ATTACHMENT G

Environmental Report
Statement of Compliance
and Figures

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Acronym List

CAFRA	Coastal Area Facility Review Act
CZM	Coastal Zone Management
EIS	Environmental Impact Statement
FHA	Flood Hazard Area
IP	Individual Permit
NJDEP	New Jersey Department of Environmental Protection
NOAA	National Oceanic and Atmospheric Administration
WFD	Waterfront Development

1.0 Project Description

The Applicant, Atlantic Shores Offshore Wind Services, LLC, (Atlantic Shores) is proposing the replacement of the bulkheads in disrepair at a property located at 801 North Maryland Avenue in the City of Atlantic City, Atlantic County, New Jersey. The Project Site is known as tax parcel Block 567, Lot 2. A portion of the Project Site is located waterward of the mean high water line and is located in the waterbody known as Clam Creek.

The purpose of the Project is to replace an existing bulkhead that is in a state of disrepair in order to stabilize the site. Project activities include removal of at least two (2) existing bulkheads and construction of a new bulkhead along with site grading landward of this bulkhead. The Project construction will include a NZ42 corrugated steel sheet pile (SSP) bulkhead, tie-rods, plumb piles, deadmen. The Project site parcel is irregularly-shaped and the existing bulkheads do not have a uniform alignment along Clam Creek. Moreover, there is evidence of notable obstructions (e.g. concrete blocks/debris) along the water's edge. Due to these conditions, it is not practicable for the entire length of proposed bulkhead face at the shoreline to be located 24-inches waterward of the existing Clam Creek bulkhead face.

The existing bulkheads do not have a uniform material construction or uniform alignment running north to south along Clam Creek. This existing varying alignment may be due to the stages of original construction or the bulkhead's disrepair condition. The rationale in locating the proposed bulkhead was to both avoid anticipated obstructions and correct the varying alignment by aligning the proposed bulkhead uniformly with the north-south property lines of the Project site at Clam Creek and Maryland Avenue while complying with the New Jersey Department of Environmental Protection's (NJDEP) Coastal Engineering rule at N.J.A.C. 7:7-15.11, especially N.J.A.C. 15.11(d)2iii given the anticipated obstructions. Using this rationale, the proposed bulkhead respects the property boundary at the south end of the parcel, then jogs east to a point where the bulkhead face is 24-inches waterward of the existing bulkhead, then runs north, parallel to the Clam Creek and Maryland Avenue property lines, to the northern boundary of the Project parcel. Where the north-south line of the proposed bulkhead meets the Project parcel's northern property boundary line, the proposed bulkhead waterward face ends up seven (7) feet off the waterward face of the existing bulkhead at this location.

The total length of proposed new bulkhead is 541 linear feet (LF), broken down by location below.

- 243 LF of SSP bulkhead length along Clam Creek within the subject parcel.
- 105 LF of SSP bulkhead length where the Project site (Lot 2) line coincides with the Lot 1 property line along Clam Creek.
- 92 LF of SSP bulkhead to return the bulkhead along the south property boundary west to Maryland Avenue.
- 101 LF of SSP bulkhead to return the bulkhead along the north property boundary west to Maryland Avenue.

The Applicant is seeking a Waterfront Development In-Water Individual Permit (WFD IP) for proposed activities occurring waterward of the mean high water line and a CAFRA Individual Permit (CAFRA IP) for activities landward of the mean high water line. The Applicant is also a seeking a Flood Hazard Area Verification (Method 2) as part of this submission.

2.0 Site and Area Description

2.1 Project Site Description

As noted above, the Project Site is known as tax parcel Block 567, Lot 2 in the City of Atlantic City, Atlantic County, New Jersey. The Project Site is located adjacent to and within Clam Creek. To the northwest of the site is Senator Frank S. Farley State Marina. To the southeast are a variety of maritime commerce uses (port uses). Across North Maryland Avenue to the west is the Atlantic Marina Apartment Complex.

Lot 2 is currently vacant, however, in the past, it has been used as a petroleum product storage and distribution facility with a marine loading / unloading capacity to receive petroleum products for distribution. The upland area of Lot 2, located along the east side of North Maryland Avenue, is vacant and relatively level. Former buildings that may have been located near the northeast corner have been demolished. A nominal 12-inch-thick concrete wall is located around a yard area at the south end of the property. A chain link fence is located along the west and north property lines. A marine bulkhead is located along the east side of the property. There are several existing non bulkheads at the property including a timber bulkhead and a steel sheetpile bulkhead both of which have exceeded their useful life and require replacement.

The steel sheetpile bulkhead appears to have been installed to reinforce the timber bulkhead as it is located waterward of the timber bulkhead in this area. The timber bulkhead continues from the northern end of the steel sheetpile bulkhead to the north end of the property. The offset between the steel sheetpile and timber bulkheads is approximately 5 feet with the steel bulkhead located to the east of the timber bulkhead.

The steel sheetpile bulkhead is severely rusted, there is no cap plate and section loss is extreme. The lateral stability components are no longer in place. The remains of the steel bulkhead have experienced a degree of lateral movement. The bulkhead is not retaining site soils. There are remnant concrete slabs, timber debris and other obstructions located both in front of and behind these bulkheads.

The timber-framed bulkhead is severely deteriorated. Master piles and vertical sheathing are in place at limited portions of the bulkhead. In many areas, the piles or remnants of the piles are in place with no sheathing or cap plate. Some tie-rods to anchor piles are visible and have extensive rust and distortion. The anchor piles are not readily visible.

Adjacent to the bulkhead structures there are sections of nominal 6-inch-thick concrete slabs. The slabs appear to be reinforced with welded wire fabric; use of deformed steel reinforcing was not observed. The sections of slabs are broken and have experienced gross

settlement and damage. The grade beams and underlying soils are damaged or washed out, and extensive settlement of upland areas of the site is observed. Sections of broken concrete slab are positioned within the waterway and within the uplands area. Since the shoreline protection is compromised the site is being undercut by water from Clam Creek.

In May 2021 a bathymetric survey and soundings study was performed for the in-water portion of the site. The bathymetric soundings also identified obstructions and debris in intertidal and subtidal areas adjacent to the bulkheads. Numerous sunken vessels and other miscellaneous debris were also observed at the current Clam Creek mudline. These partially and fully sunken vessels can be readily observed from the shoreline and from vessels operating in Clam Creek.

The proposed bulkhead has been located to generally avoid obstructions. Obstructions and general debris will be removed from water areas outbound of the bulkhead installation to the maximum extent practicable.

Photographs of the existing conditions in the proposed Project Site are provided in Attachment F. Proposed activities are identified on the Project drawings, provided as Attachment E.

