0	4/26/2018	Aroclor 1254 - Immunoassay	1.2	J
20-005	S-ES396-18FSP9-20-30	ES396	2.0	3.0	4/26/2018	Aroclor 1254 - Immunoassay	0.4	J
20-005	S-ES397-18FSP9-00-10	ES397	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	21.6	
20-005	S-15Y-INT102-00-10	INT102	0.0	1.0	5/1/2015	Total 139 PCB cong (excl non-detects)	9.30	
20-005	S-15Y-INT102-10-20	INT102	1.0	2.0	5/1/2015	Aroclor 1254 - Immunoassay	0.50	U
20-005	S-15Y-INT103-00-10	INT103	0.0	1.0	5/1/2015	Aroclor 1254 - Immunoassay	10.3	D
20-005	S-15Y-INT103-10-20	INT103	1.0	2.0	5/1/2015	Aroclor 1254 - Immunoassay	0.50	U
20-005	S-17Y-INT501-00-10	INT501	0.0	1.0	5/18/2017	Total 139 PCB cong (excl non-detects)	21	
20-005	S-17Y-INT501-10-20	INT501	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.5	U
20-005	S-17Y-INT502-00-10	INT502	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	19.7	D
20-005	S-17Y-INT502-10-20	INT502	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.9	
20-005	S-17Y-INT503-00-10	INT503	0.0	1.0	5/18/2017	Total 139 PCB cong (excl non-detects)	26.0	
20-005	S-17Y-INT503-10-20	INT503	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.5	U
20-005	S-17Y-INT504-00-10	INT504	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	0.6	
20-005	S-17Y-INT504-10-20	INT504	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.5	U
20-005	S-17Y-INT505-00-10	INT505	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	1.7	
20-005	S-17Y-INT505-10-20	INT505	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.5	U
20-005	S-0105-1	S-105	0.0	1.0	9/22/1999	Total PCB Congeners (sum CONG x factor)	5.00	
20-005	S-0105-2	S-105	1.0	2.0	9/22/1999	Total PCB Congeners (sum CONG x factor)	0.02	
20-005	S-0105-3	S-105	2.0	3.0	9/22/1999	Total PCB Congeners (sum CONG x factor)	0.00	U
20-005	S-0106-1	S-106	0.0	1.0	9/22/1999	Total PCB Congeners (sum CONG x factor)	0.03	
20-005	S-0106-2	S-106	1.0	2.0	9/22/1999	Total PCB Congeners (sum CONG x factor)	0.00	U
20-005	S-3734-0.0-1.0	S-3734	0.0	1.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	88.4	
20-005	S-3734-1.0-2.0	S-3734	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.68	

Notes:
Pre-excavation confirmatory congener (PECC) samples are highlighted green. See Section 3.3 of Draft Final Intertidal Work Plan for East Zone 3 Rev 1 (Jacobs, 2020).
D - reported value is from a dilution; J - estimated value; U - not detected.
Samples identified as “Total 18 NOAA PCB Cong” were multiplied by a site specific factor of 2.6 to obtain Total PCB results (Tetra Tech Foster Wheeler, 2004).
1. Pre-ROD sample result is most likely a total Aroclor value although it is reported in the project database as Sum 18 NOAA PCB congeners X factor.

Table 2-1d
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-356, 25-358, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-356	S-ES3120-18FSP9-00-10	ES3120	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	1.17	
25-356	S-ES3121-18FSP9-00-10	ES3121	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	21.2	
25-356	S-ES333-18FSP9-00-10	ES333	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	37.7	
25-356	S-ES335-18FSP9-00-10	ES335	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	65.6	
25-356	S-ES335B-18FSP9-10-20	ES335B	1.0	2.0	6/29/2018	Total 209 PCB cong (excl non-detects)	2.27	
25-356	S-17Y-INT479-00-10	INT479	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	4.1	
25-356	S-17Y-INT479-10-20	INT479	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-356	S-17Y-INT480-00-10	INT480	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	0.8	
25-356	S-17Y-INT480-10-20	INT480	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-356	S-17Y-INT481-10-20	INT481	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-356	S-17Y-INT482-10-20	INT482	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.5	U
25-356	S-3710-1.5-2.0	S-3710	1.5	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	2.86	
25-356	S-3712-0.0-1.0	S-3712	0.0	1.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	14.3	
25-356	S-3712-1.0-2.0	S-3712	1.0	2.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.36	
25-356	S-3712-2.0-2.3	S-3712	2.0	2.3	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.07	
25-356	S-3713-1.5-2.0	S-3713	1.5	2.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	7.02	
25-356	S-3713-2.0-2.5	S-3713	2.0	2.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.07	
25-356	S-3714-0.0-.5	S-3714	0.0	0.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	36.4	
25-356	S-3714-1.0-1.5	S-3714	1.0	1.5	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.49	
25-356	S-3714-1.5-2.0	S-3714	1.5	2.0	11/1/2001	Total 18 NOAA PCB cong (excl non-detects)	0.02	
25-356	S-K - 19 -	S-K - 19 -	0.0	1.0	Pre-ROD	Total PCB Congeners (sum cong x factor)[1]	1.00	
ROW	S-ES3122-18FSP9-00-10	ES3122	0.0	1.0	6/26/2018	Total 209 PCB cong (excl non-detects)	25.9	
ROW	S-ES338-18FSP9-00-10	ES338	0.0	1.0	4/18/2018	Aroclor 1254 - Immunoassay	6.2	J
ROW	S-ES340-18FSP9-00-10	ES340	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	7.8	J
ROW	S-ES340R-18FSP9-00-10-REP	ES340R	0.0	1.0	4/13/2018	Aroclor 1254 - Immunoassay	7.8	J
ROW	S-17Y-INT483-10-20	INT483	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.8	
ROW	S-15Y-INT94-00-10	INT94	0.0	1.0	5/4/2015	Aroclor 1254 - Immunoassay	6.90	D
ROW	S-15Y-INT94-10-20	INT94	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.5	U
ROW	S-15Y-INT95-00-10	INT95	0.0	1.0	5/4/2015	Aroclor 1254 - Immunoassay	0.5	U
ROW	S-15Y-INT95-10-20	INT95	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.5	U
ROW	S-0092-1	S-92	0.0	1.0	9/15/1999	Total PCB Congeners (sum cong x factor)	0.28	
ROW	S-0092-2	S-92	1.0	2.0	9/15/1999	Total PCB Congeners (sum cong x factor)	0.00	U
ROW	S-0092-3	S-92	2.0	3.0	9/15/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-358	S-ES3100-18FSP9-00-10	ES3100	0.0	1.0	4/12/2018	Aroclor 1254 - Immunoassay	85	DJ
25-358	S-ES3100-18FSP9-10-20	ES3100	1.0	2.0	4/12/2018	Aroclor 1254 - Immunoassay	4.1	J
25-358	S-ES3100-18FSP9-20-30	ES3100	2.0	3.0	4/12/2018	Aroclor 1254 - Immunoassay	5.7	J
25-358	S-ES3123-18FSP9-00-10	ES3123	0.0	1.0	6/29/2018	Total 209 PCB cong (excl non-detects)	43.3	
25-358	S-ES3157-18FSP9-10-20	ES3157	1.0	2.0	6/29/2018	Total 209 PCB cong (excl non-detects)	0.899	

Table 2-1d
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-356, 25-358, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-358	S-ES3158-18FSP9-10-20	ES3158	1.0	2.0	6/29/2018	Total 209 PCB cong (excl non-detects)	22.7	
25-358	S-ES337-18FSP9-00-10	ES337	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	18.7	
25-358	S-ES339-18FSP9-00-10	ES339	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	25.7	
25-358	S-ES341-18FSP9-00-10	ES341	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	24.7	
25-358	S-ES342-18FSP9-00-10	ES342	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	72.3	
25-358	S-ES343-18FSP9-00-10	ES343	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	11.7	
25-358	S-ES344-18FSP9-00-10	ES344	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	13.4	
25-358	S-ES345-18FSP9-00-10	ES345	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	179	
25-358	S-ES346-18FSP9-00-10	ES346	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	25	DJ
25-358	S-ES346-18FSP9-10-20	ES346	1.0	2.0	4/25/2018	Aroclor 1254 - Immunoassay	0.3	J
25-358	S-ES346-18FSP9-20-29	ES346	2.0	2.9	4/25/2018	Aroclor 1254 - Immunoassay	0.22	J
25-358	S-ES347-18FSP9-00-10	ES347	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	73.7	
25-358	S-ES348-18FSP9-00-10	ES348	0.0	1.0	4/13/2018	Total 209 PCB cong (excl non-detects)	142	
25-358	S-ES348-18FSP9-10-20	ES348	1.0	2.0	4/13/2018	Aroclor 1254 - Immunoassay	0.31	J
25-358	S-ES348-18FSP9-20-30	ES348	2.0	3.0	4/13/2018	Aroclor 1254 - Immunoassay	0.44	J
25-358	S-17Y-INT484-00-10	INT484	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	22.6	D
25-358	S-17Y-INT484-10-20	INT484	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	1	
25-358	S-17Y-INT485-00-10	INT485	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	138	D
25-358	S-17Y-INT485-10-20	INT485	1.0	2.0	5/23/2017	Total 139 PCB cong (excl non-detects)	0.4	
25-358	S-17Y-INT485-20-24	INT485	2.0	2.4	5/23/2017	Aroclor 1254 - Immunoassay	2.4	
25-358	S-17Y-INT486-00-10	INT486	0.0	1.0	5/23/2017	Aroclor 1254 - Immunoassay	218	D
25-358	S-17Y-INT486-10-20	INT486	1.0	2.0	5/23/2017	Aroclor 1254 - Immunoassay	3.4	
25-358	S-15Y-INT96-00-10	INT96	0.0	1.0	5/4/2015	Total 139 PCB cong (excl non-detects)	69.0	
25-358	S-15Y-INT96-10-20	INT96	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.50	U
25-358	S-15Y-INT97-00-10	INT97	0.0	1.0	5/4/2015	Total 139 PCB cong (excl non-detects)	33.0	
25-358	S-15Y-INT97-10-20	INT97	1.0	2.0	5/4/2015	Aroclor 1254 - Immunoassay	0.50	U
25-358	S-15Y-INT98-00-10	INT98	0.0	1.0	5/4/2015	Total 139 PCB cong (excl non-detects)	1.40	
25-358	S-15Y-INT98-10-20	INT98	1.0	2.0	5/4/2015	Total 139 PCB cong (excl non-detects)	0.00	U
25-358	S-15Y-INT98-00-10-REP	INT98-REP	0.0	1.0	5/4/2015	Total 139 PCB cong (excl non-detects)	35.0	
25-358	S-15Y-INT98-10-20-REP	INT98-REP	1.0	2.0	5/4/2015	Total 139 PCB cong (excl non-detects)	0.00	
25-358	S-3711-0.0-1.0	S-3711	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	88.4	
25-358	S-3711-1.0-2.0	S-3711	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.60	
25-358	S-3715-.0-1.0	S-3715	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	46.8	
25-358	S-3715-1.0-2.0	S-3715	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.23	
25-358	S-3715-2.0-3.0	S-3715	2.0	3.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.22	
25-358	S-3715-2.0-3.0REP	S-3715	2.0	3.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.26	
25-358	S-3716-0.0-1.0	S-3716	0.0	1.0	11/8/2001	Total 18 NOAA PCB cong (excl non-detects)	49.4	
25-358	S-3716-1.0-2.0	S-3716	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.31	

Table 2-1d
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcels 25-356, 25-358, and ROW

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-358	S-3716-2.0-3.0	S-3716	2.0	3.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.01	
25-358	S-3716-3.0-3.5	S-3716	3.0	3.5	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-358	S-3717-0.0-1.0	S-3717	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	14.0	
25-358	S-3717-1.0-1.5	S-3717	1.0	1.5	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	0.68	
25-358	S-3718-0.0-1.0	S-3718	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	36.4	
25-358	S-3719-0.0-1.0	S-3719	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	31.2	
25-358	S-3719-1.0-2.0	S-3719	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	5.46	
25-358	S-0874-1	S-874	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	133	
25-358	S-0874-2	S-874	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	11.2	
25-358	S-0093-1	S-93	0.0	1.0	9/15/1999	Total PCB Congeners (sum cong x factor)	9.80	
25-358	S-0093-2	S-93	1.0	2.0	9/15/1999	Total PCB Congeners (sum cong x factor)	0.10	
25-358	S-0093-3	S-93	2.0	3.0	9/15/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-358	S-0094-1	S-94	0.0	1.0	9/16/1999	Total PCB Congeners (sum cong x factor)	140	
25-358	S-0094-2	S-94	1.0	2.0	9/16/1999	Total PCB Congeners (sum cong x factor)	0.02	
25-358	S-L - 20	S-L - 20	0.0	1.0	Pre-ROD	Total PCB Congeners (sum cong x factor)[1]	49.0	

Notes:
Pre-excavation confirmatory congener (PECC) samples are highlighted green. See Section 3.3 of Draft Final Intertidal Work Plan for East Zone 3 Rev 1 (Jacobs, 2020) for more details
U - not detected.
Samples identified as “Total 18 NOAA PCB Cong” were multiplied by a site specific factor of 2.6 to obtain Total PCB results (Tetra Tech Foster Wheeler, 2004)
1. Pre-ROD sample result is most likely a total Aroclor value although it is reported in the project database as Sum 18 NOAA PCB congeners X factor.

Table 2-1e
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcel 25-55Y

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-55Y	S-14A-55Y-02-00-10-SA	55Y-02	0.0	1.0	11/7/2014	Aroclor 1254 - Immunoassay	1.40	
25-55Y	S-14A-55Y-02-10-20-SA	55Y-02	1.0	2.0	11/7/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-05-00-10-SA	55Y-05	0.0	1.0	11/7/2014	Aroclor 1254 - Immunoassay	0.90	
25-55Y	S-14A-55Y-05-10-20-SA	55Y-05	1.0	2.0	11/7/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-06-00-10-SA	55Y-06	0.0	1.0	11/7/2014	Aroclor 1254 - Immunoassay	5.80	D
25-55Y	S-14A-55Y-06-10-20-SA	55Y-06	1.0	2.0	11/7/2014	Aroclor 1254 - Immunoassay	0.60	
25-55Y	S-14A-55Y-09-00-10-SA	55Y-09	0.0	1.0	11/7/2014	Aroclor 1254 - Immunoassay	7.10	D
25-55Y	S-14A-55Y-09-10-20-SA	55Y-09	1.0	2.0	11/7/2014	Aroclor 1254 - Immunoassay	0.80	
25-55Y	S-14A-55Y-10-00-10-SA	55Y-10	0.0	1.0	11/10/2014	Total 139 PCB cong (excl non-detects)	11.0	
25-55Y	S-14A-55Y-10-10-20-SA	55Y-10	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.70	
25-55Y	S-14A-55Y-11-00-10-SA	55Y-11	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	93.2	D
25-55Y	S-14A-55Y-11-10-20-SA	55Y-11	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-13-00-10-SA	55Y-13	0.0	1.0	11/10/2014	Total 139 PCB cong (excl non-detects)	1.90	
25-55Y	S-14A-55Y-13-10-20-SA	55Y-13	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.90	
25-55Y	S-14A-55Y-15-00-10-SA	55Y-15	0.0	1.0	11/6/2014	Total 139 PCB cong (excl non-detects)	2.40	
25-55Y	S-14A-55Y-15-10-20-SA	55Y-15	1.0	2.0	11/6/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-17-00-10-SA	55Y-17	0.0	1.0	11/11/2014	Total 139 PCB cong (excl non-detects)	6.00	
25-55Y	S-14A-55Y-17-10-20-SA	55Y-17	1.0	2.0	11/11/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-21-00-10-SA	55Y-21	0.0	1.0	11/4/2014	Total 139 PCB cong (excl non-detects)	44.0	
25-55Y	S-14A-55Y-21-10-20-SA	55Y-21	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-22-00-10-SA	55Y-22	0.0	1.0	11/11/2014	Aroclor 1254 - Immunoassay	879	D
25-55Y	S-14A-55Y-22-10-20-SA	55Y-22	1.0	2.0	11/11/2014	Total 139 PCB cong (excl non-detects)	0.57	
25-55Y	S-14A-55Y-22-00-10-REP	55Y-22-DUP	0.0	1.0	11/11/2014	Aroclor 1254 - Immunoassay	717	D
25-55Y	S-14A-55Y-23-10-20-SA	55Y-23	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-24-00-10-SA	55Y-24	0.0	1.0	11/10/2014	Total 139 PCB cong (excl non-detects)	16.0	
25-55Y	S-14A-55Y-24-10-20-SA	55Y-24	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-25-10-20-SA	55Y-25	1.0	2.0	11/6/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-27-00-10-SA	55Y-27	0.0	1.0	11/10/2014	Aroclor 1254 - Immunoassay	352	D
25-55Y	S-14A-55Y-27-10-20-SA	55Y-27	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	5.20	
25-55Y	S-14A-55Y-28-10-20-SA	55Y-28	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-29-10-20-SA	55Y-29	1.0	2.0	11/10/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-31-00-10-SA	55Y-31	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	20.9	D
25-55Y	S-14A-55Y-31-10-20-SA	55Y-31	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-32-00-10-SA	55Y-32	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	354	D
25-55Y	S-14A-55Y-32-10-20-SA	55Y-32	1.0	2.0	11/4/2014	Total 139 PCB cong (excl non-detects)	43.0	
25-55Y	S-14A-55Y-32-20-30-SA	55Y-32	2.0	3.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-33-10-20-SA	55Y-33	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-35-00-10-SA	55Y-35	0.0	1.0	11/4/2014	Total 139 PCB cong (excl non-detects)	31	

Table 2-1e
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcel 25-55Y

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-55Y	S-14A-55Y-35-10-20-SA	55Y-35	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-35-00-10-REP	55Y-35-DUP	0.0	1.0	11/4/2014	Total 139 PCB cong (excl non-detects)	40.0	
25-55Y	S-14A-55Y-35-10-20-REP	55Y-35-DUP	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-36-10-20-SA	55Y-36	1.0	2.0	11/3/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-37-00-10-SA	55Y-37	0.0	1.0	11/4/2014	Total 139 PCB cong (excl non-detects)	5.80	
25-55Y	S-14A-55Y-37-10-20-SA	55Y-37	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-38-00-10-SA	55Y-38	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	88.9	D
25-55Y	S-14A-55Y-38-10-20-SA	55Y-38	1.0	2.0	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-39-00-10-SA	55Y-39	0.0	1.0	11/3/2014	Aroclor 1254 - Immunoassay	310	D
25-55Y	S-14A-55Y-39-10-20-SA	55Y-39	1.0	2.0	11/3/2014	Aroclor 1254 - Immunoassay	0.70	
25-55Y	S-14A-55Y-40-00-10-SA	55Y-40	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	1703	D
25-55Y	S-14A-55Y-40-10-20-SA	55Y-40	1.0	2.0	11/4/2014	Total 139 PCB cong (excl non-detects)	14.0	
25-55Y	S-14A-55Y-41-00-10-SA	55Y-41	0.0	1.0	11/4/2014	Aroclor 1254 - Immunoassay	355	D
25-55Y	S-14A-55Y-41-10-26-SA	55Y-41	1.0	2.7	11/4/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-42-00-10-SA	55Y-42	0.0	1.0	11/3/2014	Total 139 PCB cong (excl non-detects)	14.0	
25-55Y	S-14A-55Y-42-10-20-SA	55Y-42	1.0	2.0	11/3/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-44-00-10-SA	55Y-44	0.0	1.0	11/3/2014	Total 139 PCB cong (excl non-detects)	57.0	
25-55Y	S-14A-55Y-44-10-20-SA	55Y-44	1.0	2.0	11/3/2014	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-14A-55Y-46-00-10-SA	55Y-46	0.0	1.0	11/3/2014	Aroclor 1254 - Immunoassay	269	D
25-55Y	S-14A-55Y-46-10-20-SA	55Y-46	1.0	2.0	11/3/2014	Aroclor 1254 - Immunoassay	0.50	
25-55Y	S-ES3134-18FSP9-00-10	ES3134	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	9.92	
25-55Y	S-ES3135-18FSP9-00-10	ES3135	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	16.4	
25-55Y	S-ES3136-18FSP9-00-10	ES3136	0.0	1.0	6/22/2018	Total 209 PCB cong (excl non-detects)	12.1	
25-55Y	S-ES3137-18FSP9-00-10	ES3137	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	34.1	
25-55Y	S-ES3138-18FSP9-00-10	ES3138	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	44.9	
25-55Y	S-ES3139-18FSP9-00-10	ES3139	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	30	
25-55Y	S-ES3140-18FSP9-00-10	ES3140	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	81.9	
25-55Y	S-ES3141-18FSP9-00-10	ES3141	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	35.0	
25-55Y	S-ES3142-18FSP9-00-10	ES3142	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	62.1	
25-55Y	S-ES3143-18FSP9-00-10	ES3143	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	4.06	
25-55Y	S-ES3162-18FSP9-10-20	ES3162	1.0	2.0	6/25/2018	Total 209 PCB cong (excl non-detects)	0.0722	
25-55Y	S-ES3163-18FSP9-10-20	ES3163	1.0	2.0	6/22/2018	Total 209 PCB cong (excl non-detects)	0.00321	
25-55Y	S-ES365B-18FSP9-00-10	ES365B	0.0	1.0	6/25/2018	Total 209 PCB cong (excl non-detects)	43.3	
25-55Y	S-ES366-18FSP9-00-10	ES366	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	67.8	
25-55Y	S-ES367-18FSP9-00-10	ES367	0.0	1.0	4/25/2018	Aroclor 1254 - Immunoassay	1.9	J
25-55Y	S-ES368-18FSP9-00-10	ES368	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	3.77	
25-55Y	S-ES369-18FSP9-00-10	ES369	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	46.2	
25-55Y	S-ES376-18FSP9-00-10	ES376	0.0	1.0	4/16/2018	Total 209 PCB cong (excl non-detects)	38.2	

Table 2-1e
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcel 25-55Y

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-55Y	S-ES376-18FSP9-10-20	ES376	1.0	2.0	4/16/2018	Aroclor 1254 - Immunoassay	0.4	J
25-55Y	S-ES376-18FSP9-20-30	ES376	2.0	3.0	4/16/2018	Aroclor 1254 - Immunoassay	0.04	J
25-55Y	S-ES391-18FSP9-00-10	ES391	0.0	1.0	4/18/2018	Total 209 PCB cong (excl non-detects)	9.91	
25-55Y	S-ES392-18FSP9-00-10	ES392	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	93	
25-55Y	S-ES392-18FSP9-10-20	ES392	1.0	2.0	4/26/2018	Total 209 PCB cong (excl non-detects)	8.69	
25-55Y	S-ES392-18FSP9-20-30	ES392	2.0	3.0	4/26/2018	Aroclor 1254 - Immunoassay	0.64	J
25-55Y	S-ES393-18FSP9-00-10	ES393	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	31.9	
25-55Y	S-ES395-18FSP9-00-10	ES395	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	0.649	
25-55Y	S-ES395-18FSP9-10-20	ES395	1.0	2.0	4/26/2018	Total 209 PCB cong (excl non-detects)	0.555	
25-55Y	S-ES395-18FSP9-20-28	ES395	2.0	2.8	4/26/2018	Aroclor 1254 - Immunoassay	1.6	J
25-55Y	S-ES398-18FSP9-00-10	ES398	0.0	1.0	4/26/2018	Total 209 PCB cong (excl non-detects)	39.0	
25-55Y	S-ES398-18FSP9-10-20	ES398	1.0	2.0	4/26/2018	Total 209 PCB cong (excl non-detects)	2.69	
25-55Y	S-ES398-18FSP9-20-30	ES398	2.0	3.0	4/26/2018	Aroclor 1254 - Immunoassay	0.18	J
25-55Y	S-ES399-18FSP9-00-10	ES399	0.0	1.0	4/26/2018	Aroclor 1254 - Immunoassay	45.0	DJ
25-55Y	S-ES399-18FSP9-10-20	ES399	1.0	2.0	4/26/2018	Aroclor 1254 - Immunoassay	6.1	DJ
25-55Y	S-ES399-18FSP9-20-30	ES399	2.0	3.0	4/26/2018	Aroclor 1254 - Immunoassay	1.9	J
25-55Y	S-17Y-INT495-00-10	INT495	0.0	1.0	5/19/2017	Aroclor 1254 - Immunoassay	16.2	D
25-55Y	S-17Y-INT495-10-20	INT495	1.0	2.0	5/19/2017	Aroclor 1254 - Immunoassay	0.9	
25-55Y	S-17Y-INT496-00-10	INT496	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	111	D
25-55Y	S-17Y-INT496-10-20	INT496	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	79.7	D
25-55Y	S-17Y-INT496-20-30	INT496	2.0	3.0	5/18/2017	Aroclor 1254 - Immunoassay	1.6	
25-55Y	S-17Y-INT497-00-10	INT497	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	3.2	
25-55Y	S-17Y-INT497-10-20	INT497	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	0.5	U
25-55Y	S-17Y-INT498-00-10	INT498	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	18.3	
25-55Y	S-17Y-INT498-10-20	INT498	1.0	2.0	5/18/2017	Aroclor 1254 - Immunoassay	4.4	
25-55Y	S-17Y-INT499-00-10	INT499	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	89.8	D
25-55Y	S-17Y-INT499-10-20	INT499	1.0	2.0	5/18/2017	Total 139 PCB cong (excl non-detects)	62.0	
25-55Y	S-17Y-INT500-00-10	INT500	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	431	D
25-55Y	S-17Y-INT500-00-10-REP	INT500	0.0	1.0	5/18/2017	Aroclor 1254 - Immunoassay	415	D
25-55Y	S-17Y-INT500-10-20-REP	INT500	1.0	2.0	5/18/2017	Total 139 PCB cong (excl non-detects)	58.0	
25-55Y	S-17Y-INT500-20-24	INT500	2.0	2.4	5/18/2017	Aroclor 1254 - Immunoassay	4.0	
25-55Y	S-0100-1	S-100	0.0	1.0	9/22/1999	Total PCB Congeners (sum cong x factor)	900	
25-55Y	S-0100-2	S-100	1.0	2.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.42	
25-55Y	S-0104-1	S-104	0.0	1.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.32	
25-55Y	S-0104-2	S-104	1.0	2.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-55Y	S-0104-3	S-104	2.0	3.0	9/22/1999	Total PCB Congeners (sum cong x factor)	0.00	U
25-55Y	S-3729-0.0-1.0	S-3729	0.0	1.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	312	
25-55Y	S-3729-1.0-2.0	S-3729	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	2.05	

Table 2-1e
East Zone 3 Pre-Excavation PCB Characterization Sample Results for Parcel 25-55Y

Parcel	Sample ID	Station ID	Sample Depth Top (ft)	Sample Depth Bottom (ft)	Sample Date	Description	Total PCB (mg/kg)	Final Qualifier
25-55Y	S-3729-2.0-2.5	S-3729	2.0	2.5	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.08	
25-55Y	S-3729-2.5-3.0	S-3729	2.5	3.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-55Y	S-3730-0.0-1.0	S-3730	0.0	1.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	31.2	
25-55Y	S-3730-1.0-2.0	S-3730	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	13.8	
25-55Y	S-3731-0.0-1.0	S-3731	0.0	1.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	11.7	
25-55Y	S-3731-1.0-2.0	S-3731	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.14	
25-55Y	S-3732-0.0-1.0	S-3732	0.0	1.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	164	
25-55Y	S-3732-1.0-2.0	S-3732	1.0	2.0	11/7/2001	Total 18 NOAA PCB cong (excl non-detects)	78.0	
25-55Y	S-3732-2.0-3.0	S-3732	2.0	3.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	6.24	
25-55Y	S-3733-0.0-1.0	S-3733	0.0	1.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	224	
25-55Y	S-3733-1.0-2.0	S-3733	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	17.4	
25-55Y	S-3733-2.0-3.0	S-3733	2.0	3.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.10	
25-55Y	S-3735-1.0-2.0	S-3735	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.14	
25-55Y	S-3735-1.0-2.0REP	S-3735	1.0	2.0	11/6/2001	Total 18 NOAA PCB cong (excl non-detects)	0.22	
25-55Y	S-0794-1	S-794	0.0	1.0	10/16/2000	Total 18 NOAA PCB cong (excl non-detects)	0.02	
25-55Y	S-0795-1	S-795	0.0	1.0	10/16/2000	Total 18 NOAA PCB cong (excl non-detects)	0.12	
25-55Y	S-0875-1	S-875	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	3.12	
25-55Y	S-0875-2	S-875	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	2.86	
25-55Y	S-0876-1	S-876	0.0	1.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.16	
25-55Y	S-0876-2	S-876	1.0	2.0	10/12/2000	Total 18 NOAA PCB cong (excl non-detects)	0.00	U
25-55Y	S-0099-1	S-99	0.0	1.0	9/16/1999	Total PCB Congeners (sum cong x factor)	19.0	
25-55Y	S-0099-2	S-99	1.0	2.0	9/16/1999	Total PCB Congeners (sum cong x factor)	0.03	

