



Joint Permit Application Package  
Albany Port District Commission  
USACE # NAN-2021-00948-UDA  
DEC # 4-0122-00322/00002

# **Port of Albany Expansion Project**

May 2022 (rev.)



(This page is intentionally left blank)

## TABLE OF CONTENTS

<b>1.</b>	<b>JOINT PERMIT APPLICATION FORMS</b> .....	<b>1-1</b>
-	JOINT APPLICATION FORM 04/20 .....	1-1
-	JOINT APPLICATION FORM SUPPLEMENT D-2 .....	1-1
-	JOINT PERMIT APPLICATION SUPPLEMENT WQC-1 .....	1-1
-	SECTION 401 WATER QUALITY CERTIFICATION PRE-FILING MEETING REQUEST FORM .....	1-1
-	FEDERAL CONSISTENCY ASSESSMENT FORM .....	1-1
<b>2.</b>	<b>PROJECT INFORMATION</b> .....	<b>2-1</b>
2.1	REGULATORY BACKGROUND.....	2-2
2.2	PURPOSE AND NEED OF THE PROJECT .....	2-7
2.2.1	Purpose of the Project .....	2-7
2.2.2	Need of the Project.....	2-7
<b>3.</b>	<b>DESCRIPTION OF PROJECT AREA AND CURRENT SITE CONDITIONS</b> .....	<b>3-1</b>
3.1	LAND ENVIRONMENT .....	3-2
3.1.1	81.6-Acre Parcel (Main Site/Beacon Island) .....	3-2
3.1.2	4.5-Acre Adjoining Parcel (National Grid Property).....	3-2
3.1.3	14.7-Acre Parcel (700 Smith Boulevard).....	3-3
3.2	WETLANDS AND SURFACE WATERS .....	3-3
3.2.1	Delineated Wetlands .....	3-3
3.2.2	Hudson River and Normans Kill (Surface Waters) .....	3-4
<b>4.</b>	<b>PROPOSED SITE CHANGES, WORK METHODS AND IMPACTS</b> .....	<b>4-1</b>
4.1	LANDSIDE (SITE) DEVELOPMENT.....	4-3
4.1.1	Soil Management Plan for Excavation in Areas impacted with Ash and Debris .....	4-4
4.1.2	Stormwater Management System.....	4-5
4.1.3	Sanitary Sewer .....	4-5
4.1.4	Fire Suppression System .....	4-5
4.2	PROPOSED BRIDGE OVER NORMANS KILL.....	4-6
4.2.1	Management of Water Flows, Fill within Floodway and Sea Level Rise .....	4-6
4.2.2	USCG Bridge Permit .....	4-7
4.3	PROPOSED WHARF AND DREDGING .....	4-7
4.3.1	Design Considerations .....	4-8
4.3.2	Wharf / Quay Structure Description and Fill Material Quantities .....	4-9
4.3.3	Dredging (Hudson River).....	4-10
4.4	PROJECT SCHEDULE, CONSTRUCTION DURATION AND YEAR RESTRICTIONS .....	4-14
<b>5.</b>	<b>BMPS AND ENVIRONMENTAL PROTECTION</b> .....	<b>5-15</b>
<b>6.</b>	<b>ENVIRONMENTAL MITIGATION PLANS</b> .....	<b>6-1</b>
6.1	WETLAND COMPENSATORY MITIGATION PLAN.....	6-1

6.2 MITIGATION TO OFFSET POTENTIAL IMPACTS TO STURGEON HABITAT, SAV AND FRESHWATER MUSSELS ..... 6-1

**7. ALTERNATIVE ANALYSIS ..... 7-1**

7.1 SITE SELECTION ..... 7-1

7.2 SITE DEVELOPMENT ..... 7-1

7.3 BRIDGE OVER NORMANS KILL..... 7-2

7.4 WHARF ..... 7-2

**8. APPENDICES ..... 8-1**

**LIST OF TABLES**

Table 3-1: Project Site ..... 3-1

Table 3-2: Project Site Boundaries ..... 3-2

Table 3-3: Delineated Wetland Areas within Project Site ..... 3-4

Table 3-4: SAV Areas ..... 3-6

Table 3-5: Summary of Freshwater Mussels Survey ..... 3-9

Table 4-1: Project Impacts – Wetlands ..... 4-2

Table 4-2: Project Impacts - SAVs ..... 4-3

**LIST OF FIGURES**

Figure 2-1: USGS Topographic Map - Location Map ..... 2-3

Figure 2-2: Aerial Image - Location Map ..... 2-5

Figure 3-1: SAV Areas ..... 3-7

Figure 3-2: Mussels Survey Area ..... 3-11

Figure 4-1: Visualization of Proposed Layout ..... 4-2

**LIST OF APPENDICES**

Appendix 1: Permit Sketches (Project Drawings)

Appendix 2: Interagency Pre-Application Meetings Documentation

Appendix 3: Agencies Correspondence and Response Letters

Appendix 4: Rare Plant Species Investigation (2019)

Appendix 5: Supplemental Rare Plan Species Investigation (2021)

Appendix 6: Wetland Delineation Report (2019)

Appendix 7: Supplemental Wetland Delineation Report (2021)

Appendix 8: Submerged Aquatic Vegetation Survey

Appendix 9: Freshwater Mussels Survey

Appendix 10: Soil Management Plan

Appendix 11: Environmental Subsurface Investigation and Soil Sampling Report

Appendix 12: Sediment Sampling and Analysis Report

Appendix 13: Vegetation Management Plan

Appendix 14: Port of Albany – 81.6 -Acre Site Fire Flow Technical Memorandum

## LIST OF ACRONYMS

<i>Acronyms</i>	<i>Names</i>
APDC	Albany Port District Commission
BMPs	Best Management Practices
CDF	Confined Disposal Facility
DMPS	Dredge Material Placement Site
DWT	Deadweight tonnage
E	Endangered
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FGEIS	Final Generic Environmental Impacts Statement
FMS	Freshwater Mussels Survey
ft	Feet
GEIS	Generic Environmental Impacts Statement
HRM	Hudson River Mile
ILF	In-Lieu Fee Mitigation
JPA	Joint Permit Application
LF	Linear feet
LOA	Length overall of vessel
m	Meters
MHHW	Mean Higher High Water
MHW	Mean High Water
MLLW	Mean Lower Low Water
MLW	Mean Low Water
NLEB	Northern Long-Eared Bat
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NYDOS	New York Department of State
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation (NYSDEC)
OSW	Offshore Wind (OSW) facilities
PCBs	polychlorinated biphenyls
psf	Pounds per square foot
SAV	Submerged Aquatic Vegetation
SCO	Restricted Residential Soil Cleanup Objectives
SEQRA	State Environmental Quality Review Act (SEQRA)
SF	Square feet
SPDES	State Pollutant Discharge Elimination System
SPMT's	Self-Propelled Modular Transporters
SWPPP	Stormwater Pollution Prevention Plan
SWWTP	Sanitary Wastewater Treatment Plant
T	Threatened
TOGS	NYSDEC Division of Water Technical & Operational Guidance Document Series
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
VMP	Vegetation Management Plan

(This page is intentionally left blank)

# 1. JOINT PERMIT APPLICATION FORMS

- JOINT APPLICATION FORM 04/20
- JOINT APPLICATION FORM SUPPLEMENT D-2
- JOINT PERMIT APPLICATION SUPPLEMENT WQC-1
- SECTION 401 WATER QUALITY CERTIFICATION PRE-FILING MEETING REQUEST FORM
- FEDERAL CONSISTENCY ASSESSMENT FORM

**Note:** A 6CRR-NY Part 182 Incidental Take Permit Application Package was submitted separately to NYSDEC for review and approval. Copy of the Part 182 Permit Application can be accessed via the following hyperlink:

- <https://mjinc-my.sharepoint.com/:f:/p/drosa/EnUY4-uuirdIosN4mFTPcEgBXOQ7H9Ic9B2908zq6l4Itg?e=6qpLeK>

(This page is intentionally left blank)





JOINT APPLICATION FORM

For Permits for activities affecting streams, waterways, waterbodies, wetlands, coastal areas, sources of water, and endangered and threatened species.

You must separately apply for and obtain Permits from each involved agency before starting work. Please read all instructions.

**1. Applications To:**

**>NYS Department of Environmental Conservation**  Check here to confirm you sent this form to NYSDEC.

Check all permits that apply:

<input checked="" type="checkbox"/> Stream Disturbance	<input type="checkbox"/> Dams and Impoundment Structures	<input checked="" type="checkbox"/> Tidal Wetlands	<input type="checkbox"/> Water Withdrawal
<input checked="" type="checkbox"/> Excavation and Fill in Navigable Waters	<input checked="" type="checkbox"/> 401 Water Quality Certification	<input type="checkbox"/> Wild, Scenic and Recreational Rivers	<input type="checkbox"/> Long Island Well
<input checked="" type="checkbox"/> Docks, Moorings or Platforms	<input checked="" type="checkbox"/> Freshwater Wetlands	<input type="checkbox"/> Coastal Erosion Management	<input type="checkbox"/> Incidental Take of Endangered / Threatened Species

**>US Army Corps of Engineers**  Check here to confirm you sent this form to USACE.

Check all permits that apply:  Section 404 Clean Water Act  Section 10 Rivers and Harbors Act

Is the project Federally funded?  Yes  No

If yes, name of Federal Agency:

General Permit Type(s), if known:

Preconstruction Notification:  Yes  No

**>NYS Office of General Services**  Check here to confirm you sent this form to NYSOGS.

Check all permits that apply:

State Owned Lands Under Water  Utility Easement (pipelines, conduits, cables, etc.)  Docks, Moorings or Platforms

**>NYS Department of State**  Check here to confirm you sent this form to NYSDOS.

Check if this applies:  Coastal Consistency Concurrence

**2. Name of Applicant**  Taxpayer ID (if applicant is NOT an individual)

Mailing Address  Post Office / City  State  Zip

Telephone  Email

Applicant Must be (check all that apply):  Owner  Operator  Lessee

**3. Name of Property Owner (if different than Applicant)**

Mailing Address  Post Office / City  State  Zip

Telephone  Email

**For Agency Use Only** Agency Application Number:

**4. Name of Contact / Agent**  
 Steve Boisvert - McFarland-Johnson, Inc.  
 Mailing Address: 60 Railroad Place, Suite 402  
 Post Office / City: Saratoga Springs  
 State: NY Zip: 12866  
 Telephone: 518-580-9380 Email: sboisvert@mjinc.com

**5. Project / Facility Name**  
 Port of Albany Expansion Project  
 Property Tax Map Section / Block / Lot Number: 98.00-2-10.23  
 Project Street Address, if applicable: Beacon Harbor Parcel  
 Post Office / City: Town of Bethlehem  
 State: NY Zip:   
 Provide directions and distances to roads, intersections, bridges and bodies of water:  
 East of River Road (NYS Rd. 144), south of Normans Kill and north of of PSEG property; Town of Bethlehem, Albany County, NY  
 Town  Village  City County: Albany Stream/Waterbody Name: Normans Kill and Hudson River  
 Project Location Coordinates: Enter Latitude and Longitude in degrees, minutes, seconds:  
 Latitude: 46 ° 36 ' 16.59 " Longitude: 73 ° 45 ' 54.60 "

**6. Project Description:** Provide the following information about your project. Continue each response and provide any additional information on other pages. **Attach plans on separate pages.**

a. Purpose of the proposed project:  
 See Section 2.2 of Joint Application Package. This Project would transform an undeveloped industrially zoned property into an active marine terminal with specialized infrastructure capable of supporting a new manufacturing operation that would produce the tower components for offshore wind developments. Project would facilitate the marine-based import and export of materials and manufactured components to be used in the development of OSW.

b. Description of current site conditions:  
 See Section 3.0 of Joint Application Package. The Project Site consists of previous disturbed land (landfill) used for the disposal of coal ashes, transmission lines corridor ("power corridor") maintained by National Grid, and a previously developed area that had various industrial uses such a "rail yard" and metal recycling.

c. Proposed site changes:  
 See Section 4.0 of Joint Application Package. Proposed changes involves the development of available vacant land (previously disturbed), and build a manufacturing and marine terminal facility. Changes involve site improvements, construction of associated site utilities and infrastructure including roads, bridge over Normans Kill, parking area, stormwater management systems and wharf. Dredging of 4.4 acre is proposed. Limited wetland impacts.

d. Type of structures and fill materials to be installed, and quantity of materials to be used (e.g., square feet of coverage, cubic yards of fill material, structures below ordinary/mean high water, etc.):  
 See Section 4.0 of Joint Application Package.

e. Area of excavation or dredging, volume of material to be removed, location of dredged material placement:  
 See Section 4.3 of Joint Application Package.

f. Is tree cutting or clearing proposed?  Yes If Yes, explain below.  No  
 Timing of the proposed cutting or clearing (month/year): Nov-01-2021 to Mar-31-22  
 Number of trees to be cut: Acreage of trees to be cleared: 87 (approx.)

g. Work methods and type of equipment to be used:

See Section 4.0 of Joint Application Package.

h. Describe the planned sequence of activities:

See Section 4.4 of Joint Application Package.

i. Pollution control methods and other actions proposed to mitigate environmental impacts:

See Section 5 and Section 6 of Joint Application Package.

j. Erosion and silt control methods that will be used to prevent water quality impacts:

See Section 5 of Joint Application Package.

k. Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

See Section 7 of Joint Application Package.

l. Proposed use:  Private  Public  Commercial

m. Proposed Start Date:  Estimated Completion Date:

n. Has work begun on project?  Yes If Yes, explain below.  No

o. Will project occupy Federal, State, or Municipal Land?  Yes If Yes, explain below.  No

Wharf will be constructed along Hudson River and will required dredging of approximately 105,000 cubic yards

p. List any previous DEC, USACE, OGS or DOS Permit / Application numbers for activities at this location:

NYSDEC: DEC#4-0122-00322/00001 (Beacon Island Parcel Sampling Plan)  
USACE: NAN-2020-0811-UDA (Nationwide General Permit No. 6 for collection of sediment samples within Hudson River)  
NYDOS: F-2020-0538 (Federal Consistency with Coastal Zone Management)

q. Will this project require additional Federal, State, or Local authorizations, including zoning changes?

Yes If Yes, list below.  No

**7. Signatures.**

Applicant and Owner (If different) must sign the application. If the applicant is the landowner, the **landowner attestation form** can be used as an electronic signature as an alternative to the signature below, if necessary. Append additional pages of this Signature section if there are multiple Applicants, Owners or Contact/Agents.

I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief.

Permission to Inspect - I hereby consent to Agency inspection of the project site and adjacent property areas. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than \$10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, conceals, or covers up a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

Signature of Applicant

*Richard J Hendrick*

Date

August 3, 2021

Applicant Must be (check all that apply):  Owner  Operator  Lessee

Printed Name

RICHARD J HENDRICK

Title

CEO

Signature of Owner (if different than Applicant)

Date

Printed Name

Title

Signature of Contact / Agent

*Steve Boisvert*

Date

8/4/21

Printed Name

Steve Boisvert

Title

Director of Civil-Facilities

**For Agency Use Only**

**DETERMINATION OF NO PERMIT REQUIRED**

Agency Application Number

[ ]

[ ] (Agency Name) has determined that No Permit is required from this Agency for the project described in this application.

Agency Representative:

Printed Name

Title

Signature

Date



Department of Environmental Conservation

APPLICATION FOR PERMIT FOR THE CONSTRUCTION, RECONSTRUCTION OR EXPANSION OF DOCKING AND MOORING FACILITIES (Including Platforms and Breakwaters)

Supplement D-2

FOR AGENCY USE ONLY
DEC APPLICATION NUMBER:
U.S. ARMY CORPS OF ENGINEERS APPLICATION NUMBER:

Please read all instructions on the following page. TYPE OR PRINT CLEARLY IN INK. Attach additional information as needed.

PROJECT CONSTRUCTION DESCRIPTION: Port of Albany Expansion Project (Proposed Wharf in Hudson River)

1. TYPE OF ACTIVITY: [X] New Facility Construction [ ] Substantial Reconstruction [ ] Expansion [ ] Change in Use

2. CAPACITY OF DOCKING FACILITY OR MOORING AREA:
Maximum number of boats to be docked: Varies
Maximum number of boats to be moored: Varies
Boat type and size ranges to be served: Varies
Total surface area of facility perimeter: +/- 45,500 square feet

3. IDENTIFY STRUCTURE TYPES AND THE USE OF SUCH STRUCTURES, INCLUDE SIZE, TYPE OF CONSTRUCTION AND MATERIALS TO BE USED, IF SUBSTANTIAL RECONSTRUCTION IS REQUIRED, EXPLAIN EXTENT OF ACTIVITY INCLUDING PERCENTAGE OF THE TOTAL STRUCTURE SIZE AFFECTED.
See Section 4.3 of Joint Application Package. APDC intends to undertake the construction of approximately 500 linear feet of marginal wharf along the eastern edge of Beacon Island (81.6 acre parcel) on the Hudson River.