3.0 Compliance with NJDEP Division of Land Use Regulation Rules

3.1 Coastal Zone Management Rules (N.J.A.C. 7:7)

The Coastal Area Facility Review Act of 1973 (CAFRA) established the CAFRA zone as the bounds of CAFRA regulation. Certain activities undertaken within the CAFRA zone are regulated by the Division of Land Resource Protection. The Project site is located within the CAFRA Zone and the proposed work landward of the mean high waterline is a regulated activity. Additionally, the proposed Project requires a Waterfront Development IP for work water-ward of the mean high water line pursuant to the Waterfront Development Act (N.J.S.A. 12:5-2). Substantive policies have been identified and promulgated by the NJDEP to guide development and resource management within the State's coastal area. The policies have been codified in the Coastal Zone Management Rules at N.J.A.C. 7:7, referenced herein as the Coastal Zone Management (CZM) Rules. NJDEP's coastal permit regulatory jurisdiction is detailed in Subchapter 2 of the CZM Rules. The proposed bulkhead replacement activities occur both waterward and landward of the mean high water line.

Under the CZM Rules, activities subject to Individual Permits (Ips) must comply with the requirements described in N.J.A.C. 7:7-8 and the conditions set forth in N.J.A.C. 7:7-27.2. Activities subject to IPs are evaluated based on a three-step process utilizing CZM Location Rules (Subchapters 9 through 14), Use Rules (Subchapter 15), and Resource Rules (Subchapter 16). Depending upon the proposed use, project design, location, and surrounding region, different specific CZM Rules in each of the three steps may be applicable in the coastal decision-making process for IPs. The CZM Rules address a wide range of land and water types (locations), current and proposed land and water uses, and natural, cultural, social, and economic resources in the coastal zone. Each CZM Rule has been analyzed for applicability to the proposed Project and all applicable Location Rules, Use Rules, and Resource Rules are addressed within Section 4 of this Environmental Impact Statement (EIS) and Compliance Statement.

3.2 Flood Hazard Area Control Act Rules (N.J.A.C. 7:13)

The proposed bulkhead and associated activities are located within the tidal flood hazard area of Clam Creek. Therefore, the CZM Rules also require that the proposed bulkhead comply with the Flood Hazard Area (FHA) Control Act (N.J.S.A. 58:16a-50) and the FHA Control Act Rules at N.J.A.C. 7:13, referenced herein as the FHA Rules.

Under the FHA Rules, the proposed bulkhead is subject to applicable FHA IP requirements including put not limited to requirements for a regulated activity in a floodway N.J.A.C. 7:13-11.3, requirements for grading N.J.A.C. 7:13-12.3, a structure N.J.A.C. 7:13-12.4 and a bulkhead N.J.A.C. 7:13-12.13. All applicable rules are addressed within Section 5 of this EIS and Compliance Statement.

Additionally, concurrently with this application the Applicant is seeking a Method 2 Flood Hazard Area Verification for the subject site.

4.0 Compliance with Applicable Coastal Zone Management Rules

4.1 Potentially Applicable Coastal Zone Management Rules

Subchapter 9. Special Areas

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7:7-9.5	Finfish migratory pathways
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4.2 Subchapter 9. Special Areas

7:7-9.2 Shellfish habitat

Requirement: (a) (a) Shellfish habitat is defined as an estuarine bay or river bottom which currently supports or has a history of production for hard clams (Mercenaria mercenaria), soft clams (Mya arenaria), eastern oysters (Crassostrea virginica), bay scallops (Argopecten irradians), or blue mussels (Mytilus edulis), or otherwise listed below in this section. A shellfish habitat area is defined as an area which meets one or more of the following criteria:

1. The area has a current shellfish density equal to or greater than 0.20 shellfish per square foot;

2. The area has a history of natural shellfish production according to data available to the New Jersey Bureau of Shellfisheries, or is depicted as having high or moderate commercial value in the Distribution of Shellfish Resources in Relation to the New Jersey Intracoastal Waterway (U.S. Department of the Interior, 1963) and/or "Inventory of New Jersey's Estuarine Shellfish Resources" (Division of Fish, Game and Wildlife, Bureau of Shellfisheries, 1983-present);

3. The area is designated by the State of New Jersey as a shellfish culture area as authorized by N.J.S.A. 50:1 et seq. Shellfish culture areas include estuarine areas presently leased by the State for shellfish aquaculture activities or hard clam relay, transplant and transfer as well as those areas suitable for future shellfish aquaculture development; or

4. The area is designated as productive at N.J.A.C. 7:25-24, Leasing of Atlantic and Delaware Bay Bottom for Aquaculture.

Compliance: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, shellfish habitat was analyzed (Attachment I; Section 4.1). The evaluation concluded that shellfish habitat suitability is poor due to the historic land use and contamination issues. The open waters of Clam Creek are classified as "Prohibited" shellfish waters by NJDEP and therefore shellfish harvest in Clam Creek is not allowed under any conditions. As the existing waters are classified as "Prohibited", the most restrictive of shellfish harvest categories, the bulkhead replacement project is not anticipated to adversely impact the shellfish growing water classification or contaminate shellfish habitat. The proposed project is in compliance with this requirement.

7:7-9.4 Prime fishing area

Requirement: (a) Prime fishing areas include tidal water areas and water's edge areas which have a demonstrable history of supporting a significant local intensity of recreational or commercial fishing activity. These areas include all coastal jetties, groins, public fishing piers or docks, and artificial reefs. Prime fishing areas also include features such as rock outcroppings, sand ridges or lumps, rough bottoms, aggregates such as cobblestones, coral, shell and tubeworms, slough areas and offshore canyons. Prime

fishing areas also include areas identified in "New Jersey's Recreational and Commercial Fishing Grounds of Raritan Bay, Sandy Hook Bay and Delaware Bay and The Shellfish Resources of Raritan Bay and Sandy Hook Bay" Figley and McCloy (1988) and those areas identified on the map titled, "New Jersey's Specific Sport Ocean Fishing Grounds." This map is available through the Coastal Management Program's website at www.state.nj.gov/dep/cmp.

(b) Standards relevant to prime fishing areas are as follows: 1. Permissible uses of prime fishing areas include recreational and commercial finfishing and shellfishing, as presently regulated by the Department's Division of Fish and Wildlife, scuba diving and other water related recreational activities. 2. Prohibited uses include sand or gravel submarine mining which would alter existing bathymetry to a significant degree so as to reduce the high fishery productivity of these areas. Disposal of domestic or industrial wastes must meet applicable State and Federal effluent limitations and water quality standards.

Compliance: The Project is located on Clam Creek in Atlantic City. According to the Prime Fishing Grounds data layer on N-GeoWeb, Clam Creek is not a prime fishing area. Therefore, the Project is not anticipated to cause an adverse impact to prime fishing area.