Notes:
Pre-excavation confirmatory congener (PECC) samples are highlighted green. See Section 3.3 of Draft Final Intertidal Work Plan for East Zone 2 Rev 1 (Jacobs, 2022) for more details
D - reported value is from a dilution; J - estimated value; U - not detected.
Samples identified as “Total 18 NOAA PCB Cong” were multiplied by a site specific factor of 2.6 to obtain Total PCB results (Tetra Tech Foster Wheeler, 2004)

Table 2-2a
East Zone 2 Complinace Survey Control Table

Parcel	Station ID	Location	Easting	Northing	Design Elevation	Post-Excavation Elevation	Δ (ft)	Date Surveyed		Restoration Design Elevation	Post-Restoration Elevation	Δ (ft)	Date Surveyed
			MA State Plane ft, NAD83		NAVD88 ft					NAVD88 ft			
25-43	ES205	Sidewall	816423.39	2706229.68	6.5	6.3	-0.2	2/23/2023		6.8	7.1	0.3	7/7/2023
25-43	ES206	Sidewall	816420.52	2706134.24	2.5	2.0	-0.5	2/24/2023		3.8	3.9	0.1	7/11/2023
25-43	ES209	Sidewall	816251.32	2706068.86	2.8	2.6	-0.2	3/9/2023		3.3	3.1	-0.1	7/27/2023
25-43	ES210	Sidewall	816252.27	2706009.13	2.9	2.8	-0.1	3/9/2023		3.4	3.2	-0.2	7/31/2023
25-43	ES211	Sidewall	816325.95	2705978.15	2.4	2.4	0.0	3/7/2023		3.8	3.8	0.0	7/31/2023
25-43	ES212	Sidewall	816356.58	2705906.89	2.8	2.7	-0.1	3/3/2023		3.6	3.3	-0.3	7/14/2023
25-43	ES2127	Sidewall	815976.07	2706061.44	2.4	2.1	-0.3	12/9/2022		4.2	4.2	0.0	6/28/2023
25-43	ES2128	Sidewall	816373.73	2706290.08	-2.2	-2.5	-0.3	2/23/2023		NA	NA	NA	NA
25-43	ES2129	Sidewall	816359.64	2706192.38	-2.3	-3.3	-1.0	3/1/2023		-0.3	-0.5	-0.2	7/31/2023
25-43	ES2130	Sidewall	816272.89	2706089.35	-2.2	-2.6	-0.4	3/3/2023		NA	NA	NA	NA
25-43	ES2131	Sidewall	816176.40	2706118.81	-1.2	-1.8	-0.6	3/10/2023		NA	NA	NA	NA
25-43	ES2132	Sidewall	816084.10	2706119.41	-1.4	-1.5	-0.1	3/10/2023		NA	NA	NA	NA
25-43	ES2133	Sidewall	815938.38	2706046.32	-1.4	-1.8	-0.4	12/9/2022		0.0	0.0	0.0	7/31/2023
25-43	ES2134	Sidewall	815875.69	2705954.77	-2.5	-2.6	-0.1	12/12/2022		NA	NA	NA	NA
25-43	ES2135	Sidewall	815834.55	2705864.34	0.2	-0.1	-0.3	12/15/2022		0.9	0.9	0.0	6/30/2023
25-43	ES2136	Sidewall	815850.31	2705777.50	-0.7	-0.9	-0.2	12/16/2022		0.6	0.5	-0.1	6/29/2023
25-43	ES2137	Sidewall	815888.82	2705675.61	0.8	0.4	-0.4	2/28/2022		1.7	1.7	0.1	6/29/2023
25-43	ES215	Sidewall	815934.84	2705930.21	1.6	1.3	-0.3	12/13/2022		2.9	3.1	0.2	6/30/2023
25-43	ES217	Sidewall	815968.76	2705841.69	2.1	2.0	-0.1	1/11/2023		3.2	3.2	0.0	7/31/2023
25-43	ES221	Sidewall	816019.97	2705665.84	1.3	1.1	-0.2	1/18/2022		3.6	3.9	0.3	6/29/2023
25-43	ES222	Sidewall	815860.54	2705594.69	2.5	2.4	-0.1	12/22/2022		3.3	3.4	0.2	6/20/2023
25-43	ES228	Sidewall	815849.69	2705356.65	-1.6	-1.5	-0.1	2/2/2023		-0.8	-1.1	0.4	6/29/2023
25-43	ES229	Sidewall	816001.60	2705316.62	1.1	1.0	-0.1	12/7/2022		2.4	2.5	0.1	6/5/2023
25-43	ES242	Sidewall	816117.45	2706104.26	2.8	2.6	-0.2	3/14/2023		3.7	3.9	0.2	7/31/2023
25-43	ES249	Sidewall	815882.76	2705475.82	1.6	1.6	0.0	2/6/2023		3.0	3.1	0.2	6/12/2023
25-43	ES278	Sidewall	816433.23	2706312.40	5.3	5.1	-0.2	2/17/2023		6.0	6.3	0.3	7/5/2023
25-43	ES279	Sidewall	816408.27	2706087.84	2.9	2.7	-0.2	2/24/2023		3.7	3.8	0.2	7/11/2023
25-43	ES281	Sidewall	816000.00	2705743.19	3.1	2.5	-0.6	1/13/2023		4.2	4.3	0.2	6/26/2023
25-43	ES282	Sidewall	815860.18	2705705.14	2.0	1.8	-0.2	12/20/2022		2.3	2.3	0.0	6/29/2023
25-43	ES283	Sidewall	815813.97	2705693.03	0.1	-0.3	-0.4	12/20/2022		0.7	0.7	0.0	6/29/2023
25-43	ES285	Sidewall	815824.31	2705631.68	1.6	1.5	-0.1	12/19/2022		2.5	2.7	0.2	6/29/2023
25-43	ES286	Sidewall	815963.64	2705616.02	2.0	1.8	-0.2	1/25/2023		3.0	3.0	0.0	7/10/2023
25-43	ES288	Sidewall	815851.94	2705537.03	1.6	1.4	-0.2	1/4/2023		2.5	2.7	0.2	6/12/2023
25-43	ES289	Sidewall	815974.79	2705528.11	2.4	2.2	-0.2	1/27/2023		3.6	3.6	0.1	8/8/2023
25-43	ES291	Sidewall	815958.82	2705478.54	0.7	0.7	0.0	2/15/2023		3.6	3.5	-0.1	7/10/2023
25-43	ES292	Sidewall	815884.77	2705456.39	2.9	2.7	-0.2	2/1/2023		3.3	3.3	0.1	6/8/2023
25-43	ES294	Sidewall	816012.83	2705412.09	2.0	1.8	-0.2	12/8/2022		2.9	3.0	0.1	6/28/2023
25-43	INT73	Sidewall	816345.50	2706034.94	2.6	2.5	-0.1	3/3/2023		3.7	3.7	-0.1	7/31/2023
25-43	S-3685	Sidewall	816390.00	2706172.00	2.2	1.9	-0.3	3/15/2023		3.5	3.6	0.1	7/10/2023
25-43	S-57	Sidewall	816000.00	2706125.00	-0.4	-0.5	-0.1	3/10/2023		0.3	-0.7	0.3	7/31/2023
25-43	S-767	Sidewall	816300.00	2705942.00	3.1	2.8	-0.3	3/8/2023		3.3	3.5	0.3	7/19/2023
25-43	ES2107	Floor	816385.45	2706265.81	-2.2	-2.3	-0.1	2/23/2023		0.0	-0.1	-0.1	7/31/2023
25-43	ES2111B	Floor	816300.00	2706057.99	-0.6	-0.8	-0.2	3/8/2023		1.6	1.4	-0.2	7/31/2023
25-43	ES2112B	Floor	816368.88	2706186.03	-1.3	-1.5	-0.2	3/1/2023		1.5	1.7	0.2	7/10/2023
25-43	ES2113	Floor	816345.20	2705918.79	2.3	2.1	-0.2	3/7/2023		3.2	2.9	-0.3	7/18/2023
25-43	ES2114	Floor	815933.34	2705887.93	1.8	1.7	-0.1	12/15/2022		2.8	3.1	0.2	7/5/2023
25-43	ES2115	Floor	815855.90	2705886.71	0.0	-0.2	-0.2	12/14/2022		1.7	1.7	0.0	6/30/2023
25-43	ES2116	Floor	815895.21	2705817.70	1.4	1.1	-0.3	1/9/2023		2.3	2.5	0.2	7/5/2023
25-43	ES2117	Floor	815956.71	2705466.16	-0.3	-0.5	-0.2	2/16/2023		2.9	3.1	0.2	6/30/2023
25-43	ES2118	Floor	815917.61	2705396.89	-1.4	-1.6	-0.2	2/10/2023		1.1	1.3	0.2	6/9/2023
25-43	ES2119	Floor	815877.03	2705327.40	0.4	0.2	-0.2	12/2/2022		2.0	2.2	0.2	8/8/2023
25-43	ES218	Floor	815986.30	2705768.13	1.7	1.5	-0.3	1/12/2023		3.1	3.2	0.1	6/26/2023
25-43	ES223	Floor	815952.36	2705600.38	0.8	0.7	-0.1	1/26/2023		2.2	2.3	0.0	6/27/2023
25-43	ES224	Floor	815857.76	2705668.53	0.8	0.6	-0.2	12/19/2022		2.2	2.3	0.0	6/29/2023
25-43	ES239	Floor	816397.34	2706119.39	1.0	0.6	-0.4	3/1/2023		2.0	1.7	-0.3[a]	7/31/2023
25-43	ES244B	Floor	815872.20	2705735.29	-1.5	-2.0	-0.5	12/22/2022		0.8	0.8	0.1	6/29/2023
25-43	ES246	Floor	815945.13	2705666.95	1.1	0.7	-0.4	1/24/2023		2.0	1.9	-0.1	6/29/2023
25-43	ES265	Floor	815901.78	2705557.85	0.0	-0.1	-0.1	1/20/2023		2.0	2.1	0.0	6/29/2023
25-43	INT441	Floor	815912.46	2705977.17	1.1	0.9	-0.2	12/12/2022		1.8	1.9	0.1	6/29/2023
25-43	S-3389	Floor	815954.00	2705345.00	1.4	1.0	-0.4	12/8/2022		1.8	1.8	0.0	6/29/2023
25-43	S-766	Floor	816296.00	2706001.00	1.7	1.3	-0.4	3/9/2023		2.6	2.5	0.0	7/31/2023
ROW	ES295	Sidewall	816121.25	2705330.97	2.3	2.2	-0.1	11/14/2022		3.8	3.9	0.1	6/1/2023
ROW	ES296	Sidewall	815871.36	2705278.95	2.4	2.3	-0.1	12/1/2022		3.0	3.1	0.1	5/26/2023
25-319	ES2102	Sidewall	816006.57	2705068.48	1.1	1.0	-0.1	10/27/2022		2.6	2.6	0.0	5/17/2023
25-319	ES2103	Sidewall	816186.97	2704943.18	1.3	0.7	-0.6	9/28/2022		3.2	3.5	0.3	4/19/2023
25-319	ES2125	Sidewall	816239.62	2705297.39	2.0	1.9	-0.1	11/7/2022		3.1	3.1	0.0	5/2/2023
25-319	ES2138	Sidewall	815719.43	2704621.44	-0.7	-0.7	0.0	3/20/2023		0.6	0.8	0.2	7/24/2023
25-319	ES2139	Sidewall	815708.42	2704523.47	-0.9	-0.9	0.0	3/24/2023		0.1	0.5	0.3	8/14/2023
25-319	ES2140	Sidewall	815695.39	2704434.88	-1.8	-1.8	0.0	4/6/2023		NA	NA	NA	NA
25-319	ES2141	Sidewall	815675.92	2704345.94	-1.4	-1.8	-0.4	3/15/2023		NA	NA	NA	NA
25-319	ES233	Sidewall	816287.02	2705211.60	1.7	1.7	0.0	10/13/2022		2.9	3.0	0.1	5/4/2023
25-319	ES234	Sidewall	816272.89	2705123.92	2.2	2.2	0.0	10/13/2022		3.1	3.2	0.1	5/4/2023
25-319	ES236	Sidewall	816045.76	2705015.96	0.8	0.5	-0.3	10/24/2022		2.5	2.5	0.0	5/17/2023
25-319	ES299	Sidewall	815952.36	2705130.12	1.4	1.4	0.0	10/28/2022		2.6	2.7	0.1	5/24/2023
25-319	ES3102	Sidewall	815748.73	2704710.17	-0.2	-0.2	0.0	3/15/2023		0.9	1.1	0.2	7/21/2023
25-319	ES3104	Sidewall	815779.22	2704646.41	1.0	0.6	-0.4	3/20/2023		1.4	1.7	0.3	7/21/2023
25-319	ES3105	Sidewall	815826.51	2704546.50	1.0	0.9	-0.1	4/3/2023		1.7	1.9	0.2	7/21/2023
25-319	ES384	Sidewall	815858.40	2704444.00	1.0	1.0	0.0	3/27/2023		1.9	1.9	0.0	7/28/2023
25-319	ES387	Sidewall	815893.60	2704358.00	1.0	0.8	-0.2	3/17/2023		2.0	2.1	0.1	8/21/2023
25-319	INT454	Sidewall	815934.50	2705213.04	0.6	0.4	-0.2	11/28/2022		2.0	2.0	0.0	5/24/2023
25-319	INT77	Sidewall	816057.59	2705289.00	0.9	0.6	-0.3	11/16/2022		2.4	2.4	0.0	6/1/2023
25-319	INT81	Sidewall	816259.89	2705057.45	1.6	1.0	-0.6	9/28/2022		2.6	2.6	0.0	5/4/2023
25-319	S-3402	Sidewall	816100.00	2705000.00	1.3	1.1	-0.2	10/21/2022		2.4	2.6	0.1	5/17/2023
25-319	S-780	Sidewall	816252.00	2704997.00	1.4	1.0	-0.4	10/1/2022		2.4	2.7	0.3	4/20/2023
25-319	S-79	Sidewall	815800.00	2704600.00	1.0	0.7	-0.3	3/24/2023		1.4	1.6	0.3	7/21/2023
25-319	S-80	Sidewall	815800.00	2704498.00	0.9	0.8	-0.1	4/5/2023		1.7	1.7	0.0	7/27/2023
25-319	ES2105	Floor	816084.88	2705038.78	0.3	0.1	-0.2	4/6/2023		2.3	2.5	0.2	5/18/2023
25-319	ES2120	Floor	816267.40	2705189.40	1.1	1.1	0.0	10/14/2022		2.7	2.9	0.2	5/24/2023
25-319	ES2121	Floor	816236.84	2705119.66	1.3	1.1	-0.2	10/13/2022		2.5	2.8	0.3	5/4/2023
25-319	ES2122	Floor	816157.15	2705119.51	-0.3	-0.4	-0.1	11/4/2022		1.5	1.5	0.0	5/24/2023
25-319	ES2123	Floor	815997.19	2705119.20	1.0	0.9	-0.1	11/3/2022		2.3	2.6	0.2	5/9/2023
25-319	ES232	Floor	816259.39	2705247.28	1.4	1.0	-0.5	11/7/2022		2.3	2.6	0.3	5/24/2023
25-319	ES254	Floor	816115.26	2705199.95	0.3	0.2	-0.1	11/15/2022		1.7	2.0	0.3	5/31/2023
25-319	ES258	Floor	816186.41	2705056.63	1.5	1.2	-0.3	10/13/2022		2.0	2.0	0.0	5/24/2023
25-319	ES274	Floor	816154.67	2704974.90	-0.9	-1.1	-0.2	11/4/2022		2.3	2.3	0.1	5/24/2023
25-319	ES3147	Floor	815741.86	2704614.90	1.0	0.8	-0.2	3/21/2022		2.0	2.1	0.1	7/24/2023
25-319	ES3148	Floor	815781.80	2704544.57	1.0	0.9	-0.1	4/3/2023		2.1	2.3	0.2	7/28/2023
25-319	ES3149	Floor	815702.07	2704406.76	-0.3	-0.7	-0.4	3/30/2023		NA	NA	NA	NA
25-319	ES3150	Floor	815861.99	2704406.89	1.0	0.8	-0.2	3/27/2023		1.7	1.8	0.1	8/1/2023
25-319	ES3151	Floor	815741.93	2704338.16	1.0	0.9	-0.1	3/16/2023		2.3	2.4	0.2	8/15/2023
25-319	ES3152	Floor	815822.17	2704338.38	1.0	0.8	-0.2	3/21/2023		2.2	2.4	0.2	8/21/2023
25-319	S-3393	Floor	816150.00	2705248.00	1.5	1.4	-0.1	11/10/2022		2.4	2.7	0.3	5/12/2023
25-319	S-3394	Floor	816049.00	2705200.00	1.1	0.6	-0.5	11/17/2022		2.0	2.2	0.1	6/1/2023
25-319	S-3641	Floor	816070.00	2705129.00	1.3	1.0	-0.3	10/31/2022		2.2	2.4	0.2	5/22/2023
25-319	S-3689	Floor	815978.00	2705187.00	-0.7	-1.3	-0.6	11/29/2022		0.4	0.4	0.0	5/25/2023
25-319	S-3699	Floor	815737.00	2704474.00	0.1	0.1	0.0	4/5/2023		1.2	1.3	0.1	7/28/2023
25-319	S-74	Floor	816195.00	2705199.00	0.0	-0.1	-0.1	4/6/2023		1.1	1.1	0.0	5/24/2023
25-319	S-776	Floor	815996.00	2705251.00	1.1	0.8	-0.3	12/5/2022		1.8	1.9	0.1	6/5/2023
25-319	S-777	Floor	816096.00	2705250.00	1.3	0.9	-0.4	11/17/2022		2.4	2.6	0.2	6/1/2023
25-319	S-81	Floor	815800.00	2704396.00	1.0	0.9	-0.1	4/6/2023		1.1	1.1	0.0	8/1/2023

Notes:
MA - Massachusetts; NAD83 - North American Datum 1983; NAVD88 - North American Vertical Datum 1988; ft - feet;
Δ - difference between post-excavation elevation and design elevation or difference between post-restoration elevation and restoration design elevation
NA - Outside restoration boundary
a - Point now located at the floor of new stream. Surounding area is to grade.

Table 2-2b
East Zone 3 Complinace Survey Control Table

Parcel	Station ID	Location	Easting	Northing	Design Elevation	Post-Excavation Elevation	Δ (ft)	Date Surveyed	Restoration Design Elevation	Post-Restoration Elevation	Δ (ft)	Date Surveyed
			MA State Plane ft, NAD83		NAVD88 ft				NAVD88 ft			
ROW	ES3169	Sidewall	815667.3	2704286.5	-0.3	-0.5	-0.2	4/10/2023	0.3	0.4	0.2	8/14/2023
ROW	S-83	Floor	815690	2704293	0.8	0.7	-0.1	4/10/2023	1.0	1.3	0.3	8/21/2023
ROW	S-3703	Floor	815782	2704308	1	0.6	-0.4	4/19/2023	2.0	2.3	0.3	8/17/2023
ROW	ES3174	Floor	815829.8	2704322.8	1.1	0.9	-0.2	4/19/2023	2.0	2.1	0.1	8/17/2023
25-49	ES301	Sidewall	815909.8	2704275	1.2	1.0	-0.2	4/20/2023	2.2	2.5	0.2	8/4/2023
25-49	ES304	Sidewall	815762.5	2704230	0.5	0.3	-0.2	4/7/2023	1.8	1.9	0.1	8/21/2023
25-49	ES306	Sidewall	815813.3	2704224	0.6	0.3	-0.3	4/21/2023	2.0	2.0	0.0	8/3/2023
25-49	ES3107	Sidewall	815849.2	2704195	0.7	0.4	-0.3	4/21/2023	2.0	2.1	0.1	8/3/2023
25-49	ES3108	Sidewall	815745.4	2704152.1	0.5	0.5	0.0	5/3/2023	1.5	1.8	0.3	8/9/2023
25-49	ES3109	Sidewall	815892.6	2704147.4	0.9	0.9	0.0	4/25/2023	2.0	2.1	0.1	8/25/2023
25-49	ES3111	Sidewall	815934	2704128.1	1.2	0.9	-0.3	4/25/2023	2.0	2.1	0.1	8/25/2023
25-49	ES3112	Sidewall	815896.3	2704105.6	0.9	0.5	-0.4	4/25/2023	2.0	2.2	0.2	8/25/2023
25-49	ES3113	Sidewall	815977.2	2704090.1	0.9	0.7	-0.2	5/2/2023	2.0	2.2	0.2	9/21/2023
25-49	ES3114	Sidewall	815944.8	2704062.7	1.1	0.8	-0.3	5/2/2023	2.0	2.3	0.3	8/30/2023
25-49	ES3117	Sidewall	815859.3	2704037.6	0.6	0.5	-0.1	5/1/2023	2.0	1.9	-0.1	8/30/2023
25-49	ES3118	Sidewall	815753.8	2704031.5	-0.1	-0.4	-0.3	4/26/2023	1.1	1.4	0.3	8/29/2023
25-49	ES3119	Sidewall	816115.4	2703988.4	1.2	0.8	-0.4	5/9/2023	2.4	2.5	0.1	8/22/2023
25-49	ES3165	Sidewall	815804.1	2704174	0.5	0.5	0.0	5/3/2023	1.9	2.0	0.1	8/7/2023
25-49	ES3170	Sidewall	815669	2704188.8	-0.3	-0.5	-0.2	4/10/2023	1.1	1.3	0.2	8/9/2023
25-49	ES314	Sidewall	816077.9	2704137	1.3	1.3	0.0	5/2/2023	2.3	2.5	0.2	8/24/2023
25-49	ES316	Sidewall	815848.8	2704120	0.7	0.6	-0.1	4/25/2023	1.8	1.9	0.1	8/25/2023
25-49	ES317	Sidewall	816017.3	2704114	1.2	0.9	-0.3	5/2/2023	2.3	2.3	0.0	8/30/2023
25-49	ES319	Sidewall	816010.7	2704073	1.3	1.0	-0.3	5/2/2023	2.2	2.2	0.0	8/30/2023
25-49	ES320	Sidewall	815767.6	2704070	-0.1	-0.1	0.0	4/26/2023	1.3	1.5	0.2	8/30/2023
25-49	ES322	Sidewall	815721.9	2704051.5	-0.9	-1.2	-0.3	4/26/2023	0.1	0.4	0.3	8/30/2023
25-49	ES390	Sidewall	816075.2	2704014.9	1.1	0.9	-0.2	5/9/2023	2.3	2.3	0.1	8/22/2023
25-49	INT178	Sidewall	816129.9	2704109.4	1.2	1.0	-0.2	5/4/2023	2.1	1.4	-0.6[a]	8/23/2023
25-49	INT475	Sidewall	815819.5	2704078.5	0.5	0.5	0.0	4/27/2023	1.7	1.9	0.2	8/30/2023
25-49	S-3459	Sidewall	816129	2704048	1.2	1.1	-0.1	5/9/2023	2.3	2.4	0.1	8/23/2023
25-49	S-86	Sidewall	815900	2704200	1.1	0.6	-0.5	4/24/2023	2.0	2.2	0.2	8/3/2023
25-49	ES3153	Floor	815862.2	2704267.5	1.1	0.8	-0.3	4/21/2023	2.1	2.1	0.0	8/21/2023
25-49	ES3154	Floor	815741.8	2704199.7	0.6	0.6	0.0	4/14/2023	2.0	2.1	0.1	8/9/2023
25-49	ES3155	Floor	815892.8	2704122.5	0.9	0.7	-0.2	4/25/2023	2.0	2.1	0.1	8/25/2023
25-49	ES3156	Floor	815780.9	2704044.4	0.1	-0.2	-0.3	4/27/2023	2.0	2.0	0.0	8/29/2023
25-49	S-3457	Floor	816073	2704111	0.6	0.3	-0.3	5/4/2023	2.3	2.4	0.1	8/23/2023
25-49	S-3461	Floor	816100	2704017	1.1	0.9	-0.2	5/9/2023	2.3	2.4	0.1	8/22/2023
25-49	S-3705	Floor	815783	2704274	0.6	0.3	-0.3	4/19/2023	2.0	2.1	0.1	8/17/2023
25-49	S-3708	Floor	815911	2704072	0.5	0.5	0.0	5/2/2023	1.6	1.4	-0.2	8/30/2023
25-56	ES3125	Sidewall	816266.3	2703675.9	1	0.1	-0.9	6/23/2023	1.8	2.0	0.3	9/28/2023
25-56	ES3127	Sidewall	816188.1	2703616.1	1	0.5	-0.5	6/23/2023	2.0	2.2	0.2	9/28/2023
25-56	ES3128	Sidewall	816267.3	2703606.4	0.7	0.5	-0.2	6/23/2023	2.0	2.0	0.0	10/10/2023
25-56	ES3130	Sidewall	816185.2	2703559.3	1.1	0.9	-0.2	6/23/2023	2.3	2.1	-0.1	10/10/2023
25-56	ES3133	Sidewall	816034.4	2703498.9	0.5	0.5	0.0	6/8/2023	1.5	1.6	0.1	10/10/2023
25-56	ES3172	Sidewall	815936.1	2703611.4	-0.2	-0.8	-0.6	5/15/2023	0.9	1.2	0.2	9/21/2023
25-56	ES3173	Sidewall	816112.4	2703546.4	1.1	0.9	-0.2	6/12/2023	2.1	2.2	0.1	10/10/2023
25-56	ES349	Sidewall	816107.7	2703681.7	-0.2	-0.5	-0.3	5/24/2023	0.2	0.8	0.6[a]	9/21/2023
25-56	ES351	Sidewall	816354.3	2703671.3	1.1	0.711	-0.4	6/23/2023	2.3	2.5	0.3	9/26/2023
25-56	ES353	Floor	816308.4	2703655.2	1	0.723	-0.3	6/23/2023	2.3	2.5	0.2	9/28/2023
25-56	ES355	Sidewall	816349	2703622.8	1.1	0.816	-0.3	6/23/2023	2.4	2.6	0.3	9/26/2023
25-56	ES357	Sidewall	816026.1	2703606	1.2	1.2	0.0	5/15/2023	2.2	2.5	0.2	9/21/2023
25-56	ES360	Sidewall	816060.1	2703577.2	1.2	1.2	0.0	6/12/2023	2.2	2.2	0.0	10/10/2023
25-56	S-3722	Sidewall	816210	2703703	0.7	-0.3	-1	6/26/2023	1.7	1.9	0.1	9/28/2023
25-56	S-3728	Sidewall	816412	2703654	1.1	1.024	-0.1	6/26/2023	2.3	2.6	0.4	10/10/2023
25-56	ES3159	Floor	816195.8	2703688.2	0.8	0.396	-0.4	6/16/2023	2.0	2.1	0.1	9/28/2023
25-56	ES3160	Floor	816018.7	2703660.1	-3.4	-3.617	-0.217	6/28/2023	2.0	1.9	-0.1	9/20/2023
25-56	ES3161	Floor	816057.4	2703553.6	0.2	0.0	-0.2	6/12/2023	1.6	1.7	0.1	10/10/2023
25-56	ES377	Floor	815908.1	2703638.5	-3.4	-3.493	-0.093	6/28/2023	2.0	1.8	-0.2	9/21/2023
25-56	S-3721	Floor	816059	2703676	-0.8	-0.861	-0.1	6/28/2023	0.1	0.4	0.3	9/21/2023
25-56	S-3724	Floor	816212	2703622	0.5	0.449	-0.1	6/26/2023	2.0	2.2	0.2	9/28/2023
25-56	S-3726	Floor	816385	2703653	0.9	0.669	-0.2	6/26/2023	2.8	2.8	0.0	9/26/2023
25-56	INT100	Floor	816246.4	2703651.9	0.9	0.606	-0.3	6/26/2023	2.0	2.2	0.2	9/28/2023
20-005	ES371	Sidewall	816375.7	2703261.6	1.1	0.877	-0.223	7/5/2023	2.3	2.5	0.2	10/10/2023
20-005	ES372	Sidewall	816308.7	2703238.4	1.1	0.891	-0.209	7/5/2023	2.4	2.4	0.0	10/10/2023
20-005	ES396	Sidewall	816410.9	2703322.3	1.3	0.929	-0.371	7/5/2023	2.4	2.6	0.2	10/10/2023
20-005	S-105	Sidewall	816300	2703300	0.5	0.207	-0.293	7/10/2023	1.5	1.8	0.3	10/10/2023
20-005	ES3101	Floor	816375.5	2703304	1.1	0.216	-0.884	7/7/2023	2.5	2.5	0.0	10/10/2023
20-005	S-3734	Floor	816334	2703257	0.9	0.263	-0.637	7/7/2023	2.4	2.5	0.1	10/10/2023
25-356	ES3120	Sidewall	816175.7	2703923.5	1.3	1.2	-0.1	5/24/2023	2.5	2.5	0.0	9/1/2023
25-356	ES3121	Sidewall	816050.8	2703899.2	1.1	1.0	-0.1	5/9/2023	2.1	2.4	0.3	9/1/2023
25-356	S-3712	Sidewall	816103	2703888	1.1	1.0	-0.1	5/9/2023	2.2	2.4	0.2	9/1/2023
25-356	S-3714	Sidewall	816098	2703922	1.2	0.9	-0.3	5/9/2023	2.4	2.4	0.0	9/1/2023
25-356	ES335B	Floor	816099.9	2703901.5	1.1	0.5	-0.6	5/9/2023	2.4	2.6	0.2	9/1/2023
ROW	ES3122	Sidewall	816089.9	2703843.4	1.3	0.987	-0.313	6/28/2023	2.2	2.5	0.3	9/5/2023
25-358	ES337	Sidewall	816171.7	2703834.7	1.2	0.898	-0.302	6/28/2023	2.2	2.2	0.1	9/20/2023
25-358	ES339	Sidewall	816154.7	2703797.6	1.1	1.053	0.047	6/28/2023	2.0	2.2	0.2	9/20/2023
25-358	ES343	Sidewall	815894.8	2703746	0.7	0.7	0.0	5/24/2023	1.7	1.7	0.0	9/11/2023
25-358	ES3123	Sidewall	815996.9	2703757.9	1.2	1.0	-0.2	5/31/2023	2.1	2.3	0.2	9/20/2023
25-358	ES3171	Sidewall	815834.6	2703676.1	-0.2	-0.598	-0.398	6/28/2023	0.8	1.1	0.3	9/13/2023
25-358	S-3715	Sidewall	816055	2703783	0.9	0.8	-0.1	5/31/2023	1.9	2.0	0.1	9/20/2023
25-358	S-3716	Sidewall	816104	2703776	1.2	0.836	-0.364	6/28/2023	2.1	2.4	0.2	9/20/2023
25-358	S-3719	Sidewall	816242	2703748	0.6	0.574	-0.026	6/28/2023	1.9	2.1	0.2	9/1/2023
25-358	ES3157	Floor	815898.2	2703728.9	1	0.8	-0.2	5/26/2023	2.0	2.3	0.3	9/13/2023
25-358	ES3158	Floor	815978.5	2703729	1	0.5	-0.5	5/31/2023	2.0	2.0	0.0	9/20/2023
25-358	S-3711	Floor	816098	2703821	0.4	0.2	-0.2	6/5/2023	2.1	2.1	0.0	9/20/2023
25-358	S-94	Floor	816200	2703800	0.7	0.194	-0.506	6/28/2023	2.0	2.2	0.2	9/20/2023
25-55Y	55Y-17	Sidewall	816097	2703436	-1.2	-1.205	-0.005	7/7/2023	0.4	0.5	0.0	10/13/2023
25-55Y	55Y-21	Sidewall	816119	2703493	1.3	1.233	-0.067	7/7/2023	2.3	2.5	0.2	10/10/2023
25-55Y	55Y-24	Sidewall	816148	2703336	1	0.471	-0.529	6/28/2023	2.0	2.2	0.3	10/13/2023
25-55Y	55Y-35	Sidewall	816238	2703307	1	0.571	-0.429	7/7/2023	2.0	2.2	0.2	10/13/2023
25-55Y	55Y-42	Sidewall	816323	2703424	1	0.736	-0.264	7/11/2023	2.6	2.4	-0.2	10/10/2023
25-55Y	ES3134	Sidewall	816059.2	2703453.8	0.3	-0.1	-0.4	6/8/2023	1.3	1.5	0.2	10/10/2023
25-55Y	ES3139	Sidewall	816205.5	2703373.9	1.1	0.849	-0.251	6/29/2023	2.2	2.3	0.1	10/13/2023
25-55Y	ES3143	Sidewall	816123.3	2703284.7	0.6	0.598	0.002	7/7/2023	1.7	2.0	0.2	10/13/2023
25-55Y	ES365B	Sidewall	816087.5	2703488.1	1.3	1.2	-0.1	6/8/2023	2.3	2.3	0.1	10/10/2023
25-55Y	ES368	Sidewall	816110.5	2703363.5	0.8	0.59	-0.21	6/27/2023	1.9	2.2	0.3	10/13/2023
25-55Y	ES369	Sidewall	816194.4	2703315.9	1.2	0.974	-0.226	6/29/2023	2.0	2.1	0.1	10/13/2023
25-55Y	ES376	Sidewall	816389.5	2703364.6	1	0.611	-0.389	7/14/2023	2.3	2.5	0.3	10/10/2023
25-55Y	ES393	Sidewall	816269.2	2703341.8	1.1	0.555	-0.545	7/10/2023	2.3	2.2	0.0	10/10/2023
25-55Y	ES398	Sidewall	816210.7	2703444.1	0.9	0.529	-0.371	6/30/2023	2.0	2.0	0.0	10/13/2023
25-55Y	S-99	Sidewall	816200	2703478	0.9	0.879	-0.021	6/30/2023	2.0	2.1	0.1	10/10/2023
25-55Y	55Y-22	Floor	816127	2703439	-1	-1.101	-0.101	7/7/2023	0.3	0.3	0.0	10/10/2023
25-55Y	55Y-32	Floor	816204	2703458	0.4	-0.182	-0.582	6/30/2023	1.6	1.8	0.2	10/13/2023
25-55Y	ES3162	Floor	816063	2703494.7	1.3	0.6	-0.7	6/9/2023	2.1	2.2	0.1	10/10/2023
25-55Y	ES3163	Floor	816161.7	2703386.8	1	0.305	-0.695	6/29/2023	2.1	2.3	0.2	10/13/2023
25-55Y	S-3732	Floor	816320	2703407	-0.1	-0.277	-0.177	7/12/2023	2.8	2.7	-0.1	10/10/2023
25-55Y	S-3733	Floor	816315	2703346	0.7	0.51	0.19	7/12/2023	2.4	2.5	0.1	10/10/2023