(continue on attached sheet if necessary)

4. FOR NEW FACILITY, EXPANSION OF EXISTING FACILITY OR CHANGE IN USE, CHECK APPROPRIATE ITEMS AND DESCRIBE THE SERVICES TO BE PROVIDED:
[ ] Water Supply:
[ ] Sewage Disposal:
[ ] Electrical Supply:
[ ] Gas Supply:
[ ] Gasoline/Oil Supply:
[X] Other: Manufacturing, import and export of materials for renewable energy facilities.

(continue on attached sheet if necessary)

5. SIGNATURE: Richard Hernandez DATE: August 3, 2021



(This page is intentionally left blank)



DEC ID (if known): \_\_\_\_\_

**Applicant Information:**

<b>Name of Applicant</b> (from Joint Application Form): Albany Port District Commission (Richard Hendrick)			
Email: rhendrick@portofalbany.us		Phone: (518) 463-8763	
Mailing Address: Street: 106 Smith Boulevard	City: Albany	State: NY	Zip: 12202
<b>Project Location</b> (from Joint Application Form): Beacon Harbor Parcel			
Town (where property taxes paid): Bethlehem		County: Albany	
Street Address: River Road (NYS Road 144)	City:	State: NY	Zip:

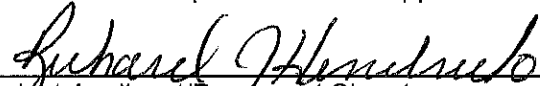
**To comply with federal requirements at 40 CFR §121.5(b) for New York State Section 401 Water Quality Certification, all items below must be completed and the applicant must sign page 2 of this form.**

1.	By signing this form, the applicant affirms that the project proponent(s) and a point of contact were accurately identified in the Joint Application for Permit provided with this supplement.
2.	By signing this form, the applicant affirms that the proposed project is accurately and completely identified in the Joint Application for Permit provided with this supplement, and in any supporting plans, photos, reports or other project information.
3.	Identify here the applicable federal license or permit for this request: USACE Section 404 / Section 10 Permit. If this request relates to a Section 404 Nationwide Permit administered by the US Army Corps of Engineers, please identify the appropriate Nationwide Permit number(s):
4.	Please identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters (attached additional information as needed): See Section 4 of Joint Application Package. The site would convey stormwater runoff to outlets into both the Normans Kill and the Hudson River. The western portion of the site with paved employee parking lots would sheet flow pavement runoff into bio retention infiltration areas and/or through green infrastructure filtration practices with overflow spillways into the exiting wetlands areas (Wetland 1). The Wetland 1 is currently drained via a 40" culvert into the Normans Kill. Building rooftop runoff and yard area runoff would be directed through a closed drainage system to hydrodynamic separators prior to discharge into the Normans Kill and Hudson River.
5.	Please provide a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge (attach additional information as needed): See Section 5 of Joint Application Package. A Stormwater Pollution Prevention Plan would be prepared for the construction and operation phase of the Project, in accordance with New York State regulations. Also during the dredging activities floating turbidity barriers will be installed to control potential increase in turbidity above current background levels.

6.	<p>Please provide a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received:</p> <p>See Section 2 of Joint Permit Application Package. A Generic Environmental Impact Statement (GEIS) was prepared by the APDC, which analyzed and evaluated potential environmental impacts equally with social and economic factors associated to the conceptual development of the Project. The Final GEIS (FGEIS) was accepted by the Town of Bethlehem (Lead Agency) on May 05, 2020. Nationwide General Permit No. 6 was obtained for sediment sampling. Sediment sampling plan was reviewed and approved by NYSDEC under case DEC #4-0122-00322/00001. No effect determination was issued by SHPO under case # 18PR07273.</p>
7.	<p>Please indicate the date a Section 401 Water Quality Certification pre-filing meeting request was submitted to DEC and attach a copy of the request to this form. The pre-filing meeting request must have been made at least 30 days prior to submitting application for Section 401 Water Quality Certification.</p> <p>Interagency Pre-Applications meetings were conducted on June 03, 2021, and July 20, 2021.</p>
8.	<p>By signing below the applicant is providing the following statement: <i>"The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief"</i></p>
9.	<p>By signing below the applicant is providing the following statement: <i>"The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time."</i></p>

**Certification:**

In addition to the Joint Application Form provided with this supplement, I hereby submit this form and the attachments indicated to request a Section 401 Water Quality Certification from DEC. The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

  
 Project Applicant/Proponent Signature

10.22.2021  
 Date



**New York State Section 401 Water Quality Certification**



Department of Environmental Conservation

**PRE-FILING MEETING REQUEST FORM**

**Prospective Applicant Information:** DEC ID (if known):

<b>Name of Prospective Applicant:</b> Albany Port District Commission (Richard Hendrick)			
Applicant must be <input checked="" type="checkbox"/> property owner, <input type="checkbox"/> lessee or <input type="checkbox"/> operator (check which applies).			
Email: rhendrick@portofalbany.us		Phone: (518) 463-87	
Mailing Address: Street: 106 Smith Boulevard	City: Albany	State: NY	Zip: 12202
<b>Name of Property Owner</b> (if different from prospective applicant): Same			
Email:		Phone:	
Mailing Address: Street:	City:	State:	Zip:
<b>Prospective Application Contact or Contractor</b> (if applicable): Steve Boisvert - McFarland-Johnson, Inc.			
Email: sboisvert@mjinc.com; droso@mjinc.com		Phone: 518-580-9380	
Mailing Address: Street 60 Railroad Place, Suite 402	City: Saratoga Springs	State: NY	Zip: 12866
<b>Project Location</b> (where work will be done): Beacon Harbor Parcel			
Town (where property taxes paid): Bethlehem		County: Albany	
Street Address: River Road (NYS Road 144)	City:	State: NY	Zip:

**Project Name and Description** (short description of proposed work, including acreage of US Waters):

See Joint Permit Application Package. This Project would transform an undeveloped industrially zoned property into an active marine terminal with specialized infrastructure capable of supporting a new manufacturing operation to produce tower components for offshore wind developments.

- Attachments** (check each box to indicate that the attachment is provided with this form):
- Project Location Map, required (with location marked)  Project Drawings & Site Plan, if available
  - Project Site Photos, if available  Project SEQR Documents, if available

**Certification:**  
 I hereby submit this form and the attachments indicated to request a pre-filing meeting for a Section 401 Water Quality Certification pursuant to 40 CFR §121.4. It is my intent to apply for a Section 401 Water Quality Certification for the project described in these materials, and any other DEC permits that may be required for the project, no earlier than 30 days from the date this pre-filing meeting request has been submitted. I also understand and acknowledge that DEC is not obligated to grant or respond to this request for a pre-filing meeting.

Prospective Applicant Signature
 

 August 3, 2018  
 Date
 

 \_\_\_\_\_  
 Property Owner Signature  
 (if different than applicant)
 

 \_\_\_\_\_  
 Date

(This page is intentionally left blank)

NEW YORK STATE DEPARTMENT OF STATE  
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. **APPLICANT** (please print)

1. Name: Richard Hendrick - Albany Port District Commission
2. Address: 106 Smith Boulevard
3. Telephone: Area Code ( ) (518) 463-8763

B. **PROPOSED ACTIVITY:**

1. Brief description of activity:

See Section 2 of Joint Application Package. The APDC proposes the development of an industrial site, to expand and provide additional port infrastructure, warehouse space, cargo and wharf capacity ("the Project").

2. Purpose of activity:

Manufacture and facilitate the marine-based import and export of materials and components to be used in the development of Offshore Wind (OSW) facilities.

3. Location of activity:

<u>Albany</u>	<u>Bethlehem</u>	<u>East of River Road</u>
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: Section 404 / Section 10 Permit

5. Federal application number, if known: \_\_\_\_\_

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

DEC#4-0122-00322/00001

**C. COASTAL ASSESSMENT** Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following: YES/NO
- a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)
  - b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)
  - c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)
  - d. Reduction of existing or potential public access to or along coastal waters? (19, 20)
  - e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9,10)
  - f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)
  - g. Siting of a facility essential to the generation or transmission of energy? (27)
  - h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)
  - i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)
  - j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)
  - k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)
  - l. Adverse effect upon land or water uses within the State's small harbors? (4)
2. Will the proposed activity affect or be located in, on, or adjacent to any of the following: YES/NO
- a. State designated freshwater or tidal wetland? (44)
  - b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)
  - c. State designated significant fish and/or wildlife habitat? (7)
  - d. State designated significant scenic resource or area? (24)
  - e. State designated important agricultural lands? (26)
  - f. Beach, dune or Barrier Island? (12)
  - g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)
  - h. State, county, or local park? (19, 20)
  - i. Historic resource listed on the National or State Register of Historic Places? (23)
3. Will the proposed activity require any of the following: YES/NO
- a. Waterfront site? (2, 21, 22)
  - b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)
  - c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)
  - d. State water quality permit or certification? (30, 38, 40)
  - e. State air quality permit or certification? (41, 43)
4. Will the proposed activity occur within and/or affect an area covered by a State-approved local waterfront revitalization program, or State-approved regional coastal management program? (see policies in program document\*)

**D. ADDITIONAL STEPS**

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document\*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

**E. CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Richard Hendrick- Albany Port District Commission

Address: 106 Smith Boulevard, Albany, NY

Telephone: Area Code ( ) (518) 463-8763

Applicant/Agent's Signature: Richard J. Hendrick Date: 10-22-2021

**F. SUBMISSION REQUIREMENTS**

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Planning and Development, Attn: Consistency Review Unit, One Commerce Plaza-Suite 1010, 99 Washington Avenue, Albany, New York 12231.**

- a. Copy of original signed form.
- b. Copy of the completed federal agency application.
- c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

\*These state and local documents are available for inspection at the offices of many federal agencies, Department of environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

(This page is intentionally left blank)

## 2. PROJECT INFORMATION

The Albany Port District Commission (APDC) has identified the need to expand their current land holdings in order to accommodate demand and support New York State in achieving its renewable energy goals by providing additional port infrastructure, building space, cargo and wharf capacity necessary for the manufacturing and distribution of wind turbine components. In order to continue fulfilling their mission to generate economic development for the region and to accommodate future growth, the APDC proposes the development of an industrial site, to expand and provide additional port infrastructure, building space, cargo and wharf capacity (“the Project”).

The Project is mainly located in an 81.6-acre parcel (Beacon Island) at River Road (State Road 144) in the Town of Bethlehem (“the Project Site”), south of the Normans Kill channel, immediately between existing port facilities and Bethlehem Energy Center on the west side of the Hudson River. In addition, the Project Site also includes 4.5 acres on the adjoining parcel owned by National Grid, and a 14.7-acre parcel located at 700 Smith Boulevard in the City of Albany. The Project would serve as an offshore wind (OSW) tower manufacturing and shipping facility. Project elements or construction of the Project include:

- Approximately 626,014 square feet (SF) of warehouse buildings
- Approximately 500 linear feet (LF) of new wharf and dredging activities along the western bank of the Hudson River
- Bridge over Normans Kill channel
- Employee surface parking to be partially constructed on adjoining land owned by National Grid
- Site utilities (e.g., water, sanitary, fire prevention, power and communications)
- Internal roadway infrastructure and offsite road improvements
- Rail access improvements
- Stormwater management systems, including treated runoff outfalls to the Normans Kill and the Hudson River
- Environmental Mitigation

**Figure 2-1** includes a Location Map showing the general location of the Project over a United States Geological Survey (USGS) Topographic Map. This full build out is estimated to be an industrial use and waterfront facility or port terminal, with the associated infrastructure. The Project buildings would be spread out in five (5) separate buildings. The following is a breakdown of the function and approximate size of each building:

- |  |            |
|--|------------|
| • Building A - Plate Preparation & Welding | 299,414 SF |
| • Building B - Welding Finishing           | 111,189 SF |
| • Building C - Blast Metallization Plant   | 132,014 SF |
| • Building D - Internal Assembly finishing | 61,647 SF  |
| • Building E - Material receiving          | 21,748 SF  |

See **Appendix 1** for Permit Sketches (Project Drawings).

**Figure 2-2** includes an Aerial Image with the location of the Project. The expansion would be developed according to the permitted uses for this Project Site as listed in the Town of Bethlehem Zoning Code and City of Albany, which include:

- Warehouse
- Manufacturing
- Assembly
- Industrial Park
- Distribution centers
- Packaging facilities
- Business office
- Commercial storage

The Project is aligned and supported by the Town of Bethlehem’s Comprehensive Plan (“the Plan”). The Plan promotes commercial and industrial growth in specifically designated locations, and identifies this Project Site as an area to be developed for industrial uses to provide a much-needed raise in tax base for the Town.

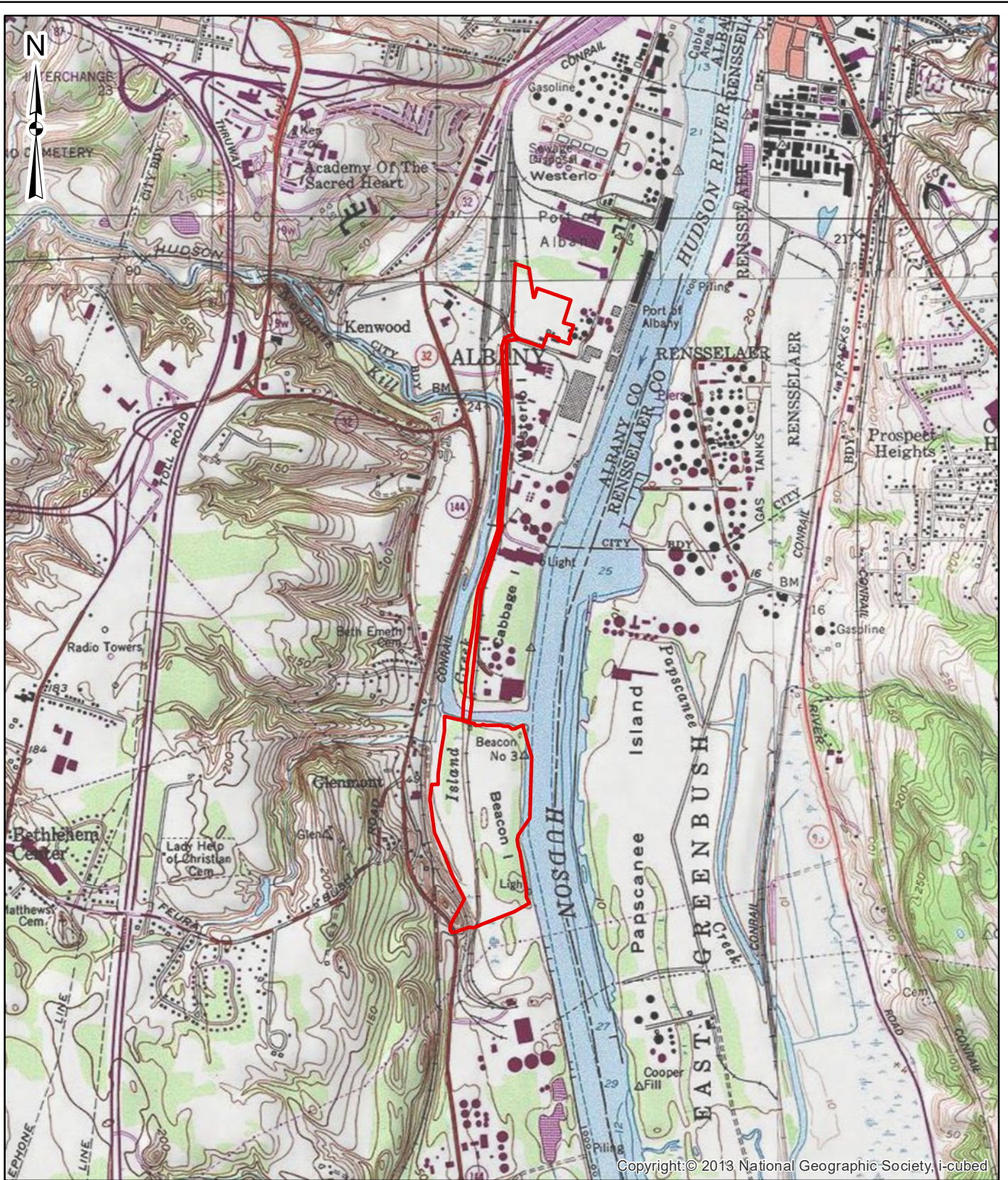
## 2.1 REGULATORY BACKGROUND

A Generic Environmental Impact Statement (GEIS) was prepared by the APDC, which analyzed and evaluated potential environmental impacts equally with social and economic factors associated to the conceptual development of the Project. The Final GEIS (FGEIS) was accepted by the Town of Bethlehem on May 05, 2020, and received approval under the State Environmental Quality Review Act (SEQRA). A Final Supplemental EIS (FSEIS) was then prepared and accepted by the Town of Bethlehem on March 15, 2022, addressing additionally design elements.