7:7-9.5 Finfish migratory pathways

Requirement: (a) Finfish migratory pathways are waterways (rivers, streams, creeks, bays and inlets) which can be determined to serve as passageways for diadromous fish to or from seasonal spawning areas, including juvenile anadromous fish which migrate in autumn and those listed by H.E. Zich (1977) "New Jersey Anadromous Fish Inventory" NJDEP Miscellaneous Report No. 41, and including those portions of the Hudson and Delaware Rivers within the coastal zone boundary. 1. Species of concern include: alewife or river herring (Alosa pseudoharengus), blueback herring (Alosa aestivalis), American shad (Alosa sapidissima), striped bass (Morone saxatilis), Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus), Shortnose sturgeon (Acipenser brevirostrum) and American eel (Anguilla rostrata)

(b) Development, such as dams, dikes, spillways, channelization, tide gates and intake pipes, which creates a physical barrier to the movement of fish along finfish migratory pathways is prohibited, unless acceptable mitigating measures such as fish ladders, erosion control, or oxygenation are used.

(c) Development which lowers water quality to such an extent as to interfere with the movement of fish along finfish migratory pathways or to violate State and Delaware River Basin Commission water quality standards is prohibited.

1. Mitigating measures are required for any development which would result in: lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, entrainment of fish eggs, larvae or juveniles, causing siltation, or raising turbidity levels during migration periods.

(d) Water's edge development which incorporates migration access structures, such as functioning fish ladders, will be conditionally acceptable, provided that the Department's Division of Fish and Wildlife approves the design of the access structure. As of January, 1994, the Department's Division of Fish and Wildlife is evaluating anadromous fish spawning areas for potential enhancement work. This may include building of fish ladders, removal of obstructions, stocking, and other means. A development proposal shall be consistent with these Department efforts.

Compliance: The Project is located on Clam Creek in Atlantic City. The purpose of the project is to construct a bulkhead to replace existing bulkheads that are in disrepair. The proposed bulkhead will not create a physical barrier that prohibits the movement of finfish along migratory pathways. The Project is in compliance with this requirement.

7:7-9.6 Submerged vegetation habitat

Requirement: (a) A submerged vegetation habitat special area consists of water areas supporting or documented as previously supporting rooted, submerged vascular plants such as widgeon grass (Ruppia maritima), sago pondweed (Potamogeton pectinatus), horned pondweed (Zannichellia palustris), and eelgrass (Zostera marina). In New Jersey, submerged vegetation is most prevalent in the shallow portions of the Navesink, Shrewsbury, Manasquan, and Metedeconk Rivers, and in Barnegat, Manahawkin, and Little Egg Harbor Bays. Other submerged vegetation species in lesser quantities include, but are not limited to, the following: water weed (Elodea nuttalli), Eriocaulon parkeri, Liaeopsis chinesis, Naja flexilis, Nuphar variegatum, Potamogeton crispus, Potamogeton epihydrus, Potamogeton perfoliatus, Potamogeton pusillus, Scirpus subterminalis, and Vallisneria americana. Detailed maps of the distribution of the above species for New Jersey, and a method for delineation, are available from the Department in the New Jersey Submerged Aquatic Vegetation Distribution Atlas (Final Report), February, 1980, conducted by Earth Satellite Corporation and also on "Eelgrass Inventory" maps prepared by the Division of Fish and Wildlife, Bureau of Shellfisheries, 1983. If the Department is presented with clear and convincing evidence that a part of its mapped habitat lacks the physical characteristics necessary for supporting or continuing to support the documented submerged vegetation species, such a site would be excluded from the habitat definition.

6. Construction of a single noncommercial dock or pier provided that:

i. There are no practicable or feasible alternatives to avoid impacts to submerged vegetation habitat at the site;

ii. The width of the structure will not exceed four feet, except for that portion of the structure adjacent to the mooring area, where the width and length may not exceed six and 20 feet, respectively;

iii. The pier shall have no more than two designated slips. No boats may be moored at a non-designated pier/dock area;

iv. No more than one pier shall be placed for every building lot and each building lot shall have a forty foot or greater frontage on the water. Where more than one lot has been assembled for the purpose of building, only one pier will be allowed;

v. No dredging shall be performed in conjunction with the use of the dock or pier;

vi. A minimum water depth of four feet at mean low water must be present in the area where the boats will be moored; and
vii. There is no alternative mooring area at the site that would have less impact on the submerged aquatic vegetation;

Compliance: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, submerged vegetation habitat was analyzed (Attachment I; Section 4.2). Based on a review of historic imagery (NETR Online 2022), in the 1920's the site historically supported salt marsh and natural meanders of the Clam Creek. The natural geomorphology of Clam Creek may have been historically suitable to support submerged aquatic vegetation (SAV). In the 1930's, however, the salt marsh and meanders of Clam Creek were filled, with the remainder of Clam Creek excavated to the deepwater conditions that exist today. Due to the historic excavation of native sediments, historic in-water industrial use of the site, and deep-water conditions, the site does not contain suitable habitat for SAV.

It should be noted that the City of Atlantic City has received authorization to dredge in Clam Creek and the surrounding areas. Through this approval it is assumed that the proposed bulkhead project will not result in an adverse impact to submerged vegetation habitat as areas adjacent to the project site is anticipated to be dredged in the near future.

7:7-9.7 Navigational channels

Requirement: (a) Navigation channels are tidal water areas including the Atlantic Ocean, inlets, bays, rivers and tidal guts with sufficient depth to provide safe navigation. Navigation channels include all areas between the top of the channel slopes on either side. These navigation channels are often marked with buoys or stakes. Major navigation channels are shown on NOAA/National Ocean Service Charts.)

(b) Standards relevant to navigation channels are as follows:
1. Development which would cause terrestrial soil and shoreline erosion and siltation in navigation channels shall utilize appropriate mitigation measures;
2. Development which would result in loss of navigability is prohibited;
3. Any construction which would extend into a navigation channel is prohibited;
4. The placement of structures within 50 feet of any authorized navigation channel is discouraged, unless it can be demonstrated that the proposed structure will not hinder navigation;
5. Maintenance dredging, as defined in N.J.A.C. 7:7-12.6, of navigation channels to provide for safe navigation is conditionally acceptable, provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.6 and Appendix G; and
6. New dredging, as defined in N.J.A.C. 7:7-12.7, to expand the depth, length, and/or width of a previously authorized navigational channel to provide for safe navigation is conditionally acceptable provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.7 and Appendix G.

Compliance: According to the National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey Electronic Navigational Charts (ENC) Viewer, there is no marked navigational channel in Clam Creek. The nearest buoy on the chart is located at the confluence of Clam Creek and Absecon Inlet. Additionally, it is noted that there is a Federally sponsored project (Absecon Inlet) which includes an entrance channel from Absecon Inlet into Clam Creek and turning basin (Figure 10). No encroachment on the Federally sponsored project, channel markers, or any channel is proposed. The Project will not adversely impact navigational channels and is in compliance with N.J.A.C. 7:7-9.7.