Notes
Elevation measurements at sidewall locations are taken at the base of the sidewall (bottom of the excavation).
MA - Massachusetts; NAD83 - North American Datum 1983; NAVD88 - North American Vertical Datum 1988; ft - feet;
Δ - difference between post-excavation elevation and design elevation or difference between post-restoration elevation and restoration design elevation
a - located on floor of new stream, surrounding area to grade

Table 2-3a
East Zone 2 Planting Summary

Date	High Marsh *(Distichlis spicata, Spartina patens)*[1]	Low Marsh *(Spartina alterniflora)*	Notes
Tuesday, May 30, 2023	6,000	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, May 31, 2023	6,000	——	EZ2 Parcel 25-43, ROW, 25-319
Thursday, June 1, 2023	6,000	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, June 2, 2023	4,750	——	EZ2 Parcel 25-43, ROW, 25-319
Monday, June 5, 2023	6,500	——	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, June 6, 2023	9,000	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, June 7, 2023	7,000	——	EZ2 Parcel 25-43, ROW, 25-319
Thursday, June 8, 2023	8,000	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, June 9, 2023	3,750	——	EZ2 Parcel 25-43, ROW, 25-319
Monday, June 12, 2023	2,750	——	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, June 13, 2023	4,250	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, June 14, 2023	2,750	——	EZ2 Parcel 25-43, ROW, 25-319
Thursday, June 15, 2023	3,250	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, June 16, 2023	1,500	——	EZ2 Parcel 25-43, ROW, 25-319
Monday, June 19, 2023	1,750	——	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, June 20, 2023	——	2,000	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, June 21, 2023	——	5,250	EZ2 Parcel 25-43, ROW, 25-319
Thursday, June 22, 2023	——	2,500	EZ2 Parcel 25-43, ROW, 25-319
Friday, June 23, 2023	600	3,150	EZ2 Parcel 25-43, ROW, 25-319
Monday, June 26, 2023	1,750	1,750	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, June 27, 2023	250	250	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, June 28, 2023	2,500	5,250	EZ2 Parcel 25-43, ROW, 25-319
Thursday, June 29, 2023	3,000	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, June 30, 2023	2,500	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, July 5, 2023	1,500	——	EZ2 Parcel 25-43, ROW, 25-319
Thursday, July 6, 2023	——	2,500	EZ2 Parcel 25-43, ROW, 25-319
Friday, July 7, 2023	——	2,750	EZ2 Parcel 25-43, ROW, 25-319
Monday, July 10, 2023	2,500	2,500	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, July 11, 2023	1,000	5,000	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, July 12, 2023	3,500	1,000	EZ2 Parcel 25-43, ROW, 25-319
Thursday, July 13, 2023	5,250	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, July 14, 2023	2,000	——	EZ2 Parcel 25-43, ROW, 25-319
Monday, July 17, 2023	3,000	——	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, July 18, 2023	4,000	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, July 19, 2023	2,375	2,375	EZ2 Parcel 25-43, ROW, 25-319
Thursday, July 20, 2023	4,500	——	EZ2 Parcel 25-43, ROW, 25-319
Friday, July 21, 2023	1,000	——	EZ2 Parcel 25-43, ROW, 25-319
Monday, July 24, 2023	2,500	——	EZ2 Parcel 25-43, ROW, 25-319
Tuesday, July 25, 2023	2,500	——	EZ2 Parcel 25-43, ROW, 25-319
Wednesday, July 26, 2023	1,375	1,375	EZ2 Parcel 25-43, ROW, 25-319
Thursday, July 27, 2023	1,250	1,250	EZ2 Parcel 25-43, ROW, 25-319
Monday, October 23, 2023	——	——	Begin upland and supplemental plantings
Tuesday, October 24, 2023	——	——	Continuing upland and supplemental plantings
Wednesday, October 25, 2023	——	——	Continuing upland and supplemental plantings
Thursday, October 26, 2023	——	——	Continuing upland and supplemental plantings
Tuesday, April 2, 2024	——	4,100	EZ2 Parcel 25-319
Wednesday, April 3, 2024	——	3,500	EZ2 Parcel 25-319
Thursday, April 4, 2024	——	5,400	EZ2 Parcel 25-319
Friday, April 5, 2024	——	4,300	EZ2 Parcel 25-319
Monday, April 8, 2024	——	4,700	EZ2 Parcel 25-319
Tuesday, April 9, 2024	——	0	EZ2 Parcel 25-319
Wednesday, April 10, 2024	——	3,950	EZ2 Parcel 25-319
Wednesday, April 10, 2024	——	750	EZ2 Parcel 25-319
Thursday, April 11, 2024	——	——	EZ2 Parcel 25-319
Wednesday, May 29, 2024	——	——	EZ2 Parcel 25-319. *Iva frutescens* (143 ct.)
Thursday, May 30, 2024	——	——	EZ2 Parcel 25-319, 25-43. *Iva frutescens* (380 ct.)
Friday, May 31, 2024	750	——	EZ2 Parcel 25-319, 25-43. *Iva frutescens* (380 ct.). All planting completed
Total	**122,850**	**65,600**	Total individual marsh plantings installed

Notes

[1] 50:50 mix of species plugs

Table 2-3b
East Zone 3 Planting Summary

Date	High Marsh *(Distichlis spicata, Spartina patens)*[1]	Low Marsh *(Spartina alterniflora)*	Notes
Wednesday, April 10, 2024	1,800	750	EZ3 Parcel 25-49
Thursday, April 11, 2024	4,400	3,400	EZ3 Parcel 25-49
Tuesday, April 16, 2024	8,200	——	EZ3 Parcel 25-49
Wednesday, April 17, 2024	9,650	1,650	EZ3 Parcel 25-49
Thursday, April 18, 2024	10,350	1,900	EZ3 Parcel 25-49 & 25-358
Friday, April 19, 2024	8,600	600	EZ3 Parcel 25-358 & 25-56
Monday, April 22, 2024	5,650	——	EZ3 Parcel 25-56 & 25-55Y
Tuesday, April 23, 2024	6,800	——	EZ3 Parcel 25-55Y
Wednesday, April 24, 2024	100	6,350	EZ3 Parcel 25-36
Thursday, April 25, 2024	1,750	4,450	EZ3 Parcel 25-55Y
Friday, April 26, 2024	——	2,750	EZ3 Parcel 25-56
Monday, April 29, 2024	1,750	1,100	EZ3 Parcel 25-56 & 25-55Y
Tuesday, April 30, 2024	3,600	2,400	EZ3 Parcel 25-56 & 25-55Y
Wednesday, May 1, 2024	3,600	1,200	EZ3 Parcel 25-55Y
Thursday, May 2, 2024	1,200	2,000	EZ3 Parcel 25-55Y & Supplemental area
Friday, May 3, 2024	1,250	1,750	EZ3 Parcel 25-55Y & Supplemental area
Monday, May 6, 2024	4,350	——	EZ3 Parcel 25-55Y & Supplemental area
Friday, May 24, 2024	1,600	——	EZ3 Supplemental area
Monday, June 3, 2024	4,350	——	EZ3 Supplemental areas on Parcel 25-55y, 25-56, 25-358
Tuesday, June 4, 2024	4,300	——	EZ3 Supplemental areas on Parcel 25-56, 25-358, 25-49 + 3 trees
Wednesday, June 5, 2024	5,650	——	EZ3 Parcel 20-005 and 25-55Y. *Myrica pennsylvanica* (59 ct.)
Thursday, June 6, 2024	3,200	——	EZ3 Parcel 25-55Y and 25-56. *Iva frutescens* (220 ct.) EZ3 25-49 and Supplemental area
Friday, June 7, 2024	1,150	——	EZ3 Parcel 25-55Y
Monday, June 10, 2024	4,450	——	EZ3 Parcel 25-55Y
Tuesday, June 11, 2024	13,250	——	EZ3 Parcel 25-55Y and 25-56
Wednesday, June 12, 2024	5,900	——	EZ3 Parcel 25-56
Thursday, June 13, 2024	10,100	——	EZ3 Parcel 25-56 and 25-358
Friday, June 14, 2024	800	——	EZ3 Parcel 25-358
Monday, June 17, 2024	5,650	——	EZ3 Parcel 25-49
Tuesday, June 18, 2024	10,250	——	EZ3 Parcel 25-55Y, 25-49, and Supplemental Areas
Wednesday, June 19, 2024	2,700	——	EZ3 Parcel 25-49
Thursday, June 20, 2024	6,150	750	EZ3 Parcel 25-49
Tuesday, June 25, 2024	900	——	EZ3 Parcel 25-49
Wednesday, June 26, 2024	5,950		EZ3 Supplemental Areas
Thursday, June 27, 2024	2,550	100	EZ3 Parcel 25-358 and 25-49 and Supplemental Areas. Upland plants (35 ct.)
Total	**161,950**	**31,150**	Total individual marsh plantings installed

Notes

[1] 50:50 species mix

Attachment A

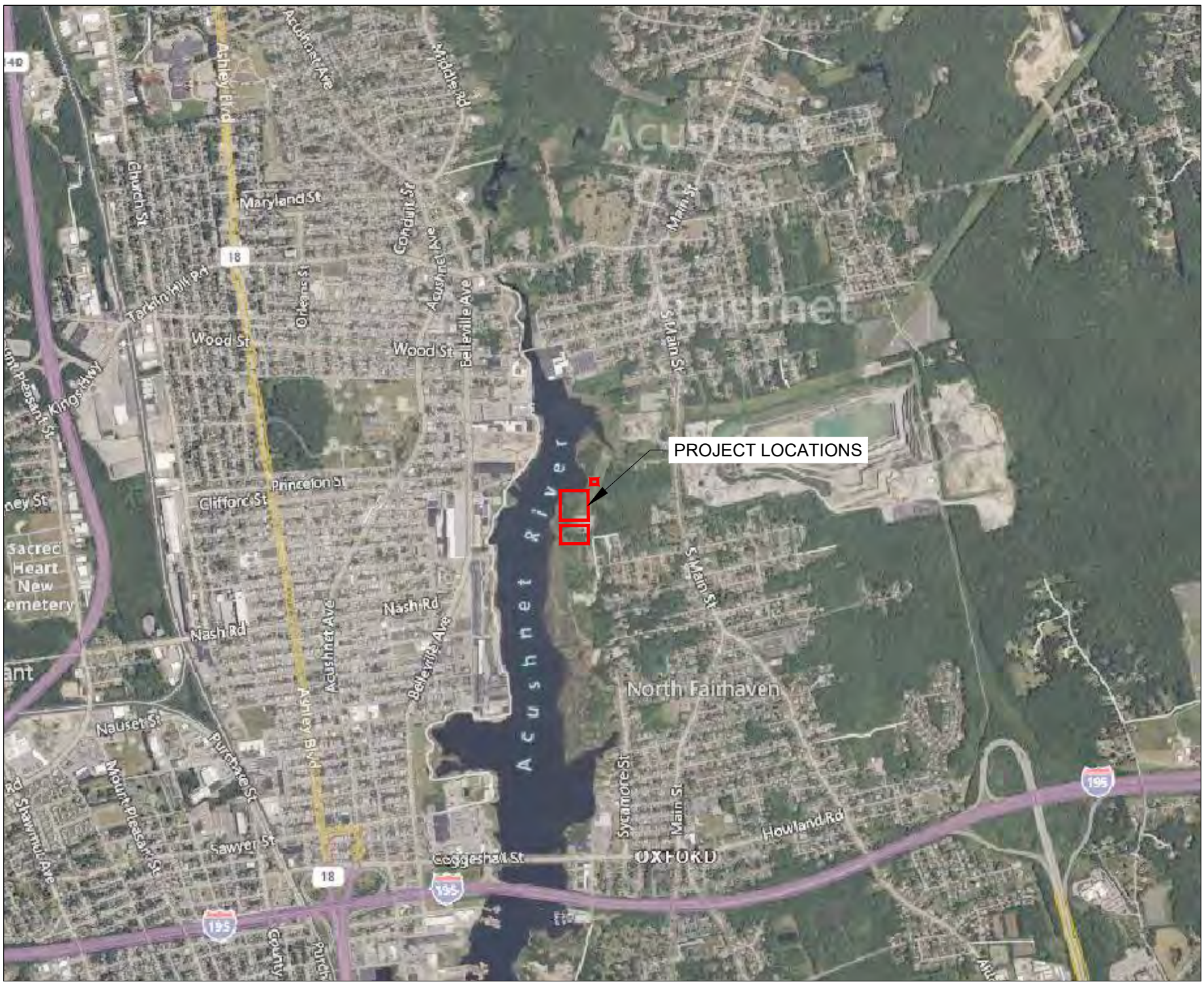
East Zones 2 and 3 Planting Plans and Revisions

East Zone 2 Supplemental Planting Plan

Prepared by: SWCA Environmental Consultants

Author: Tony Somers, PLA, ASLA, SITES AP

Prepared for: Jacobs Engineering



TABLOID (11"x17") SCALE: 1"=2000'

0 1000 2000 4000

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Legend:

Key Map:

Stamp:

MASSACHUSETTS
Anthony Somers
REGISTERED LANDSCAPE ARCHITECT
NO. 4220

Project Title:

EAST ZONE 2
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

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EAST ZONE-2 PLANTING PLAN SUMMARY NARRATIVE

PROPOSED PLANTINGS (FALL 2023/SPRING 2024)

THE INTENT OF THIS PLANTING DESIGN IS TO RESTORE RIPARIAN AND UPLAND HABITAT DEGRADED BY TEMPORARY CONSTRUCTION ACCESS AND STAGING. A TOTAL OF 63 TREES ARE PROPOSED TO OFFSET TREES LOST OR SIGNIFICANTLY DAMAGED DURING RESTORATION EFFORTS. TREES WILL BE AT A 3'-5' HEIGHT IN CONTAINERS OR BAREROOT, AS APPROPRIATE FOR THE SPECIES. ALL PROPOSED SHRUBS WILL BE IN 1-GALLON CONTAINERS. SLOW-RELEASE FERTILIZER, SUCH AS OSMOCOTE, SHOULD ACCOMPANY SHRUB AND TREE PLANTINGS TO PROMOTE HEALTH AND VIGOR DURING ESTABLISHMENT. SPECIFIC SEED MIXES SHOULD BE INSTALLED ONLY IN LOCATIONS SPECIFIED ON THE PLANS. TEMPORARY FENCING, CAGING, OR OTHER HERBIVORE DETERRENT MEASURES SHOULD BE PROVIDED AROUND TREES AND SHRUBS THROUGH THE ESTABLISHMENT PERIOD.

PLANTING AREA A

PLANTING AREA A CONSISTS OF GROUND DISTURBANCE RESTORATION IN UPLAND AREAS WITHIN, OR IN DIRECT ADJACENCY TO, AN EXISTING TRANSMISSION EASEMENT. NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX IS PRESCRIBED IN THIS AREA DUE TO THE PROHIBITION OF WOODY MATERIAL WITHIN THE TRANSMISSION CORRIDOR.

PLANTING AREA B

PLANTING AREA B CONSISTS OF GROUND DISTURBANCE RESTORATION IN UPLAND AREAS WITHIN, OR IN DIRECT ADJACENCY TO, AN EXISTING TRANSMISSION EASEMENT, AND ALONG A FORESTED ACCESS ROAD LOOP. ACCESS ROAD AREAS WITHIN THE TRANSMISSION EASEMENT WILL RECEIVE NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX ONLY DUE TO THE PROHIBITION OF WOODY MATERIAL WITHIN THE TRANSMISSION CORRIDOR. AREAS OF THE ACCESS LOOP OUTSIDE OF THE EASEMENT WILL BE RESTORED WITH NATIVE TREES AND SHRUBS, AND A SHADE TOLERANT SEED MIX APPROPRIATE TO REESTABLISH A MULTI-LEVEL UNDERSTORY AND CANOPY WITHIN THIS PREDOMINANTLY FORESTED AREA. A TOTAL OF 51 TREES ARE PROPOSED IN THIS AREA AS PART OF THE MITIGATION OF TREES LOST OR SIGNIFICANTLY DAMAGED DURING CONSTRUCTION AND RESTORATION EFFORTS. OPEN AREAS ALONG THE TOP OF THE NORTHERN BANK ARE TO RECEIVE TREE AND SHRUB PLANTINGS AS WELL AS A SALT TOLERANT SEED MIX. A SMALL AREA OF BANK ALONG THE NORTHEAST END OF THE LOOP HAS RECENTLY BEEN RESTORED AND IS TO RECEIVE A COMBINATION OF SEED MIXES AND SHRUBS TO AID IN VEGETATION REESTABLISHMENT AND BANK STABILIZATION.

PLANTING AREA C

PLANTING AREA C CONSISTS OF GROUND DISTURBANCE RESTORATION IN UPLAND AND TRANSITION ZONE AREAS. THE LARGE OPEN AREA TO THE NORTH IS IN THE AREA OF UNDERGROUND CONDUIT AND IS TO RECEIVE SALT TOLERANT SEED MIX ONLY DUE TO THE PROHIBITION OF WOODY MATERIAL ON OR SURROUNDING THE UNDERGROUND CONDUIT. WITHIN THE WOODED STAGING AREA NATIVE TREES AND SHRUBS, AND A SHADE TOLERANT SEED MIX WILL BE USED TO REESTABLISH A MULTI-LEVEL UNDERSTORY AND CANOPY WITHIN THIS PREDOMINANTLY FORESTED AREA. A TOTAL OF 12 TREES ARE PROPOSED IN THIS AREA AS PART OF THE MITIGATION OF TREES LOST OR SIGNIFICANTLY DAMAGED DURING CONSTRUCTION AND RESTORATION EFFORTS. TO THE SOUTHWEST IS A SMALL ACCESS AREA WITHIN THE TRANSITION ZONE. THIS AREA IS TO BE RESTORED WITH SALT TOLERANT SEED MIX.

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Legend:

Key Map:

Stamp:
MASSACHUSETTS
Anthony Somers
NO. 4220
REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 2
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HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

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PROJECT NARRATIVE

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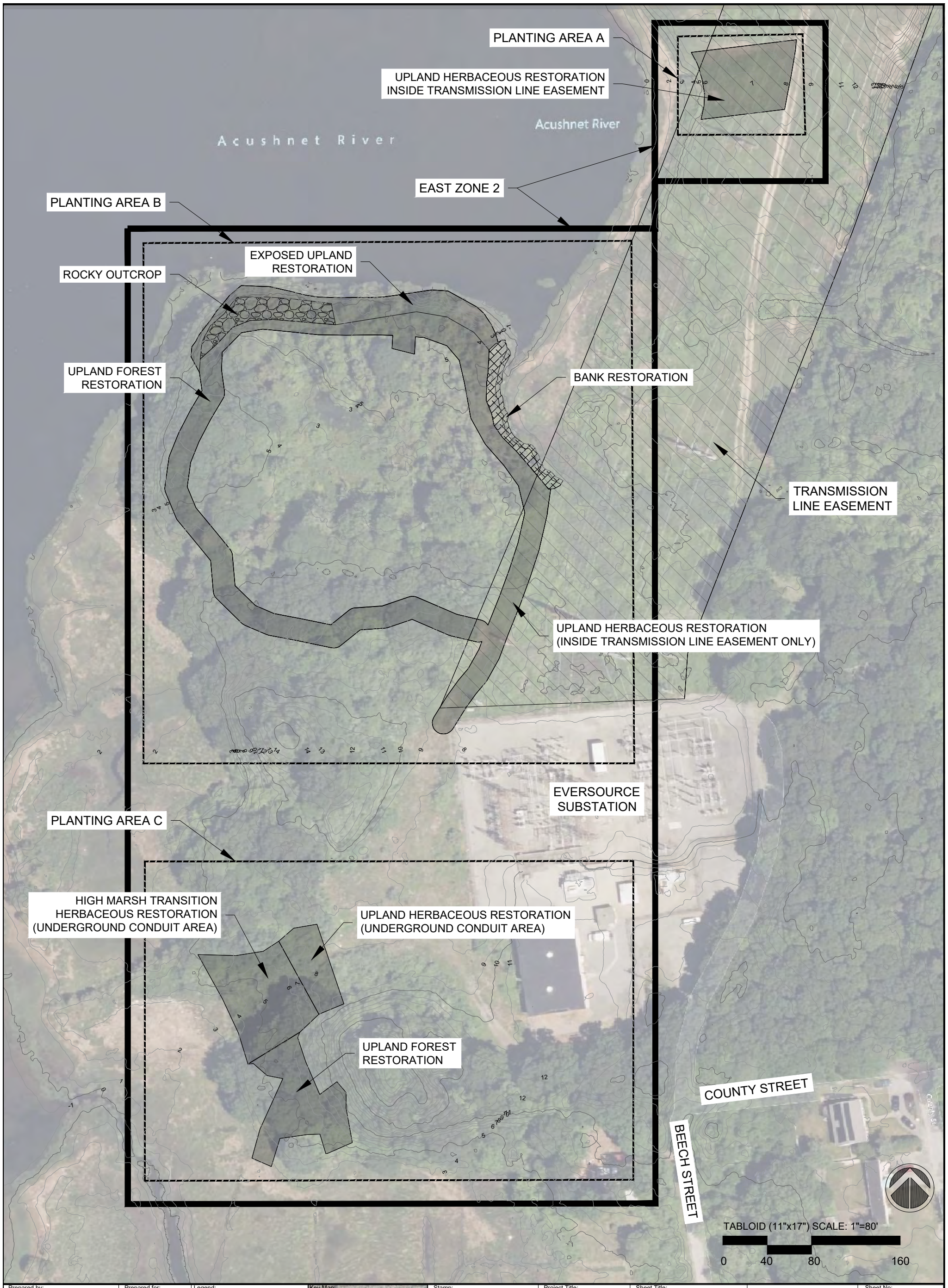

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- East Zone 2 (EZ2)
- Planting Area A + B +C
- Transmission Line Easement