Interagency Pre-Applications meetings were conducted on June 03, 2021, and July 20, 2021. See **Appendix 2** for Interagency Pre-Application Meetings documentation. During the field investigation and preliminary design phase a Nationwide General Permit No. 6 was obtained for sediment sampling within the Hudson River. Also, sediment sampling plan was reviewed and approved by the New York Department of Environmental Conservation (NYSDEC) on August 10, 2020 under case number DEC #4-0122-00322/00001. Additionally, the New York Department of State (NYDOS) issued a general consistency concurrence under case F-2020-0538. See **Appendix 3** for Agency Correspondence and Response Letters.

Also, the Stockbridge Munsee Tribal Historic Preservation Office issued a No Adverse Effect determination on March 3, 2020 and the New York State Office of Parks, Recreation, and Historic Preservation (SHPO) issued a determination of No Adverse Effect with the condition of the Restrictive Deed Covenant and vegetation management plan on March 25, 2022. Copies of No Adverse Determination letters are included in **Appendix 3**.





Copyright: © 2013 National Geographic Society, i-cubed

### Legend

Project Site

Notes:

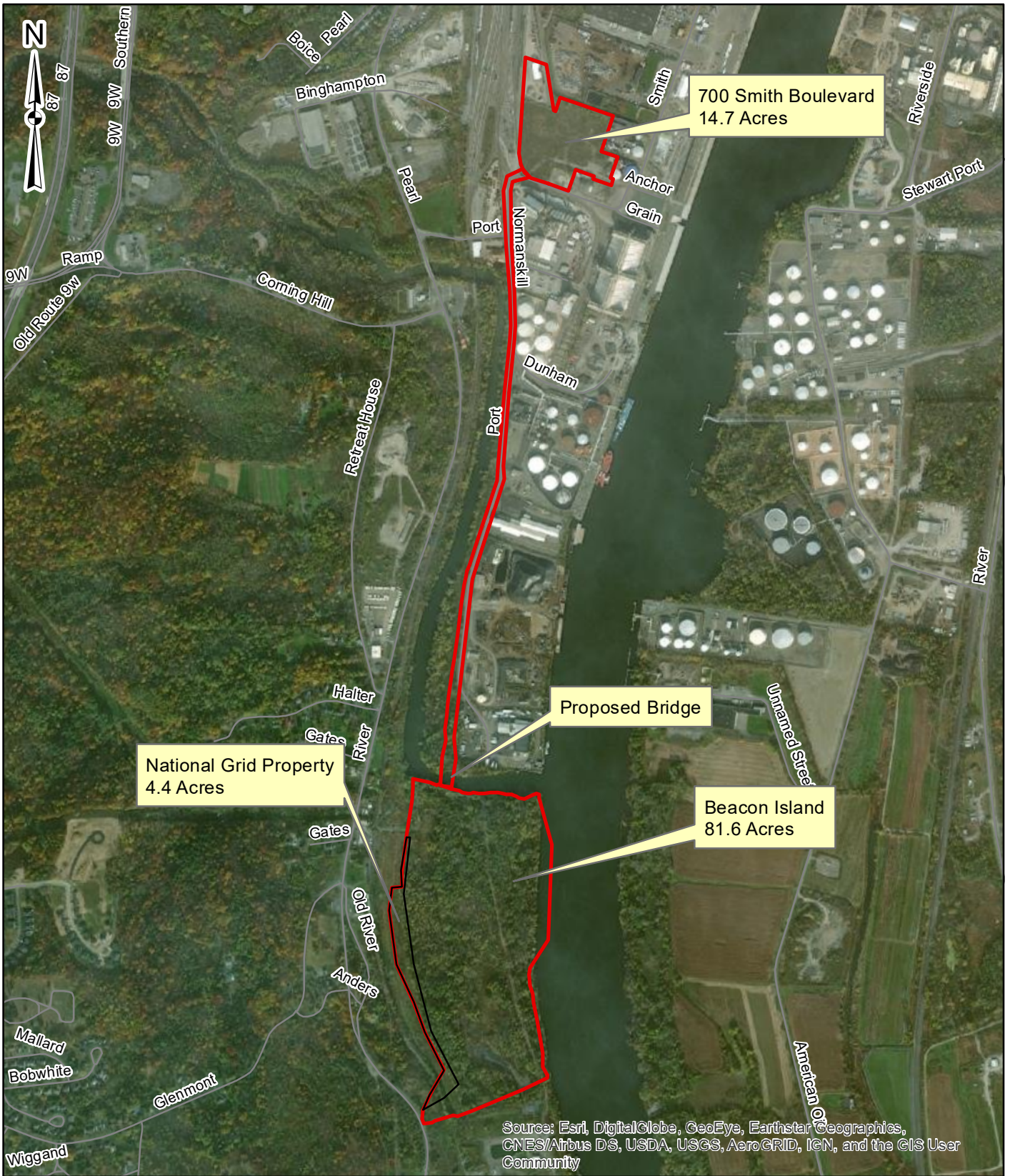
- 1) Project boundary is approximate
- 2) All areas are approximate

PORT OF ALBANY DEVELOPMENT  
TOWN OF BETHLEHEM, ALBANY COUNTY, NEW YORK

### USGS TOPOGRAPHIC MAP

SCALE:	DATE:	FIGURE:
AS SHOWN	JULY 2021	2-1

(This page is intentionally left blank)



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

### Legend

Project Site

**Notes:**

- 1) Project boundary is approximate
- 2) All areas are approximate

**PORT OF ALBANY DEVELOPMENT**  
TOWN OF BETHLEHEM, ALBANY COUNTY, NEW YORK

**AERIAL MAP**

SCALE : AS SHOWN	DATE : JULY 2021	FIGURE : 2-2
---------------------	---------------------	-----------------



N:\18641.00 Albany Port Expansion\Draw\GIS\Supplemental Enviro 2021\Figure 2-2 - Aerial.mxd

(This page is intentionally left blank)

## 2.2 PURPOSE AND NEED OF THE PROJECT

### 2.2.1 Purpose of the Project

The Project would transform an undeveloped industrially zoned property into an active port terminal with specialized infrastructure capable of supporting a new manufacturing operation that would produce the tower components for developments of renewable energy (e.g., offshore wind (OSW) facilities). The Project would facilitate the marine-based import and export of materials and manufactured components to be used in the development of renewable energy facilities. The Project would be the first OSW tower manufacturing facility in the United States and is forecasted to create around 500 construction jobs and up to 350 full time new jobs. The Project would also reduce U.S. reliance on imported OSW components.

The Port of Albany is a significant contributor to the economic activity and trades for the region, playing a key role in the multi-modal transportation and supporting production, distribution, and consumption of goods and services. Currently, the Port of Albany is upstate New York's busiest port, responsible for \$800 million in state economic output annually and for 1,400 jobs locally, according to the most recent Port of Albany Upstate Impact Worldwide Reach / Annual Report<sup>1</sup>.

### 2.2.2 Need of the Project

APDC has the need to expand their current land holdings in order to accommodate demand and support New York State in achieving its renewable energy goals by providing additional port infrastructure, warehouse space, cargo and wharf capacity necessary for the manufacturing, distribution and operation of wind turbines.

The APDC continuously needs to invest in infrastructure upgrades to ensure they provide the maximum value for customers and tenants who chose to continue and promote their business at the Port of Albany. Currently, the APDC footprint is centrally located and strategically operates on both sides of the Hudson River, integrating:

- Connectivity of various transportation modes such as ocean vessels and barges
- Accessibility of CP/CSX railroads and interstate highways
- Approximately 4,400 feet LF of wharf length on the Albany side of the Hudson River
- Approximately 1,200 LF of wharf length on the Rensselaer side of the Hudson River
- Approximately 350,000 SF of covered storage and warehouses
- On-site U.S. Customs and Border Protection facility

However, the APDC has exhausted almost all of its existing port facilities and is unable to accommodate additional port infrastructure, warehouse space, cargo and wharf capacity within current developed land. According to the most recent market analysis performed for their business operations and assets inventory, over 90 percent of the APDC facilities are currently occupied. This situation creates losses in economic development opportunities due to the limited availability for waterfront and maritime dependent businesses. This would expand the APDC operations by approximately 25%.

---

<sup>1</sup> <https://www.portofalbany.us/public-records/annual-reports/>

The Project is a must needed action essential for port dependent users and addressing immediate needs for marine-based import and export of materials and manufactured components used in the development and operation of renewable energy developments proposed in the New York State and other regions in the U.S. Manufacturing would include fabrication of large and heavy OSW components, towers, transition pieces, and related elements. These fabricated components would be loaded on barges or other vessels for marine transport to other marine facilities (e.g., South Brooklyn Marine Terminal) for additional fabrication, assembly phase, and load-out for transport to the installation site.

The size and weight of the fabricated steel elements that would be manufactured at the Project Site are significant; tower sections would be up to 165 feet in length, 33 feet in diameter, and weigh up to 600 tons each. Transition pieces are of variable height, between 50 and 115 feet, and would weigh up to 800 tons each. Components of these sizes and weights are impossible to transport using road and rail-based transportation methods; hence, maritime transportation is required and the proposed wharf as one key components of the Project is needed. Furthermore, the Project Site is owned or controlled by the APDC. The acquisition of the Project Site by APDC was a strategic investment to support New York State commitment of providing additional port terminal capacity. Based on current needs from APDC, the Project Site is the ideal location for the Proposed Action due to the following characteristics:

- Site location and proximity to existing port facilities and marine terminals
- Existing logistical access (e.g., navigation, rail, and roads network) that can handle industrial traffic
- Site historically disturbed with limited ecological and no recreational value due to previous uses
  - 81.6-acre parcel is riverfront property owned by the APDC and previously used as landfill
  - 4.5-acre National Grid parcel used for installation and operation of above and underground power infrastructure
  - 14.7-acre parcel is owned by APDC previously used as rail yard and metal recycling
- Available infrastructure and adjacent to existing and secured port facilities
- Ability to provide adequate depth for marine vessels and barges
- Proximity to areas with export and import demands
- Shelter from waves and storm surge

The Project Site is in close proximity to the existing Port of Albany with the adequate capacity and space to provide the needed industrial uses. Also, the Project would result in direct and indirect benefits, such as:

- Better suited operations for waterfront property that can support production of large-scale renewable energy projects via sustainable initiatives from New York State and private partnerships
- Opportunity for redevelopment of a former landfill site and implement environmental controls
- Removal of coal ashes and associated impacted soils within the footprint of the Project (proposed excavation areas) during the construction phase
- Potential compensatory mitigation of potential wetland impacts in off-site areas that provide greater long-term ecological value than the jurisdictional areas to be affected
- Build-smart cross sector solutions to maintain and maximize employment, and support local small business and families
- Provide additional needed port capacity to continue serving the U.S. Northeast, Midwest and Canadian regions

### 3. DESCRIPTION OF PROJECT AREA AND CURRENT SITE CONDITIONS

In summary, the Project Site is located on the east side of River Road/Route 144 along the Hudson River at approximately Hudson River Mile 142 (HRM 142). The Project Site is located in the Town of Bethlehem and City of Albany and is divided into a northern and southern section that is separated by the Normans Kill. The following table includes a breakdown of the Project Site and the areas subject to construction of the Project.

**Table 3-1: Project Site**

Project Site / Acreage	Owner	Location	Current Use	Proposed Action / Project Elements to be Constructed
81.6-acre parcel (Main site / Beacon Island)	APDC	River Road/Route 144	Vacant (Former Landfill)	<ul style="list-style-type: none"> <li>• Buildings A thru D</li> <li>• Wharf in the western bank of Hudson River</li> <li>• Bridge over Normans Kill</li> <li>• Site access</li> <li>• Utilities and site infrastructure (e.g., stormwater, wastewater, power and communications, etc.)</li> </ul>
4.5-acre adjoining parcel	National Grid	River Road/Route 144	Utilities easement	<ul style="list-style-type: none"> <li>• Surface parking</li> <li>• Stormwater treatment</li> </ul>
14.7-acre offsite parcel	APDC	700 Smith Boulevard	Vacant (Rail yard and metal recycling)	<ul style="list-style-type: none"> <li>• Building E and incidental site improvements</li> </ul>
Normanskill Street	City of Albany	Normanskill Street	Existing Road	<ul style="list-style-type: none"> <li>• Road improvements within existing footprint</li> </ul>

The 81.6-acre parcel (Main site/Beacon Island) is accessed via River Road/Route 144. The 14.7-acre offsite parcel for Building E is accessed via Smith Boulevard and would connect the main site via the existing Normanskill Street and the proposed bridge over the Normans Kill (waterway). The 4.5-acre adjoining parcel is accessed via River Road / Routh 144.

The following table presents a description of the Project Site boundaries.

Table 3-2: Project Site Boundaries

<i>Boundary</i>	<b>81.6-acre Parcel (Beacon Island)</b>	<b>4.5-acre Parcel (National Grid)</b>	<b>14.7-acre offsite Parcel (700 Smith Blvd)</b>
<i>North</i>	<ul style="list-style-type: none"> <li>• Port of Albany</li> <li>• Normans Kill channel</li> </ul>	<ul style="list-style-type: none"> <li>• National Grid property</li> </ul>	<ul style="list-style-type: none"> <li>• ADPC – Port of Albany</li> <li>• Industrial sites</li> </ul>
<i>South</i>	<ul style="list-style-type: none"> <li>• Bethlehem Energy Center</li> </ul>	<ul style="list-style-type: none"> <li>• Bethlehem Energy Center</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial sites</li> </ul>
<i>East</i>	<ul style="list-style-type: none"> <li>• Hudson River Navigation Channel</li> </ul>	<ul style="list-style-type: none"> <li>• Beacon Island (Project Site)</li> </ul>	<ul style="list-style-type: none"> <li>• Smith Boulevard</li> <li>• Port of Albany</li> </ul>
<i>West</i>	<ul style="list-style-type: none"> <li>• 4.5-acre parcel from National Grid</li> </ul>	<ul style="list-style-type: none"> <li>• River Road / Route 144</li> <li>• Commercial and single-family residences</li> </ul>	<ul style="list-style-type: none"> <li>• Railroads</li> </ul>

**3.1 LAND ENVIRONMENT**

**3.1.1 81.6-Acre Parcel (Main Site/Beacon Island)**

The 81.6-acre parcel consists of a previous landfill development used for the disposal of coal ashes. Much of the site is covered with bottom ash and fly ash at varying depths. Hardwood vegetation (“dredge spoil forest”) occur at the Project Site in Beacon Island with several open areas in the southern portion.

A Rare Plant Species Investigation (**Appendix 4**) was performed by Terrestrial Environmental Specialist, Inc., in May 2019. Based to this investigation there is **no** potential for New York State (NYS) listed endangered species (i.e., Side-oats grama (*Bouteloua curtipendula* var. *curtipendula*); Violet wood sorrel (*Oxalis violacea*); and Small’s knotweed (*Polygonum buxiforme*). According to the field investigation wooded areas in the study area are dominated by Eastern cottonwood (*Populus deltoides*), box elder (*Acer negundo*), and American elm (*Ulmus americana*). Buckthorn (*Rhamnus cathartica*) is a dominant understory tree throughout the site. The Project Site has extensive stands of common reed grass (*Phragmites australis*), an invasive non-native species. Other invasive plants such as garlic mustard (*Alliaria petiolata*), oriental bittersweet (*Celastrus orbiculatus*), and Japanese barberry (*Berberis thunbergii*) are considered dominant and extensive throughout the site.