7:7-9.10 Marina moorings

Requirement: (a) Marina moorings are areas of water that provide mooring, docking and boat maneuvering room as well as access to land and navigational channels for five or more recreational boats.
(b) Non-water dependent development in a marina mooring area is prohibited. (c) Any use that would detract from existing or proposed recreational boating use in marina mooring areas is discouraged.
(d) Rationale: Continued operation of marinas is encouraged since they benefit the State by attracting tourists and associated revenues and by providing recreational opportunities to the estimated 25 percent of residents that go boating in the bays and coastal waters of the State (1977 Eagleton Institute Poll).

Compliance: The Project Site is located adjacent to the Senator Frank S. Farley State Marina which is north of the Project site. Other smaller marina moorings are located within Clam Creek but these mooring areas are not proximate to the Project Site. The proposed bulkhead is not anticipated to adversely impact marina mooring areas within Clam Creek.

7:7-9.11 Ports

Requirement: (a) Ports are water areas having, or lying immediately adjacent to, concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading, and temporary storage.

> *1. Port locations in New Jersey include, among others, Newark, Elizabeth, Bayonne, Jersey City, Weehawken, Hoboken, Woodbridge, Perth Amboy, Camden, Gloucester City, Paulsboro and Salem.*
> *2. Standards for a docking facility or concentration of docks for a single industrial or manufacturing facility are found at N.J.A.C. 7:7-12.4, Docks and piers for cargo and commercial fisheries.*

(b) Any use which would preempt or interfere with port uses of this water area is prohibited.

(c) Shellfish aquaculture and dumping of solid waste or semi-solid waste is prohibited.

(d) Boat ramps for recreational boating are conditionally acceptable provided the ramp complies with all special area rules at N.J.A.C. 7:7-9 and provided it does not interfere with the port use.

(e) Docks and piers for cargo movements are encouraged.

Compliance: The Project Site is located within an area that contains port uses and associated facilities that support maritime commerce. In Clam Creek and Delta Basin there are commercial fishing operations as well as fishing charter operators. The Project Site was once used as a petroleum product storage and distribution facility with a marine loading / unloading capacity to receive petroleum products for distribution.

The proposed bulkhead is located along the existing developed shoreline and the Project will not interfere with port uses. In fact, the proposed bulkhead is intended to support port related uses along Clam Creek and the adjacent basins. The proposed bulkhead complies with this rule.

7:7-9.12 Submerged infrastructure routes

Requirement: (a) (a) A submerged infrastructure route is the corridor in which a pipe or cable runs on or below a submerged land surface.

(b) Any activity which would increase the likelihood of infrastructure damage or breakage, or interfere with maintenance operations is prohibited.

Compliance: Utilizing the NOAA ENC Viewer to view navigational charts there are no submerged infrastructure routes located in the water adjacent to the Project site. A copy of a NOAA chart survey is provided in the figure set in Attachment G. The Project is not anticipated to damage, break, or interfere with any submerged infrastructure routes.

7:7-9.15 Intertidal and subtidal shallows

Requirement: (a) Intertidal and subtidal shallows means all permanently or temporarily submerged areas from the spring high water line to a depth of four feet below mean low water.

(b) Development, filling, new dredging, or other disturbance is discouraged but may be permitted in accordance with (c), (d), (e), (f), (g), and (h) below and with N.J.A.C. 7:7-12.2 through 12.24.

Compliance: Intertidal and subtidal shallows include all permanently or temporarily submerged areas from the spring high water line to a depth of four feet below mean low water.

The City of Atlantic City has received authorization to dredge in Clam Creek and the surrounding areas (NJDEP Permit No. 0102-20-0001.1 LUP210001 and Department of the Army Permit CENAP-OPR-2021-00573-95). Through this approval it is assumed that the

proposed bulkhead project will not result in an adverse impact to intertidal and subtidal shallows as areas adjacent to the project site as anticipated to be dredged in the near future. Therefore, the Project is in compliance with this rule.

7:7-9.18 Coastal high hazard areas

Requirement: (a) Coastal high hazard areas are flood prone areas subject to high velocity waters (V zones) as delineated on FEMA flood mapping, and areas within 25 feet of oceanfront shore protection structures, which are subject to wave run-up and overtopping. The coastal high hazard area extends from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The inland limit of the V zone is defined as the V zone boundary line as designated on FEMA flood mapping or the inland limit of the primary frontal dune, whichever is most landward.

(e) Water dependent development and amusements are conditionally acceptable within coastal high hazard areas provided the development complies with the Federal flood reduction standards at 44 CFR Part 60 and the UCC.

Compliance: Coastal high hazard areas are flood prone areas subject to high velocity (V waters) as delineated on FEMA Flood mapping, and areas within 25 feet of oceanfront shore protection structures, which are subject to wave run-up and overtopping.

The most recent FIRM for the site is an Effective FIRM dated January 20, 2015, which indicates the portion of the site waterward of the mean high waterline is located within a VE zone with a base flood elevation of 12. The portion of the site located landward of the mean high waterline is Zone AE with a base flood elevation of 10.

The proposed bulkhead is a water dependent development and has been designed to comply with Federal flood reduction standards at 44 CFR Part 60 and the UCC therefore it is conditionally acceptable. The Project is in compliance with this rule.

7:7-9.23 Filled water's edge

Requirement: (a) Filled water's edge areas are existing filled water, wetland, or upland areas lying between wetlands or water areas, and either (a)1 or 2 below, whichever is closer to the water:

1. The upland limit of fill; or

2. The first paved public road or railroad landward of the adjacent water area.

(b) Filled water's edge areas shall be determined through analysis of historic data including United States Department of Agriculture soil surveys, Tidelands maps, or aerial photography. Some existing or former dredged material disposal sites and excavation fill areas are filled water's edge.

(d) On filled water's edge sites with direct water access (that is, those sites without extensive intertidal shallows or wetlands between the upland and navigable water), development shall comply with (d)1 through 3 below unless it is demonstrated that a water

dependent use is not feasible on the site in accordance with (e) below. Where it is determined that a water dependent use is not feasible, the site may be developed with a non-water dependent use.

1. Except as provided below, the waterfront portion of the site shall be:

i. Developed with a water dependent use;

ii. Developed with an at-grade deck provided:

(1) The deck is open to the general public;

(2) The use of the deck is water oriented;

(3) The deck is not enclosed; and

(4) A public walkway is provided around the deck landward of the mean high water line at the water's edge; or

iii. Left undeveloped for future water dependent uses;

2. On the remaining non-waterfront portion of the site, provision of additional area devoted to water dependent or water-oriented uses may be required as a special case at locations which offer a particularly appropriate combination of natural features and opportunity for waterborne commerce and recreational boating; and

3. On filled water's edge sites where water dependent and water-oriented uses can coexist with other types of development, a greater mix of land uses may be acceptable or even desirable. In these cases, a reduced waterfront portion, that is, less than that provided by a 100-foot setback, may be acceptable provided that non-water related uses do not adversely affect either access to or use of the waterfront portion of the site.