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EXISTING CONDITIONS

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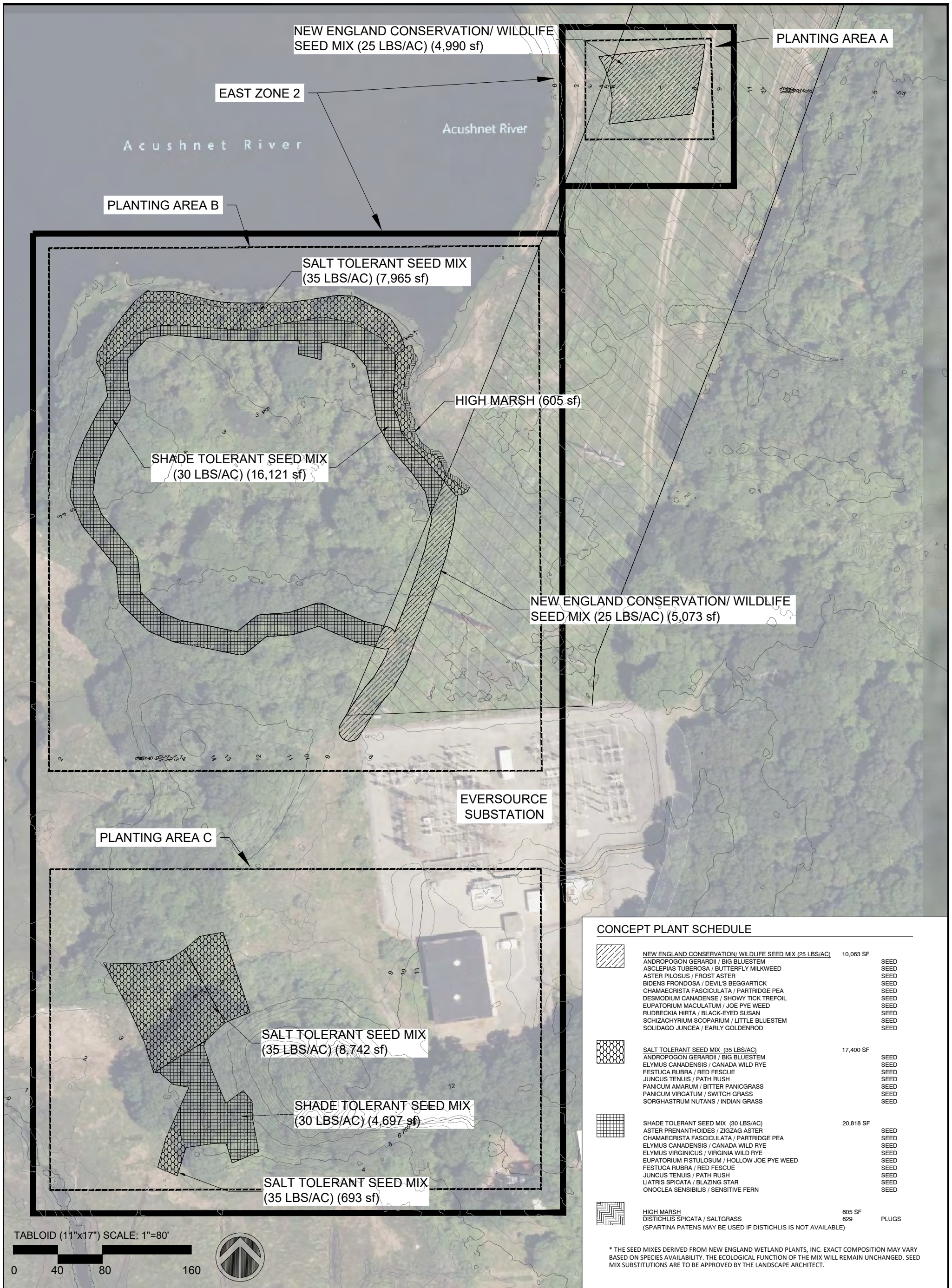

CONCEPT PLANT SCHEDULE

	NEW ENGLAND CONSERVATION/ WILDLIFE SEED MIX (25 LBS/AC)	10,063 SF	
	ANDROPOGON GERARDII / BIG BLUESTEM		SEED
	ASCLEPIAS TUBEROSA / BUTTERFLY MILKWEED		SEED
	ASTER PILOSUS / FROST ASTER		SEED
	BIDENS FRONDOSA / DEVIL'S BEGGARTICK		SEED
	CHAMAECRISTA FASCICULATA / PARTRIDGE PEA		SEED
	DESMODIUM CANADENSE / SHOWY TICK TREFOIL		SEED
	EUPATORIUM MACULATUM / JOE PYE WEED		SEED
	RUDBECKIA HIRTA / BLACK-EYED SUSAN		SEED
	SCHIZACHYRIUM SCOPARIUM / LITTLE BLUESTEM		SEED
	SOLIDAGO JUNCEA / EARLY GOLDENROD		SEED
	SALT TOLERANT SEED MIX (35 LBS/AC)	17,400 SF	
	ANDROPOGON GERARDII / BIG BLUESTEM		SEED
	ELYMUS CANADENSIS / CANADA WILD RYE		SEED
	FESTUCA RUBRA / RED FESCUE		SEED
	JUNCUS TENUIS / PATH RUSH		SEED
	PANICUM AMARUM / BITTER PANICGRASS		SEED
	PANICUM VIRGATUM / SWITCH GRASS		SEED
	SORGHASTRUM NUTANS / INDIAN GRASS		SEED
	SHADE TOLERANT SEED MIX (30 LBS/AC)	20,818 SF	
	ASTER PRENANTHOIDES / ZIGZAG ASTER		SEED
	CHAMAECRISTA FASCICULATA / PARTRIDGE PEA		SEED
	ELYMUS CANADENSIS / CANADA WILD RYE		SEED
	ELYMUS VIRGINICUS / VIRGINIA WILD RYE		SEED
	EUPATORIUM FISTULOSUM / HOLLOW JOE PYE WEED		SEED
	FESTUCA RUBRA / RED FESCUE		SEED
	JUNCUS TENUIS / PATH RUSH		SEED
	LIATRIS SPICATA / BLAZING STAR		SEED
	ONOCLEA SENSIBILIS / SENSITIVE FERN		SEED
	HIGH MARSH	605 SF	
	DISTICHLIS SPICATA / SALTGRASS	629	PLUGS
	(SPARTINA PATENS MAY BE USED IF DISTICHLIS IS NOT AVAILABLE)		

* THE SEED MIXES DERIVED FROM NEW ENGLAND WETLAND PLANTS, INC. EXACT COMPOSITION MAY VARY BASED ON SPECIES AVAILABILITY. THE ECOLOGICAL FUNCTION OF THE MIX WILL REMAIN UNCHANGED. SEED MIX SUBSTITUTIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

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Legend:
- East Zone 2 (EZ2)
- Planting Area A + B +C
- Transmission Line Easement

Key Map: SITE LOCATION

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Project Title: EAST ZONE 2 NEW BEDFORD HARBOR SUPERFUND SITE NEW BEDFORD, MA

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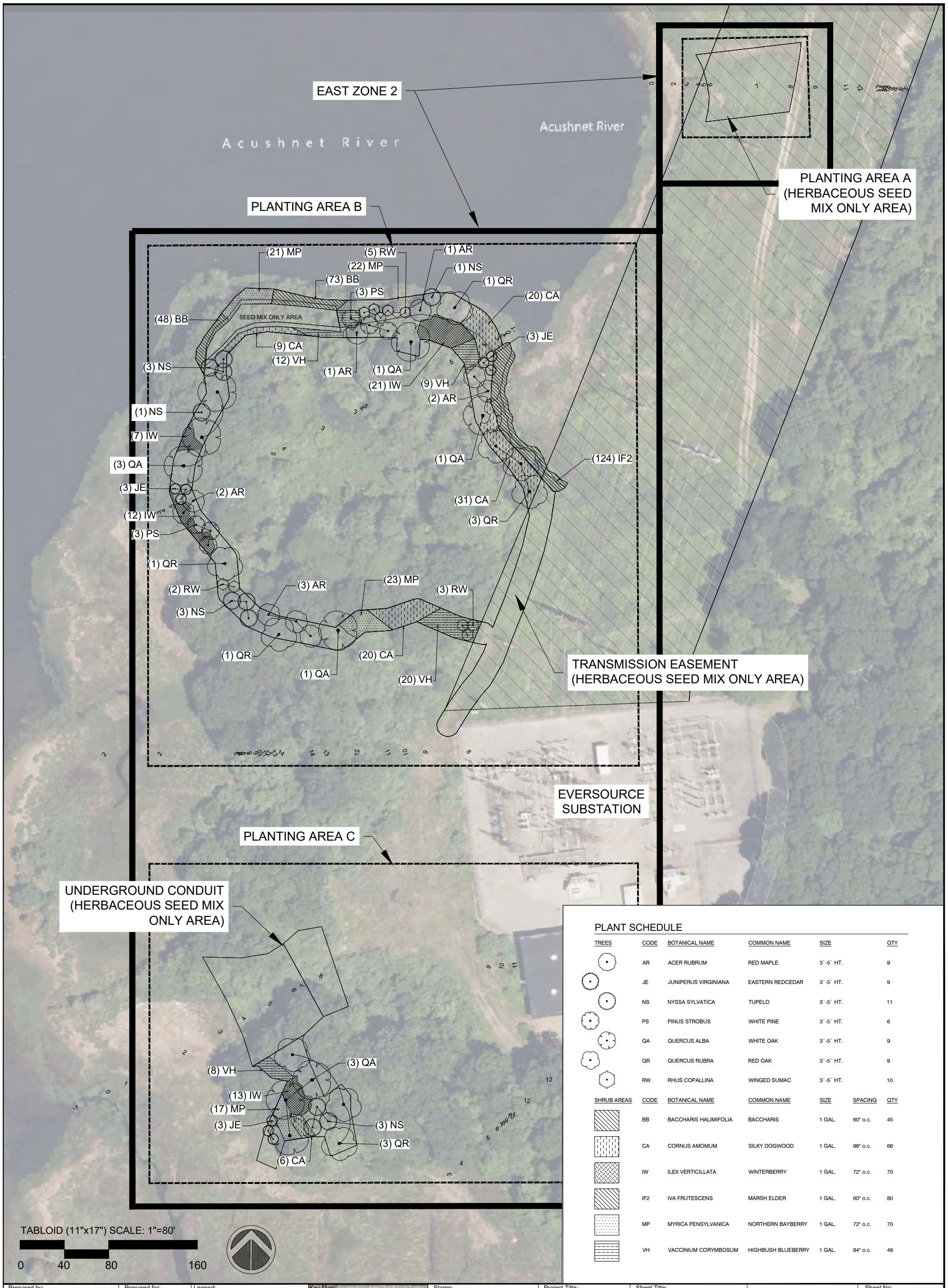

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
	AR	ACER RUBRUM	RED MAPLE	3`-5` HT.	9
	JE	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	3`-5` HT.	9
	NS	NYSSA SYLVATICA	TUPELO	3`-5` HT.	11
	PS	PINUS STROBUS	WHITE PINE	3`-5` HT.	6
	QA	QUERCUS ALBA	WHITE OAK	3`-5` HT.	9
	QR	QUERCUS RUBRA	RED OAK	3`-5` HT.	9
	RW	RHUS COPALLINA	WINGED SUMAC	3`-5` HT.	10

SHRUB AREAS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY
	BB	BACCHARIS HALIMIFOLIA	BACCHARIS	1 GAL.	60" o.c.	45
	CA	CORNUS AMOMUM	SILKY DOGWOOD	1 GAL.	96" o.c.	66
	IW	ILEX VERTICILLATA	WINTERBERRY	1 GAL.	72" o.c.	70
	IF2	IVA FRUTESCENS	MARSH ELDER	1 GAL.	60" o.c.	80
	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	1 GAL.	72" o.c.	70
	VH	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	1 GAL.	84" o.c.	49

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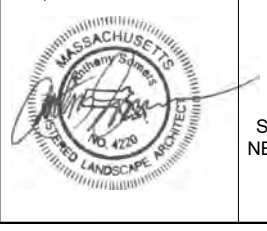

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EAST ZONE 2
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PLANTING PLAN

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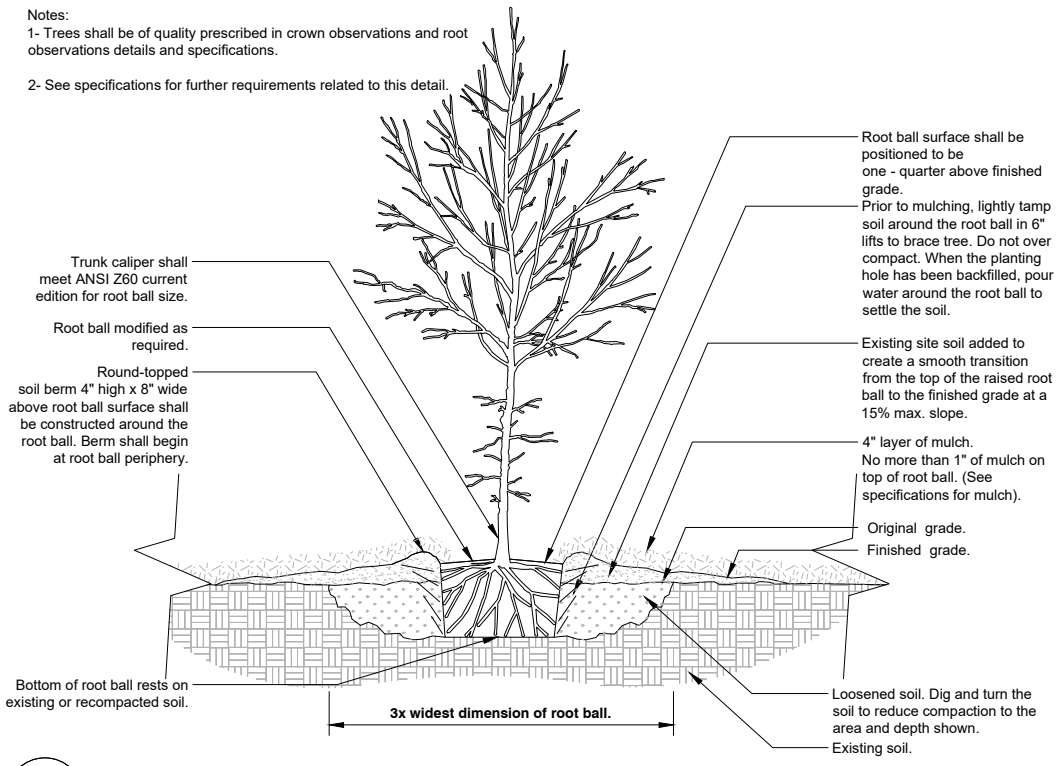
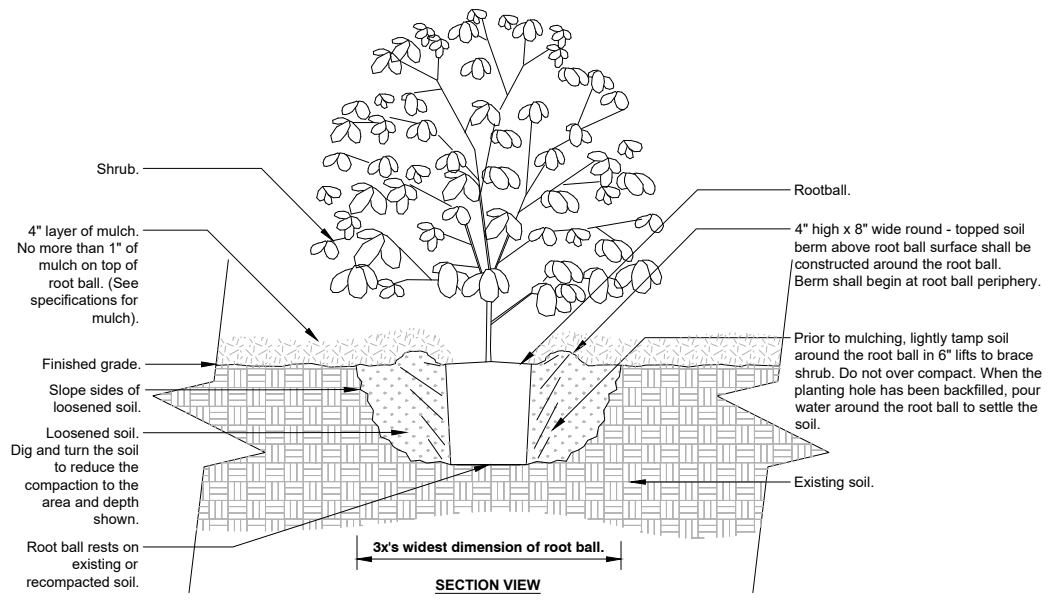
Notes:
1- Trees shall be of quality prescribed in crown observations and root observations details and specifications.

2- See specifications for further requirements related to this detail.



1 TREE PLANTING DETAIL

Scale: NTS

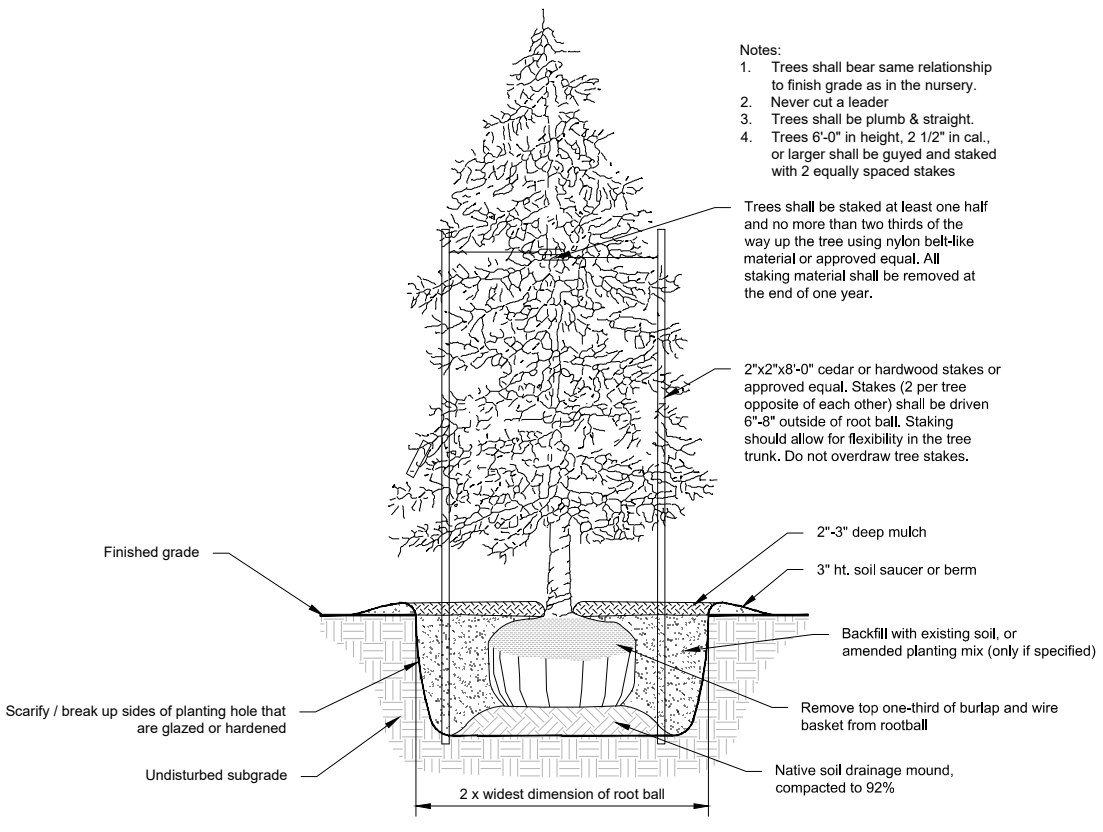


Notes:
1- Shrubs shall be of quality prescribed in the root observations detail and specifications.

2- See specifications for further requirements related to this detail.

2 SHRUB PLANTING DETAIL

Scale: NTS



3 EVERGREEN TREE PLANTING DETAIL

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Legend:

Key Map:

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MASSACHUSETTS
Bethany Sumeris
NO. 4220
REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 2
NEW BEDFORD HARBOR SUPERFUND SITE
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SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL ENSURE THAT ALL LOCAL AND STATE PERMITS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIAL TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN. THE PREPARATION OF NEW PLANTING EXCAVATIONS, DISPOSAL OF UNUSABLE PLANTS, PLANT DEBRIS AND LEFT-OVER SOIL ON OR OFF THE SITE AS DIRECTED BY THE OWNER; FURNISHING PEAT MOSS, FERTILIZERS AND WOOD CHIPS; WATERING AND MAINTENANCE OF WORK UNTIL FINAL ACCEPTANCE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OFF THE SITE OF ROOTS, STUMPS, EXCESS SOIL AND OTHER DEBRIS RESULTING FROM EXCAVATIONS FOR CONTRACTOR'S OPERATIONS. DEBRIS SHALL BE HAULED TO LOCATIONS DESIGNATED BY THE OWNER
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION FOR ALL INSTALLATIONS AND IMMEDIATE DISPOSAL OF ALL EXCAVATED SUBSOIL ON OR OFF SITE AS DIRECTED BY THE OWNER.

STABILIZATION AND PLANTING NOTES:

1. REMOVE OBSTRUCTIONS, AS REQUIRED, TO PERMIT INSTALLATION OF NEW CONSTRUCTION. CUT MINOR ROOTS OF TREES INDICATED TO REMAIN IN A CLEAN AND CAREFUL MANNER WHERE SUCH ROOTS AND BRANCHES OBSTRUCT INSTALLATION OF NEW CONSTRUCTION.
2. REPAIR OR REPLACE EXISTING TREES AND VEGETATION THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS IN A MANNER ACCEPTABLE TO THE LANDSCAPE ARCHITECT. EMPLOY A LICENSED ARBORIST TO REPAIR DAMAGE TO TREES AND SHRUBS.

SEEDING AND MANAGEMENT GUIDANCE

SEEDING CHRONOLOGY/TIMING

THE FOLLOWING METHODOLOGY PROVIDES SEQUENCING FOR ESTABLISHING THE SEED MIXES PRESCRIBED HEREIN. THIS PROCESS SHOULD BEGIN FOLLOWING FINAL GRADING.

LIVE OR SPRING SEEDING: "LIVE SEEDING" TAKES PLACE WHEN SOIL TEMPERATURES ARE CONSISTENTLY ABOVE 55 DEGREES FAHRENHEIT AND SEED CAN ACTIVELY GERMINATE WITHOUT THE RISK OF A HARD FREEZE. IN THE PROJECT REGION LIVE SEEDING IS RECOMMENDED BETWEEN MAY 15 AND JUNE 15. PLANTING AFTER MID-JUNE IS NOT RECOMMENDED SINCE NEWLY ESTABLISHED PLANTINGS LACK ROOT DEPTH AND ARE SUSCEPTIBLE TO BURNOUT RELATED TO DROUGHT CONDITIONS.

DORMANT SEEDING: THE OPTIMAL TIME TO "DORMANT SEED" PRESCRIBED NATIVE GRASSES AND FORBS IS WHEN SOIL TEMPERATURES ARE CONSISTENTLY BELOW 55 DEGREES FAHRENHEIT, APPROXIMATELY NOVEMBER 15-MAY 15 IN THE PROJECT REGION. SEEDING WHEN SNOW IS ON THE GROUND SHOULD BE AVOIDED SINCE IT REDUCES SEED-TO-SOIL CONTACT AND EXPOSES THE SEED TO PREDATION. DURING THIS PERIOD THE PRESCRIBED COOL SEASON NURSE CROP AND NATIVE COOL SEASON SPECIES WILL ESTABLISH; HOWEVER, WARM SEASON GRASSES AND FORBS WILL GERMINATE IN THE SPRING WHEN SOIL TEMPERATURES RISE. DORMANT SEEDING ENABLES COLD STRATIFICATION OF THE SEED AND ALLOWS THE SEED THE EARLIEST GERMINATION POSSIBLE GOING INTO THE LIVE SEEDING PERIOD.

TEMPORARY COVER CROP/STABILIZATION PLANTINGS OF INTRODUCED, COOL-SEASON GRASSES CAN OCCUR ANYTIME BETWEEN AUGUST 1-DECEMBER 31, OR BETWEEN JANUARY 1-JULY 31 AS NEEDED WHEN ADEQUATE SOIL MOISTURE IS PRESENT, AND SOIL TEMPERATURES ARE ABOVE 55 DEGREES FAHRENHEIT. DISTURBED AREAS OUTSIDE OF THE PERMANENT SEEDING DATES SPECIFIED MUST BE STABILIZED WITH A TEMPORARY SEED MIX UNTIL THE PERMANENT STABILIZATION MIX CAN BE APPLIED. PERMANENT SEEDING MIXES SHALL BE IMPLEMENTED IN THESE AREAS DURING THE EARLIEST APPROPRIATE SEEDING WINDOW THE CONTRACTOR SHALL APPLY TEMPORARY COVER CROP TO ALL DISTURBED AREAS WITHIN 14 DAYS OF DISTURBANCE.

WEATHER FORECASTS SHOULD BE MONITORED AS SUPPLEMENTAL WATERING MAY BE NECESSARY DURING PROLONGED DRY PERIODS. THE SEEDING SEQUENCE SHOULD BEGIN WITHIN 48 HOURS AFTER FINAL GRADING TO CAPITALIZE ON EXISTING SOIL MOISTURE PRIOR TO SURFICIAL DRYING. SITE STABILIZATION TECHNIQUES SHOULD BE UTILIZED IN THIS 48-HOUR TIME PERIOD. ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 14 CALENDAR DAYS FROM THE DATE OF DISTURBANCE IN ACCORDANCE WITH THE STANDARD FOR PERMANENT CONSTRUCTION AREA PLANTINGS.

SOIL SCARIFICATION/ SEED BED PREPARATION

SEED BED PREPARATION IS THE PROCESS OF SCARIFYING AND LOOSENING THE SOIL SURFACE IN ORDER TO CREATE A LOOSE, FRIABLE, SOIL SURFACE. THE SOIL SURFACE SHOULD BE A UNIFORM PLANAR SURFACE THAT IS FLAT AND WITHOUT EXCESSIVE RIDGES, FURROWS, RUTS OR MOUNDS AND LOW SPOTS WHERE WATER CAN COLLECT. SOIL SCARIFICATION SHOULD ONLY OCCUR WHEN WEATHER, SOIL CONDITIONS, AND CONSTRUCTION PHASING ALLOWS FOR NO LONGER THAN 48 HOURS BETWEEN SCARIFICATION (THE BEGINNING OF THE SEEDING PROCESS) AND COVERING THE SEED WITH WEED FREE STRAW MULCH (NOT HAY) OR HYDROMULCH. THE SOIL SHOULD BE SCARIFIED TO MAXIMUM DEPTH OF 3 INCHES (SEE BELOW). DURING THIS PROCESS, AREAS WHERE COARSE GRAVEL DOMINATES THE SOIL SURFACE SHOULD BE IDENTIFIED AND AMENDED WITH SILT LOAM COMMON BORROW GENERATED FROM ON-SITE EARTHWORK.

SEED APPLICATION

A WELL-PREPARED SEED BED PROVIDES A LOOSE FRIABLE SOIL SURFACE FOR WHICH THE SEED CAN BE SOWN INTO. SEED APPLICATION IS A TWO-PART PROCESS: 1) SEED APPLICATION AT PROPER RATES PER ACRE, AND 2) SOW THE SEED INTO THE SOIL 1/8" TO ¼" DEPTH MAXIMUM. APPROPRIATE SEED RATES FOR EACH PRESCRIBED SEED MIX ARE SPECIFIED ON SHEET LP-03.

BROADCAST: A SPREADER EQUIPPED WITH AN AGITATOR (NEAR THE SEED RATE APERTURE) IS REQUIRED FOR SUCCESSFUL BROADCAST PLANTING OF DIVERSE SEED MIXES WITH VARIED SEED SIZES. CHECK THE SEED LABEL PRIOR TO OPENING THE BULK BAG TO CONFIRM THE CORRECT SEED IS BEING APPLIED TO THE SPECIFIED LOCATION. CHECK THE BULK BAGS OF SEED TO CONFIRM IF ALL SEED SPECIES ARE WITHIN EACH BAG OR IF IN BAGS SEPARATED BY SIZE OR CHAFF. IF SEPARATED, BLEND THE APPROPRIATE BAGS FOR EACH PLANTING AREA WITHIN THE SPREADER HOPPER OR IN A CLEAN DRUM/BARREL PRIOR TO SEEDING. ONCE THE SEED IS SPREAD THE SEED MUST BE SOWN INTO THE SOIL TO THE DEPTH ABOVE IN ORDER TO INCREASE CHANCES OF GERMINATION WITH SEED-TO-SOIL CONTACT AND BY KEEPING SOIL MOISTURE CLOSE TO THE SEED. THE BROADCASTED SEED CAN BE SOWN BY A NUMBER OF WAYS INCLUDING "TRACKED" IN WITH A LOW PSI RUBBER TIRE OR TRACKED MACHINE WITH OVERLAPPING PASSES, USE OF A CULTIPACKER, OR HEAVY ROLLER. BROADCAST SEED SHALL BE COVERED WITH WEED FREE STRAW MULCH (NOT HAY) OR HYDROMULCH.

PLANT SUCCESSION NOTES

IT IS POSSIBLE THAT SOME SEEDED AREAS MIGHT BECOME DOMINATED BY NATIVE PLANT SPECIES EXISTING IN THE SOIL SEED BANK. THIS INCLUDES BENEFICIAL NATIVE GRASSES AND FORBS. THESE ARE STILL BENEFICIAL SPECIES TO WILDLIFE AND COMPATIBLE WITH PRESCRIBED SEED MIXES. LIKEWISE, IT IS POSSIBLE THAT PERENNIAL GRASS AND FORB SPECIES MAY NOT BECOME APPARENT DURING THE FIRST GROWING SEASON, TAKING UP TO THREE YEARS TO BECOME ESTABLISHED. ANNUAL FORBS SHOULD BECOME ESTABLISHED WITHIN THE FIRST GROWING SEASON. SPECIFIC MANAGEMENT PRACTICES DETAILED BELOW WILL INSURE ESTABLISHMENT OF ALL SEED MIXES OVER TIME.

WOODY PLANT ESTABLISHMENT

THE FOLLOWING APPROACH PROVIDES SEQUENCING FOR ESTABLISHING WOODY VEGETATION.