Additionally, based on correspondence with NYSDEC, there was one (1) nest within this area; however, the nest fell in 2017. Although the nest is no longer present, the tree the nest was constructed in is no longer standing as documented in the FGEIS. There are multiple Bald Eagle nests in the vicinity of the Project Area, at a distance greater than 0.25 miles. NYSDEC staff, as discussed during the FGEIS process, do not believe the project would result in impacts to Bald Eagle nests. A copy of the email correspondence is included in **Appendix 3**.

**3.1.2 4.5-Acre Adjoining Parcel (National Grid Property)**

This 4.5-acre parcel consists of an intermediate between a mowed roadside/pathway and successional old field community, with an inclusion of common reed marsh is immediately adjacent to the 81.6 acre parcel. The property is maintained by National Grid as a power corridor with two (2) underground gas lines and overhead electrical wires (transmission lines), where the gas line receives periodic mowing and vegetation control practices. Based on previous geotechnical information available for this site, the subsurface



conditions are generally characterized by historic fills of various depths overlying, in sequence with depth; river sediments, alluvial sands, glaciolacustrine silt/ clay, glacial till, and shale bedrock.

A Supplemental Rare Plan Species Investigation was performed by McFarland-Johnson, Inc. in April 2021 (**Appendix 5**) for additional field screenings. According to this field investigations there is **no** potential for New York State listed endangered species (i.e., Side-oats grama (*Bouteloua curtipendula* var. *curtipendula*); Violet wood sorrel (*Oxalis violacea*); and Small's knotweed (*Polygonum buxiforme*). Upland herbaceous species recorded at the site included: Kentucky bluegrass (*Poa pratensis*), Canada goldenrod (*Solidago canadensis*), rough goldenrod (*Solidago rugosa*), garlic mustard, spotted knapweed (*Centaurea steobe*), common thistle (*Cirsium vulgare*), ditch stonecrop (*Penthorum sedoides*), birdsfoot trefoil (*Lotus corniculatus*), bedstraw spp. (*Galium* spp.), cowvetch (*Vicia cracca*), henbit (*Lamium amplexicaule*), common teasel (*Dipsacus fullonum*), wild strawberry (*Fragaria vesca*), clover spp. (*Trifolium* spp.), Queen Anne's lace (*Daucus carota*), field horsetail (*Equisetum arvense*), common dandelion (*Taraxacum officinale*), common mullein (*Verbascum thapsus*), and wouldowherb (*Epilobium* spp.). Shrub species included Morrow's honeysuckle (*Lonicera morrowii*) and raspberry (*Rubus idaeus*).

### 3.1.3 14.7-Acre Parcel (700 Smith Boulevard)

This 14.7-acre parcel is currently vacant, is owned by the APDC and is a portion of the greater APDC property which makes up the Port of Albany. The parcel consists of a previously developed area that had various industrial uses. This site is located in the City of Albany General Industrial Zone. According to the records from NYSDEC, this site was used by Atlantic Steel Corporation as a rail yard from 1937 to 1951, and from 1964 to 2013 it was used for metal recycling. Wetland or protected species are **not** present on this parcel.

Approximately 12.14 acres of the 14.7-acre parcel has been undergoing contamination remediation efforts in coordination with regulatory agencies, and based on the Polychlorinated Biphenyls (PCB's) Risk-Based Cleanup and Disposal Application prepared by CHA Consulting, Inc. Remediation effort would be completed prior to the commencement of the Port of Albany Expansion Project. The 700 Smith Boulevard site will be capped with milled asphalt, making the entirety of the 14.7 acres impervious surface.

## 3.2 WETLANDS AND SURFACE WATERS

### 3.2.1 Delineated Wetlands

A wetland delineation was conducted in April 2019 and April 2021 by McFarland-Johnson, Inc. The wetland delineation was conducted through field investigations of vegetation, soils and hydrology in accordance with the protocols established by the U.S. Army Corps of Engineers (USACE).

A breakdown of the delineated wetland areas is presented in the following table. See **Appendix 6** for the Wetland Delineation Report (April 2019), and **Appendix 7** for Supplemental Wetland Delineation Report (April 2021).

Table 3-3: Delineated Wetland Areas within Project Site

Wetland ID	Project Site	Wetland Classification	Acreage	NYSDEC Regulated	USACE Regulated
1	81.6-acre parcel (Beacon Island)	PEM	0.67	Not Jurisdictional	Yes
		PFO	0.59	Not Jurisdictional	Yes
1-Supplemental	National Grid (adjoining Parcel)	PEM	6.81	Not Jurisdictional	Yes
		PFO	0.32	Not Jurisdictional	Yes
3	Beacon Island	PEM	0.19	Not Jurisdictional	Yes
4	Beacon Island	PEM	0.04	Not Jurisdictional	Yes
5	Normans Kill St	PEM	0.01	Not Jurisdictional	Yes
6	Normans Kill St	PEM	0.01	Not Jurisdictional	Yes
7	Normans Kill St	PEM	0.02	Not Jurisdictional	Yes
8	Normans Kill St	PEM	0.19	Not Jurisdictional	Yes
	Normans Kill St	PFO	0.57	Not Jurisdictional	Yes
9	Bridge Area	PEM	0.04	Not Jurisdictional	Yes
<b>Total Wetland Area</b>			<b>9.46</b>		
Total NYSDEC Regulated Area				--	
<b>Total USACE Regulated Wetland Area</b>					<b>9.46</b>

Wetland Classifications:

- PEM: Palustrine Emergent
- PSS: Palustrine Scrub/ Shrub Wetland
- PFO: Palustrine Forest Wetland

No wetlands occur within the 14.7-acre parcel at 700 Smith Boulevard.

### 3.2.2 Hudson River and Normans Kill (Surface Waters)

Both waterways are tidally influenced.

**Hudson River:** The shoreline along the Hudson River does not remain in its natural state and was previously altered (engineered). However, the shoreline has naturally revegetated with mature trees, which assist in stabilizing the shoreline and provide shade and cover along the edge of the Hudson. A degraded and remnant timber runs nearly the entire length of the study area, and there are various types of shoreline armoring (e.g., stone, concrete) (Biodrawversity, 2020). The timber revetment was constructed with a single row of timber piles joined by horizontal timber cribbing, and backed by compacted earth, gravel, and stone. Based on other historical documentation, it appears that portions of the revetment may have undergone periodic repairs or improvements, including placement of concrete slabs in lieu of stone surfacing; however, the exact locations and extents of such repair measures cannot be ascertained.

These features have greatly altered intertidal and nearshore subtidal habitats and helped to create a steep depth gradient with little shallow subtidal habitat. Substrate is primarily coarse rock and silt/muck out into deep water, with more sand and gravel in deeper areas. Flow velocities vary with tides, but are generally slow. Submerged aquatic vegetation (SAV) is generally absent or sparse. Turbidity likely limits the depth distribution of SAV since sunlight barely penetrates more than five (5) to six (6) feet.

According to the Endangered Species Act (ESA) Section 7 Mapper<sup>2</sup> from the National Oceanic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region, the Hudson River is identified as spawning and foraging grounds for the Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) and Shortnose sturgeon (*Acipenser brevirostrum*).

**Normans Kill:** The Normans Kill also has a large tidal range and a modified shoreline, although it also has intertidal mudflats along portions of the shoreline that were not historically armored. Aside from large riprap near its confluence with the Hudson River and along its southern shoreline, substrate is primarily silt/muck, sand, and gravel in intertidal and subtidal areas. Flow velocities vary with the tides but are generally slow to moderate. The Normans Kill is very turbid, and reduced sunlight does not support SAV in the subtidal zone.

### 3.2.2.1 Sediments (“Dredged Material”)

For projects within the Hudson River that require dredging, NYSDEC typically requires preparation of a Sediment Sampling Plan in accordance with NYSDEC Division of Water Technical & Operations Guidance Series (TOGS) 5.1.9, to evaluate the potential contamination of the sediment.

A Sediment Sampling and Analysis Plan was prepared by Atlantic Testing Laboratories (ATL Report No. AT5596CE-02-06-20, dated June 25, 2020). The report summarized previous sampling conducted by ATL, and additional planned sediment sampling and analysis activities, identified the proposed sample locations and laboratory analysis, and described how the data would be evaluated relative to the proposed dredging work. The findings of the sediment sampling and analysis are summarized in ATL Report No. AT5596CE-03-09-20, dated September 24, 2020. See **Section 4.3.3** for additional details and appendices.

Overall, a total of 15 sediment cores (C1 to C15) were obtained and analyzed, were C1, C4 and C5 are located outside the limits of the proposed dredging area. ATL reported the following findings and recommendations from the sediment sampling and analysis:

*“The sediment sampling did identify various detectable concentrations of target metals, PCB, pesticides, VOC, and semi-VOC in the collected samples. All of the detected VOC, semi-VOC, and pesticides were below Class A NYSDEC TOGS 5.1.9 Threshold values. A majority of the detected metals were below Class A NYSDEC TOGS 5.1.9 Threshold values. Various detected metals in the samples S-10, S-11, S-14, and S-15 were identified as being in the Class B range. The concentration of PCB in samples S-6 and S-10 were identified as being in the Class B range. The concentration of PCB in samples S-11 and S-14 were identified as being in the Class C range.”*

*“Based on the information collected during the sediment sampling and analysis, sediment located within sampled areas appears to be silty clay and sand with minimal portions of gravel. If this material is to be removed, it is anticipated that a majority of the dredging can be completed per criteria for Class B sediments (with Class C sediment considerations in the areas of S-11 and S-14).”*

---

<sup>2</sup> <https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27>

3.2.2.2 Submerged Aquatic Vegetation (SAV) Survey

A SAV Survey was conducted in the Hudson River and Normans Kill by Biodrawiversity, LLC, in June 2020. The SAV Survey Report is included as **Appendix 8**. The SAV Survey consisted of underwater surveys, using SCUBA equipment, along the entire length of the Hudson River shoreline adjoining the Project Site and both shorelines of the Normans Kill. The survey was conducted at low tide to check the lower intertidal zone and shallow subtidal zone for SAV.

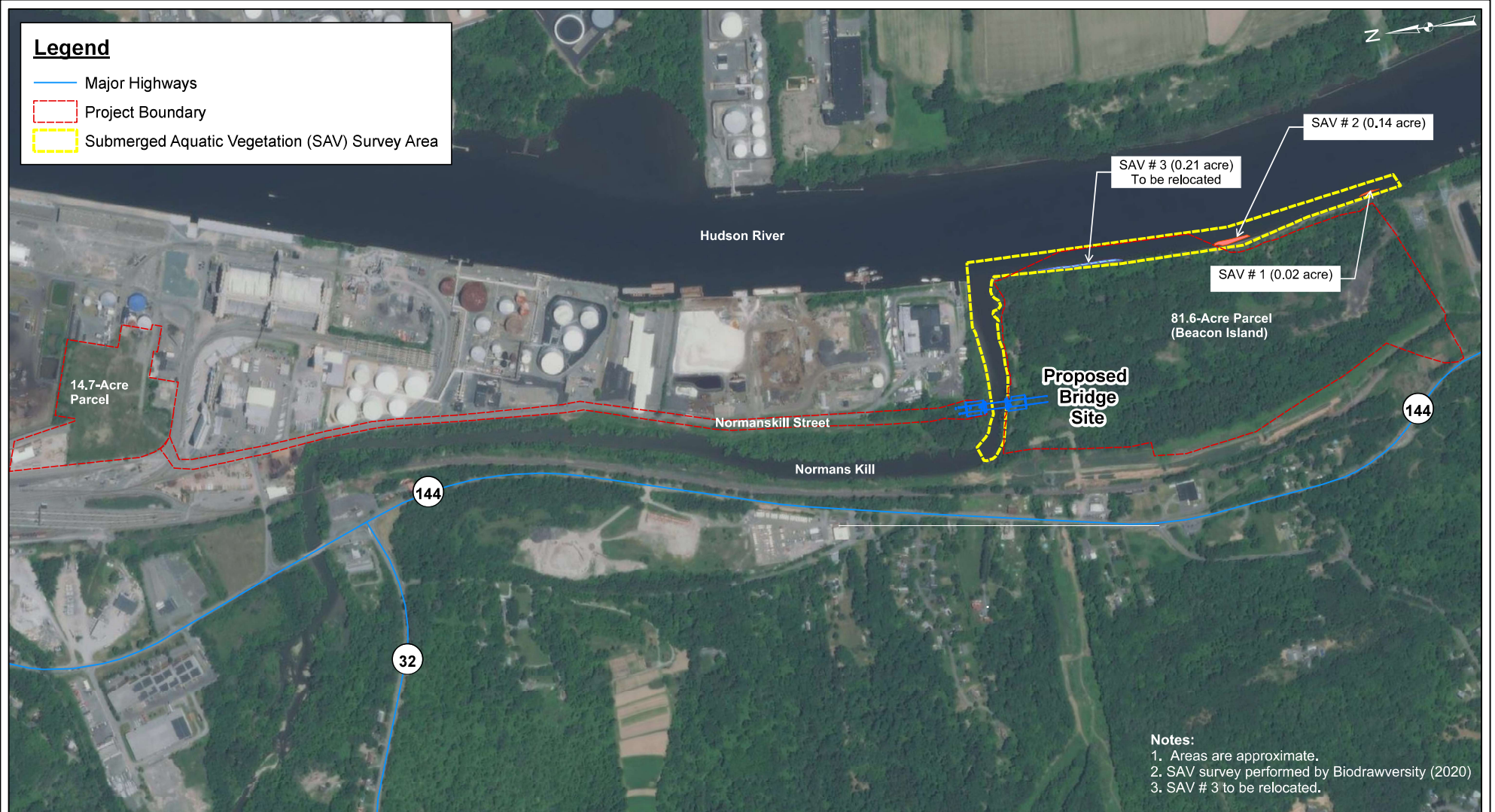
**Hudson River:** Only three (3) patches of SAV were detected as show in the **Figure 3-1**, and, including two (2) with a very low density of *Vallisneria americana* (water celery or eelgrass) along with very few solitary *Trapa natans* (water chesnut) and *Potamogeton crispus* (curly-leaf pondweed), and one with a moderate to high density of *V. americana* and very low densities of *T. natans* and *P. crispus*.

The following table provide a description of the SAV areas delineated along the Hudson River.

Table 3-4: SAV Areas

SAV Patch	Area		Density	Composition and Description
	Acres	SF		
1	0.02	807.3	very low	Isolated tufts of <i>V. americana</i> in depths of two (2) to 3.5 feet (0.6 - 1.06 meters) along the edge of the timber retaining wall, in a substrate of silt, gravel, and cobble.
2	0.14	6,027.8	Moderate / high	An established bed of <i>V. americana</i> along the edge of the timber retaining wall, on a shallow subtidal shelf in depths of 1.5 to 3.5 ft, in a mix of silt, sand, gravel, cobble, and riprap. Solitary strands of <i>T. natans</i> and <i>P. crispus</i> present among the <i>V. americana</i> .
3	0.21	9,149.3	very low	A long narrow shallow shelf along the edge of the concrete armored shoreline, with very low density of <i>V. americana</i> , <i>T. natans</i> , and <i>P. crispus</i> growing in shallow water no farther than approximate 16 feet (5 meters) from the mean low water line.
<b>Total</b>	<b>0.37</b>	<b>15,984.4</b>	--	--

**Normans Kill:** No SAV was observed anywhere in the lower Normans Kill.



**Legend**

- Major Highways
- Project Boundary
- Submerged Aquatic Vegetation (SAV) Survey Area



14.7-Acre Parcel

Hudson River

Normanskill Street

Normans Kill

Proposed Bridge Site

81.6-Acre Parcel (Beacon Island)

SAV # 2 (0.14 acre)

SAV # 3 (0.21 acre)  
To be relocated

SAV # 1 (0.02 acre)

144

144

32

- Notes:**
1. Areas are approximate.
  2. SAV survey performed by Biodrawversity (2020)
  3. SAV # 3 to be relocated.