(g) On filled water's edge sites with an existing or pre-existing water dependent use, that is, one existing at any time since July of 1977, development must comply with the following additional conditions:

1. For sites with an existing or pre-existing marina, development that would reduce the area currently or recently devoted to the marina is acceptable if:

i. For every two housing units proposed on the filled water's edge the existing number of boat slips in the marina mooring area, as defined at N.J.A.C. 7:7-9.10, is increased by one, and at least 75 percent of the total number of slips (existing and new) remain open to the general public. Removal of upland to create slips is acceptable;

ii. Marina services are expanded in capacity and upgraded (that is, modernized) to the maximum extent practicable; and

iii. In-water or off site boat storage capability is demonstrated or upland storage is provided to accommodate at least 75 percent of the marina's boats, as determined by maximum slip capacity, 26 feet in length and longer, and 25 percent of the marina's boats less than 26 feet in length.

2. For sites with an existing or pre-existing water dependent use other than a marina, development that would reduce or adversely affect the area currently or recently devoted to the water dependent use is discouraged.

Compliance: The Atlantic County Soil Survey identifies the Psamments, sulfidic substratum, 0 to 3 percent slopes, frequently flooded (PstAt) soil map unit underlying the landward portion of the site. This is an anthropogenic soil type, indicating fill material.

Filled water's edge areas are existing filled water, wetland, or upland areas lying between wetland or water areas and either the upland limit of fill or the first paved public road or railroad landward of the adjacent water area. Filled water's edge areas are determined through analysis of historic data including United States Department of Agriculture soil surveys, Tidelands maps, or aerial photography. The "waterfront portion" of a filled waters edge site is defined as contiguous area at least equal in size to the area within 100 feet of navigable water, measured from the mean high water line. On filled water's edge sites with direct water access, development generally must be a water dependent use.

The proposed bulkhead will replace the bulkheads in disrepair located at the Project Site and thus support the continued use of the site as part of Atlantic City's commercial maritime waterfront and therefore the proposed Project complies with this rule.

7:7-9.25 Flood hazard areas

Requirement: (a) Flood hazard areas are areas subject to flooding from the flood hazard area design flood, as defined by the Department under the Flood Hazard Area Control Act rules at N.J.A.C. 7:13. Flood hazard areas include those areas mapped as such by the Department, areas defined or delineated as an A or a V zone by FEMA, and any unmapped areas subject to flooding by the flood hazard area design flood. Flood hazard areas are subject to either tidal or fluvial flooding and the extent of flood hazard areas shall be determined or calculated in accordance with the procedures at N.J.A.C. 7:13-3.

Compliance: The most recent Flood Insurance Rate Map (FIRM) for the site is an Effective FIRM dated January 20, 2015, which indicates the portion of the site waterward of the mean high waterline is located within a VE zone with a base flood elevation of 12. The portion of the site located landward of the mean high waterline is Zone AE with a base flood elevation of 10.

The proposed Project requires compliance with the Flood Hazard Area (FHA) Individual Permit (IP) standards under the Flood Hazard Area Control Act Rules (FHACA) N.J.A.C. 7:13). Compliance with the FHACA rules is detailed in Section 5 of this compliance statement. The engineering plans provided in Attachment E and engineering report provided in Attachment I of this application also provide information that demonstrates compliance with the Flood Hazard Area Control Act and the implementing rules (N.J.S.A. 58:16A-50 et seq., N.J.A.C. 7:13).

Requirement: (c) Dedication of flood hazard areas for purposes of public open space is encouraged.

Compliance: The purpose of the Project is to stabilize the shoreline where the existing bulkhead is in disrepair. The Site has been historically used to support port operations and is a suitable location for future use of this kind.

Requirement: (d) In an undeveloped portion of a flood hazard area that is within 100 feet of a navigable waterbody, development is prohibited unless the development is one or two single-family homes or duplexes in accordance with N.J.A.C. 7:7-15.2(e) or is for a water

dependent use. "Navigable" and "water dependent" are defined at N.J.A.C. 7:7-1.5. For the purposes of this subsection and (e) below, an "undeveloped" area is an area that has no impervious cover.

Compliance: The purpose of the proposed bulkhead is to stabilize the shoreline at the Project Site. Based on the site's proximity to tidal waters, any future use of the site will be the subject of a separate CAFRA application which will be evaluated for compliance with N.J.A.C. 7:7-9.25. The proposed Project complies with the provisions of N.J.A.C. 7:7-9.25(d) and the provisions of N.J.A.C. 7:7-9.25(e) are not applicable.

Requirement: (f) Development in flood hazard areas shall conform with the applicable design and construction standards of the following:

1. The Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., and implementing rules at N.J.A.C. 7:13, except in lands regulated under the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., pursuant to N.J.S.A. 58:16A-60;

2. The Uniform Construction Code, N.J.A.C. 5:23; and

3. The Federal flood reduction standards, 44 C.F.R. Part 60.

Compliance: Compliance with the FHACA rules (N.J.A.C. 7:13) is detailed in Section 5 of this compliance statement. The engineering plans provided in Attachment E and engineering report provided in Attachment I of this application demonstrate compliance with the Flood Hazard Area Control Act and the implementing rules (N.J.S.A. 58:16A-50 et seq., N.J.A.C. 7:13), the Uniform Construction Code (N.J.A.C. 5:23), and the Federal flood reduction standards (44 C.F.R. Part 60).

Requirement: (g) Development in a flood hazard area shall comply with the requirements for impervious cover and vegetative cover under N.J.A.C. 7:7-13.

Compliance: The proposed Project consists of construction of a bulkhead to stabilize the shoreline waterward of the mean high water line. This work will also result in grading within the landward portion of the site which is subject to CAFRA. In accordance with N.J.A.C. 7:7-13.17(g), the allowable impervious cover is 100 percent since historically the site was entirely covered by impervious surfaces. However, impervious surfaces are not proposed as part of this project therefore the Project is in compliance with the requirement.

7:7-9.26 Riparian zones

Requirement: (a) A riparian zone is the land and vegetation within and adjacent to a regulated water. A riparian zone exists along both sides of every regulated water and includes the regulated water itself…

(h) Development in riparian zones shall conform with the requirements of the Flood Hazard Area Control Act Rules for a permit-by-rule at N.J.A.C. 7:13-6 and 7, a general permit-by certification at N.J.A.C. 7:13-6 and 8, a general permit at N.J.A.C. 7:13-6 and 9, or an individual permit at N.J.A.C. 7:13-10, 11, and 12, as applicable.

Compliance: The proposed Project is located on New Jersey' barrier island complex and therefore, pursuant to N.J.A.C. 7:13-23(c) 1(ii), a riparian zone does not exist on the site. This requirement is not applicable to the Project.

7:7-9.27 Wetlands

Requirement: (a)Wetlands or wetland means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation….

Compliance: The Project is predominantly located along the shoreline of Clam Creek however grading activities will occur landward of the mean high water line.