1. PLANTING HOLE PREPARATION - DETERMINE THE CORRECT PLANTING HOLE DEPTH BY MEASURING FROM THE PLANT TRUNK FLARE TO THE BOTTOM OF THE ROOTBALL; THE UPPERMOST STRUCTURAL ROOTS IN THE ROOTBALL WITHIN 1-3 INCHES OF THE SOIL SURFACE MEASURE 2-5 INCHES FROM THE TRUNK; THE PLANTING HOLE SHOULD BE APPROXIMATELY 3-5 TIMES THE WIDTH OF THE CONTAINER WITH OUTWARD SLOPING SIDES.
2. SETTING THE PLANT - CAREFULLY SET THE PLANT AT APPROXIMATELY 0-2 INCHES ABOVE THE EXISTING GRADE, REMOVE CONTAINER, AND RESET ROOTBALL IN PLANTING HOLE.
3. SETTING BACKFILLED SOIL - WATER BACKFILL SOIL HALFWAY THROUGH THE BACKFILL PROCESS AND ALLOW IT TO DRAIN; WHEN THE WATER HAS DRAINED AWAY RESUME BACKFILLING AND WATER THOROUGHLY AGAIN; DO NOT TAMP OR COMPACT BACKFILL. SMOOTH OUT SURFACE SOIL AND ENSURE TRUNK FLARE IS EXPOSED AND STRUCTURAL ROOTS ARE WITHIN 3-INCHES OF SOIL MEASURED 4-INCHES FROM THE TRUNK.
4. USE OF FERTILIZERS - SLOW-RELEASE FERTILIZER, SUCH AS OSMOCOTE, SHOULD BE INCLUDED DURING THE INSTALLATION OF ALL CONTAINERS AND GALLON CONTAINER MATERIAL.

MAINTENANCE AND MONITORING

1. FOR BMPS THAT ARE NOT TO REMAIN IN PLACE AS A PART OF FINAL STABILIZATION SUCH AS SILT FENCE AND OTHER TEMPORARY MEASURES, BMPS SHOULD BE REMOVED WHEN ALL LAND DISTURBING ACTIVITIES HAVE CEASED AND AREAS HAVE BEEN PERMANENTLY STABILIZED.
2. A SIMPLE SITE INSPECTION PERFORMED BY SOMEONE WITH KNOWLEDGE OF THE ORIGINAL DESIGN OF THE PROJECT IS THE MOST COST EFFECTIVE AND IS GENERALLY CONSIDERED SUFFICIENT MONITORING. THIS INSPECTION SHOULD INCLUDE OBSERVING INSTALLED VEGETATION AND OVERALL ENVIRONMENTAL CONDITIONS. TAKING PICTURES ALONG WITH NOTES IS THE BEST WAY TO DOCUMENT ANY PROBLEMS OBSERVED. PERIODIC PICTURES OF THE SAME AREA WILL MAKE IT EASIER TO IDENTIFY CHANGING CHARACTERISTICS.
3. MONITORING IS OF GREATEST IMPORTANCE DURING THE FIRST TWO YEARS AFTER CONSTRUCTION. INSPECTIONS SHOULD BE CONDUCTED AFTER HIGH-WATER EVENTS OR HEAVY STORM ACTION. DURING PERIODS OF LOW-WATER LEVELS, VISUAL MONITORING SHOULD CONFIRM IF SUPPLEMENTAL WATERING IS REQUIRED, HOWEVER, ULTIMATE CONTROL FOR SUPPLEMENTAL WATERING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. AN EVALUATION OF VEGETATIVE GROWTH SHOULD BE PART OF EVERY INSPECTION. ADDITIONAL PLANTING MAY BE NEEDED DEPENDING ON THE GROWTH OF THE PLANTS WITHIN THE FIRST TWO YEARS.

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Legend:

Key Map:

Stamp:
MASSACHUSETTS
Anthony Somers
NO. 4220
REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 2
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:
NOTES

DATE:	9/20/2023
SCALE:	AS SHOWN
DRAWN BY:	CD
CHECKED BY:	TS
FILE #:	73355-000

REVISIONS

DATE:	BY:	NOTE:

Sheet No:
LP-06

ATTACHMENT B

Jacobs

Project Notes

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New Bedford, MA 02746
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Client	NAE	**Date**	2 January 2024
Project	New Bedford Harbor Superfund Site	**Project No.**	35BG7000
Prepared By	Patrick Curran	**DCN**	ACE-J23-35BG7000-P1-0069
Issued By	Lonnie Fallin		
Subject	Draft Final | Fall 2023 EZ2 Upland and Supplemental Planting Plan Deviations		

Distribution	**See below**			
Client	**EPA**	**Sevenson**	**Jacobs**	
Kerwin Donato	Dave Dickerson	Joe Mahoney	Josh Cummings	
Marie Esten	Natalie Burgo	Mike Brouillette	Patrick Curran	
Mike Degrazia			Lonnie Fallin	
			Sawyer Fallin-Hornsberger	

1 PURPOSE & SCOPE

The purpose of this Project Note is to track and document deviations during the Fall 2023 EZ2 Upland and Supplemental planting effort from the planting plans described in *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (April 2022), Draft Final Project Note *EZ2 Planting Plan Revisions* (August 2023),and Draft Final *EZ2 Supplemental Planting Plan* (September 2023).

2 DEVIATIONS

Topic / Planting Area	Document(s)	Deviation Description	Date
Eastern Red Cedar (*Juniperus virginiana*) size and availability	-*Work Plan* (Apr 2022) -*Supplemental Plan* (Sept 2023)	*Supplemental Plan* called for (9) 3-5ft sized tress between Planting Areas B and C. Nursery only had ~1ft (1-gallon containers) available. EPA approved install of the smaller sized trees for supplemental area. *Work Plan* specified 1-gallon trees for restored areas (no deviation).	October 23, 2023
Highbush Blueberry (*Vaccinium corymbosum*) Area 3 Parcel 25-319	-*Work Plan* (Apr 2022) -*Planting Plan Revisions* (Aug 2023)	*Work Plan* called for 86 highbush blueberry plants in an area that it is now too wet and not suitable. Plants were relocated to areas more suitable along haul roads and Area 2 of Parcel 25-43 instead. This area received low and high marsh plantings and Iva frutescens in place of the highbush blueberries.	October 24, 2023
Area 2 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	- Eastern Red Cedar (*Juniperus virginiana*)	October 27, 2023

			removed from plan from areas beneath overhead electrical lines (Eversource ROW). No trees ordered or relocated. -37 Highbush Blueberry (*Vaccinium corymbosum*) installed (moved from Area 3 of Parcel 25-319, see above).	
	Area 3 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	- Eastern Red Cedar (*Juniperus virginiana*) removed from plan (Underneath powerlines, Eversource ROW). Area will still receive *Iva frutescens* and M*yrica gale*, just no trees.	October 27, 2023
	Area 6 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	-Not restored per agreement with Eversource. Previous pad area that Eversource plans to utilize in the future.	NA
	Area 7 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	-Area not cleared, therefore not replanted	NA
	Area 10 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	-No deviation, see *Supplemental Plan* (Sept 2023)	NA
	Area 11 – Parcel 25-43	-*Work Plan* (Apr 2022), Figure 7-1a	-No deviation, see *Planting Plan Revisions* (Sept 2023).	NA
	Area 1 – Parcel 25-319	-*Work Plan* (Apr 2022), Figure 7-1b	- Most of the upland area identified did not need to be cleared. Original plan to add *Vaccinium corymbosum, Myrica gale, Juniperus virginiana* was adjusted and Hightide bush (*Iva frutescens*) planted instead	NA

3 **PUNCHLIST ITEMS**

The table below outlines 3 punchlist items to be addressed in the Spring of 2024. These items are also being tracked in the weekly Intertidal call agenda notes.

Deficiency	Quantity	Planting Location
Hightide bush (*Iva frutescens*)	570	Areas that did not receive *Iva* in Parcel 25-319 and Parcel 25-43
White oak (Quercus alba)	9	Planting Area B & Area C per the *Supplemental Plan* (Sept 2023)
Tupelo (Nyssa Sylvatica)	11	Planting Area B & Area C per the *Supplemental Plan* (Sept 2023)

4 **FIGURES**

Figure 1: Intertidal East Zone 2 Parcel 25-43 Proposed Wetland Cover Types and Areas Planted Fall 2023

	Figure 2: Intertidal East Zone 2 Parcel 25-319 Proposed Wetland Cover Types and Areas Planted Fall 2023
6	**REFERENCES**
	Jacobs. April 2022. Draft Final Intertidal Work Plan for East Zone 2, Revision 1. ACE-J23-35BG6000-M1-0086 Jacobs. August 2023. Draft Final EZ2 Planting Plan Revision. ACE-J23-35BG7000-M1-0007 SWCA. September 2023. Draft Final East Zone 2 Supplemental Planting Plan.

Notes:
Proposed High Marsh plantings to include 50/50 mix of Spartina patens and Distichlis spicata, plugs, 12" on-center spacing requirements.

Proposed Low Marsh plantings to include Spartina alterniflora, plugs, 12" on-center spacing requirements.

Any native trees removed as part of access road construction or excavation will be replaced in-kind (1-gallon containers). Any invasive trees removed will be replaced on a one-to-one basis with native tree species constituting similar growth form, habit, and size (1-gallon containers).

Areas of proposed restoration surface shall be uniformly graded with a smooth finished surface and will transition back to match existing grades upon completion of construction. Slight differences between depicted and constructed surfaces may occur due to microtopographic variations across the site.

Final restored elevations will be documented in the After Action Report.

MHHW and MLLW lines are approximate.

Shrub Restoration Area Plantings
Area 1:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 2:
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted seaward of Juniperus, 48" on-center spacing requirements.
Lindera benzoin, 1-gallon containers, planted seaward of Myrica, 36" on-center spacing requirements.

Area 3:
Iva frutescens, 1-gallon containers, planted along seaward edge of area, 36" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted landward of Iva, 48" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.

Area 4:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 5:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 6:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.
Juniperus communis, 1-gallon containers, 36" on-center spacing requirements.

Area 7:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.

Area 8:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 9:
Iva frutescens, 1-gallon containers, planted seaward edge of area, 36" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along landward edge of area, 48" on-center spacing requirements.

Area 10:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 11:
Conservation grass seed mix only. Area to receive minimal restoration due to future excavation by Eversource.

Scrub-Shrub Marsh areas shall be planted with Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Eversource Substation

25-34

25-43

25-319

ROW

Area 1

Area 2

Area 3

Area 4

Area 5

Area 6

Area 7

Area 8

Area 9

Area 10

Area 11

0

5

10

15

USGS MassGIS

Legend

- Proposed Coir Log
- 1-foot Contour
- Mean Higher High Water
- Mean Lower Low Water
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- Proposed Shrub Restoration Areas
- Proposed NBHSS Laydown Area
- Parcel Boundary
- Proposed Access
- Proposed High Marsh
- Proposed Low Marsh
- Minimal Backfill as Needed for Drainage or Slope Stability
- Proposed Beach
- Proposed Pannes
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland
- Planted Fall 2023

0 50 100 Feet

February 2022

Basemap Data Source:
Nearview, LLC

Vertical Datum:
NAVD88

Intertidal East Zone 2 Parcel 25-43
Proposed Wetland Cover Types and Areas Planted Fall 2023

New Bedford Harbor Superfund Site

JACOBS

Figure 1

Path: Y:\NBHP\Projects\35BG1001\20211116_EZ2_Updated_Work_Plan\ArcGIS\Fig_7_1a_EZ2_Parcel 25-43_WP_20211116_REVISED.mxd

Notes:
Proposed High Marsh plantings to include 50/50 mix of Spartina patens and Distichlis spicata, plugs, 12" on-center spacing requirements.

Proposed Low Marsh plantings to include Spartina alterniflora, plugs, 12" on-center spacing requirements.

Any native trees removed as part of access road construction or excavation will be replaced in-kind (1-gallon containers). Any invasive trees removed will be replaced on a one-to-one basis with native tree species constituting similar growth form, habit, and size (1-gallon containers).

Areas of proposed restoration surface shall be uniformly graded with a smooth finished surface and will transition back to match existing grades upon completion of construction. Slight differences between depicted and constructed surfaces may occur due to microtopographic variations across the site.

Final restored elevations will be documented in the After Action Report.

MHHW and MLLW lines are approximate.

Shrub Restoration Area Plantings
Area 1:
Iva frutescens, 1-gallon containers, planted within Scrub-Shrub Marsh, 36" on-center spacing requirements.
Vaccinium corymbosum, 1-gallon containers, planted along landward edge of Scrub-Shrub Marsh, 60" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted landward edge of Vaccinium, 48" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along upward edge of area, 48" on-center spacing requirements.

Area 2:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 3:
Iva frutescens, 1-gallon containers, planted along seaward edges of swale, 36" on-center spacing requirements.
Vaccinium corymbosum, 1-gallon containers, 60" on-center spacing requirements.

Area 4:
Vaccinium corymbosum, 1-gallon containers, 60" on-center spacing requirements.

Scrub-Shrub Marsh areas shall be planted with Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 1
Area 2
Area 3
Area 4
ROW
25-43
25-319
25-49

Legend

- Proposed Coir Log
- 1-foot Contour
- Mean Higher High Water
- Mean Lower Low Water
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- 3-4' Excavation Depth
- Proposed Shrub Restoration Areas
- Parcel Boundary
- Proposed Access
- Proposed High Marsh
- Proposed Low Marsh
- Minimal Backfill as Needed for Drainage or Slope Stability
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland
- Proposed Beach
- Planted Fall 2023

0 50 100 Feet

February 2022

Basemap Data Source:
Nearview, LLC

VerticalD a tum:
NA/ D88

Intertidal East Zone 2 Parcel 25-319 Proposed Wetland Cover Types and Areas Planted Fall 2023

New Bedford Harbor Superfund Site

JACOBS

Figure 2

Path: Y:\NBHP\Projects\35BG1001\20211116_EZ2_Updated_Work_Plan\ArcGIS\Figure_7_1b_EZ2_Parcel 25-319_WP_20211116.mxd

Jacobs

Project Notes

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Client	NAE	**Date**	17 August 2023
Project	New Bedford Harbor Superfund Site	**Project No.**	35BG7000
Prepared By	Patrick Curran | Josh Cummings	**DCN**	ACE-J23-35BG7000-M1-0007
Issued By	Lonnie Fallin		
Subject	Draft Final | EZ2 Planting Plan Revisions		

Distribution	**See below**			
Client	**EPA**	**Sevenson**	**Jacobs**	
Kerwin Donato	Dave Dickerson	Joe Mahoney	Josh Cummings	
Marie Esten	Natalie Burgo	Mike Brouillette	Patrick Curran	
Mike Degrazia			Lonnie Fallin	
			Sawyer Fallin-Hornsberger	

1 PURPOSE & SUMMARY

This project note summarizes deviations from the original planting plan designs found in the *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (Jacobs, April 2022) due to plant availability and lessons learned from similar restoration areas.

High marsh (*Spartina patens*, *Distichlis spicata*) and low marsh (*Spartina alterniflora*) plants were installed by SWCA from May 30th to July 27th 2023. The original planting plan called for a 50/50% mix of high marsh species, however, due to nursery plant availability, an 81/19% *Spartina patens* and *Distichlis spicata* mix was achieved. Additionally, based on success of other intertidal restoration areas, and not previously defined in the work plan, low and high marsh elevation ranges were defined as 0.0-2.0 ft and 2.0-3.4 ft NAVD88 respectively. The defining of the marsh elevations affected the planting areas. Text in the EZ2 Work Plan (Jacobs, April 2022) and *Draft Final Generic Upper Harbor Intertidal Work Plan Revision 1* (Jacobs, May 2019) does not specifically define elevations for low marsh or high marsh.

2 PLANT QUANTITIES INSTALLED VS WORK PLAN

Plant species and quantities estimated and installed are outlined in Table 1 below.

Table 1. Original and revised estimates of plant quantities derived from work plan (not including the southern most polygon in Parcel 25-319) and actual plants installed. Estimates are derived from acreages of planting zones proposed in the work plan, converted to square feet, and determined by the assumption that marsh plants would be installed at 1 plant per square foot. Revised quantities are resultant of the adjusted elevation range of low and high marsh (0.0-2.0 ft and 2.0-3.4 ft NVD88). Planting at EZ2 was completed Thursday July 27th 2023 (with the exception of the southernmost polygon in Parcel 25-319, **Figure 2-1**). The southern polygon in Parcel 25-319 will be planted with East Zone 3. Planting was extended into July due to favorable planting conditions (not too hot, substantial rain) as well as plant availability.

Table 1: Plant quantities

	Spartina patens	***Distichlis spicata***	***Spartina alterniflora***
Original (Work Plan, Rev 1, 2022).	**64,667**	**64,667**	**47,396**

		Revised (due to elevation adjustments June 15th, 2023).	**54,431**	**54,431**	**71,789**
		***Planted** (May 30th – July 27th 2023)	**88,500**	**20,500**	**61,000**

* The southern polygon in Parcel 25-319 has not been planted at the time of this document which will receive approximately 10,651 marsh plants in 2024.

Revised acreages are provided in the attached Table 7-1a and Table 7-1b

3 **DEVIATIONS AND ADJUSTMENTS**

Below is a list of deviations from the original design drawings on Figures 7-1a and 7-1b (Jacobs, April 2022). As mentioned above, low marsh elevation range was defined as 0.0-2.0 ft NAVD88 and the high marsh elevation range was defined as 2.0-3.4 ft NAVD88.

- Stream near 'Area 3' on Parcel 25-43 (Figure 7-1a): This area required elevation based adjustments to the restoration design due to unforeseen features not captured in the pre-excavation survey. A larger area of upland plants instead of high marsh plants was substituted (Figure 7-1a vs Figure 1-X).
- Northern polygon on Parcel 25-43: Elevation based change requiring greater quantity of high marsh species (Figure 7-1a vs Figure 1-X).
- Southern polygon on Parcel 25-43. Elevation based change requiring greater quantity of high marsh species (Figure 7-1a vs Figure1-X).
- Northern polygon on Parcel 25-319: Elevation based change requiring more low marsh plants (Figure 7-1b vs Figure 2-X).

The original planting plan presented in the EZ2 work plan (Jacobs, April 2022) was generated based on an aerial survey and limited field reconnaissance. The work plan was not elevation specific but was based on existing conditions. During previous restorations and consultation with a wetland scientist, previous restorations exhibited a high degree of success of marsh planting establishment when specific species were planted within specific elevation ranges. The elevation ranges used were similar to elevation ranges planted with success directly adjacent, north of EZ2, as well as slightly south of EZ2 at EZ4 and EZ5 as well as across the river at West Zone (WZ) 4 and 5.

In addition to the change of utilizing elevation to determine appropriate plants to install, high marsh plants were interplanted with the shrubs in the identified scrub shrub zones. The purpose of this change was to re-create the type of habitat which was removed during excavation as well as provide for additional ground cover to minimize the potential for erosion.

5 **ATTACHED FIGURES AND TABLES**

Figure 2-1: Intertidal East Zone 2 Site Location and Features

Figure 7-1a: Intertidal East Zone 2 Parcel 25-43 Proposed Wetland Cover Types and Topography

Figure 7-1b: Intertidal East Zone 2 Parcel 25-319 and ROW Proposed Wetland Cover Types and Topography

Figure 1-X: EZ2 Revised Planting Plan Cover Types Parcel 25-43 (15 June 2023)

Figure 2-X: EZ2 Revised Planting Plan Cover Types Parcel 25-319 (Revised 15 June 2023)

Table 7-1a: Proposed Restoration Acreages by Cover Type for Parcel 25-43 (Revised 15 June 2023)

Table 7-1b: Proposed Restoration Acreages by Cover Type for Parcel 25-319 (Revised 15 June 2023)

6 **REFERNCES**

	Jacobs, 2022. April. Draft Final Intertidal Work Plan for East Zone 2, Revision 1. ACE-J23-35BG6000-M1-0086
	Jacobs, 2019. May. Draft Final Generic Upper Harbor Intertidal Work Plan, Revision 1. ACE-J23-35BG2000-M1-0109

Legend

- Proposed Limits of Excavation
- East Zone 2 Management Area
- Parcel Boundary

0 250 500 Feet

N

Basemap Data Source:
MassGIS, ESRI

February 2022

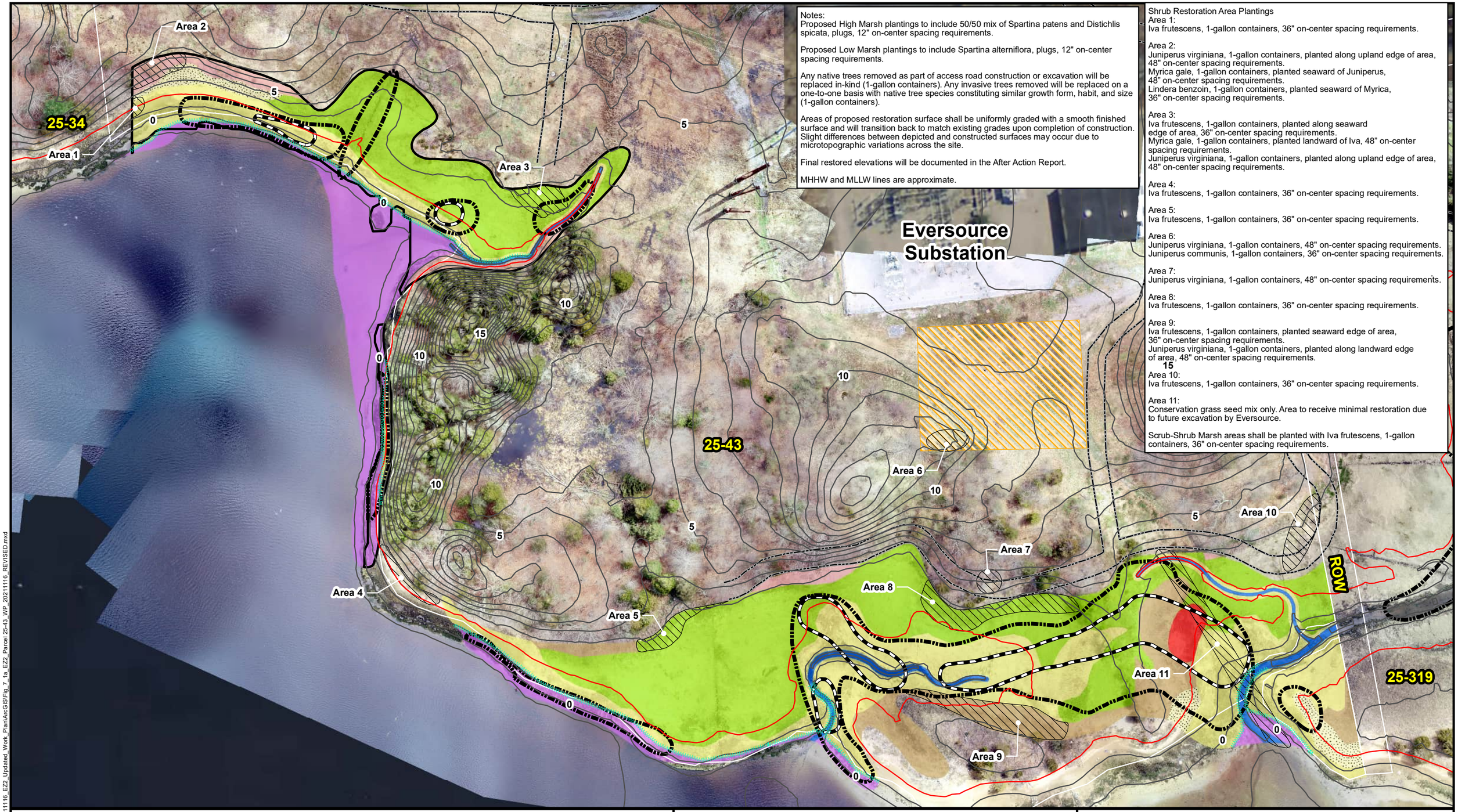
Intertidal East Zone 2
Site Location and Features

New Bedford Harbor Superfund Site

JACOBS

Figure 2-1

Path: Y:\NBH\Projects\35BG100\202211116_EZ2_Updated Work Plan\ArcGIS\Fig 2-1 EZ2_WP Site Location_20211116_REVISED.mxd



Notes:
Proposed High Marsh plantings to include 50/50 mix of Spartina patens and Distichlis spicata, plugs, 12" on-center spacing requirements.

Proposed Low Marsh plantings to include Spartina alterniflora, plugs, 12" on-center spacing requirements.

Any native trees removed as part of access road construction or excavation will be replaced in-kind (1-gallon containers). Any invasive trees removed will be replaced on a one-to-one basis with native tree species constituting similar growth form, habit, and size (1-gallon containers).

Areas of proposed restoration surface shall be uniformly graded with a smooth finished surface and will transition back to match existing grades upon completion of construction. Slight differences between depicted and constructed surfaces may occur due to microtopographic variations across the site.

Final restored elevations will be documented in the After Action Report.

MHHW and MLLW lines are approximate.

Shrub Restoration Area Plantings
Area 1:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 2:
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted seaward of Juniperus, 48" on-center spacing requirements.
Lindera benzoin, 1-gallon containers, planted seaward of Myrica, 36" on-center spacing requirements.

Area 3:
Iva frutescens, 1-gallon containers, planted along seaward edge of area, 36" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted landward of Iva, 48" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.

Area 4:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 5:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 6:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.
Juniperus communis, 1-gallon containers, 36" on-center spacing requirements.

Area 7:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.

Area 8:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 9:
Iva frutescens, 1-gallon containers, planted seaward edge of area, 36" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along landward edge of area, 48" on-center spacing requirements.

Area 10:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 11:
Conservation grass seed mix only. Area to receive minimal restoration due to future excavation by Eversource.

Scrub-Shrub Marsh areas shall be planted with Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Legend

- Proposed Coir Log
- 1-foot Contour
- Mean Higher High Water
- Mean Lower Low Water
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- Proposed Shrub Restoration Areas
- Proposed Laydown
- Parcel Boundary
- Proposed Access
- Proposed High Marsh
- Proposed Low Marsh
- Minimal Backfill as Needed for Drainage or Slope Stability
- Proposed Beach
- Proposed Pannes
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland

0 50 100 Feet

February 2022

Basemap Data Source:
Nearview, LLC

Vertical Datum:
NAVD88

Intertidal East Zone 2 Parcel 25-43
Proposed Wetland Cover Types and Topography

New Bedford Harbor Superfund Site

JACOBS

Figure 7-1a

Path: Y:\NBH\Projects\35BG1001\20211116_EZ2_Updated_Work_Plan\ArcGIS\Fig_7_1a_EZ2_Parcel 25-43_WP_20211116_REVISED.mxd

Notes:
Proposed High Marsh plantings to include 50/50 mix of Spartina patens and Distichlis spicata, plugs, 12" on-center spacing requirements.

Proposed Low Marsh plantings to include Spartina alterniflora, plugs, 12" on-center spacing requirements.

Any native trees removed as part of access road construction or excavation will be replaced in-kind (1-gallon containers). Any invasive trees removed will be replaced on a one-to-one basis with native tree species constituting similar growth form, habit, and size (1-gallon containers).

Areas of proposed restoration surface shall be uniformly graded with a smooth finished surface and will transition back to match existing grades upon completion of construction. Slight differences between depicted and constructed surfaces may occur due to microtopographic variations across the site.

Final restored elevations will be documented in the After Action Report.

MHHW and MLLW lines are approximate.

Shrub Restoration Area Plantings
Area 1:
Iva frutescens, 1-gallon containers, planted within Scrub-Shrub Marsh, 36" on-center spacing requirements.
Vaccinium corymbosum, 1-gallon containers, planted along landward edge of Scrub-Shrub Marsh, 60" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted landward edge of Vaccinium, 48" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along upward edge of area, 48" on-center spacing requirements.

Area 2:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 3:
Iva frutescens, 1-gallon containers, planted along seaward edges of swale, 36" on-center spacing requirements.
Vaccinium corymbosum, 1-gallon containers, 60" on-center spacing requirements.

Area 4:
Vaccinium corymbosum, 1-gallon containers, 60" on-center spacing requirements.