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
 SAV Survey Area, Proposed Bridge, Project Boundary and Property Boundary data provided by McFarland Johnson

ALBANY PORT DISTRICT COMMISSION BETHLEHEM, NEW YORK		
<b>SAV Areas</b>		
SCALE: AS SHOWN	DATE: JULY 2021	FIGURE: 3-1

N:\19841.00 Albany Port Expansion\Draw\GIS\SAV Areas.mxd

(This page is intentionally left blank)

3.2.2.3 Freshwater Mussels Survey

A Freshwater Mussels Survey (FMS) was conducted in the Hudson River and Normans Kill by Biodrawversity, LLC, in June 2020. The FMS Report is included as **Appendix 9**. The FMS consisted in underwater surveys, using SCUBA equipment, along the entire length of the Hudson River shoreline adjoining the Project Site and both shorelines of the Normans Kill. The primary objective of this mussel survey was to determine the presence, density, distribution, and habitat of any state-listed (Endangered [E] or Threatened [T]) or state-ranked (S1, S1/S2, or S2) mussel species in areas of the Hudson River or Normans Kill that would be affected by the Project.

The survey area was divided in 12 sections as shown in **Figure 3-2**. The dredging limits falls within FMS Sections 9, 10 and 11. Sections 1 – 8 and 12 are located outside the boundaries of the proposed dredging that have mussel and assemblage comparable to the Project Site. The following table provides a summary of freshwater mussels found in the Hudson River and Normans Kill.

**Table 3-5: Summary of Freshwater Mussels Survey**

FMS Section	Waterbody	Location	Species					
			<i>Elliptio complanata</i>	<i>Leptodea fragilis</i>	<i>Anodonta implicata</i>	<i>Lampsilis radiata</i>	<i>Corbicula fluminea</i>	<i>Dreissena polymorpha</i>
1	Hudson River	Outside Project	41	2	Shell	0	X	X
2	Hudson River	Outside Project	31	2	0	0	X	X
3	Hudson River	Outside Project	27	3	Shell	0	X	X
4	Hudson River	Outside Project	7	1	Shell	0	X	X
5	Hudson River	Outside Project	2	5	0	0	X	X
6	Hudson River	Outside Project	1	3	0	0	X	X
7	Hudson River	Outside Project	1	5	0	Shell	X	X
8	Hudson River	Outside Project Site	0	3	0	0	X	X
9	Hudson River	Dredging Area	1	4	0	0	X	X
10	Hudson River	Dredging Area	1	3	0	0	X	X
11	Hudson River	Dredging Area	1	5	0	0	X	X
12	Normans Kill	Proposed Bridge Area	Shell*	0	0	0	X	X
Federal/State listed and State Ranked Species (S1, S2 and S3) <sup>3</sup>			--	S2S3*	S1S2*	--	--	--

<sup>3</sup> [https://www.dec.ny.gov/docs/wildlife\\_pdf/musselsurveyguide.pdf](https://www.dec.ny.gov/docs/wildlife_pdf/musselsurveyguide.pdf)

**Hudson River:** A low density of one (1) common native species was documented in the Hudson River (*E. complanata*), and a low density of one (1) species that is native to New York but not native to the Hudson River (*L. fragilis*), and shells of two (2) other native species (*A. implicata* and *L. radiata*). Live mussels of the two (2) native species are: *E. complanata*, and *Leptodea fragilis* (fragile paper-shell). *E. complanata* is common in New York, and *L. fragilis* has a state-rank of S3 and has rarely been observed in the tidal Hudson River where it is not native. A total of 113 *E. complanata* were found during the FMS Survey; most of these in deeper water (15-25 ft) of Sections 1-3 at the downstream end, outside the Project Site or proposed dredging zone.

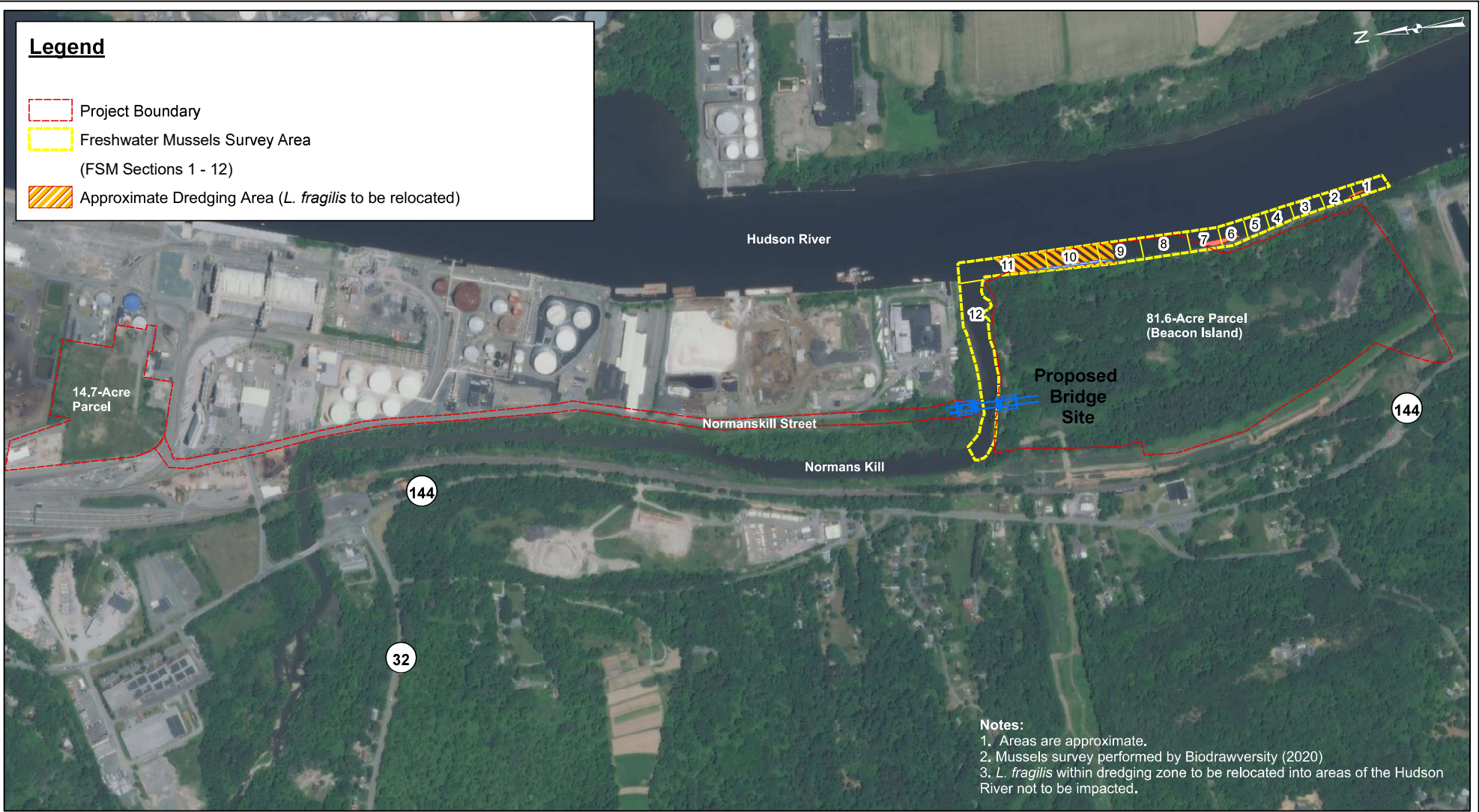
In addition to these two (2) species, old relic shells of *Anodonta implicata* (alewife floater) were found, and one (1) shell of *Lampsilis radiata* (eastern lampmussel) was found. Zebra mussels existed at moderate to high densities in subtidal areas and were exceptionally abundant on hard substrates in deep water.

**Normans Kill:** No live mussels were found. *E. complanata* shells were found in deep water, but none were found along the shoreline or in the intertidal zone. Zebra mussels were prevalent on hard surfaces in the subtidal zone, especially the large stone riprap on the outside bend of the Normans Kill near the proposed location of the new bridge. Asian clam shells were also found.



**Legend**

- Project Boundary
- Freshwater Mussels Survey Area  
(FSM Sections 1 - 12)
- Approximate Dredging Area (*L. fragilis* to be relocated)



- Notes:**
1. Areas are approximate.
  2. Mussels survey performed by Biodiversity (2020)
  3. *L. fragilis* within dredging zone to be relocated into areas of the Hudson River not to be impacted.



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
SAV Survey Area, Proposed Bridge, Project Boundary and Property Boundary data provided by McFarland Johnson

N:\18841.00 Albany Port Expansion\Drawings\SAV Areas and Dredging Zones.mxd

ALBANY PORT DISTRICT COMMISSION  
BETHLEHEM, NEW YORK

**Mussels Survey Area**

SCALE: AS SHOWN	DATE: JULY 2021	FIGURE: 3-2

(This page is intentionally left blank)

## 4. PROPOSED SITE CHANGES, WORK METHODS AND IMPACTS

The Project (limit of disturbance) encompasses an overall area of approximately 100.8 acres, as shown in **Figures 3-1** and **3-2**, and **Permit Sketches** in **Appendix 1**. Multiple activities are proposed which would change existing site conditions as described in **Section 2**, and subject to this Joint Permit Application (JPA) Package. However, the proposed design is the result of a cohesive and integrated planning effort, minimizing impacts by the post development condition. The Project has been designed to avoid impacts to the Normans Kill, and minimize impacts to wetland areas, SAV beds, mussels, and the Hudson River overall. Design elements implemented to avoid and minimize environmental impacts include:

- ✓ Wharf has been relocated and size reduced to avoid dredging in SAV beds; 1 bed within Hudson River with moderate to high density of *Vallisneria americana*
- ✓ General layout of the proposed wharf places the riverside face of structure coincident with the face of the existing timber revetment
- ✓ Proposed bridge over Normans Kill redesigned and to be constructed outside Mean Higher-High Water (MHHW) line to meet NYSDEC and DOS criteria
- ✓ Reconfiguration of proposed surface parking to avoid wetland impacts
- ✓ Construction of a fill type retaining wall to minimize the need of fill in wetland area
- ✓ Improvements to Normanskill Street avoiding wetland areas
- ✓ Proposed site grading or fill above the existing MHHW line
- ✓ Discharge from Sanitary Wastewater Treatment Plan relocated into Hudson River to avoid impacts to Normans Kill

Following is provided a description of the proposed site changes and anticipated impacts from the following project elements:

- Landside (Site) Development
- Proposed Bridge over Normans Kill
- Wharf and Dredging

See **Figure 4-1** for a visualization of the proposed development and site layout over an aerial image.

Figure 4-1: Visualization of Proposed Layout



The following tables provides a breakdown of the anticipated impacts in connection to the Project.

Table 4-1: Project Impacts – Wetlands

Wetlands ID	Location	Type	Existing Wetlands Acreage	Description of Project Footprint / Impacts	Project Footprint (Impacts)		Wetland Areas To Remain
					NYSDEC Regulated (Acres)	USACE Regulated (Acres)	
1	81.6-acre Parcel (Beacon Island)	PEM	0.67	Site Development	N/A	0.30	0.37
		PFO	0.59	Site Development	N/A	0.51	0.08
1-Supp.	4.5-acre parcel (National Grid)	PEM	6.81	No Impacts	N/A	0.00	6.81
		PFO	0.32	Retaining wall	N/A	0.01	0.31
3	Beacon Island	PEM	0.19	No Impacts	N/A	0.00	0.19
4	Beacon Island	PEM	0.04	No Impacts	N/A	0.00	0.04
5	Normans Kill St	PEM	0.01	No Impacts	N/A	0.00	0.01
6	Normans Kill St	PEM	0.01	No Impacts	N/A	0.00	0.01
7	Normans Kill St	PEM	0.02	No Impacts	N/A	0.00	0.02
8	Normans Kill St	PEM	0.19	No Impacts	N/A	0.00	0.19
	Normans Kill St	PFO	0.57	No Impacts	N/A	0.00	0.57
9	Bridge Area (Beacon Island)	PEM	0.04	Bridge Construction	N/A	0.04	0.00

Wetlands ID	Location	Type	Existing Wetlands Acreage	Description of Project Footprint / Impacts	Project Footprint (Impacts)		Wetland Areas To Remain
					NYSDEC Regulated (Acres)	USACE Regulated (Acres)	
<b>Total Wetlands Area</b>			<b>9.46</b>			0.86	8.6
Approximate <b>NYSDEC</b> Regulated Impact					0.0		
Approximate <b>USACE</b> Regulated (Permanent) Impacts						0.86	
*Construction Buffer (20') (Temporary Impacts)						0.33	
<b>Total Regulated Wetland Impacts</b>						<b>1.19</b>	

Notes: Acreage is approximate. \* Temporary impacts to be restored to pre-construction conditions.

Table 4-2: Project Impacts - SAVs

SAV ID	Location	Type	Existing SAVs Acreage	Description of Project Impacts	Project Footprint (Impacts)
SAV # 1	Hudson River	SAV	0.02	No Impacts	0.0
SAV # 2	Hudson River	SAV	0.14	No Impacts	0.0
SAV # 3	Hudson River	SAV	0.21	Wharf Dredging	0.21
<b>Total</b>			<b>0.37</b>		<b>0.21</b>

Note: Acreage is approximate.

#### 4.1 LANDSIDE (SITE) DEVELOPMENT

As shown in **Table 4-1**, permanent wetland impacts are limited to approximately **0.86** acre of low-quality wetlands (Wetlands 1 and 9) at the 81.6-acre parcel (Main site/Beacon Island). See **Appendix 1** for Permit Sketches. Additionally, approximately 0.33-acre of Wetland 1 is anticipated to be temporarily impacted at the 4.5-acre adjoining parcel. Temporary wetland impacts (construction buffer) would be associated to the construction of a fill type retaining wall being proposed to minimize permanent wetland impacts to Wetland 1. Impacts are in results to the proposed earthwork activities and site preparation. See **Section 6** for Environmental Mitigation.

Site preparation in connection to these actions would require soil excavation and placement of clean fill above the MHHW line. Approximate excavation and fill volumes for the overall Project are as follows:

- Total excavation volume: 183,200 cubic yards (do not include dredging)
- Total fill volume: 413,800 cubic yards (borrow material)

No fill or excavation is proposed below the MHHW line. Approximately 1,025 LF of the upper side of the Hudson riverbank would require stabilization and erosion control measures. Similarly, the upper side of the Normans Kill riverbank would require stabilization and erosion control measures for an estimated length of 825 LF.

Approximately 72 acres within the 81.6-acre parcel would be subject to tree clearing during site preparation and earthwork activities. The Project was evaluated under the Programmatic Biological Opinion on Final

4(d) Rule for the Northern Long-Eared Bat (NLEB) (January 2016). Using the U.S. Fish & Wildlife Service (USFWS) determination key, it was determined that the project may affect northern long-eared bat. While tree clearing would occur outside of the recommended seasonal work window, it was determined that the action is not prohibited under the 4(d) rule. The USFWS concurs with the May Affect determination, and agrees that the project is not likely to jeopardize the continued existence of the northern long-eared bat (**Appendix 3**). Additionally, according to information obtained from field visit performed on March 06, 2019 by McFarland-Johnson, Inc., and an agency site visit conducted with the NYSDEC (Mr. Trevor Brady) and USACE ( Mr. Andrew Dangler) on May 13, 2019, it was concluded that Bald Eagle nests are not present within the Project Site. See **Appendix 3** for Agency Correspondence and Response Letters.

#### 4.1.1 Soil Management Plan for Excavation in Areas impacted with Ash and Debris

Landside construction-related activities under the Project would result in excavated material and to be disposed offsite at an authorized facility. Excavated soils, suitable to be used as fill, would be reutilized on-site to the maximum extent possible and managed in accordance with site specific design specifications and Soil Management Plan prepared by Atlantic Testing Laboratories. (**Appendix 10**). The Soil Management Plan was submitted to NYSDEC for review on July 13, 2021. Comments from NYSDEC were received on August 04, 2021. The final Soil Management Plan addressing NYSDEC comments was submitted on August 16, 2021.

Soil that is impacted with ash and requires excavation for planned site redevelopment activities would be transported off-site for disposal at an authorized facility. In consideration of the ash materials being widespread at various locations of the Project site and the proposed soil cover system described the Soil Management Plan, the areal extent of excavation for ash and debris wastes would be only as necessary to complete the scheduled site redevelopment. It is intended that the depths of removal be similarly limited to scheduled depths of excavations. A soil cover would be installed in areas of the site that are impacted with ash material and if to be utilized as lawn or landscaped areas.

The following criteria would be applicable to the soil cover system, as required.