A site visit performed by DuBois & Associates, and review of NJDEP GeoWeb indicated the absence of vegetation or hydrology to support the presence of wetlands and concluded that wetlands are not present on the Project Site. The proposed project will not result in the disturbance of wetlands or transition areas regulated pursuant to the Freshwater Wetland Protection Act (N.J.S.A. 13:9B) or the Wetlands Act of 1970 (N.J.S.A. 13:9A). The project is in compliance with this requirement.

7:7-9.36 Endangered or threatened wildlife or plant species

Requirement: (a) Endangered or threatened wildlife or plant species habitats are terrestrial and aquatic (marine, estuarine, or freshwater) areas known to be inhabited on a seasonal or permanent basis by or to be critical at any stage in the life cycle of any wildlife or plant identified as "endangered" or "threatened" species on official Federal or State lists of endangered or threatened species, or under active consideration for State or Federal listing. The definition of endangered or threatened wildlife or plant species habitats includes a sufficient buffer area to ensure continued survival of the population of the species as well as areas that serve an essential role as corridors for movement of endangered or threatened wildlife. Absence of such a buffer area does not preclude an area from being endangered or threatened wildlife or plant species habitat….

Compliance: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, endangered or threatened wildlife and plant species habitat was analyzed (Attachment I; Section 4.3). The following species were identified on and within the vicinity of the site using NJDEP Landscape Project Version 3.3 map data.

Wildlife Species	**State Status**	**Land Cover Type**
Osprey	Threatened	Tidal Rivers, Inland Bays, and Other Tidal Waters
Yellow-crowned Night-heron	Threatened	Foraging
Black-crowned Night-heron	Threatened	Foraging
Peregrine Falcon	Endangered	Nest
Least Tern	Endangered	Foraging

Black Skimmer	Endangered	Foraging

The Habitat Evaluation includes an analysis of each species listed above and concluded that replacement of the bulkhead along the waterfront will not adversely impact the quality or quantity of suitable open-water foraging habitat. The site is absent of tall structures that could provide for a suitable peregrine falcon nesting site, and the Project will not prohibit falcons from pursuing aerial hunting in the local area. There are no active osprey nests located on the Project Site or within the vicinity; therefore, the Project is not anticipated to have any effect on osprey. The Project would not adversely impact endangered or threatened wildlife species and therefore complies with N.J.A.C. 7:7-9.36.

7:7-9.37 Critical wildlife habitat

Requirement: (a) Critical wildlife habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating.

Compliance: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, critical wildlife habitat was analyzed (Attachment I; Section 4.4). The evaluation concluded that in light of the disturbed/developed nature of the terrestrial portion of the site, there are no vegetation communities or natural areas that would represent critical stopover habitat for migratory birds. Additionally due to the urban landscape, there are no functional greenway corridors that provide for wildlife movements. Wildlife habitats are absent from the site therefore the Project is in compliance with N.J.A.C. 7:7-9.37.

7:7-9.38 Public open space

Requirement: (a) Public open space constitutes land areas owned or maintained by State, Federal, county and municipal agencies or private groups (such as conservation organizations and homeowner's associations) and used for or dedicated to conservation of natural resources, public recreation, visual or physical public access or, wildlife protection or management. Public open space also includes, but is not limited to, State Forests, State Parks, and State Fish and Wildlife Management Areas, lands held by the New Jersey Natural Lands Trust (N.J.S.A. 13:1B-15.119 et seq.), lands held by the New Jersey Water Supply Authority (N.J.S.A. 58:1B-1 et seq.) and designated Natural Areas (N.J.S.A. 13:1B-15.12a et seq.) within DEP-owned and managed lands.

(b) New or expanded public or private open space development is encouraged at locations compatible or supportive of adjacent and surrounding land uses.

(c) Development that adversely affects existing public open space is discouraged.

(d) Development within existing public open space is conditionally acceptable, provided that the development is consistent with the character and purpose of public open space, as described by the park master plan when such a plan exists.

(e) Development in Atlantic City is acceptable within existing public open space provided the public open space is a street right-of-way or the Boardwalk and the development meets the standards of N.J.A.C. 7:7-9.47(e) through (j).

(f) Provision of barrier free access to public open space is encouraged.

(g) All new development adjacent to public open space will be required to provide an adequate buffer area and to comply with the buffers and compatibility of uses rule, N.J.A.C. 7:7-16.11. The buffer required will be dependent upon adjacent land uses and potential conflicts between users of public open space and the proposed adjacent land use.

Compliance: The Site has been historically used to support port uses and is a suitable location for future use of this kind. The Project Site is not publicly owned and does not contain public open space. The Project is not anticipated to adversely impact public open space.

7:7-9.39 Special hazard areas

(a) Special hazard areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas, potential evacuation zones, and areas where hazardous substances as defined at N.J.S.A. 58:10-23.11b are used or disposed, including adjacent areas and areas of hazardous material contamination.

(b) Coastal development, especially residential and labor-intensive economic development, within special hazard areas is discouraged. All development within special hazard areas must include appropriate mitigating measures to protect the public health and safety.

(c) Approvals from the Department's Solid and Hazardous Waste Program shall be obtained prior to the commencement of any hazardous substance investigations or cleanup activities at contaminated sites.

(d) Rationale: Management of the coastal zone requires a concern for development that would directly or indirectly increase potential danger to life and property. Mitigating measures such as height limits near airports, evacuation plans for industrial and energy facilities and monitoring and/or clean-up programs for materials in soil and water near hazardous waste facilities may adequately address the concern in this area.

Compliance: Special Hazard Areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property. Block 567, Lot 2 was formerly utilized as a marine bulk petroleum storage and distribution facility and has been subject to environmental investigations since the early 1990s. Following these investigations, the NJDEP had issued No Further Action (NFA) letters for the soil and groundwater at the Site. However, several Recognized Environmental Conditions (RECs) were identified in the 2021 Phase I ESA that were not identified or addressed in prior environmental investigations. The responsible party has hired a Licensed Site Remediation Professional (LSRP) to address historic fill and other areas on Site and has been monitoring

the groundwater as part of the conditions of the NFA. The responsible party is in the process of preparing a Request for Closure report for the NJDEP. The proposed bulkhead will establish a barrier to prevent potential migration of onsite issues.

7:7-9.41 Special urban areas

Requirement: (a) Special urban areas are those municipalities defined in urban aid legislation (N.J.S.A. 52:27D-178) qualified to receive State aid to enable them to maintain and upgrade municipal services and offset local property taxes. Under N.J.S.A. 52:27D-178 et seq., the Department of Community Affairs (DCA) establishes a list of qualifying municipalities each fiscal year. DCA's list of qualifying municipalities may be obtained on request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

(b) Development that will help to restore the economic and social viability of special urban areas is encouraged. Development that would adversely affect the economic well being of these areas is discouraged, when an alternative which is more beneficial to the special urban areas is feasible. Development that would be of economic and social benefit and that serves the needs of local residents and neighborhoods is encouraged.