Scrub-Shrub Marsh areas shall be planted with Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 1
Area 2
Area 3
Area 4
ROW
25-43
25-319
25-49

Legend

- Proposed Coir Log
- 1-foot Contour
- Mean Higher High Water
- Mean Lower Low Water
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- 3-4' Excavation Depth
- Proposed Shrub Restoration Areas
- Parcel Boundary
- Proposed Access
- Proposed High Marsh
- Proposed Low Marsh
- Minimal Backfill as Needed for Drainage or Slope Stability
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland
- Proposed Beach

0 50 100 Feet

February 2022

Basemap Data Source:
Nearview, LLC

Vertical Datum:
NAVD88

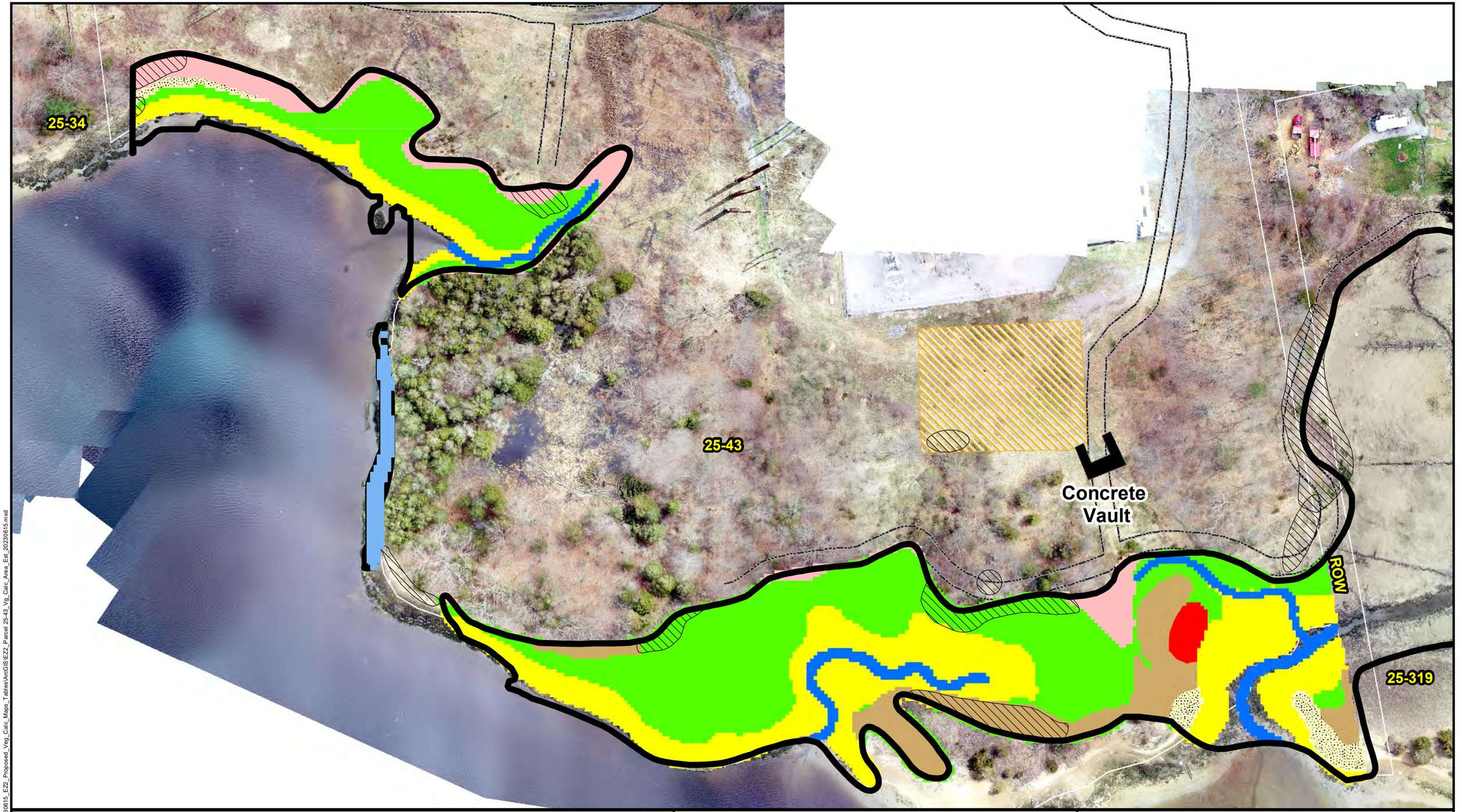
Intertidal East Zone 2 Parcel 25-319 and ROW
Proposed Wetland Cover Types and Topography

New Bedford Harbor Superfund Site

JACOBS

Figure 7-1b

Path: Y:\NBHP\Projects\35BG1001\20211116_EZ2_Updated_Work_Plan\ArcGIS\Figure_7_1b_EZ2_Parcel 25-319_WP_20211116.mxd



Legend

- Low Marsh (Est. Sqft 37,575) = 0.86 acres
- High Marsh (Est. Sqft 56,952) = 1.3 acres
- Proposed Beach
- Proposed Pannes
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland
- Proposed Shrub Restoration Areas
- 4-10 inch crushed stone choked

0 50 100 Feet

Basemap Data Source:
Nearview, LLC

Vertical Datum:
NAVD88

EZ2 Revised Planting Plan Cover Types Parcel 25-43
(15 June 2023)

New Bedford Harbor Superfund Site

JACOBS

Figure 1-X

Path: Y:\NBH\Projects\35\BG1001\20230615_EZ2_Proposed_Veg_Calc_Maps_Tables\ArcGIS\EZ2_Parcel 25-43_Vg_Calc_Area_Est_20230815.mxd

ROW

25-43

25-319

5

25-319

ROW

25-49

Legend

Low Marsh (Est. Sqft 57,087) = 1.31 acres

High Marsh (Est. Sqft 70,137) = 1.61 acres

Proposed Beach

Proposed Pannes

Proposed Scrub-Shrub Marsh

Proposed Stream

Proposed Upland

Proposed Shrub Restoration Areas

0 50 100 Feet

Basemap Data Source:
Nearview, LLC

Vertical Datum:
NAVD88

EZ2 Revised Planting Plan Cover Types Parcel 25-43
(Revised 15 June 2023)

New Bedford Harbor Superfund Site

JACOBS

Figure 2-X

Path: Y:\NBH\Projects\35\BG1001\20230615_EZ2_Proposed_Veg_Calc_Maps_Tables\ArcGIS\EZ2_Parcel 25-319_Veg_Calc_Area_Est_20230615.mxd

Table 7-1a
Proposed Restoration Acreages by Cover Type for Parcel 25-43
(Revised 15 June 2023)

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Phragmites	0.15	0.00
Beach	0.08	0.07
High Marsh	1.05	1.30
Low Marsh	0.84	0.86
Scrub-Shrub Marsh	0.24	0.28
Minimal Backfill as Needed for Drainage or Slope Stability	0.44	0.19
Pannes	0.04	0.03
Upland	0.08	0.20
Stream	0.08	0.08
TOTAL	**3.02**	**3.01**

Table 7-1b
Proposed Restoration Acreages by Cover Type for Parcel 25-319 and ROW
(Revised 15 June 2023)

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Phragmites	0.05	0.00
Beach	0.01	0.01
High Marsh	2.02	1.61
Low Marsh	0.78	1.31
Scrub-Shrub Marsh	0.14	0.16
Minimal Backfill as Needed for Drainage or Slope Stability	0.02	0.13
Pannes	0.00	0.00
Upland	0.01	0.01
Stream	0.20	0.14
TOTAL	**3.23**	**3.36**

Jacobs

Project Notes

103 Sawyer Street
New Bedford, MA 02746
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Client	NAE	**Date**	27 June 2023
Project	New Bedford Harbor Superfund Site	**Project No.**	35BG7000
Prepared By	Josh Cummings		35BG7000-P1-0054
Issued By	Lonnie Fallin		
Subject	Draft Final | EZ2 Restoration Design Modification		

Distribution	**See below**			
Client	**EPA**	**Sevenson**	**Jacobs**	**Mass DEP**
Kerwin Donato	Dave Dickerson	Joe Mahoney	Josh Cummings	Paul Craffey
Marie Esten	Natalie Burgo	Mike Brouilette	Patrick Curran	
Mike Degrazia		Scott Allaire II	Lonnie Fallin	
			Sawyer Fallin-Hornsberger	

1	**PURPOSE**
	This project note summarizes a restoration design modification for a portion of Parcel 25-43 originally presented in the *Draft Final Intertidal Work Plan for East Zone 2, Revision 1* (Jacobs 2022).
2	**BACKGROUND**
	The northerly facing shoreline slope on Parcel 25-43 is very steep, and prior to excavation, presented a rocky surface with vegetation. Following excavation, it was observed that the remaining soil and sediment is highly intermingled with generally cobble sized rock. Due to the nature of this surface, it is thought that the original design plan of placing topsoil on this slope would be particularly prone to future erosion. Various options were discussed during project meetings including a tiered stone wall, soil covered with erosion control fabric, or a combination of 4 to10-inch crushed stone with topsoil mixed in.
3	**DESIGN MODIFICATION**
	A decision was made with EPA and USACE approval to modify the design by installing 4 to 10-inch crushed stone mixed with topsoil along the slope and to seed with New England Coastal Salt Tolerant seed mix. This design was selected as it has been proven to be erosion resistant and will be relatively straightforward to install with readily available materials.
4	**INSTALLATION PROCESS**
	A layer of topsoil approximately 3 to 6-inches thick will be placed on the slope and gently compacted with the excavator bucket. Next, the stone will be placed over the soil, starting from the base and working upwards to an elevation of 4.0 ft. NAVD88. Clean sand may be placed at the base of the slope, if conditions warrant, to support the stone. Then, additional topsoil (~ 3 inches) will be spread over the stone and compacted into the stone layer, an approach referred to as 'soil choking'. The exact soil choking technique has yet to be determined but could involve a variety of hand work using brooms and shovels or applying water over the area with a hose to work the topsoil into the voids. This process may also be performed in lifts and repeated multiple times to ensure adequate coverage and desired compaction. Careful consideration will be made to minimize loss of topsoil in the process. Once topsoil is in place, and after the course of ~2 tidal cycles, the remaining topsoil will receive New England Coastal Salt Tolerant seed mix. Following the placement of the stone and topsoil, the upland area (above 4.0 ft

	NAVD88) will be restored with just topsoil and receive the New England Coastal Salt Tolerant seed mix. Additional restoration planting will be installed per the EZ2 Supplemental Planting Plan.
5	**MATERIALS AND DESIGN SPECIFICS**
	The length of shoreline where the stone will be placed is approximately 230 ft. long. Stone will be placed from approximately MLLW, -1.97 ft. NAVD88 up to 4.0 ft. NAVD88. Assuming a 2:1 slope, the surface area is approximately 3,080 square feet. It is estimated that approximately 100 cy of stone will be required to provide a stone layer thickness of 0.75 ft. Additional stone may be needed if the remaining sediments at the base of the slope are very soft. Figure 1 shows the area where the stone and soil will be placed.
6	**FIGURES AND ATTACHMENTS**
	Figure 1 – Location of Stone Slope Protection EZ2
7	**REFERENCES**
	Jacobs. 2022. April. Draft Final Intertidal Work Plan for East Zone 2, Revision 1. ACE-J23-35BG6000-M1-0086

Notes:
Proposed High Marsh plantings to include 50/50 mix of Spartina patens and Distichlis spicata, plugs, 12" on-center spacing requirements.

Proposed Low Marsh plantings to include Spartina alterniflora, plugs, 12" on-center spacing requirements.

Any native trees removed as part of access road construction or excavation will be replaced in-kind (1-gallon containers). Any invasive trees removed will be replaced on a one-to-one basis with native tree species constituting similar growth form, habit, and size (1-gallon containers).

Areas of proposed restoration surface shall be uniformly graded with a smooth finished surface and will transition back to match existing grades upon completion of construction. Slight differences between depicted and constructed surfaces may occur due to microtopographic variations across the site.

Final restored elevations will be documented in the After Action Report.

MHHW and MLLW lines are approximate.

Shrub Restoration Area Plantings
Area 1:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 2:
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted seaward of Juniperus, 48" on-center spacing requirements.
Lindera benzoin, 1-gallon containers, planted seaward of Myrica, 36" on-center spacing requirements.

Area 3:
Iva frutescens, 1-gallon containers, planted along seaward edge of area, 36" on-center spacing requirements.
Myrica gale, 1-gallon containers, planted landward of Iva, 48" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along upland edge of area, 48" on-center spacing requirements.

Area 4:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 5:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 6:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.
Juniperus communis, 1-gallon containers, 36" on-center spacing requirements.

Area 7:
Juniperus virginiana, 1-gallon containers, 48" on-center spacing requirements.

Area 8:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 9:
Iva frutescens, 1-gallon containers, planted seaward edge of area, 36" on-center spacing requirements.
Juniperus virginiana, 1-gallon containers, planted along landward edge of area, 48" on-center spacing requirements.

Area 10:
Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Area 11:
Conservation grass seed mix only. Area to receive minimal restoration due to future excavation by Eversource.

Scrub-Shrub Marsh areas shall be planted with Iva frutescens, 1-gallon containers, 36" on-center spacing requirements.

Location of Stone Slope Protection

Eversource Substation

25-34

25-43

25-319

ROW

Area 1

Area 2

Area 3

Area 4

Area 5

Area 6

Area 7

Area 8

Area 9

Area 10

Area 11

USGS MassGIS

Legend

- Proposed Coir Log
- 1-foot Contour
- Mean Higher High Water
- Mean Lower Low Water
- 0-1' Excavation Depth
- 1-2' Excavation Depth
- 2-3' Excavation Depth
- Proposed Shrub Restoration Areas
- Proposed Laydown
- Parcel Boundary
- Proposed Access
- Proposed High Marsh
- Proposed Low Marsh
- Minimal Backfill as Needed for Drainage or Slope Stability
- Proposed Beach
- Proposed Pannes
- Proposed Scrub-Shrub Marsh
- Proposed Stream
- Proposed Upland

0 50 100 Feet

February 2022

Basemap Data Source: Nearview, LLC

Vertical Datum: NAVD88

Location of Stone Slope Protection
EZ2
New Bedford Harbor Superfund Site

JACOBS

Figure 1

Path: V:\NBH\Projects\365Q\2021\2116_EZ2_Updated_Work_Plan\ArcGIS\Fig_7_1a_EZ2_Parcel 25-43_WP_20211116_REVISED.mxd

East Zone 3 Supplemental Planting Plan

Prepared by: SWCA Environmental Consultants

Author: Tony Somers, PLA, ASLA

Prepared for: Jacobs Engineering

TABLOID (11"x17") SCALE: 1"=500'

0 250 500 1000

Prepared by: SWCA ENVIRONMENTAL CONSULTANTS SWCA Environmental Consultants 15 Research Drive Amherst, MA 01002 (p) 413.256.0202 (f) 413.256.1092 www.swca.com	Prepared for: JACOBS ENGINEERING EMAIL ADDRESS: josh.cummings@jacobs.com	Legend:	Key Map:	Stamp: MASSACHUSETTS Anthony Somers NO. 4220 REGISTERED LANDSCAPE ARCHITECT	Project Title: EAST ZONE 3 NEW BEDFORD HARBOR SUPERFUND SITE NEW BEDFORD, MA	Sheet Title: COVER	DATE: 02/27/2024 SCALE: AS SHOWN DRAWN BY: CD CHECKED BY: TS FILE #: 73355.00 REVISIONS DATE / BY / NOTE:	Sheet No: LP-00

EAST ZONE-3 PLANTING PLAN SUMMARY NARRATIVE

PROPOSED PLANTINGS (SPRING 2024)

THE INTENT OF THIS PLANTING DESIGN IS TO RESTORE RIPARIAN AND UPLAND HABITAT DEGRADED BY TEMPORARY CONSTRUCTION ACCESS AND STAGING. ALL PROPOSED SHRUBS WILL BE IN 1-GALLON CONTAINERS. SLOW-RELEASE FERTILIZER, SUCH AS OSMOCOTE, SHOULD ACCOMPANY SHRUB AND TREE PLANTINGS TO PROMOTE HEALTH AND VIGOR DURING ESTABLISHMENT. NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX MANUFACTURED BY NEW ENGLAND WETLAND PLANT INC. SHOULD BE INSTALLED ONLY IN LOCATIONS SPECIFIED ON THE PLANS. TEMPORARY FENCING, CAGING, OR OTHER HERBIVORE DETERRENT MEASURES SHOULD BE PROVIDED AROUND TREES AND SHRUBS THROUGH THE ESTABLISHMENT PERIOD.

PLANTING PLAN

THE PLANTING PLAN CONSISTS OF GROUND DISTURBANCE RESTORATION THROUGHOUT MARSHLANDS ADJACENT TO A RESIDENTIAL NEIGHBORHOOD IN ACHUSHNET, MASSACHUSETTS. THE GROUND DISTURBANCE WAS DUE TO THE CREATION OF TEMPORARY ROADS OTHERWISE KNOWN AS HAUL ROADS. THE HAUL ROADS ARE MAINLY TO BE RE-VEGETATED BY NATIVE SHRUB MATERIAL THAT WILL BE SUB-SEEDED WITH NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX, MANUFACTURED BY NEW ENGLAND WETLAND PLANT INC., IN ORDER TO DECREASE THE OCCURRENCE OF INVASIVE MATERIALS. SHRUBS WILL BE SPACES AS PRESCRIBED ON SHEET LP-04. THE NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX SEED SHALL BE APPLIED BY BROADCAST METHOD AND COVERED WITH A STERILE WEED FREE STRAW MULCH OR HYDROMULCH. LOW AND HIGH MARSH AREAS WILL BE VEGETATED BY APPROPRIATE SALT MARSH GRASSES BASED ON ELEVATION REQUIREMENTS. THE KOSKA ROCK PILE WILL BE RE-ESTABLISHED WITH PLUGS OF THE HIGH MARSH GRASS SPARTINA PATENS IN ORDER TO STABILIZE AND VEGETATE THE PREVIOUSLY ROCKY SPACE. ALTHOUGH NO TREES GREATER THAN 6 INCHES IN DIAMETER AT BREAST HEIGHT WERE REMOVED FROM THE SITE DUE TO THE CREATION OF THE HAUL ROADS, A NUMBER OF UPLAND TREES WERE REMOVED AT THE REQUEST OF THE PROPERTY OWNER. IN ORDER TO REMEDIATE THE REMOVAL OF THOSE TREES, THEY WILL BE REPLACED WITH 10 NATIVE TREES WITHIN THE HAUL ROAD BOUNDARIES. TREES WILL BE SPACES AS PRESCRIBED ON SHEET LP-04. TREE AND SHRUB MATERIAL TO BE PLANTED IN THE SPRING OR FALL TO REDUCE TRANSPORT AND HEAT STRESS DURING SUMMER MONTHS.

Prepared by:
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SWCA Environmental Consultants
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Amherst, MA 01002
(p) 413.256.0202
(f) 413.256.1092
www.swca.com

Prepared for:
JACOBS ENGINEERING
EMAIL ADDRESS:
josh.cummings@jacobs.com

Legend:

Key Map:

Stamp:
MASSACHUSETTS
Anthony Sames
NO. 4220
REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 3
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:
NARRATIVE

DATE:	02/27/2024
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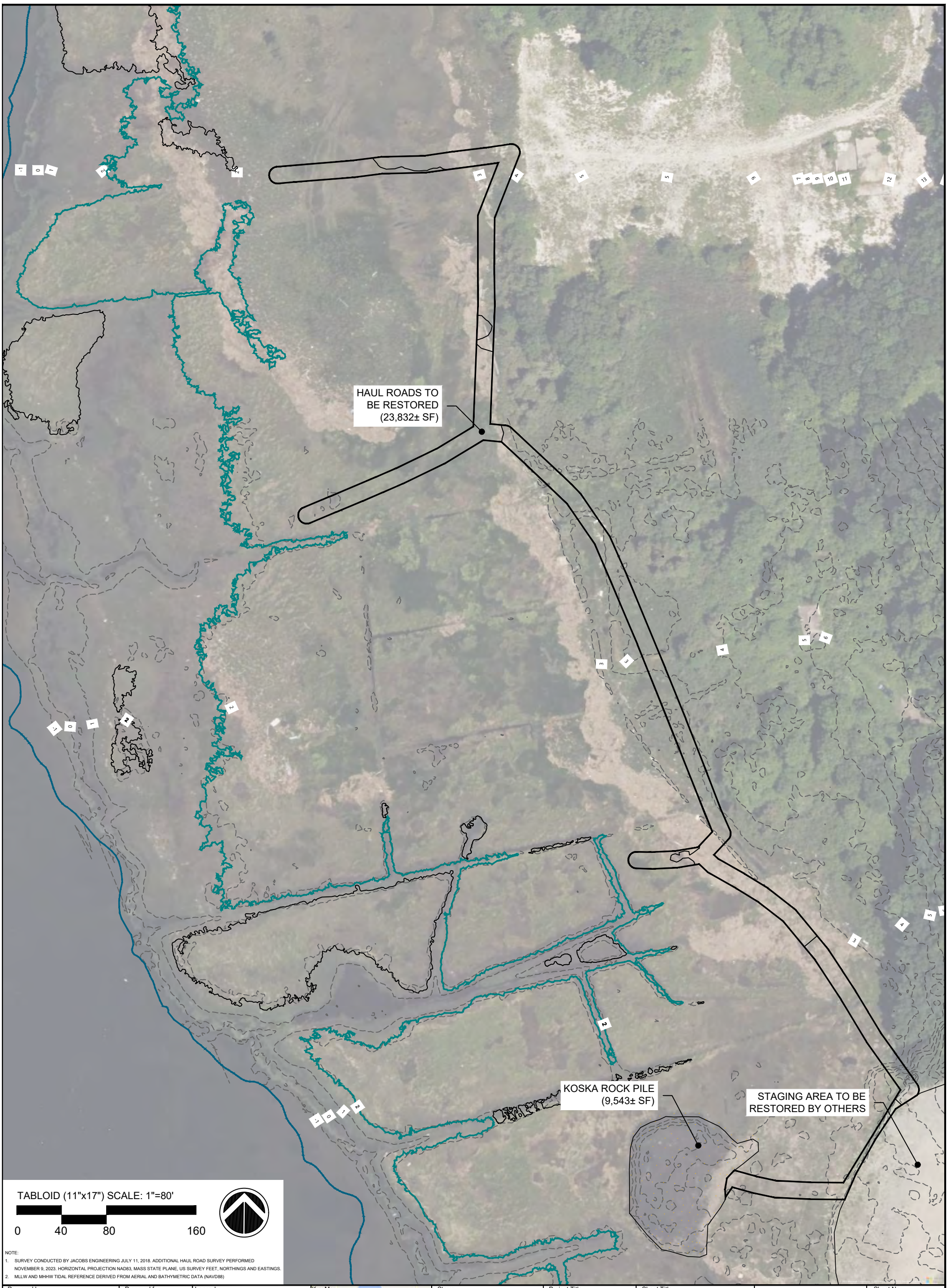
CHECKED BY:	TS
FILE #:	73355.00

REVISIONS

DATE:	BY:	NOTE:

Sheet No:
LP-01



NOTE:

1. SURVEY CONDUCTED BY JACOBS ENGINEERING JULY 11, 2018. ADDITIONAL HAUL ROAD SURVEY PERFORMED NOVEMBER 9, 2023. HORIZONTAL PROJECTION NAD83, MASS STATE PLANE, US SURVEY FEET, NORTHINGS AND EASTINGS.
2. MLLW AND MHHW TIDAL REFERENCE DERIVED FROM AERIAL AND BATHYMETRIC DATA (NAVD88)

Prepared by:

SWCA ENVIRONMENTAL CONSULTANTS

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Prepared for:

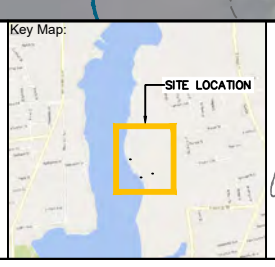
JACOBS ENGINEERING
EMAIL ADDRESS:

josh.cummings@jacobs.com

Legend:

- EXISTING 1-FT CONTOURS
- HAUL ROADS
- 1.97' TIDAL LINE
- 1.99' TIDAL LINES

Key Map:



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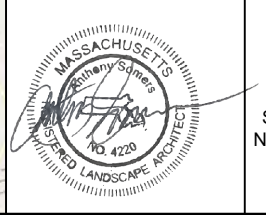

Project Title:

EAST ZONE 3
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:

EXISTING CONDITIONS

DATE:	02/27/2024
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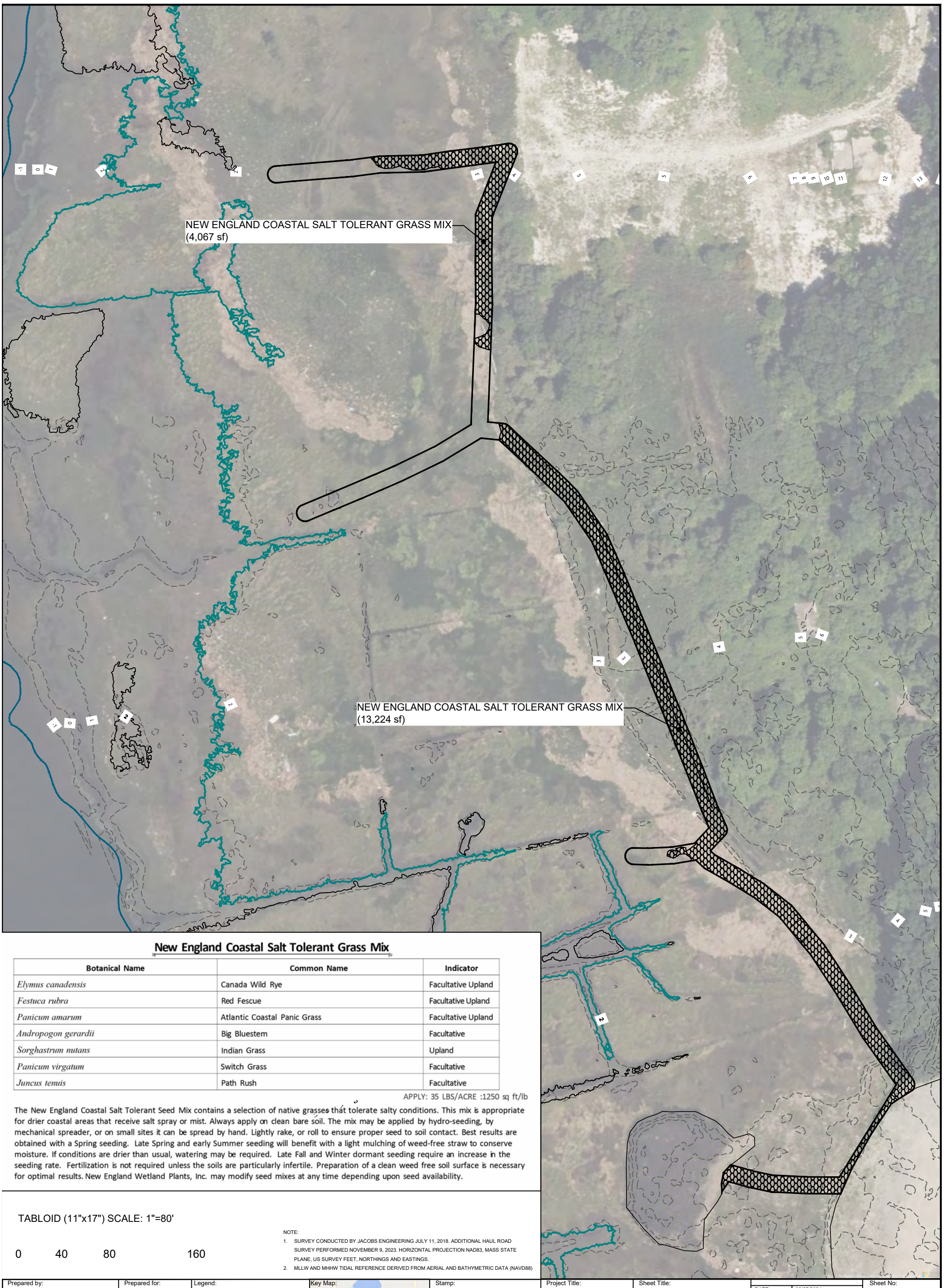
CHECKED BY:	TS
FILE #:	73355.00

REVISIONS

DATE:	BY:	NOTE:

Sheet No:

LP-02



New England Coastal Salt Tolerant Grass Mix

Botanical Name	Common Name	Indicator
Elymus canadensis	Canada Wild Rye	Facultative Upland
Festuca rubra	Red Fescue	Facultative Upland
Panicum amarum	Atlantic Coastal Panic Grass	Facultative Upland
Andropogon gerardii	Big Bluestem	Facultative
Sorghastrum nutans	Indian Grass	Upland
Panicum virgatum	Switch Grass	Facultative
Juncus tenuis	Path Rush	Facultative

APPLY: 35 LBS/ACRE :1250 sq ft/lb

The New England Coastal Salt Tolerant Seed Mix contains a selection of native grasses that tolerate salty conditions. This mix is appropriate for drier coastal areas that receive salt spray or mist. Always apply on clean bare soil. The mix may be applied by hydro-seeding, by mechanical spreader, or on small sites it can be spread by hand. Lightly rake, or roll to ensure proper seed to soil contact. Best results are obtained with a Spring seeding. Late Spring and early Summer seeding will benefit with a light mulching of weed-free straw to conserve moisture. If conditions are drier than usual, watering may be required. Late Fall and Winter dormant seeding require an increase in the seeding rate. Fertilization is not required unless the soils are particularly infertile. Preparation of a clean weed free soil surface is necessary for optimal results. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability.