- The upper six (6) inches of the soil cover should be suitable to sustain growth of appropriate vegetation at the ground surface.
- A minimum of one (1) foot of soil cover should be placed above the ash material.
- The upper one (1) foot of the soil cover should not have concentrations of contaminants that exceed the Restricted Residential Soil Cleanup Objectives (SCO) set forth in NYCRR Part 375-6.
- Fill that is placed at a depth below the upper one (1) foot of soil cover should not have concentrations of contaminants that exceed the Commercial SCO set forth in 6 NYCRR Part 375-6.
- A demarcation layer should be provided between the soil cover layer and underlying impacted soil unless approval is obtained from the NYSDEC to forego installation of a demarcation layer.
- In the event that the soil cover system is breached, penetrated, or temporarily removed, restoration to original conditions (or equivalent) should be performed.

See **Appendix 10** for the Soil Management Plan. See **Appendix 11** for Environmental Subsurface Investigation and Soil Sampling result. See **Appendix 12** for Sediment Sampling and Analysis Report.

#### 4.1.2 Stormwater Management System

The Project would convey stormwater runoff to outlets into both the Normans Kill and the Hudson River. The western portion of the site with paved employee parking lots would sheet flow pavement runoff into stormwater retention ponds with overflow spillways into the existing wetlands areas (Wetland 1). The Wetland 1 is currently drained via a 40" culvert into the Normans Kill. The eastern portion of the site would primarily remain unpaved with compacted gravel yard areas. Building rooftop runoff and yard area runoff would be directed through a closed drainage system to stormwater filtration structures and into underground infiltration chamber prior to discharge into the Normans Kill and Hudson River.

All stormwater outfalls are proposed above the MHHWL; therefore, no impacts to jurisdictional areas.

#### 4.1.3 Sanitary Sewer

A Sanitary Wastewater Treatment Plant (SWWTP) is proposed on-site. The SWWTP would have an approximate capacity of 11,200 gpd. Originally, the SWWTP design contemplated effluent discharge into the Normans Kill; however, as a result of incorporating recommendations from NYSDEC and NYDOS the effluent was relocated to the Hudson River, within the footprint of the proposed wharf (rip-rap area) avoiding and minimizing additional potential environmental impacts. See **Appendix 1 (Permit Sketches)** depicting the location of the SWWTP discharge (outfall) and pipe routing. A State Pollutant Discharge Elimination System (SPDES) permit application (based on available information at the moment) was submitted to NYSDEC as a separate document. Additional information would be submitted to NYSDEC once the vendor of the SWWTP is selected and final design is available. A SPDES permit would be obtained for the construction and operation of the proposed treatment plant.

Below is presented the effluent target values for what the proposed system is being designed, based on the non-intermittent discharge requirement listed in the New York State Design Standards for intermediate sized wastewater treatment systems.

- Estimated Influent Wasteload
  - 280 mg/L (26 LB/D) BOD<sub>5</sub>
  - 300 mg/L (28 LB/D) TSS
  - 7.0-7.1 pH (assumed)
  - 68 Degrees Fahrenheit (20 Degrees Celsius) Water Temperature (assumed)
  
- Affluent Targets
  - 30 mg/L (26 LB/D) BOD<sub>5</sub> 30-D Average
  - 30 mg/L (28 LB/D) TSS 30-D Average
  - 200 N/100 mL FCB 30-D Geo. Mean

The sanitary sewer from building E will be directed to the existing sanitary sewer lateral extending from the main on Smith Boulevard.

#### 4.1.4 Fire Suppression System

Town water supply system cannot provide adequate fire protection flow from their municipal system and therefore, we will need to install a system that is supplied from the Hudson River. A fire suppression system is proposed to serve buildings at the 81-acre parcel. The design proposed an intake at the Hudson River,

within the footprint of the proposed wharf (rip-rap area) to avoid and minimize additional potential environmental impacts. See **Appendix 1** for **Permit Sketches** depicting the location of proposed intake. The project design considers:

- Approximately four (4) foot diameter pipe from the Hudson to the fire pump foundation structure.
- Approximately building dimension is 14 feet X 40 feet.
  - Building finished floor elevation (FFE) to be above the FEMA 100 year flood plain.
  - FFE is approximately 18 feet, considering that its location within the project site would be at 15 feet.
- The wet pit inlet will be protected by a pair of vertical screens that will protect the pumps from debris and fish entrainment. The screen will be sized such that the inlet velocity to the wet pit does not exceed the recommended velocities of 0.2 ft/s for a passive pump screen intake or 0.4 ft/s for an active pump screen intake (NOAA - Juvenile Fish Screen Criteria for Pump Intakes).

For additional detail see **Appendix 13** (Port of Albany – 81.6 -Acre Site Fire Flow Technical Memorandum).

## 4.2 PROPOSED BRIDGE OVER NORMANS KILL

The Project includes a bridge over the Normans Kill necessary to connect site operations between the 81.6-acre parcel and the 14.7-acre parcel north of this waterway (700 Smith Boulevard) and to provide trucking transportation in and out of the proposed manufacturing facility on existing Port property

In response to comments provided by regulatory agencies during interagency / pre-application meetings, the revised design of the proposed structure consists of a three (3) span bridge that allows for fully spanning the Normans Kill Floodway and avoids fill below the MHHW line. The configuration of the proposed bridge is included in **Appendix 1** (Permit Sketches), including both a plan and profile view.

### 4.2.1 Management of Water Flows, Fill within Floodway and Sea Level Rise

The Normans Kill channel is not proposed to be altered, modified, filled or excavated. Also, the Project does not involve alteration of the base flood elevations, construction in the floodway or increasing the base flood water surface elevation more than the current height.

The proposed layout has two (2) piers comprised of reinforced concrete drilled shafts to avoid and minimize environmental impacts. The piers would be constructed outside of the MHHW line and the floodway, avoiding impacts to the Normans Kill. The construction of the bridge abutment on the north side of the waterway is anticipated to result in only **0.04-acre** of permanent wetland impacts (Wetland 9).

Sea level rise was accounted for in the low chord elevation of the bridge within the limits of the Normans Kill floodway. The proposed bridge has a vertical curve that allows for the low chord elevation at the floodway limits to meet the hydraulic requirements of the 100-year storm (Proposed Elevation 18.6 feet + Sea Level Rise of 19 inches per NYDOS reviewer comment = Elevation 20.2 feet). In order to then minimize site impacts, the adjacent spans outside the floodway have a low chord at the bridge abutment that would be lower than the Q50 storm.

Each pier would consist of a single row of reinforced concrete drilled shafts. A drilled shaft consists of a circular steel casing that is installed into the ground, excavated, and filled with reinforced concrete. The



steel casing acts as a “cofferdam” that contains the excavation activities and greatly limits ground disturbance and impacts as compared to other foundation types. The proposed drilled shaft pier foundations for this project do not have a conventional footing and the only structure area that impacts the ground is the diameter of each drilled shaft. The drilled shaft pier foundations would be designed to account for scour and therefore would not require riprap for protection.

The method of construction for the proposed concrete caps is anticipated to be cast in place concrete. The superstructure slab is also proposed as cast in place. Stay in place forms will be used. Notes will be included in the construction plans indicate the area need to be isolated to prevent concrete leachate from entering the Normans Kill.

Temporary construction access would be required to construct the foundations, erect the steel girders, and place the concrete bridge deck. The temporary construction access is anticipated to include earthen causeway and/or pile supported work trestles. Pile supported work trestles may be considered due to the poor soil strengths and high-water table. By rearranging the bridge span configuration and relocating the piers, the temporary construction access would occur outside or above the MHHW line and is not anticipated to result in environmental impacts. See **Appendix 1** for Permit Sketches. The construction access concept shown provides area to mobilize drilled shaft installation equipment, deliver and erect structural steel girders, and deliver and place the concrete bridge deck. Additional temporary impacts between the pier and abutment on the north approach may be considered to provide flexibility for contractor means and methods. The temporary impact areas associated with construction are above MHHW line, outside the floodway, and would be returned to pre-construction upon completion of the Project.

Additionally, notes requiring pile supported work trestles as opposed to a causeway system would be included on the construction plans. Driving of piles or sheet piles is discarded. Vibratory or rotary methods is proposed. Additionally, the use of nets, tarps, and/or pans during construction of the bridge deck would be implemented to prevent debris falling into the water into the water. Temporary access is a contractor means and methods item, so we would be providing notes to indicate preferred alternatives that meet permit requirements.

#### 4.2.2 USCG Bridge Permit

A verification request to Section 9 Bridge Permit applicability was submitted to the U.S. Coast Guard (USCG) on July 02, 2021, to obtain determination of “No Bridge Permit Required”. Based on available information from most recent topographic survey, the Normans Kill is minor tidal waterway, which is not expected to be navigable for vessels in excess of approximately 21 - 23 feet. The Normans Kill is not presently used as mean to transport or support substantial interstate commerce. APDC is not aware of any proposed or planned waterway improvements to permit larger vessels in the Normans Kill. Furthermore, an existing fixed low-level railroad crossing over the Normans Kill is located upstream, at approximately one (1) mile from the proposed bridge location. See **Appendix 3** for Agency Correspondence and Response Letters.

#### 4.3 PROPOSED WHARF AND DREDGING

APDC intends to undertake the construction of approximately 500 LF of marginal wharf along the eastern edge of Beacon Island (81.6-acre parcel) on the Hudson River. The northern limit of the wharf is located approximately 300 feet south of the confluence of the Normans Kill with the Hudson River. The purpose

of the wharf facility is to facilitate the marine-based import and export of materials and manufactured components to be used in the development of OSW facilities.

The proposed wharf consists of a deep foundation-supported concrete-framed open-type wharf structure that provides overall dimensions of 500 feet in length by 93 feet in width. The wharf includes a heavy stone slope revetment, high-modulus steel sheet pile cutoff wall, and drilled shaft supported open wharf and relieving platform. The marginal wharf structure is configured as a low-level ballasted deck system, consisting of cast-in-place concrete bent caps, precast concrete panels and composite cast-in-place concrete deck slab closure and fascia. Ballasted deck structures are often considered the most cost-effective heavy wharf/quay solution where very heavy loads are involved; the design live load surcharge is 6,000 pounds per square foot. The wharf / quay is designed to accommodate a variety of vessels, both ocean-going and barges, and a variety of load-handling equipment. In addition to uniformly distributed surcharge loads, special and heavy load-handling equipment is typically used at OSW manufacturing and quayside load-out facilities.

#### 4.3.1 Design Considerations

The intended operation of the Project is fabrication of large and heavy OSW components, towers, transition pieces, and related elements. Specialized equipment would be used for site transportation of the manufactured OSW components to the wharf for load-out onto the barge(s). Lifting from landside onto the barge would be accomplished with one or more large crawler cranes (e.g., Demag CC-8800-1, Liebherr LR-11350, or similar). The standard of current practice for OSW shipping involves the use of large (105' x 400' x 25') deck barges onto which the OSW components are fastened for transport. Consideration is also given to the use of future (Jones Act compliant) high-speed, self-gearred heavy cargo vessel (LOA<sup>4</sup> ~600 feet, ~24,000 DWT<sup>5</sup>) with the provision of landside storm-type mooring dolphins.

Facility designs have been developed considering accommodation of special load-handling systems, including self-propelled modular transporters (SPMT's), tower handlers, and single and tandem lift crane configurations, including some of the largest capacity cranes available (e.g., Liebherr LR-13000, which has a maximum lifting capacity of 3,300 US tons). Due to the size and weight of the manufactured components, and the correspondingly large ground pressures resulting from the equipment used to move and lift the fabricated elements, the quay/wharf is being designed for a uniformly distributed live load surcharge of 6,000 pounds per square foot (psf). [For comparison, the Port of Albany's Wharf Reconstruction at Cargill/Argent Mills that was completed in 2019 has a design live load surcharge of 1,200 psf.]

During the design development process, future use scenarios were developed for the entirety of the OSW marine facilities, to capture criteria that could be introduced or established by the quickly evolving OSW industry. These considerations included new vessel technology (e.g., self-gearred vessels, ballast-compensated vessels for RoRo), new heavier crane technology, and tower handler equipment. Among these considerations is the likely scenario that near-term calling vessels would be large (105' x 400') barges, while plans are being made for production of US-flagged (Jones Act compliant) deep draft OSW vessels. While not immediately required, provisions should be planned for future, larger OSW vessels. The goal of these efforts is to develop facilities that serve the initial needs of the OSW industry, but also be adaptable

---

<sup>4</sup> Length overall of vessel

<sup>5</sup> Deadweight tonnage

for other vessels, equipment, loads, and uses to ensure effective integration into the Port of Albany's portfolio of infrastructure assets well into the future.

#### 4.3.2 Wharf / Quay Structure Description and Fill Material Quantities

The general layout of the proposed wharf places the riverside face of structure coincident with the face of the existing timber revetment, so much of the earthwork and construction would be landward, including land excavation. In-water work activity mainly consists of dredging, which is discussed **Section 4.3.3**.

The proposed wharf consists of a deep foundation-supported concrete-framed open-type wharf structure that provides overall dimensions of 500 feet in length by 93 feet in width. The wharf includes a heavy stone slope revetment, high-modulus steel sheet pile cutoff wall, and drilled shaft supported relieving platform. The proposed top of structure (deck) elevation at its riverside edge (fascia) would be established at El. +15.50 (NAVD29), transitioning to approximate El. +14.60 (NAVD29) at the back edge of the wharf structure, for an effective slope of approximately 1.00%.

The marginal wharf structure is configured as a low-level ballasted deck system, consisting of cast-in-place concrete bent caps, precast concrete panels and composite cast-in-place concrete deck slab closure and fascia. The total area of the wharf is 45,500 SF. The area of the wharf provided over water (outboard of the sheet pile cutoff wall) is approximately 27,500 SF.

The entire ballasted wharf deck is located above the MHHW elevation (MHHW is approximate elevation +4.56 NAVD29; elevation +3.78 NGVD88); hence, the structures below MHHW are limited to the 136 - 48" diameter drilled shaft foundations with permanent steel casing. The design also takes into consideration sea level rise. The 136 in-water drilled shaft foundations have an equivalent area of coverage of approximately 1,710 SF.

The maritime infrastructure includes all dredging, foundations, marine structural components, and ancillary items that accommodate vessels at berth, and support equipment and products that are transferred to and from vessels and the site. In the case of the open-type marginal wharf, a list of major work items and components is provided as follows:

- Site Mobilization and Demobilization
- Timber Revetment Demolition
- 30" Diameter Drilled Shafts
- 48" Diameter Drilled Shafts
- HZ 1080M-26/AZ 26-700 Cutoff Wall
- Concrete Caps and Beams
- Concrete Panels, Precast
- Concrete Platform and Topping Slab
- Granular Ballast
- Dense Graded Stone Surface Treatment
- Armor Stone
- Marine Fenders
- Mooring Bollards
- Dredging and Dredge Disposal

- Dredging and Inland Disposal
- Excavation and Inland Disposal

Dredging would require the establishment of a revetment slope that transitions between the proposed dredge depth and the sheet pile cut-off wall beneath the wharf, and to existing and proposed grade elevations beyond the footprint of the wharf. The revetment slope would be established by dredging material or by excavation methods, in below and above water locations, respectively. The revetment slope would require stabilization to prevent erosion, sloughing, and loss of material due to riverine currents, wave action, and similar erosive forces. Hence, an armor stone revetment would be placed on the sloped surface, comprised of graded stone and armor rock. The total coverage area of revetment is approximately 72,000 SF; at an average thickness of approximately three (3) feet.

The approximate length of riverbank impacts is approximately 900 linear feet (LF) along the Hudson River. Please note that the project layout incorporates a riparian (vegetated) buffer along the Hudson River. See **Permit Sketches (Appendix 1)**.

#### 4.3.3 Dredging (Hudson River)

The dredging phase would avoid fish migration and spawning periods specified by the Division of Fish, Wildlife and Marine Resources for species of concern.

As of the date of the most recent bathymetric survey<sup>6</sup> the plan area of dredging is approximately 2.62 acres (114,127 SF). The volume of material to be removed from this area in the Hudson River is approximately 80,000 cubic yards of sediments to reach a minimum depth of -33 feet at mean lower low water (MLLW). Proposed depth is approximately 33 feet (NAVD88) below the MLLW line, plus approximately two (2) feet of allowable overdredge. The purpose of the dredging is approximately match current depth of Hudson River navigation channel providing adequate and safe draft to vessels at the proposed wharf. Dredging is proposed outside the limits of the navigation channel.