Compliance: The subject site is located in the City of Atlantic City which is listed on the 2023 Urban Aid List to which this rule would apply. Pursuant to N.J.A.C. 7:7-9.41(b), development that will help to restore the economic and social viability of special urban areas is encouraged. The proposed Project will stabilize conditions at a waterfront site, thereby securing a parcel that has the potential to be developed in the future. Future development of the site would improve the City's ratable base and help to sustain and expand the local economy. The Project complies with this rule.

7:7-9.47 Atlantic City

Requirement: (a) Atlantic City is those lands within the municipal boundary of the City of Atlantic City….

(m) Rationale: The Department first established the Atlantic City special area on February 7, 2000, to encourage redevelopment of Atlantic City and its beach and oceanfront facilities in recognition of Atlantic City's unique situation based on the 1976 referendum approving casino gambling in the city. The rule was developed with extensive cooperation between the Department and the Atlantic City Mayor's office and Planning Department. The goals of this rule are to: (1) provide a predictable permitting process for proposed developments in Atlantic City; (2) promote tourism; (3) maintain, enhance, and promote continued public access to the Atlantic Ocean and Absecon Inlet waterfront and adjacent beach areas; (4) allow Atlantic City to compete in the future with other gaming resorts throughout the nation; and (5) enable the city to reach its stated goals of becoming a world-class resort. The rule reflects the existing intensity of development in Atlantic City and the importance of the gaming industry to the continued enhancement of the tourist-oriented resort economy, and recognizes the need to promote continued public-use and tourism-related development. This is consistent with the goals of the Coastal Area Facility Review

Act to promote multiple uses that support diversity and are in the best long-term, social, economic, aesthetic, and recreational interests of all the people of the State.

Compliance: The Project Site is located within the municipal boundary of the City of Atlantic City. However, this section of the rules focuses on development along the beach and ocean front. The site is not located on the beach or the ocean front of Atlantic City therefore the proposed work is in compliance with this rule.

7:7-9.48 Lands and waters subject to public trust rights

Requirement: (a) Lands and waters subject to public trust rights are tidal waterways and their shores, including both lands now or formerly below the mean high water line, and shores above the mean high water line. Tidal waterways and their shores are subject to the Public Trust Doctrine and are held in trust by the State for the benefit of all the people, allowing the public to fully enjoy these lands and waters for a variety of public uses. Public trust rights include public access which is the ability of the public to pass physically and visually to, from and along the ocean shore and other waterfronts subject to public trust rights and to use these lands and waters for activities such as navigation, fishing and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public trust rights also include the right to perpendicular and linear access.

(b) Public access to lands and waters subject to public trust rights shall be provided in accordance with the public access rule, N.J.A.C. 7:7-16.9. Development that does not comply with N.J.A.C. 7:7-16.9, Public access, is discouraged in lands and waters subject to public trust rights.

Compliance: The Project Site was once used as a petroleum product storage and distribution facility. The Project consists of replacement of a bulkhead in disrepair. During previous operation of the site as a petroleum product storage and distribution facility there was no public access. Pursuant to N.J.A.C. 7:7-16.9 (k)5ii, since the commercial development had no existing public access, then no public access is required. The Project complies with this rule as well as with the Public Access Rule (N.J.A.C. 7:7-16.9).

4.3 Subchapter 12. General Water Area

7:7-12.11 Filling

Requirement:(a) Filling is the deposition of material including, but not limited to, sand, soil, earth, and dredged material, into water areas for the purpose of raising water bottom elevations to create land areas.

(b) Filling is prohibited in lakes, ponds, reservoirs, and open bay areas at greater than 18 feet as defined at N.J.A.C. 7:7-12.1, unless the filling is consistent with the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A..

(e) Except as provided in (b) through (d) above, filling is discouraged in all other water areas. In cases where there is no alternative to filling, filling is conditionally acceptable provided:

1. The use that requires the fill is water dependent;
2. There is a demonstrated need that cannot be satisfied by existing facilities;
3. There is no feasible or practicable alternative site on an existing water's edge;
4. The minimum practicable area is filled;
5. The adverse environmental impacts are minimized, for example, by compensating for the loss of aquatic habitat by creation of an area of equivalent or greater environmental value elsewhere in the same estuary;
6. Minimal feasible interference is caused to special areas, as defined at N.J.A.C. 7:7-9; and
7. Pilings and columnar support or floating structures are unsuitable for engineering or environmental reasons.

(f) Mitigation shall be required for the filling of tidal water areas in accordance with N.J.A.C. 7:7-17. Mitigation shall not be required for the following:

1. Filling in accordance with N.J.A.C. 7:7-12.11(c);
2. Beach nourishment in accordance with N.J.A.C. 7:7-15.11(f);
3. Construction of a replacement bulkhead in accordance with N.J.A.C. 7:7-15.11(d)2i or ii;
4. Establishment of living shorelines in accordance with N.J.A.C. 7:7-12.23; and
5. Construction of a boat ramp in accordance with N.J.A.C. 7:7-12.3.

Compliance: General water areas are all water areas which are located below either the spring high water line or the normal water level of non-tidal waters. Clam Creek meets the definition of man-made harbors which are *semi-enclosed or protected water areas which have been developed for boat mooring or docking*. Construction of the proposed bulkhead will result in filling a water area. The proposed bulkhead will allow for bank stabilization and prevent further erosion of the waterfront property. The Site has been historically used to support port operations and remains a suitable location for such uses pending the replacement of the site's bulkhead. The Applicant is proposing to fill 1,082 SF of water area. The proposed area of fill is the minimum practicable to safely construct the bulkhead. The entire length of bulkhead cannot be constructed within 18 to 24 inches of the existing bulkhead due to the presence of obstructions and debris at the current top of sediment grade.

Possible alternative locations for the proposed bulkhead were assessed: a location further landward of the proposed bulkhead location and a location further waterward of the proposed bulkhead location. Installing the bulkhead more landward than proposed would increase excavation and disturbance of Clam Creek adjacent to a remediated site. The increased disturbance outbound of the existing non-functioning shoreline protection would result in an increase in the potential for the dispersion of sediments and an associated increase in the potential for impacts to water quality.

An alternate location that is further waterward from the existing shoreline protection would increase the likelihood that all buried obstructions would be avoided. However, this would

also result in significantly more fill than the proposed location. The proposed location meets the purpose and need of the Project while minimizing potential adverse impacts.

4.4 Subchapter 13. Requirements for Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas General Location Rules

7:7-13.17 Impervious cover limits for a site in the CAFRA area

Requirement: (g) For the purposes of determining impervious cover limits under (c)3, (d)2, (e)3, and (f)2 above, the amount of existing impervious cover is the highest of the following, provided the impervious cover was legally placed on the site:

1. The amount of impervious cover located on the site at the time the application is submitted to the Department;

2. The amount of impervious cover that appears on the applicable 95-97 imagery; or

3. The amount of impervious cover that was placed under the authority of a coastal permit and after the date the photography was performed for the imagery in (g)2 above.