TABLOID (11"x17") SCALE: 1"=80'

0 40 80 160

NOTE:
1. SURVEY CONDUCTED BY JACOBS ENGINEERING JULY 11, 2018. ADDITIONAL HAUL ROAD SURVEY PERFORMED NOVEMBER 9, 2023. HORIZONTAL PROJECTION NAD83, MASS STATE PLANE, US SURVEY FEET, NORTHINGS AND EASTINGS.
2. MLLW AND MHHW TIDAL REFERENCE DERIVED FROM AERIAL AND BATHYMETRIC DATA (NAVD88)

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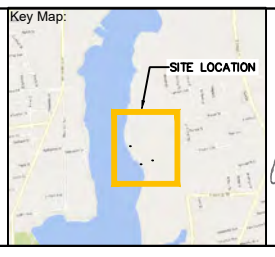
www.swca.com

Prepared for:
JACOBS ENGINEERING
EMAIL ADDRESS:
josh.cummings@jacobs.com

Legend:
- EXISTING 1-FT CONTOURS
- HAUL ROADS
- 1.97' TIDAL LINE
- 1.99' TIDAL LINES
- NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX

Key Map:


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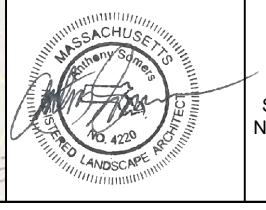

Project Title:
EAST ZONE 3
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:
SEEDING

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CHECKED BY:	TS
FILE #:	73355.00

REVISIONS

DATE:	BY:	NOTE:

Sheet No:
LP-03

TABLOID (11"x17") SCALE: 1"=80'

0 40 80 160

(1,254) SP

(430) SA

TRANSITION (4,056 sf)
(40) BACCHARIS HALIMIFOLIA
(39) IVA FRUTESCENS
(39) MYRICA PENSYLVANICA

(215) SP

(650) SP

(393) SA

(2,048) SA

(1,032) SP

TRANSITION (8,582 sf)
(84) BACCHARIS HALIMIFOLIA
(83) IVA FRUTESCENS
(83) MYRICA PENSYLVANICA

(199) SA

(573) SP

(3) QA

(3) QR

(3) NS

TRANSITION (2,081 sf)
(20) BACCHARIS HALIMIFOLIA
(20) IVA FRUTESCENS
(20) MYRICA PENSYLVANICA

(1) QR

(9,918) SP

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY
TREES						
	NS	NYSSA SYLVATICA	TUPELO	3`-5` HT.	20' O.C. MIN.	3
	QA	QUERCUS ALBA	WHITE OAK	3`-5` HT.	30' O.C. MIN.	3
	QR	QUERCUS RUBRA	RED OAK	3`-5` HT.	30' O.C. MIN.	4
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY
SHRUB AREAS						14,719 SF
	BH4	BACCHARIS HALIMIFOLIA	GROUNDSEL BUSH	1 GAL.	34% @ 72" o.c.	144
	IF4	IVA FRUTESCENS	MARSH ELDER	1 GAL.	33% @ 72" o.c.	142
	MP4	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	1 GAL.	33% @ 72" o.c.	142
GROUND COVERS						
	SA	SPARTINA ALTERNIFLORA	SALT MARSH GRASS	PLUGS	12" o.c.	3,070
	SP	SPARTINA PATENS	SALTMEADOW CORDGRASS	PLUGS	12" o.c.	13,642
		SALT TOLERANT SEED MIX (35 LBS/AC)				17,291 SF

NOTES:
1. TREE SHALL BE ARRANGED IN CLUSTERS OF 3 TO 5 PLANTS OF THE SAME SPECIES AT THE SPACING PRESCRIBED
2. SHRUBS SHALL BE ARRANGED IN RANDOMIZED CLUSTERS OF 5 TO 7 PLANTS OF THE SAME SPECIES AT THE SPACING PRESCRIBED.
3. SURVEY CONDUCTED BY JACOBS ENGINEERING JULY 11, 2018. ADDITIONAL HAUL ROAD SURVEY PERFORMED NOVEMBER 9, 2023. HORIZONTAL PROJECTION NAD83, MASS STATE PLANE, US SURVEY FEET, NORTHINGS AND EASTINGS.
4. MLLW AND MHHW TIDAL REFERENCE DERIVED FROM AERIAL AND BATHYMETRIC DATA (NAVD88)

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JACOBS ENGINEERING
EMAIL ADDRESS:
josh.cummings@jacobs.com

Legend:
- EXISTING 1-FT CONTOURS
- HAUL ROADS
- 1.97' TIDAL LINE
- 1.99' TIDAL LINES

Key Map: SITE LOCATION

Stamp: MASSACHUSETTS Anthony Somers NO. 4220 REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 3
NEW BEDFORD HARBOR SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:
PLANTING PLAN

DATE:	02/27/2024
SCALE:	AS SHOWN
DRAWN BY:	CD
CHECKED BY:	TS
FILE #:	73355.00

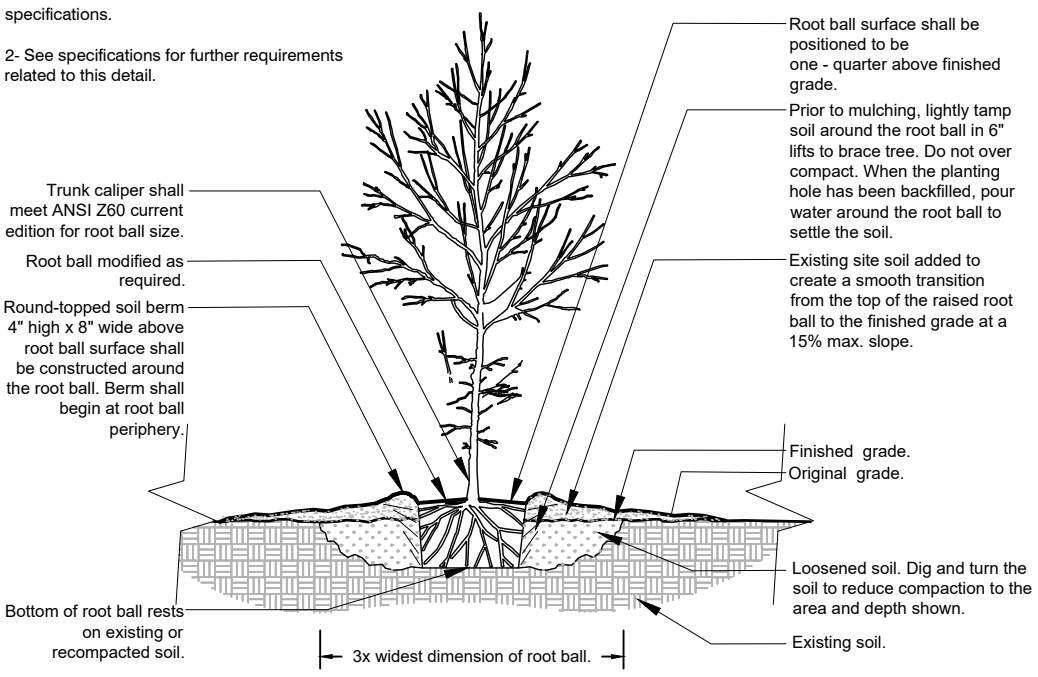
REVISIONS

DATE:	BY:	NOTE:

Sheet No:
LP-04

Notes:
1- Trees shall be of quality prescribed in crown observations and root observations details and specifications.

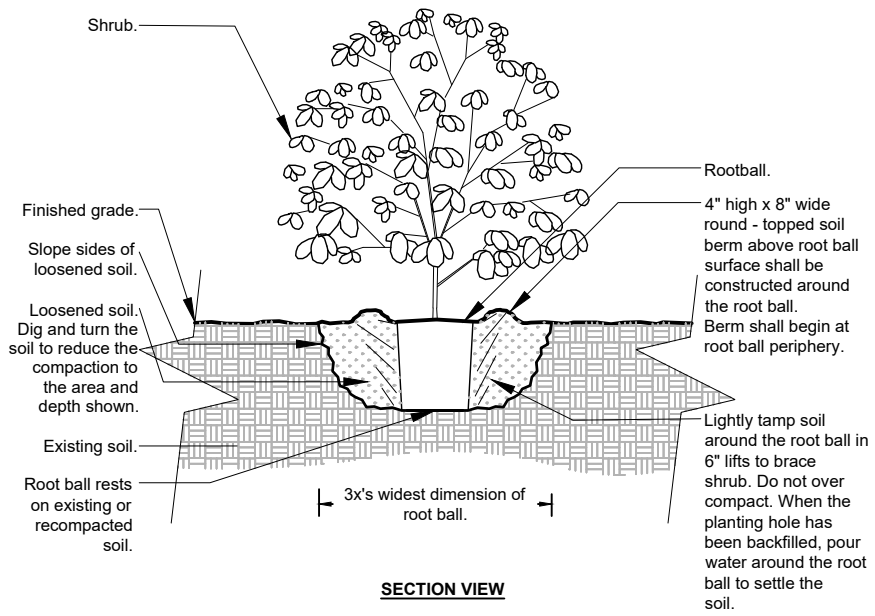
2- See specifications for further requirements related to this detail.



1 TREE PLANTING DETAIL
Scale: NTS

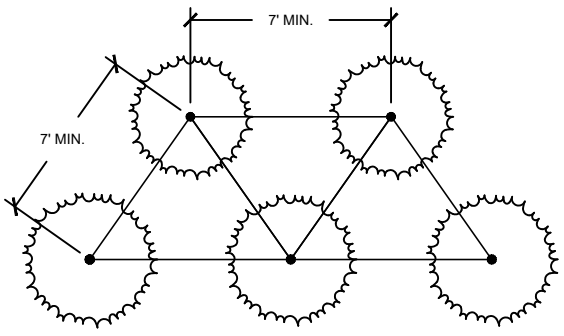
Notes:
1- Shrubs shall be of quality prescribed in the root observations detail and specifications.

2- See specifications for further requirements related to this detail.



SECTION VIEW

2 SHRUB PLANTING DETAIL
Scale: NTS



NOTES:
SHRUBS TO BE SPACED IN RANDOMIZED CLUSTERS OF 5 TO 7 PLANTS OF THE SAME SPECIES

3 SHRUB SPACING (TYP.)
Scale: NTS

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Legend:

Key Map:

Stamp:
MASSACHUSETTS
Anthony Sames
NO. 4220
REGISTERED LANDSCAPE ARCHITECT

Project Title:
EAST ZONE 3
NEW BEDFORD
HARBOR
SUPERFUND SITE
NEW BEDFORD, MA

Sheet Title:
DETAIL SHEET

DATE:	02/27/2024
SCALE:	AS SHOWN
DRAWN BY:	CD
CHECKED BY:	TS
FILE #:	73355.00

REVISIONS

DATE:	BY:	NOTE:

Sheet No:
LP-05

STABILIZATION AND PLANTING NOTES:

1. REMOVE OBSTRUCTIONS, AS REQUIRED, TO PERMIT INSTALLATION OF NEW CONSTRUCTION. CUT MINOR ROOTS OF TREES INDICATED TO REMAIN IN A CLEAN AND CAREFUL MANNER WHERE SUCH ROOTS AND BRANCHES OBSTRUCT INSTALLATION OF NEW CONSTRUCTION.
2. REPAIR OR REPLACE EXISTING TREES AND VEGETATION THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS IN A MANNER ACCEPTABLE TO THE LANDSCAPE ARCHITECT.

SEEDING AND MANAGEMENT GUIDANCE

SEEDING CHRONOLOGY/TIMING

THE FOLLOWING METHODOLOGY PROVIDES SEQUENCING FOR ESTABLISHING THE SEED MIXES PRESCRIBED HEREIN. THIS PROCESS SHOULD BEGIN FOLLOWING FINAL GRADING.

LIVE OR SPRING SEEDING: "LIVE SEEDING" TAKES PLACE WHEN SOIL TEMPERATURES ARE CONSISTENTLY ABOVE 55 DEGREES FAHRENHEIT AND SEED CAN ACTIVELY GERMINATE WITHOUT THE RISK OF A HARD FREEZE. IN THE PROJECT REGION LIVE SEEDING IS RECOMMENDED BETWEEN APRIL 15 AND JUNE 15. PLANTING AFTER MID-JUNE IS NOT RECOMMENDED SINCE NEWLY ESTABLISHED PLANTINGS LACK ROOT DEPTH AND ARE SUSCEPTIBLE TO BURNOUT RELATED TO DROUGHT CONDITIONS.

DORMANT SEEDING: THE OPTIMAL TIME TO "DORMANT SEED" PRESCRIBED NATIVE GRASSES AND FORBS IS WHEN SOIL TEMPERATURES ARE CONSISTENTLY BELOW 55 DEGREES FAHRENHEIT, APPROXIMATELY BETWEEN NOVEMBER 15 AND APRIL 15 IN THE PROJECT REGION. SEEDING WHEN SNOW IS ON THE GROUND SHOULD BE AVOIDED SINCE IT REDUCES SEED-TO-SOIL CONTACT AND EXPOSES THE SEED TO PREDATION. DURING THIS PERIOD, THE PRESCRIBED COOL SEASON NURSE CROP AND NATIVE COOL SEASON SPECIES WILL ESTABLISH; HOWEVER, WARM SEASON GRASSES AND FORBS WILL GERMINATE IN THE SPRING WHEN SOIL TEMPERATURES RISE. DORMANT SEEDING ENABLES COLD STRATIFICATION OF THE SEED AND ALLOWS THE SEED THE EARLIEST GERMINATION POSSIBLE GOING INTO THE LIVE SEEDING PERIOD.

TEMPORARY COVER CROP/STABILIZATION SEED MIXES: COOL-SEASON GRASSES SHOULD BE INSTALLED AS NEEDED WHEN ADEQUATE SOIL MOISTURE IS PRESENT, AND SOIL TEMPERATURES ARE ABOVE 55 DEGREES FAHRENHEIT. TEMPORARY SEEDING IS NOT RECOMMENDED BETWEEN DECEMBER 1 AND MARCH 1.

WEATHER FORECASTS SHOULD BE MONITORED AS SUPPLEMENTAL WATERING MAY BE NECESSARY DURING PROLONGED DRY PERIODS.

SOIL SCARIFICATION/ SEED BED PREPARATION

SEED BED PREPARATION IS THE PROCESS OF SCARIFYING AND LOOSENING THE SOIL SURFACE IN ORDER TO CREATE A LOOSE, FRIABLE, SOIL SURFACE. THE SOIL SURFACE SHOULD BE A UNIFORM PLANAR SURFACE THAT IS FLAT AND WITHOUT EXCESSIVE RIDGES, FURROWS, RUTS OR MOUNDS AND LOW SPOTS WHERE WATER CAN COLLECT. SOIL SCARIFICATION SHOULD ONLY OCCUR WHEN WEATHER, SOIL CONDITIONS, AND CONSTRUCTION PHASING ALLOWS FOR NO LONGER THAN 48 HOURS BETWEEN SCARIFICATION (THE BEGINNING OF THE SEEDING PROCESS) AND COVERING THE SEED WITH WEED FREE STRAW MULCH (NOT HAY) OR HYDROMULCH. THE SOIL SHOULD BE SCARIFIED TO MAXIMUM DEPTH OF 3 INCHES (SEE BELOW).

SEED APPLICATION

A WELL-PREPARED SEED BED PROVIDES A LOOSE FRIABLE SOIL SURFACE FOR WHICH THE SEED CAN BE SOWN INTO. SEED APPLICATION IS A TWO-PART PROCESS: 1) SEED APPLICATION AT PROPER RATES PER ACRE, AND 2) SOW THE SEED INTO THE SOIL 1/8" TO ¼" DEPTH MAXIMUM. APPROPRIATE SEED RATES FOR EACH PRESCRIBED SEED MIX ARE SPECIFIED ON SHEET LP-03.

BROADCAST: A SPREADER EQUIPPED WITH AN AGITATOR (NEAR THE SEED RATE APERTURE) IS REQUIRED FOR SUCCESSFUL BROADCAST PLANTING OF DIVERSE SEED MIXES WITH VARIED SEED SIZES. CHECK THE SEED LABEL PRIOR TO OPENING THE BULK BAG TO CONFIRM THE CORRECT SEED IS BEING APPLIED TO THE SPECIFIED LOCATION. CHECK THE BULK BAGS OF SEED TO CONFIRM IF ALL SEED SPECIES ARE WITHIN EACH BAG OR IF IN BAGS SEPARATED BY SIZE OR CHAFF. IF SEPARATED, BLEND THE APPROPRIATE BAGS FOR EACH PLANTING AREA WITHIN THE SPREADER HOPPER OR IN A CLEAN DRUM/BARREL PRIOR TO SEEDING. ONCE THE SEED IS SPREAD THE SEED MUST BE SOWN INTO THE SOIL TO THE DEPTH ABOVE IN ORDER TO INCREASE CHANCES OF GERMINATION WITH SEED-TO-SOIL CONTACT AND BY KEEPING SOIL MOISTURE CLOSE TO THE SEED. THE BROADCASTED SEED CAN BE SOWN BY A NUMBER OF WAYS INCLUDING "TRACKED" IN WITH A LOW PSI RUBBER TIRE OR TRACKED MACHINE WITH OVERLAPPING PASSES, USE OF A CULTIPACKER, OR HEAVY ROLLER. BROADCAST SEED SHALL BE COVERED WITH WEED FREE STRAW MULCH (NOT HAY) OR HYDROMULCH.

PLANT SUCCESSION NOTES

IT IS POSSIBLE THAT SOME SEEDED AREAS MIGHT BECOME DOMINATED BY NATIVE PLANT SPECIES EXISTING IN THE SOIL SEED BANK. THIS INCLUDES BENEFICIAL NATIVE GRASSES AND FORBS. THESE ARE STILL BENEFICIAL SPECIES TO WILDLIFE AND COMPATIBLE WITH PRESCRIBED SEED MIXES. LIKEWISE, IT IS POSSIBLE THAT PERENNIAL GRASS AND FORB SPECIES MAY NOT BECOME APPARENT DURING THE FIRST GROWING SEASON, TAKING UP TO THREE YEARS TO BECOME ESTABLISHED.

ANNUAL FORBS SHOULD BECOME ESTABLISHED WITHIN THE FIRST GROWING SEASON. SPECIFIC MANAGEMENT PRACTICES DETAILED BELOW WILL ENSURE ESTABLISHMENT OF ALL SEED MIXES OVER TIME.

WOODY PLANT ESTABLISHMENT

THE FOLLOWING APPROACH PROVIDES SEQUENCING FOR ESTABLISHING WOODY VEGETATION.

1. PLANTING HOLE PREPARATION - DETERMINE THE CORRECT PLANTING HOLE DEPTH BY MEASURING FROM THE PLANT TRUNK FLARE TO THE BOTTOM OF THE ROOTBALL; THE UPPERMOST STRUCTURAL ROOTS IN THE ROOTBALL WITHIN 1-3 INCHES OF THE SOIL SURFACE MEASURE 2-5 INCHES FROM THE TRUNK; THE PLANTING HOLE SHOULD BE APPROXIMATELY 3-5 TIMES THE WIDTH OF THE CONTAINER WITH OUTWARD SLOPING SIDES.
2. SETTING THE PLANT - CAREFULLY SET THE PLANT AT APPROXIMATELY 0-2 INCHES ABOVE THE EXISTING GRADE, REMOVE CONTAINER, AND RESET ROOTBALL IN PLANTING HOLE.
3. SETTING BACKFILLED SOIL - WATER BACKFILL SOIL HALFWAY THROUGH THE BACKFILL PROCESS AND ALLOW IT TO DRAIN; WHEN THE WATER HAS DRAINED AWAY RESUME BACKFILLING AND WATER THOROUGHLY AGAIN; DO NOT TAMP OR COMPACT BACKFILL. SMOOTH OUT SURFACE SOIL AND ENSURE TRUNK FLARE IS EXPOSED AND STRUCTURAL ROOTS ARE WITHIN 3-INCHES OF SOIL MEASURED 4-INCHES FROM THE TRUNK.
4. USE OF FERTILIZERS - SLOW-RELEASE FERTILIZER, SUCH AS OSMOCOTE, SHOULD BE INCLUDED DURING THE INSTALLATION OF ALL CONTAINERS AND GALLON CONTAINER MATERIAL.

MAINTENANCE AND MONITORING

1. FOR BEST MANAGEMENT PRACTICES THAT ARE NOT TO REMAIN IN PLACE AS A PART OF FINAL STABILIZATION SUCH AS SILT FENCE AND OTHER TEMPORARY MEASURES, BEST MANAGEMENT PRACTICES SHOULD BE REMOVED WHEN ALL LAND DISTURBING ACTIVITIES HAVE CEASED AND AREAS HAVE BEEN PERMANENTLY STABILIZED.
2. A SIMPLE SITE INSPECTION PERFORMED BY SOMEONE WITH KNOWLEDGE OF THE ORIGINAL DESIGN OF THE PROJECT IS THE MOST COST EFFECTIVE AND IS GENERALLY CONSIDERED SUFFICIENT MONITORING. THIS INSPECTION SHOULD INCLUDE OBSERVING INSTALLED VEGETATION AND OVERALL ENVIRONMENTAL CONDITIONS. TAKING PICTURES ALONG WITH NOTES IS THE BEST WAY TO DOCUMENT ANY PROBLEMS OBSERVED. PERIODIC PICTURES OF THE SAME AREA WILL MAKE IT EASIER TO IDENTIFY CHANGING CHARACTERISTICS.
3. MONITORING IS OF GREATEST IMPORTANCE DURING THE FIRST TWO YEARS AFTER CONSTRUCTION. INSPECTIONS SHOULD BE CONDUCTED AFTER HIGH-WATER EVENTS OR HEAVY STORM ACTION. DURING PERIODS OF LOW-WATER LEVELS, VISUAL MONITORING SHOULD CONFIRM IF SUPPLEMENTAL WATERING IS REQUIRED, HOWEVER, ULTIMATE CONTROL FOR SUPPLEMENTAL WATERING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. AN EVALUATION OF VEGETATIVE GROWTH SHOULD BE PART OF EVERY INSPECTION. ADDITIONAL PLANTING MAY BE NEEDED DEPENDING ON THE GROWTH OF THE PLANTS WITHIN THE FIRST TWO YEARS.

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Sheet No:
LP-06

Jacobs

Project Notes

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Client	NAE	**Date**	13 October 2023
Project	New Bedford Harbor Superfund Site	**Project No.**	35BG7000
Prepared By	Josh Cummings	**DCN**	ACE-J23-35BG7000-M1-0012
Issued By	Lonnie Fallin		
Subject	Draft Final | EZ3 Planting Plan Revisions		

Distribution	**See below**			
Client	**EPA**	**Sevenson**	**Jacobs**	
Kerwin Donato	Dave Dickerson	Joe Mahoney	Josh Cummings	
Marie Esten	Natalie Burgo	Mike Brouillette	Patrick Curran	
Mike Degrazia			Lonnie Fallin	
			Sawyer Fallin-Hornsberger	

1 PURPOSE & SUMMARY

This project note summarizes deviations from the original planting plan designs found in the *Draft Final Intertidal Work Plan for East Zone 3* (Work Plan) (Jacobs, February 2020). These deviations are due to lessons learned from other intertidal restoration areas since the work plan was written.

High marsh (*Spartina patens*, *Distichlis spicata*) and low marsh (*Spartina alterniflora*) plants will be installed by SWCA during the spring of 2024 within East Zone 3 (EZ3). The Work Plan planting plans called for a 50-50% mix of high marsh species *Spartina patens* and *Distichlis spicata.* There will be no change to this spilt in the revised plan.

During previous intertidal work in the Upper Harbor, contracted Professional Wetland Scientists and Jacobs collected elevation data on established stands of low marsh and high marsh to determine the elevation ranges where the plants thrive locally. This data and post restoration monitoring data has allowed Jacobs to determine a locally applicable range where the two marsh habitats successfully establish. Based on the success of other intertidal restoration areas directly adjacent to the south and north of EZ3, and not previously defined in the Work Plan, low and high marsh elevation ranges are defined as 0.5-2.0 ft and 2.0-3.4 ft NAVD88 respectively. The Work Plan and *Draft Final Generic Upper Harbor Intertidal Work Plan Revision 1* (Jacobs, May 2019) does not specifically define elevations for low marsh or high marsh.

2 PLANT QUANTITIES INSTALLED VS WORK PLAN

Plant species and quantities estimated to be installed are outlined in Table 1 below.

Table 1. Original Work Plan restoration and revised restoration estimates of plant quantities are derived from the Work Plan. A pre-construction aerial survey defined and documented the existing square footages of marsh grasses, this is also documented in the Work Plan. Estimates are derived from acreages of planting zones proposed in the work plan, converted to square feet, and determined by the assumption that marsh plants would be installed at 1 plant per square foot. Revised quantities are resultant of the adjusted elevation range of low and high marsh (0.5-2.0 ft and 2.0-3.4 ft NVD88). The square footage of the revised restoration is determined by GIS utilizing the planned restoration elevations and the elevation ranges for each grass type.

	High marsh (sq ft)		Low Marsh (sq ft)
	Spartina patens	***Distichlis spicata***	***Spartina alterniflora***
Pre-Construction (Work Plan 2020).	**50,747**	**50,747**	**62,814**
Original Restoration (Work Plan 2020).	**74,357**	**74,357**	**5,619**
Revised Restoration (adjusted for elevation)	**72,745**	**72,745**	**9,104**

Revised acreages are provided in Attachment 1.

The pre-construction quantities of high marsh are assumed to be a 50-50 split which may not be accurate for all environments within EZ3 and should be assumed to be a rough estimate.

3 **DEVIATIONS AND ADJUSTMENTS**

Below is a description of deviations from the original design drawings on Figures 7-1a through 7-1e in the 2020 Work Plan (Jacobs, February 2020) and illustrated on the attached revised Figures 1-1a through 1-1e. As mentioned above for the revised drawings, the low marsh elevation range is defined as 0.5-2.0 ft. NAVD88 and the high marsh elevation range is defined as 2.0-3.4 ft NAVD88.

- The inclusion of additional streams from the pre-construction conditions has created a slight increase in suitable low marsh habitat as the polygons contain gentle pitches towards the streams to promote positive drainage. This provides an explanation of why low marsh quantities have increased from the pre-construction survey.
- It is understood that the original planting plans in the 2020 Work Plan were created with the desire to bias the design towards an increase in high marsh habitat as a means to adapting to climate change. To aid in that goal, the high marsh-low marsh transition is set at 2.0 ft. NAVD88. This can be contrasted with the original design which used a slightly higher transition elevation between 2.2 and 2.4 ft. This should maximize the high marsh habitat to the greatest extent while maintaining elevation ranges which have been observed to be successful in this area. It should be noted that the transition from high marsh to low marsh in naturally established saltmarshes are typically a blended zone of high marsh and low marsh species. This blended zone is an indicator that there is a degree of flexibility in assigning the transition elevation.
- Several additional small streams are planned to be installed in Parcel 25-49 to assist with drainage and prevent erosion. The planned grades will be followed to the extent possible. It is not thought that these minor changes will affect the plant quantities.