Sediments within the lines and grades of the proposed dredge area shown in **Appendix 1 (Permit Sketches)** would be removed by mechanical means from a barge, using an environmentally friendly clamshell ("closed") bucket to stop the inflow of water into the bucket during bucket ascension, thereby reducing the loss of material from the bucket due to washout. Dredging activities would occur during daylight conditions. However, offloading of the dredged material at the temporary bridges would require 24-hours operation in order to have barges or scows emptied and ready for next dredging day. The dredged material will be placed, accumulated and contained in barges or scows in a manner that minimizes high turbidity levels and splashing of material over the barge coaming. The filled barges would be transported to the offloading location as described in **Section 4.3.3.2**. In an effort to reduce turbidity, Contractor would implement at all time turbidity controls while dredging.

In addition to the dredged material, an additional approximate 58,000 cubic yards of material located landward (upland) of the MHHW line would be excavated to facilitate the wharf and revetment

---

<sup>6</sup> The most recent bathymetric surveys were prepared by Maser Consulting P.A., September 28, 2018, with an additional site-specific multi-beam hydrographic survey prepared by Bethlehem Land Surveying, June 10, 2020. The Bethlehem survey data was collected using NYS CORS corrections in NYSPCS East Zone using NAVD 88 Geoid 12B. See Figures for existing site conditions topographic and bathymetric surveys.

construction. This material would likely be placed either at an approved upland location or at any approved solid waste disposal facility.

Once dredging and excavation are complete, fill placed within the vicinity of the maritime facilities of the Project include:

- The previously described revetment material, which is approximately 7,950 cubic yards of graded rock slope protection.
- The wharf structure, including portions between riverbed and the MHHW elevation (drilled shaft foundations) comprises a fill volume of approximately 1,050 cubic yards.
- The wharf structure, including portions above the MHHW elevation (bent caps, prestressed concrete panels, fascia, ballast) comprises a fill volume of approximately 11,200 cubic yards.

The approximate length of riverbank impacts is approximately 900 linear feet (LF) along the Hudson River. As requested by the SHPO, NYSDEC and USACE as part of the consultation (21PR04693) with Section 106 of the National Historic Preservation Act (NHPA) the Project design incorporated a buffer of existing vegetation with an approximate area of 1.85 acres that contain mature trees and low laying shrubs. This buffer area would be maintained in natural state along the Hudson riverfront, outside the proposed wharf area. The purpose of the vegetated buffer is to serve as a visual screen of the project to reduce visual impacts to the Papscaenee Island Historic District.. See Permit Sketches (**Appendix 1**). A Vegetated Management Plan (VMP) was developed for the proposed vegetated buffer at the project site in Beacon Island. Copy of the final VMP addressing comments from NYSDEC, USACE and Town of Bethlehem is included as **Appendix 14**. On April 28, 2022, email communication from USACE was received indicating that SHPO and THPO had no comments and the VMP has been accepted.

Excavation volume (landward) for construction of the wharf includes undercut excavation as required to remove unsuitable materials and as otherwise needed to facilitate construction of the shaft-supported relieving platform. It is anticipated that approximately 3,500 cubic yards of landward excavation and disposal is required.

Fill volume (landward) includes replacement of undercut materials, and placement of ballast materials on the relieving platform. It is anticipated that approximately 7,800 cubic yards of landward fill (borrow) is required.

Approximate fill volume within MHHWL and mean high water line (MHWL) is:

- MHHWL (riprap and shaft foundation)
  - 1162 cubic yard (riprap)
  - 582 cubic yards (shaft)
  - Total: 1744 cubic yards (approximate)
- MHWL
  - 263 cubic yards (riprap) (approximate)

#### 4.3.3.1 Description of Dredging Material

Findings from the sediment sampling and analysis (**Appendix 12**) indicated varying levels PCBs and other elements. Based on the information collected during the subsurface investigation in cores C-1 through C-15, it appears the detected concentrations of pesticides and PCB in several of the cores would warrant dredging management option Class B and C pursuant to the NYSDEC Division of Water Technical & Operational Guidance Document Series (TOGS) 5.1.9. Class B management option suggests the use of a closed bucket or other method to meet environmental objectives during dredging activity, whereas Class C notes that a closed bucket or other method minimizing loss of resuspended sediment is ordinarily required.

Best Management Practices (BMPs) for Contaminated Material Resuspension Control will include but are not limited to the following:

- The Contractor shall place dredged material deliberately in the barge to prevent spillage of material overboard.
- The closed clamshell environmental bucket shall be lifted slowly through the water, at a rate of 2 feet per second or less.
- The discharge (i.e., overflow) of water from the barge/scow into which dredged material is placed is prohibited.
- The Contractor shall not cause or allow any unreasonable interference with the free flow of regulated water by placing or dumping any materials, equipment, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the Contractor shall remove and dispose of in a lawful manner, all excess materials, debris and equipment from all regulated areas.
- The Contractor shall control the “bite” of the bucket to: (a) minimize the total number of passes needed to dredge the required sediment volume; and (b) minimize the loss of sediment due to extrusion through the bucket’s vents openings or hinge area.
- The dredge shall control the rate of descent of the bucket to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical dimension of the open bucket (i.e., overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging season.
- The independent dredging inspector shall monitor the operation of the software and sensors during the inspections as specified in the below conditions. Any malfunction of the software and sensors on the dredge at any time shall be immediately reported to the independent dredging inspector and the permittee by the dredging contractor and shall be immediately repaired to working order.
- The Contractor shall not drag the dredge bucket along the sediment surface.

#### 4.3.3.2 Dredged Material Placement Site

The Project does not consider disposal / discharges of dredged or fill material into the Hudson River or Navigable Waters of the U.S. Removed materials would be managed under an appropriate approved reuse option, via a Beneficial Use Determination, or properly disposed of per NYSDEC regulations. Based on a comparison of the laboratory analysis data to 6 NYCRR Part 360 fill material predetermined beneficial use criteria, there are exceedances of the limits for general fill, restricted-use fill, and limited-use fill. In consideration of these exceedances, it is anticipated that the dredge material (or portions thereof) will require transport and disposal at an authorized landfill facility.

The dredged material would be loaded into dredge scows or barges, transported by tugs, and offloaded into the designated and authorized site utilizing a hydraulic or mechanical unloader, or other similar equipment. Class B and Class C sediments indicate the possible need to segregate from Class A materials; consideration would be given to amending impacted sediment with Portland cement or other approved material prior to placement in an approved Confined Disposal Facility (CDF). Dewatering water would be managed as per NYSDEC regulatory thresholds and permit conditions.

Various options are being considered for the upland disposal of the dredged material at authorized facilities and in relatively close proximity to the Project Site. Potential CDFs preliminarily identified for sediments with contamination rates less than 50 mg/kg include:

- Casella – Ontario County Landfill, 1879 NY-5, Stanley, NY 14561
- Seneca Meadows Landfill, 1786 Salcman Rd, Waterloo, NY 13165

Other potential landfill sites include but are not limited to:

- Fairless Landfill, 1000 Bordentown Road, Morrisville, PA 19067
- Clean Earth, Carteret, NJ, 0700/8

Alternate disposal site, if accepted by the USACE, is the upland placement in the federally owned Houghtaling Island Dredge Material Placement Site (DMPS) located downstream, at approximately 12 miles from the Project.

Class A dredged materials likely do not need to be amended and would likely be placed either at an acceptable upland location on site or at any approved solid waste disposal facility, depending on Beneficial Use Determination.

#### 4.3.3.3 SAV within Dredging Area

As described in **Section 3.2.2.2**, three (3) SAV beds were delineated in the Hudson River, along the shoreline of the 81.6-acre parcel (Beacon Island). The proposed wharf has been designed to limit its footprint and avoid or minimize potential impacts to most of the SAV beds. Only SAV # 3, with 0.21-acre of very low and isolated tufts of *V. americana*, occurs within the limits of the proposed dredging. The Project avoids impacts to SAV # 1 and SAV # 2 areas. SAV # 3 would be mitigated as describe in **Section 6**.

#### 4.3.3.4 Mussels within Dredging Area

As described in **Section 3.2.2.3**, freshwater mussels were detected in the Normans Kill and Hudson River, along the shoreline of the 81.6 acre parcel (Beacon Island). The proposed wharf has been designed to limit its footprint and minimize potential impacts to mussel beds. Mussels within portions of Section 10, 11 and 12 would be mitigated as describe in **Section 6**.

#### 4.3.3.5 Recurrent Maintenance Dredging Program

Maintenance dredging is expected to be required periodically throughout the service life of the proposed facility. The frequency of and volumes of material removed during maintenance dredging are expected to be variable, based on both natural processes (i.e., river sediment load, flow velocities, flow patterns) and use of the facility. Currently, it is anticipated that maintenance dredging could be expected at approximate 5-year intervals, which is the same approximate interval at which the Port of Albany turning basin (located upstream of the project site) undergoes maintenance dredging. Estimate of the cubic yards of material that would be dredged as part of the future maintenance dredge is around 30,000 cubic yards.

### 4.4 PROJECT SCHEDULE, CONSTRUCTION DURATION AND YEAR RESTRICTIONS

Site preparation is expected to start in April 2022. Construction phase is expected to have a duration of approximately 15 months. Project is required to be operational by July 2023. Traditionally, the NYSDEC's work window is September 1 to October 31 to be protective of sturgeon species. Since there is no documentation of overwintering sturgeon in this location, NYSDEC extended the work window for the Project further into winter. As such, regulatory staff indicated that the work window for this Project could be September 1st through January 31st or ice-in, whichever comes first. **Overall project construction activities would typically occur between 7am and 7pm seven (7) days a week, with some time-critical activities occurring during nights.** Dredging is expected to start in mid-September 2022 and to be completed within 90 days, depending on weather conditions. Construction and landside excavation of the wharf is expected to start in June 2022. Construction of the proposed wharf is expected to be completed within 18 months. Construction in the Hudson River channel (in water-work) will be completed as per NMFS and NYSDEC time restrictions and USACE permit conditions.

The Project is located within the known range of the Northern Long-eared Bat. There will be approximately 72 acres of tree removal. The Project was evaluated under the Programmatic Biological Opinion on Final 4(d) Rule for the NLEB (January 2016). Using the USFWS determination key, it was determined that the project may affect northern long-eared bat. While tree clearing would occur outside of the recommended seasonal work window, it was determined that the action is not prohibited under the 4(d) rule. The USFWS concurs with the May Affect determination, and agrees that the project is not likely to jeopardize the continued existence of the northern long-eared bat (**Appendix 3**).

Any dredging activity outside the dredging window will be coordinated first with NYSDEC and USACE, as applicable. All in-water work areas for both dredging and wharf construction would be completed within the confines of a weighted turbidity curtain, which would isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed. The Project would avoid dredging during spawning periods of the Atlantic sturgeon and Shortnose sturgeon. The dredging activities would be closely monitored, and containment measures such as silt curtains and floating turbidity barriers would be implemented to isolate the site during fish migration and spawning periods.



## 5. BMPs AND ENVIRONMENTAL PROTECTION

In order to fulfill with all the applicable requirements, the following information present a description of the of BMPs and environmental controls in order to further avoid and minimize impacts. The Project and proposed construction methodology to be implemented by the contractor would take into consideration the importance of minimizing impacts and compliance with environmental regulations. The following protection measures and BMPs would also be implemented as part of this Project:

- For the earthwork activities, the contract would identify in the field to avoid wetland areas not authorized to be impacted.
- Installation and maintenance of erosion and sediment controls throughout the duration of construction activities and any subsequent soil disturbance activities near drainage and wetland areas.
- Use of appropriate dust control methods during construction activities, such as water sprays.
- Stabilization of exposed soils following completion of construction activities in designated areas.
- Minimization (as practicable) of the amount of exposed soils at any given time during construction activities.
- Land clearing and grubbing will be performed in such a manner as to minimize damage outside the project footprint.
- Dispose of debris and solid waste generated by the project according to applicable federal, state, and local regulations.
- Stage and service construction equipment in designated upland areas.
- Perform construction vehicle maintenance and inspections to reduce the potential for incidental release of vehicle fluids.
- Maintain spill kits to rapidly respond to and limit impacts from accidental releases of vehicle fluids.

A Stormwater Pollution Prevention Plan (SWPPP) will be prepared that will outline the erosion, turbidity and sediment control measures to be implemented to mitigate potential water quality impacts, BMPs will be implemented and maintained at all times during construction, including turbidity controls to prevent siltation to Normans Kill and Hudson River above background levels. Therefore, prior to beginning any authorized work, turbidity and erosion control devices including, but not limited to silt and turbidity curtains, will be installed along the Project perimeter, as needed. The turbidity control devices will remain in place and properly maintained and replaced by the contractor until construction activities are completed.

### **Protected Species (Atlantic sturgeon and Shortnose sturgeon) - Dredging**

Since it is often difficult for construction personnel to correctly identify protected species, the contractor would be directed not to harm, harass or kill any animal species encountered during Project construction. If suspicious protected species are encountered and be compromised by construction activities, the contractor would contact the APDC Manager within 24 hours.

The following BMPs and mitigation measures are proposed to minimize potential impacts to the Atlantic sturgeon and Shortnose sturgeon:

- All in-water work areas for both dredging and wharf construction will be completed within the confines of a weighted turbidity curtain, which will isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed.
  - Turbidity curtains are proposed to avoid and minimize potential impacts to Atlantic sturgeon and Shortnose sturgeon. Additionally, floating turbidity curtains, staked turbidity barriers and/or silt-fence would be installed to protect SAV beds to remain.
  - Large portion of the channel will remain open for aquatic organism passage.
- The Project intends to avoid dredging during spawning periods of the Atlantic sturgeon and Shortnose sturgeon. As indicated by regulatory staff during permitting review meetings the work window for this Project could be September 1<sup>st</sup> through January 31<sup>st</sup> or ice-in, whichever comes first.
- Use of a clamshell (closed) bucket to minimize resuspended sediments.
  - The closed clamshell environmental bucket would be lifted slowly through the water, at a rate of approximately two (2) feet per second.
- For the wharf construction, the permanent steel casing for the drilled shaft foundations and the sheet pile wall components would be vibrated in, rather than utilizing an impact hammer. An impact hammer would be used only to seat the steel casing within the first few inches in the top of rock. Other BMPs considered include:
  - Use of pre-drilling prior to vibratory hammering
  - Implement soft start (i.e., pile tapping) prior to full energy impact hammering
  - If necessary, cushion blocks, air bubbles curtain or other noise attenuating tools would be implemented when impact hammering to avoid reaching noise levels that could cause injury or behavioral disturbance to these species.
- Use of nets, tarps, and/or pans during construction of the bridge deck over the Normans Kill and removal of any debris that falls into the water.
- A SWPPP will be implemented and maintained during the construction phase to be implemented and address potential water quality impacts.

#### Cultural Resources

Due to anthropogenic impacts from previous developments, the presence of cultural and archaeological resources are not expected to be encountered within the Project Site. No Adverse Effect Determination letters were issued by SHPO and THPO. See **Appendix 3** (Agencies Correspondence and Response Letters).

## 6. ENVIRONMENTAL MITIGATION PLANS

### 6.1 WETLAND COMPENSATORY MITIGATION PLAN

The overall freshwater wetland impacts under USACE jurisdiction (Waters of the U.S. (WOTUS)) are estimated as follow:

- WOTUS Permanent Impacts: 0.86 acre
  - Wetland 1
    - PEM: 0.30 acre (anticipated mitigation ratio 1:1)
    - PFO: 0.51 acre (anticipated mitigation ratio 2:1)
  - Wetland 9
    - PEM: 0.04 (anticipated mitigation ratio 1:1)
- WOTUS Temporary Impacts:
  - 0.33 acre (up to ¼ of a ILF credit would be added / purchase to compensate for conversion impacts)

Wetland impacts are limited to Wetland 1 and Wetland 9, which are located in low quality habitats. The wetland area located within the Project limits does not show characteristics of high-quality habitat and does not play a key role in supporting diverse or protected species. The wetland has no recreational value, and the area to be impacted does not represent a pristine ecological community.

Compensatory mitigation for wetland impacts (permanent and temporary) would be satisfied via In-Lieu Fee Mitigation (ILF) Program. Wetland credits would be purchased at a ratio equivalent to wetland habitats (function and value) taking into consideration the USACE New England District Compensation Mitigation Guidance<sup>8</sup>, based on permanent impacts shown in **Appendix 1** (Permit Sketches). Mitigation credits are anticipated to be purchased within six (6) months from the date the Joint Permit Application is approved by the USACE and NYSDEC.