5 **ATTACHEMENT AND FIGURES**

Attachment 1: Original Work Plan Restoration Tables vs Revised Tables

Figure 1a: Proposed Restoration Acreages by Cover Type for Parcel 25-49 and Right of Way (ROW) (Revised 20 September 2023)

Figure 1b: Proposed Restoration Acreages by Cover Type for Parcel 25-356, 25-358, and Right of Way (ROW) (Revised 20 September 2023)

	Figure 1c: Proposed Restoration Acreages by Cover Type for Parcel 25-56 (Revised 20 September 2023) Figure 1d: Proposed Restoration Acreages by Cover Type for Parcel 25-55Y (Revised 20 September 2023) Figure 1e: Proposed Restoration Acreages by Cover Type for Parcel 20-005 (Revised 20 September 2023)
6	**REFERNCES**
	Jacobs, 2020. February. Draft Final Intertidal Work Plan for East Zone 3. ACE-J23-35BG6000-M1-0062 Jacobs, 2019. May. Draft Final Generic Upper Harbor Intertidal Work Plan, Revision 1. ACE-J23-35BG2000-M1-0109

25 319

(RIGHT OF WAY) ROW1

25 49

Legend

- Low Marsh (Est. Sqft 3,474) = 0.08 acres
- High Marsh (Est. Sqft 48,960) = 1.12 acres
- Proposed Shrub Restoration Areas
- Proposed Scrub-Shrub Marsh
- Proposed Stream

0 80 160 Feet

Basemap Data Source:
Nearview, LLC, MassGIS

Vertical Datum:
NAVD88

Intertidal East Zone 3 Parcel 25-49 and Right of Way (ROW) Proposed Wetland Cover Types

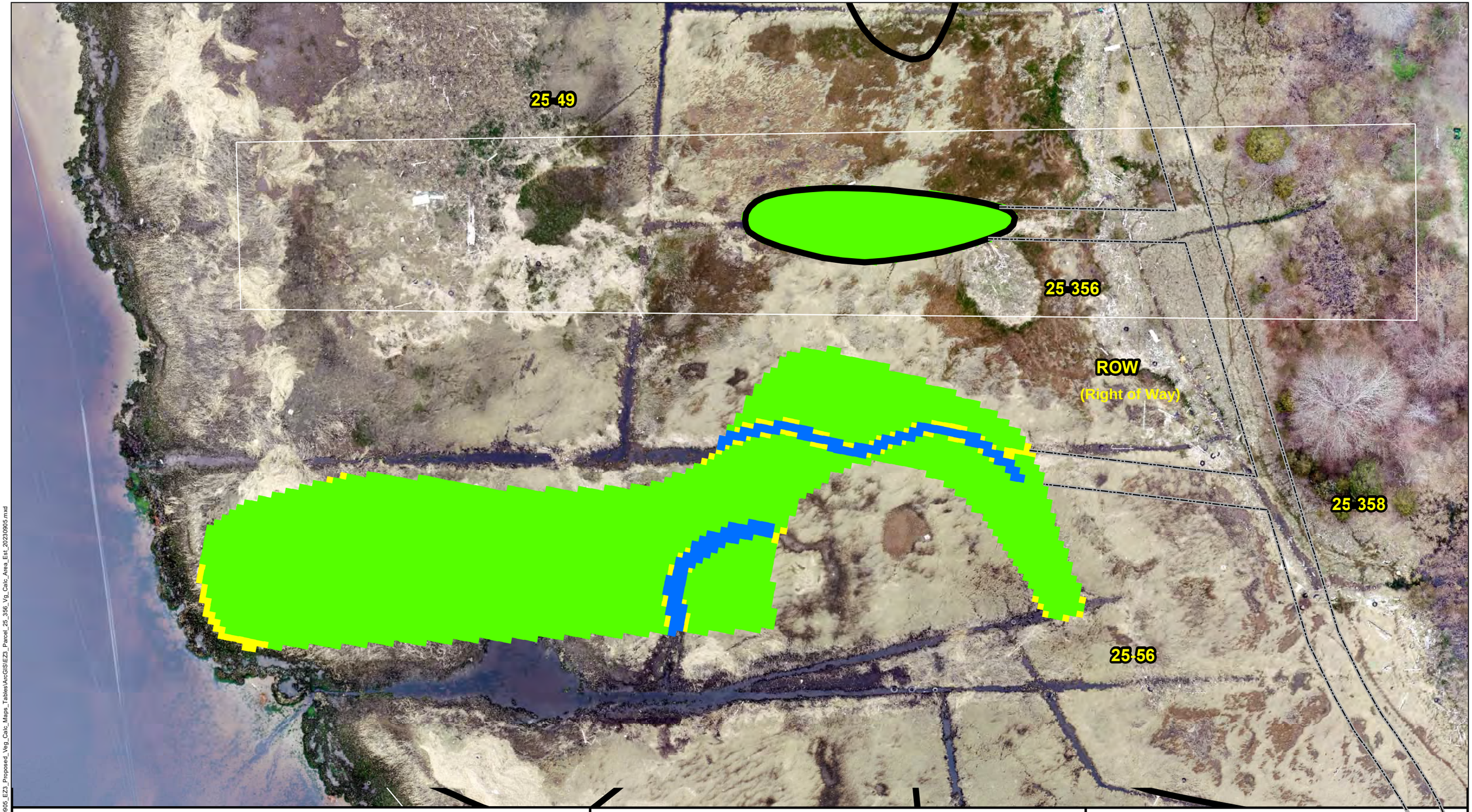
(Revised Oct 2023)

JACOBS

New Bedford Harbor Superfund Site

Figure 1-1a

Path: Y:\NBH\Projects\35BG1001\20230905_E23_Proposed_Veg_Calc_Maps_Tables\ArcGIS\E23_Parcel_25_49_Vg_Calc_Area_Est_20230905.mxd



Legend

- Low Marsh (Est. Sqft 28,908) = 0.66 acres
- High Marsh (Est. Sqft 981) = 0.02 acres
- Proposed Stream

0 50 100 Feet

Basemap Data Source:
Nearview, LLC, MassGIS

Vertical Datum:
NAVD88

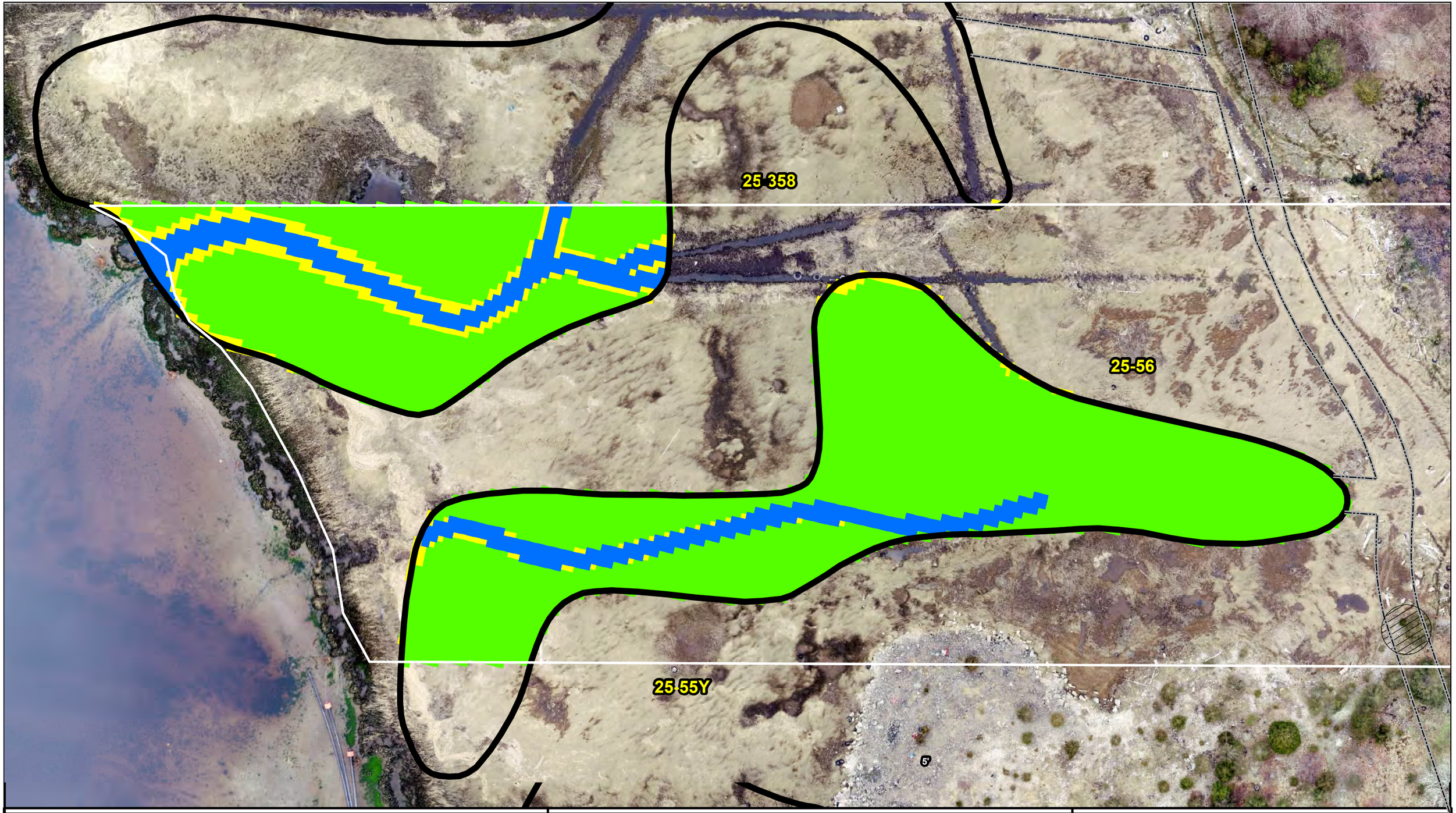
Intertidal East Zone 3
Parcels 25-356, 23-358, and Right of Way (ROW) Proposed Wetland Cover Types (Revised Oct 2023)

New Bedford Harbor Superfund Site

JACOBS

Figure 1-1b

Path: Y:\NBH\Projects\35BG10011\20230905_EZ3_Proposed_Veg_Calc_Maps_Tables\ArcGIS\EZ3_Parcel_25_356_Vg_Calc_Area_Est_20230905.mxd



Legend

- Low Marsh (Est. Sqft 31,257) = 0.068 acres
- High Marsh (Est. Sqft 2,997) = 0.72 acres
- Proposed Shrub Restoration Areas
- Proposed Stream

0 50 100 Feet

Basemap Data Source:
Nearview, LLC, MassGIS

Vertical Datum:
NAVD88

Intertidal East Zone 3
Parcel 25-56
Proposed Wetland Cover Types

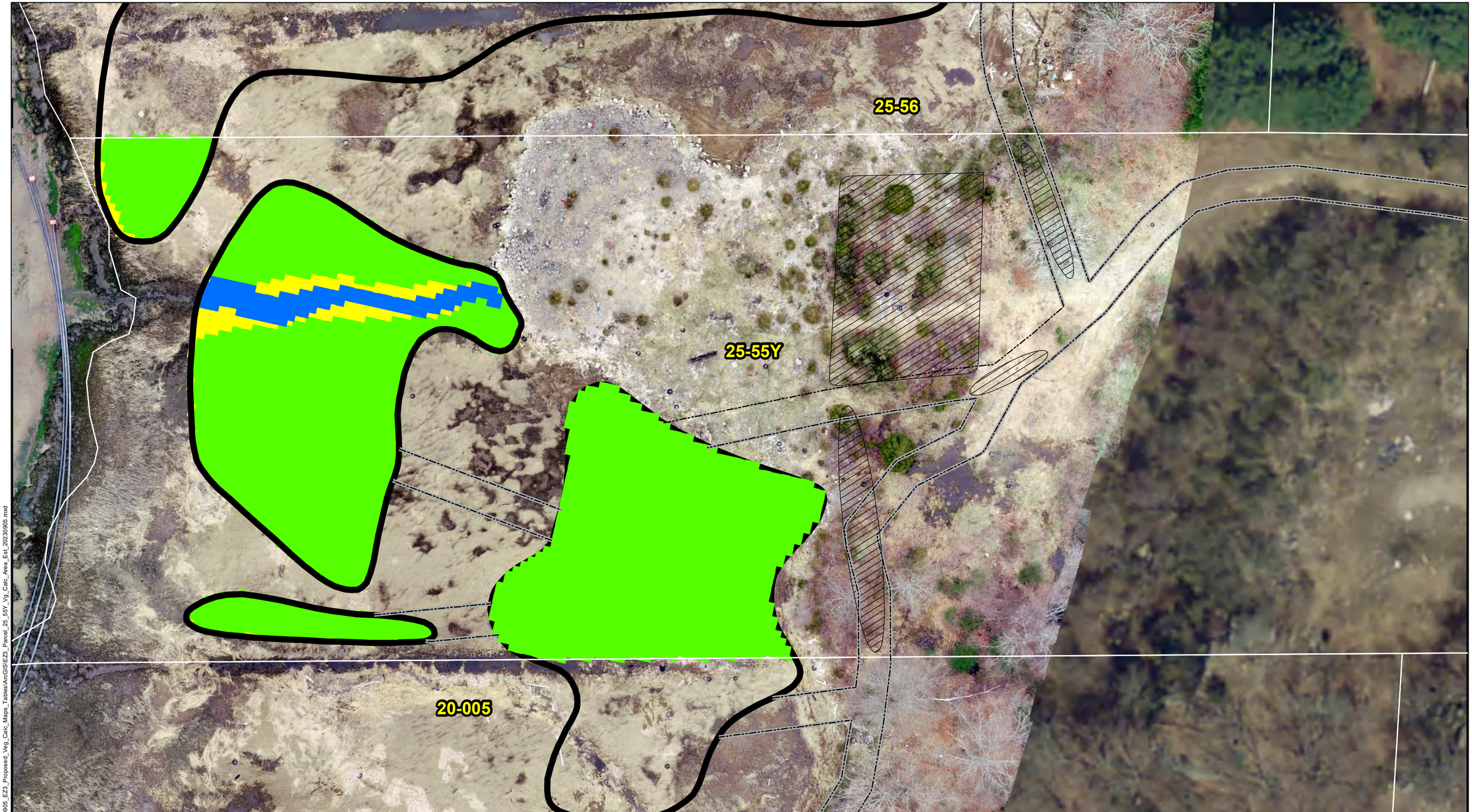
New Bedford Harbor Superfund Site

(Revised Oct 2023)

JACOBS

Figure 1-1c

Path: Y:\NBH\Projects\35BG100\120230905_E23_Proposed_Veg_Calc_Maps_Tables\ArcGIS\E23_Parcel_25_56_Vg_Calc_Area_Est_20230905.mxd



Legend

- Low Marsh (Est. Sqft 1,710) = 0.04 acres
- High Marsh (Est. Sqft 30,249) = 0.70 acres
- Proposed Shrub Restoration Areas
- Proposed Stream

0 50 100 Feet

Basemap Data Source: Nearview, LLC, MassGIS

Vertical Datum: NAVD88

Intertidal East Zone 3 Parcel 25-55Y Proposed Wetland Cover Types

(Revised Oct 2023)

New Bedford Harbor Superfund Site

JACOBS

Figure 1-1d

Path: Y:\NBH\Projects\35BG1001\20230905_EZ3_Proposed_Veg_Calc_Maps_Tables\ArcGIS\EZ3_Parcel_25_55Y_Vg_Calc_Area_Est_20230905.mxd

25-55Y

20-005

20-001

Legend

Low Marsh (Est. Sqft 27) = 0.001 acres

High Marsh (Est. Sqft 6,048) = 0.14 acres

Proposed Shrub Restoration Areas

0 50 100 Feet

Basemap Data Source:
Nearview, LLC, MassGIS

Vertical Datum:
NAVD88

Intertidal East Zone 3 Parcel 20-005
Proposed Wetland Cover Types
(Revised Oct 2023)

JACOBS

New Bedford Harbor Superfund Site

Figure 1-1e

Path: Y:\NBH\Projects\35BG100\120230905_E23_Proposed_Veg_Calc_Maps_Tables\ArcGIS\E23_Parcel_20_005_Vg_Calc_Area_Est_20230905.mxd

Attachment 1

Original

Table 7-1a
Proposed Restoration Acreages by Cover Type for Parcel 25-49 and ROW

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.455	0.017
High Marsh	0.847	1.172
Stream	0.000	0.111
Scrub-Shrub Marsh	0.033	0.035
TOTAL	**1.335**	**1.335**

Table 7-1b
Proposed Restoration Acreages by Cover Type for Parcels 25-356, 25-358, and ROW

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.228	0.020
High Marsh	0.486	0.667
Stream	0.000	0.027
TOTAL	**0.714**	**0.714**

Table 7-1c
Proposed Restoration Acreages by Cover Type for Parcel 25-56

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.361	0.023
High Marsh	0.525	0.772
Stream	0.000	0.091
TOTAL	**0.886**	**0.886**

Table 7-1d
Proposed Restoration Acreages by Cover Type for Parcel 25-55Y

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.377	0.069
High Marsh	0.369	0.664
Stream	0.000	0.031
Pannes	0.018	0.000
TOTAL	**0.764**	**0.764**

Table 7-1e
Proposed Restoration Acreages by Cover Type for Parcel 20-005

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.021	0.000
High Marsh	0.103	0.139
Pannes	0.015	0.000
TOTAL	**0.139**	**0.139**

Revised

Table 7-1a (revised)
Proposed Restoration Acreages by Cover Type for Parcel 25-49 and ROW

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.455	0.080
High Marsh	0.847	1.120
Stream	0.000	0.110
Scrub-Shrub Marsh	0.033	0.036
TOTAL	**1.335**	**1.346**

Table 7-1b (revised)
Proposed Restoration Acreages by Cover Type for Parcels 25-356, 25-358, and ROW

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.228	0.020
High Marsh	0.486	0.660
Stream	0.000	0.028
TOTAL	**0.714**	**0.708**

Table 7-1c (revised)
Proposed Restoration Acreages by Cover Type for Parcel 25-56

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.361	0.068
High Marsh	0.525	0.720
Stream	0.000	0.098
TOTAL	**0.886**	**0.886**

Table 7-1d (revised)
Proposed Restoration Acreages by Cover Type for Parcel 25-55Y

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.377	0.040
High Marsh	0.369	0.700
Stream	0.000	0.030
Pannes	0.018	0.000
TOTAL	**0.764**	**0.770**

Table 7-1e (revised)
Proposed Restoration Acreages by Cover Type for Parcel 20-005

Habitat Type	Existing Pre-Construction Area [acres]	Proposed Area of Restoration [acres]
Low Marsh	0.021	0.001
High Marsh	0.103	0.140
Pannes	0.015	0.000
TOTAL	**0.139**	**0.141**

Attachment B

East Zones 2 and 3 Topsoil Analytical Results Summary

Attachment B
East Zone 2 and East Zone 3 Topsoil Analytical Results Summary

			Acceptable Nutrient Ranges										Geotech (Method D7928)			MCP S-1 Soil Cleanup Standards (Pass/Fail)									
			pH	CEC	Base Saturation	Avail Plant Moisture	Organic Matter Content	Mg	Ca	K	N	P	Sand	Silt	Clay										
Batch #	Date	Supplier	6 - 7	>20 meq/100g	>35%	50 - 70%	5 - 8%	50 - 120 ppm	1000 - 1500 ppm	100 - 160 ppm	>25 ppm	>15 ppm	45 - 85%	0 - 50%	0 - 20%	Metals	Petroleum Hydrocarbons	Target VOCs	Target SVOCs	EDB	1,4-Dioxane	Cyanide	PCBs	Backfill Location	Approved Vol (CY)
1	1-Mar-2023	READ Custom	6.2	14.1	75.8	NA	5.0	176	1650	365	127.2	120	76.7	14.7	8.5	P	P	P	P	P	P	P	P	EZ2	500
2	13-Apr-2023	READ Custom	6.6	13.1	84.8	NA	5.7	183	1684	442	134.4	146	81.2	12.8	6.0	–	–	–	–	–	–	–	–	EZ2	500
3	26-Apr-2023	READ Custom	6.3	10.7	79.5	7.12[A]	5.7	168	1266	299	167.4	115	76.9	17.1	6.0	–	–	–	–	–	–	–	–	EZ2	500
4	5-May-2023	READ Custom	6.3	11.9	83.2	NA	5.7	189	1455	412	153.2	136	77.9	16.2	6.1	–	–	–	–	–	–	–	–	EZ2	500
5	12-May-2023	READ Custom	6.9	8.5	100.0	NA	5.4	165	1205	433	129.6	107	80.5	14.4	5.2	P	P	P	P	P	P	P	P	EZ2	500
6	19-May-2023	READ Custom	6.3	11.2	80.3	NA	5.7	184	1300	365	172.6	109	81.0	13.2	5.8	–	–	–	–	–	–	–	–	EZ2	500
7	22-May-2023	READ Custom	6.5	10.8	81.5	NA	5.1	167	1300	355	126.7	120	80.3	13.9	5.8	–	–	–	–	–	–	–	–	EZ2	500
8	23-May-2023	READ Custom	6.0	11.7	76.1	NA	5.5	158	1370	304	148.5	127	75.4	17.8	6.8	–	–	–	–	–	–	–	–	EZ2	500
9	24-May-2023	READ Custom	6.1	7.6	71.0	NA	5.2	108	772	242	160.0	105	80.0	12.3	7.7	P	P	P	P	P	P	P	P	EZ2	500
10	30-May-2023	READ Custom	6.5	7.0	71.6	NA	5.8	104	686	288	118.5	86	83.1	12.0	4.9	–	–	–	–	–	–	–	–	EZ2	500
11	30-May-2023	READ Custom	6.4	8.8	77.2	NA	5.9	135	970	312	125.7	69	83.2	11.2	5.6	–	–	–	–	–	–	–	–	EZ2	500
12	30-May-2023	READ Custom	6.4	8.7	76.9	NA	5.8	133	950	313	128.0	68	82.5	12.2	5.2	–	–	–	–	–	–	–	–	EZ2	500
13	31-May-2023	READ Custom	6.4	8.9	77.5	NA	5.9	141	967	335	131.8	84	81.4	13.5	5.1	P	P	P	P	P	P	P	P	EZ2	500
14	1-Jun-2023	READ Custom	6.5	8.6	76.6	NA	5.9	128	947	299	121.0	83	77.5	17.2	5.2	–	–	–	–	–	–	–	–	EZ2	500
15	5-Jun-2023	READ Custom	6.2	7.1	69.1	NA	5.9	101	686	257	133.9	88	84.4	10.7	4.9	–	–	–	–	–	–	–	–	EZ2	500
16	8-Jun-2023	READ Custom	6.2	8.0	65.1	NA	5.1	108	728	266	120.9	95	78.8	11.9	9.3	–	–	–	–	–	–	–	–	EZ2	500
17	15-Jun-2023	READ Custom	6.5	8.5	76.6	NA	5.8	128	951	280	118.0	75	85.9	7.8	6.3	P	P	P	P	P	P	P	P	EZ2	500
18	15-Jun-2023	READ Custom	6.4	8.7	74.8	NA	5.4	129	948	284	119.2	76	79.8	9.9	10.3	–	–	–	–	–	–	–	–	EZ2	500
19	22-Jun-2023	READ Custom	6.5	8.0	75.1	NA	5.8	120	884	238	111.9	67	83.3	12.3	4.5	–	–	–	–	–	–	–	–	EZ2	500
20	22-Jun-2023	READ Custom	6.8	7.8	100.0	NA	5.1	147	1163	312	114.8	88	81.9	12.5	5.7	–	–	–	–	–	–	–	–	EZ2	500
21	23-Jun-2023	READ Custom	6.6	9.4	78.7	NA	5.2	149	1055	327	121.1	85	78.7	15.7	5.5	P	P	P	P	P	P	P	P	EZ2	500
22	26-Jun-2023	READ Custom	6.4	7.5	73.4	NA	5.2	111	801	229	117.2	70	80.7	12.5	6.8	–	–	–	–	–	–	–	–	EZ2	500
23	30-Jun-2023	READ Custom	6.5	8.6	76.7	NA	6.0	126	965	271	116.8	78	81.6	11.4	7.1	–	–	–	–	–	–	–	–	EZ2	500
24	6-Jul-2023	READ Custom	6.6	9.0	77.7	NA	5.3	138	1020	288	119.9	65	79.7	13.5	6.8	–	–	–	–	–	–	–	–	EZ2	500
25	7-Jul-2023	READ Custom	6.6	9.7	79.3	NA	5.5	152	1128	312	119.9	80	81.3	9.4	9.4	P	P	P	P	P	P	P	P	EZ2	500
26	7-Jul-2023	READ Custom	6.5	8.5	76.4	NA	5.6	130	947	259	121.1	64	79.5	11.9	8.6	–	–	–	–	–	–	–	–	EZ2	500
27	13-Jul-2023	READ Custom	6.5	7.6	73.6	NA	5.3	113	808	231	115.8	60	82.5	10.8	6.7	–	–	–	–	–	–	–	–	EZ2	500
28	13-Jul-2023	READ Custom	6.6	9.4	78.8	NA	5.7	149	1084	296	113.2	75	81.5	11.7	6.8	–	–	–	–	–	–	–	–	EZ2	500
29	17-Jul-2023	READ Custom	6.5	7.0	71.5	NA	5.1	103	721	220	121.4	64	80.2	12.8	7.0	P	P	P	P	P	P	P	P	EZ2	500
30	21-Jul-2023	READ Custom	6.6	12.7	84.2	NA	5.7	205	1539	496	119.2	106	83.8	9.8	6.5	–	–	–	–	–	–	–	–	EZ2	500
31	27-Jul-2023	READ Custom	6.6	8.6	76.7	NA	5.4	139	931	297	126.4	70	86.3	8.0	5.6	–	–	–	–	–	–	–	–	EZ2	500
32	27-Jul-2023	READ Custom	6.6	9.2	78.1	NA	5.2	146	1037	306	122.0	77	83.9	9.2	6.9	–	–	–	–	–	–	–	–	EZ2	500
33	1-Aug-2023	READ Custom	6.5	8.2	75.6	NA	5.8	132	881	271	126.7	67	82.7	10.9	6.4	P	P	P	P	P	P	P	P	EZ2	500
34	1-Aug-2023	READ Custom	6.5	8.0	72.5	NA	5.2	128	802	281	129.1	54	84.3	9.0	6.7	–	–	–	–	–	–	–	–	EZ2	500
35	2-Aug-2023	READ Custom	6.4	8.3	75.8	NA	5.3	137	872	296	130.5	55	85.4	8.5	6.1	–	–	–	–	–	–	–	–	EZ2	500
36	3-Aug-2023	READ Custom	6.2	7.2	72.2	NA	5.2	114	723	247	131.2	49	84.4	9.3	6.3	–	–	–	–	–	–	–	–	EZ2	500
37	9-Aug-2023	READ Custom	6.3	8.7	77.0	NA	5.5	147	957	280	130.5	64	83.7	10.4	6.0	P	P	P	P	P	P	P	P	EZ2	500
38	9-Aug-2023	READ Custom	6.3	9.2	69.4	NA	5.6	123	926	273	131.2	72	81.6	9.1	9.3	–	–	–	–	–	–	–	–	EZ2	500
39	10-Aug-2023	READ Custom	6.5	9.3	78.4	NA	5.9	146	1058	301	119.9	84	81.8	9.0	9.2	–	–	–	–	–	–	–	–	EZ2	500
40	21-Aug-2023	READ Custom	6.6	9.1	78.0	NA	5.3	148	939	458	119.0	87	80.7	10.4	8.9	–	–	–	–	–	–	–	–	EZ3	500
41	21-Aug-2023	READ Custom	6.7	9.0	77.8	NA	5.6	149	950	397	124.4	97	83.3	10.2	6.5	P	P	P	P	P	P	P	P	EZ3	500
42	21-Aug-2023	READ Custom	6.4	9.1	78.1	NA	5.5	151	906	524	119.4	85	78.6	12.6	8.8	–	–	–	–	–	–	–	–	EZ3	500
43	28-Aug-2023	READ Custom	6.5	9.7	79.4	NA	5.7	164	1020	493	110.1	103	85.6	7.7	6.7	–	–	–	–	–	–	–	–	EZ3	500
44	28-Aug-2023	READ Custom	6.7	10.9	81.8	NA	5.5	176	1234	510	117.2	110	81.3	10.5	8.2	–	–	–	–	–	–	–	–	EZ3	500
45	8-Sep-2023	READ Custom	6.6	9.1	77.9	NA	5.6	141	973	396	155.5	80	83.8	8.2	8.0	P	P	P	P	P	P	P	P	EZ3	500
46	8-Sep-2023	READ Custom	6.7	8.8	77.4	NA	5.1	132	909	456	115.7	96	77.0	18.1	4.9	–	–	–	–	–	–	–	–	EZ3	500
47	11-Sep-2023	READ Custom	6.5	9.6	79.0	NA	5.5	147	997	527	116.6	89	77.0	15.8	7.2	–	–	–	–	–	–	–	–	EZ3	500
48	11-Sep-2023	READ Custom	6.5	8.7	77.1	NA	5.8	141	842	525	118.8	98	78.3	12.7	9.0	–	–	–	–	–	–	–	–	EZ3	500
49	2-Oct-2023	READ Custom	6.5	6.4	56.4	NA	5.4	85	474	210	107.6	77	83.0	10.7	6.3	P	P	P	P	P	P	P	P	EZ3	500
50	2-Oct-2023	READ Custom	6.7	9.1	78.0	NA	7.7	148	896	537	119.8	92	78.6	13.6	7.8	–	–	–	–	–	–	–	–	EZ3	500
51	2-Oct-2023	READ Custom	6.4	8.6	76.8	NA	5.7	141	821	524	117.0	81	80.8	13.5	5.8	–	–	–	–	–	–	–	–	EZ3	500
52	2-Oct-2023	READ Custom	6.5	9.0	77.7	NA	5.9	145	875	547	119.6	97	79.8	14.7	5.5	–	–	–	–	–	–	–	–	EZ3	500
53	3-Oct-2023	READ Custom	6.4	8.8	77.1	NA	6.0	141	867	485	112.4	93	81.3	12.9	5.7	P	P	P	P	P	P	P	P	EZ3	500
54	17-Oct-2023	READ Custom	6.2	9.8	79.5	NA	5.6	156	1058	461	118.3	108	82.7	11.2	6.1	–	–	–	–	–	–	–	–	EZ3	500
55	17-Oct-2023	READ Custom	6.2	7.4	62.4	NA	5.8	95	651	228	119.6	78	84.4	9.8	5.8	–	–	–	–	–	–	–	–	EZ3	500
56	17-Oct-2023	READ Custom	6.5	10.0	79.9	NA	5.8	160	1027	592	117.1	112	77.6	16.0	6.3	–	–	–	–	–	–	–	–	EZ3	500
Averages			**6.5**	**9.1**	**77.0**	**NA**	**5.6**	**140.7**	**992.4**	**352.7**	**125.4**	**87.3**	**81.2**	**12.1**	**6.7**										