Once construction is complete, temporary construction impacts as a result of this Project would be restored to pre-construction conditions by removing debris and fill material resulting from earthwork activities, seeded with a wetland seed mixture and allowing the area to naturally revegetate. Therefore, no further compensatory mitigation is required for temporary impacts.

### 6.2 MITIGATION TO OFFSET POTENTIAL IMPACTS TO STURGEON HABITAT, SAV AND FRESHWATER MUSSELS

Overall, the habitat to be affected by the Project is expected to be small compared to existing available habitat along the Hudson River. According to the Sediment Sampling Analysis, the proposed dredging will occur over a substrate consisting of silty clay, sand and some trace of gravel, including Class C sediments.

---

<sup>8</sup>[https://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016\\_New\\_England\\_Compensatory\\_Mitigation\\_Guidance.pdf](https://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016_New_England_Compensatory_Mitigation_Guidance.pdf)

The proposed mechanical dredging would remove of approximately 80,000 cubic yards containing concentrations of pesticides and PCBs contributing to the cleanup of the Hudson River.

Additionally, compensatory mitigation for habitat modification would be satisfied via a Net Conservation Benefit Project (“Restoration Project”) and an implementation agreement between the APDC and NYSDEC. The Restoration Project would create one (1) acre of benthic habitat at Schodack Island State Park by converting habitat that is currently upland into habitat that can be used by sturgeon species.

## 7. ALTERNATIVE ANALYSIS

### 7.1 SITE SELECTION

During the planning process the APDC evaluated other potential sites. However, none of the other sites were owned by the APDC, could be reasonably acquired within the timeframe of the overall Project schedule, nor meet the Project purpose and need, and/or site development would result in higher environmental and offsite impacts. Additionally, the APDC has exhausted almost all of its existing port facilities and is unable to accommodate additional port infrastructure, warehouse space, cargo and wharf capacity within their current developed land. According to the most recent market analysis performed for their business operations and assets inventory, over 90 percent of the APDC facilities are currently occupied. Moreover, the Project Site is required to be located adjacent to the APDC in the Hudson River due to port logistic, available infrastructure and security, in order to support production of large-scale renewable energy projects via sustainable initiatives from New York State and private partnerships.

The selected Project Site is the ideal location for the Proposed Action due to the following characteristics:

- Site location and proximity to existing APDC port facilities and marine terminals
- Existing logistical access (e.g., navigation, rail, and roads network) that can handle industrial traffic
- Site historically disturbed with limited ecological and no recreational value due to previous uses, with unique opportunity for redevelopment of a former landfill site and implement environmental controls
  - 81.6-acre parcel is riverfront property owned by the APDC and previously used as landfill for stockpiling coal ashes
    - Creates opportunity for the removal of coal ashes and associated impacted soils within the footprint of the Project (proposed excavation areas) during the construction phase
  - 4.5-acre adjoining National Grid parcel used for installation and operation of above and underground power infrastructure; also land agreement in place between APDC and National Grid for construction of employee parking lot (see **Appendix 3**, Agency Correspondence and Response Letters)
  - 14.7-acre parcel is owned by APDC previously used as rail yard and metal recycling
- Available infrastructure and adjacent to existing and secured port facilities
- Ability to provide adequate depth for marine vessels and barges
- Proximity to areas with export and import demands
- Shelter from waves and storm surge

The Project Site is in close proximity to the existing Port of Albany with the adequate capacity and space to provide the needed industrial uses.

### 7.2 SITE DEVELOPMENT

Original site layout contemplated larger building footprint (+/- 1,000,000 SF) and a surface parking with higher wetland impacts and fill below the MHHWL. Current proposed site layout is the result of several

interaction with the objective to avoid and minimize environmental impacts. Current building footprints have been reduced to approximately 626,014 SF limiting wetland impacts to a small portion of Wetland 1. Also, the access road and parking lot were relocated and re-designed to avoid wetland impacts. Moreover, the proposed grading plan does not contemplate fill below the MHHWL.

### 7.3 BRIDGE OVER NORMANS KILL

Various alternatives were considered as part of the design and are summarized below, including the “No Bridge Alternative”.

- The No Bridge Alternative” is not considered feasible as APDC requires access from 700 Smith Boulevard to the 81.6-acre parcel. Also, due to the size and load associated to the manufacturing materials from the 14.7-acre parcel at 700 Smith Boulevard to Beacon Island, hauling must occur on site minimizing the use the public road system and the need of significant offsite improvements.
- A single span structure was not considered feasible as it would have required substantial fill within the floodplain area along the Normans Kill to accommodate reducing the opening to a single span across the Normans Kill. The span required to allow for the appropriate hydraulic requirements would have exceeded constructable limits.
- A three (3) span bridge with a pier located within the Normans Kill was considered and provided the most cost-effective structure and allowed for loads to be carried utilizing the preferred lifting equipment. Due to the environmental impacts associated to the construction phase, this alternative was discarded.
- A two (2) span structure was not considered feasible as it had similar drawbacks to a single span structure when a pier within the floodway was no longer under consideration.
- The preferred alternative is a three (3) span structure that provides a clear span over the Normans Kill floodway. This alternative has two (2) piers that are located above MHHW line and outside of the floodway. Each pier would consist of a single row of reinforced concrete drilled shafts. A drilled shaft consists of a circular steel casing that is installed into the ground, excavated and filled with concrete. The steel casing acts as a cofferdam that contains the excavation activities and greatly limits ground disturbance and impacts. The drilled shaft pier foundations would be designed to account for scour and therefore would not require riprap for protection.

### 7.4 WHARF

Two (2) primary classifications of marginal wharf structural systems were considered for the reconstruction; these include both solid-type (bulkhead and cellular structures) and open-type (deep foundations supporting concrete-framed systems). These were investigated for comparison purposes. Descriptions, along with advantages and disadvantages of the systems considered, are provided in the sections that follow.

#### Alternative #1 - Solid-type Marginal Wharf Systems

The solid-type marginal wharf options form a closed (solid face) configuration structure aligned with the outboard berthing face. Behind the structure, fill is placed over a prepared/filled revetment slope to form the working surface of the wharf. Due to the magnitude of the imposed loads, supplemental structures such as deep foundation-supported relieving platforms would be placed landward of the solid-type

structure to carry a portion of the loads and provide lateral restraint to the structures. For the solid-type marginal wharf systems, two (2) primary configurations were considered:

- Master Pile Combination Wall (Bulkhead) with Relieving Platform
- Cellular Cofferdam-type

During early concept assessment, other solid-type structures were initially considered, but were deemed not viable to a variety of concerns, based on experience. Other alternate solid-type marginal wharf systems initially assessed included concrete caissons and interlocking block gravity-based quay systems. Most of the concerns for these alternate systems involve contractor capabilities, off-site development requirements needed for fabrication, and other related constructability issues; hence, these alternates were not provided a more in-depth evaluation.

#### Alternative #1A – Master Pile Combination Wall with Relieving Platform

In an effort to develop a cost efficient solid-type wharf solution with an optimized size of steel sheet pile wall, an anchored combination wall with relieving platform option was studied. The primary benefit of this configuration is that the bulkhead combination wall is relieved of lateral surcharge pressures associated with heavy equipment and cargo and the soil fill located above the platform. These loads are instead distributed to a deep foundation-supported reinforced concrete platform as gravity loading only. The platform is situated approximately 6 to 8 feet beneath the finished wharf surface, which provides the benefit of reducing intensity of concentrated live loads by distributing the load through the ballast fill. An additional benefit of the relieving platform is that it laterally supports the wall at a lower elevation, which effectively reduces the unbraced length of the wall. The shorter unbraced length reduces lateral bending demand and axial buckling stress on the steel combination wall, permitting selection of lighter steel sections. The bulkhead section above the combination wall interface is a counterforted reinforced concrete fascia rigidly connected to the lower relieving platform. The upper bulkhead is restrained by inclined rock anchors, which also provide support for lateral loads associated with vessel mooring.

Although the relieving platform reduces the loading demands on the combination wall, it introduces additional structural components to achieve this condition, including the shaft-supported relieving platform landward of the bulkhead wall. The biggest drawback to this type of framing system is the significant amount of fill placed beyond the existing MHHW line; fill-type structures can constrict the waterway and pose hydraulic design concerns, as well providing greater impacts by way of in-water disturbance. Also, when compared to the open wharf configuration, this option is not cost competitive.

#### Alternative #1B – Cellular Cofferdam-type

Cellular structures are frequently used for port and harbor facilities, and for other large structures that involve heavy civil works, such as cofferdams, weirs, dams, and walls. Properly designed, cellular structures can support significant vertical and lateral loads, can be configured to berth a variety of vessels (including barges) and accommodate the transfer of materials and equipment from those vessels to land.

Sheet pile cellular retaining structures can be constructed both in-the-dry and in-the-wet, without prefabrication, in-place, using conventional equipment and construction techniques. Compared to other gravity-based options such as precast caissons, cellular structures require relatively little foundation bed preparation, and readily conform to moderately sloping rock with the use of no unique features or techniques.

Among the several types of sheet pile cellular retaining structures, including circular cells, diaphragm cells, and cloverleaf cells, it appears that circular cells would be most applicable for the marine structures at the Beacon Island parcel.

Circular cells consist of flat webbed hot-rolled steel sheet piling placed in a cylindrical configuration, represented by large circles in plan view. The equally spaced circular cells are connected with smaller semi-circles of flat webbed sheet piling; the two shapes are connected by specially fabricated wyes, and typically intersect at either 30-, 35- or 45-degree angles.

Both the fully circular cells and arc areas are filled with granular material to complete the form of the gravity structure. Once the individual cells are filled, they are generally considered stable and can resist all reasonably designed loading conditions.

However, for the Beacon Island site, it was determined that due to the magnitude of the applied loads that an “internal” relieving platform would be required to reduce the apparent localized loads on the cell sheeting. This additional structure adds a degree of complexity and cost not typically associated with cellular structure design. Hence, when compared to the open wharf configuration, this option is not cost competitive.

Like the bulkhead option the biggest drawback to this type of framing system is the significant amount of fill placed beyond the existing MHHW line; fill-type structures can constrict the waterway and pose hydraulic design concerns, as well providing greater impacts by way of in-water disturbance.

#### **Alternative #2 - Open-type Marginal Wharf Systems**

The open-type marginal wharf systems consider several variants of pile supported reinforced concrete platforms. Unlike the solid-type systems presented previously, the open-type configurations establish a new revetment slope beneath the proposed structure. The revetment will be sloped 2H: 1V and will heavy stone armor slope protection (riprap) to the top elevation of the revetment slope, which will reduce the lateral demand on the steel sheet pile cutoff wall at the landside interface of the wharf.

Each open-type framing option includes an anchored cut-off wall to retain backlands soil and maintain stability of the revetment slope. The cut-off wall is topped with a continuous reinforced concrete cap that transitions between open wharf and the shaft-supported relieving platform that is landward of the cut-off wall. The foundation elements coupled with the concrete framing provides the primary lateral bracing system of the wharf; hence, additional anchoring systems (e.g., soil or rock anchors, deadman tie-backs, brace piles) are not required.

For all open-type options, the concrete deck is integrated with the cut-off wall concrete cap structure. All open-type options include a continuous fascia beam that defines the river-edge alignment of the structure and serves to support both mooring and fender systems. For the open-type marginal wharf systems, one (1) primary deck framing configurations were developed:

- Ballasted Deck Framing

A high-level deck framing option was initially considered but determined to be infeasible due to the magnitude of loads needing to be accommodated on the wharf (e.g., 6,000 psf). Hence, focus was given to the ballasted deck framing option.



Alternative #2A – Open-type Marginal Wharf with Ballasted Deck Framing

This structural system, consisting of a low-level platform covered with granular structural fill (ballast material) and surface course of dense graded aggregate. This structural system is typically used where highly concentrated loads (associated with crane outriggers and other heavy equipment) require a more substantial distribution over a greater area, to reduce the effect of punching shear between pile and structure. Ballasted deck structures can also ease the accommodation of buried utilities, pipelines, and other deck accessories.

The structural fill over the deck helps to distribute the concentrated load through the ballast, thereby imparting a reduced contact pressure to the wharf substructure. The ballasted deck configurations presented herein use a minimum 6-foot-thick layer of fill above the deck level. While the ballast benefits heavy surface load distribution, self-weight of the material is significant, and counts against the total allowable gravity load rating of the structure.

The riverside 55'-6" of the structure consist of 48" diameter drilled shaft foundations with permanent steel casings provided on a 15'-0" x 15'-0" grid. The shaft foundations support cast-in-place reinforced concrete bent caps, cast-in-place reinforced concrete fascia, precast concrete deck panels, concrete fascia buttresses, and a reinforced cast-in-place concrete topping closure slab, the top elevation of which is approximately +8.00 (NAVD29).

Alternative foundations to the drilled shafts, including but not limited to pipe piling, H-piling, and precast prestressed concrete piles are considered infeasible due to the magnitude of the loads supported by the wharf, up to 6,000 psf uniformly distributed live load. Pile spacing and capacity limitations dictate the selection of drilled shaft foundations.

A high-modulus steel sheet pile wall with a reinforced cast-in-place concrete cap serves as a cut-off wall that separates the "open" riverside portion of the wharf structure from the relieving platform located landward of the cut-off wall. The high-modulus wall will consist of either incrementally spaced H-piling or steel pipe piles, with intermediate "Z" shaped steel sheet piling. The cut-off wall intercepts the 2H:1V revetment slope beneath the wharf at approximate El. -4.50 (NAVD29).

The relieving platform comprises the landside 37'-6" of structure width. The relieving platform is supported by 30" diameter drilled shaft foundations with permanent steel casings provided on a 15'-0" x 15'-0" grid. The shafts support a two-way reinforced cast-in-place concrete slab that serves as the primary framing element for the relieving platform. The primary benefit of this configuration is that the bulkhead cut-off is relieved of lateral surcharge pressures associated with heavy equipment and cargo and the soil fill located above the platform. These loads are instead distributed to a shaft-supported reinforced concrete platform as gravity loading only. The platform is situated approximately 6 feet beneath the finished wharf surface, which provides the benefit of reducing intensity of concentrated live loads by distributing the load through the ballast.

Of the three (3) alternatives advanced to a more detailed level of design refinement, Option 2A is the most cost efficient.

The other benefits to this type of framing system are the minimized amount of fill/structure placed beyond the existing MHHW line; in this case its waterway infringement is limited to the cross-sectional area of the drilled shafts. This potential reduction in section is more than compensated by the apparent increase in the waterway established by dredging and excavating the revetment slope beneath the open wharf

structure. Likewise, compared to solid-type wharf/quay structures, the open-type structure causes a much lesser degree of in-water impacts.

**Selected Alternative**

After evaluating the options, Alternative #2A – Open-type Marginal Wharf with Ballasted Deck Framing is selected. This option is both fit for the project purpose and well suited for the site geotechnical and environmental conditions, as well as operational and functional considerations.

The proposed design requires approximately 136 in-water drilled shaft foundations, 102 landward drilled shaft foundations, and approximately 566 feet of on-land sheet pile wall. The permanent steel casing for the drilled shaft foundations and the sheet pile wall components will be vibrated in, rather than utilizing an impact hammer. An impact hammer will be used only to seat the steel casing within the first few inches in the top of rock. The overall construction is somewhat similar to the previous dock reinforcement project recently undertaken by the APDC for improvements to the docks at Sheds No. 4 and 5, and more recently the Cargill/Ardent Mills Grain Wharf Reconstruction.

## 8. APPENDICES

- Appendix 1: Permit Sketches (Project Drawings)
- Appendix 2: Interagency Pre-Application Meetings Documentation
- Appendix 3: Agency Correspondence and Response Letters
- Appendix 4: Rare Plant Species Investigation (2019)
- Appendix 5: Supplemental Rare Plan Species Investigation (2021)
- Appendix 6: Wetland Delineation Report (2019)
- Appendix 7: Supplemental Wetland Delineation Report (2021)
- Appendix 8: Submerged Aquatic Vegetation Survey
- Appendix 9: Freshwater Mussels Survey
- Appendix 10: Soil Management Plan
- Appendix 11: Environmental Subsurface Investigation and Soil Sampling Report
- Appendix 12: Sediment Sampling and Analysis Report
- Appendix 13: Port of Albany – 81.6 -Acre Site Fire Flow Technical Memorandum
- Appendix 14: Vegetated Buffer Management Plan

(This page is intentionally left blank)