Compliance: The proposed Project consists of construction of a bulkhead to stabilize the shoreline waterward of the mean high water line. This work will also result in grading within the landward portion of the site which is subject to CAFRA. In accordance with N.J.A.C. 7:7-13.17(g), the allowable impervious cover is 100 percent since historically the site was covered by impervious surfaces. The applicable 95-97 imagery depicting 100 percent impervious cover on the Project site is provided as Figure 9 (Attachment G). However, impervious surfaces are not proposed as part of this project therefore the Project is in compliance with the requirement.

4.5 Subchapter 14. General Location Rules

7:7-14.2 Basic location rule

Requirement: (a) A location may be acceptable for development under N.J.A.C. 7:7-9, 12, 13, and 14, but the Department may reject or conditionally approve the proposed development of the location as reasonably necessary to:

1. Promote the public health, safety, and welfare;

2. Protect public and private property, wildlife and marine fisheries; and

3. Preserve, protect and enhance the natural environment.

Compliance: The proposed bulkhead will allow for bank stabilization and prevent the further erosion of the waterfront property. Restoration of shoreline protection will protect property and prevent impacts to natural resources by stopping erosion into Clam Creek. The Site has been historically used to support port operations and is a suitable location for future use of this kind.

7:7-14.3 Secondary impacts

Requirement: (a) Secondary impacts are the effects of additional development likely to be constructed as a result of the approval of a particular proposal. Secondary impacts can also include traffic increases, increased recreational demand and any other offsite impacts generated by onsite activities which affect the site and surrounding region.

Compliance: The Project is not anticipated to create adverse secondary impacts such as increased traffic, increased recreational demand or any other offsite impacts to the surrounding region.

4.5 Subchapter 15. Use Rules

7:7-15.11 Coastal engineering

Requirement: (b) Nonstructural, hybrid, and structural shore protection and/or storm damage reduction measures shall be used according to the following hierarchy:

1. Non-structural shore protection and/or storm damage reduction measures that allow for the growth of vegetation shall be used unless it is demonstrated that use of non-structural measures is not feasible or practicable. Factors considered in determining whether use of a non-structural measure is feasible include the type of waterway on which the site is located, the distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat, submerged vegetation and wetlands at the site. For guidance on measures that may be appropriate depending upon factors impacting a site, see Guidance for Appropriate Shoreline Protection and/or Storm Damage Reduction Measures for a Site available from the Division of Land Use Regulation's website at https://www.nj.gov/dep/landuse/guidance.html. This guidance follows N.J.S.A 52:14B-3a and does not impose any new or added requirements nor can it be used for enforcement purposes.

2. Where the use of non-structural shore protection and/or storm damage reduction measures under (b)1 above is demonstrated to be not feasible or practicable, then hybrid shore protection and/or storm damage reduction measures that allow for the growth of vegetation, such as stone, rip-rap, sloped concrete articulated blocks or similar structures, or gabion revetments, shall be used. Factors considered in determining whether use of a non-structural measure is feasible include the type of waterway on which the site is located, the distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat.

3. Where the use of hybrid shore protection and/or storm damage reduction measures under (b)2 above is demonstrated to be not feasible or practicable, then structural shore protection and/or storm damage reduction measures such as bulkheads, revetments, sea walls, or other retaining structures shall be used. Factors considered in determining whether use of a hybrid shore protection measure is feasible include the type of waterway on which the site is located, the

distance to the navigation channel, the width of waterway, water depth at the toe of bank, the bank orientation, shoreline slope, fetch, erosion rate, the amount of sunlight the site receives, substrate composition, and presence of shellfish habitat.

Compliance: The proposed Project includes the construction of a bulkhead to replace existing shoreline protection that is in disrepair. Clam Creek meets the definition of man-made harbors which are *semi-enclosed or protected water areas which have been developed for boat mooring or docking*. The Site has been historically used to support port operations. The use of a non-structural shoreline protection is not feasible given the location and configuration of surrounding in-water structures, navigational channels and characteristics of the waterbody.

Requirement: (c) The hierarchy set forth at (b) above does not apply to water dependent uses within existing ports.

Compliance: The Site has been historically used to support port operations; therefore, it is anticipated the hierarchy set forth at (b) above does not apply.

Requirement: (d) The construction, maintenance, or reconstruction of a bulkhead shall comply with the following:

1. A bulkhead that is subject to wave runup forces, specifically, a bulkhead in a V zone as described at N.J.A.C. 7:7-9.18, shall be designed and certified by a professional engineer to withstand the forces of wave runup. The use of rip-rap along the seaward toe of the bulkhead structure may be required on a case-by-case basis as a means to limit the scour potential;

2. Maintenance or reconstruction of an existing bulkhead is conditionally acceptable provided that it meets (d)2i, ii, or iii below. All measurements specified below shall be made from the waterward face of the original bulkhead alignment of the existing bulkhead to the waterward face of the replacement bulkhead.

i. The replacement bulkhead is located within 18 inches outshore of the existing bulkhead, except in accordance with (d)2ii or iii below;

ii. The replacement bulkhead is located no more than 24 inches outshore of the existing bulkhead when the replacement bulkhead is constructed of a corrugated material, and the replacement bulkhead is located as close as possible to the face of the existing bulkhead; or

iii. Maintenance or reconstruction of an existing bulkhead that does not meet (d)2i or ii above shall be considered new construction, unless it can be demonstrated that the existing bulkhead cannot physically accommodate a replacement in accordance with (d)2i or ii above. In that case, the replacement bulkhead shall be as close as physically possible to the original bulkhead alignment.

Compliance: The proposed bulkhead is located in a V zone therefore has been designed and certified by a professional engineer to withstand the forces of wave runup. The Project is for replacement of existing shoreline protection in disrepair.

The Project site parcel is irregularly-shaped and the existing bulkheads do not have a uniform alignment along Clam Creek. Moreover, there is evidence of notable obstructions (e.g. concrete blocks/debris) along the water's edge. Due to these conditions, it is not practicable for the entire length of proposed bulkhead face at the shoreline to be located 24-inches waterward of the existing Clam Creek bulkhead face.

The existing bulkheads do not have a uniform material construction or uniform alignment running north to south along Clam Creek. This existing varying alignment may be due to the stages of original construction or the bulkhead's disrepair condition. The rationale in locating the proposed bulkhead was to both avoid anticipated obstructions and correct the varying alignment by aligning the proposed bulkhead uniformly with the north-south property lines of the Project site at Clam Creek and Maryland Avenue while complying with N.J.A.C. 7:7-15.11, especially N.J.A.C. 15.11(d)2iii given the anticipated obstructions. Using this rationale, the proposed bulkhead respects the property boundary at the south end of the parcel, then jogs east to a point where the bulkhead face is 24-inches waterward of the existing bulkhead, then runs north, parallel to the Clam Creek and Maryland Avenue property lines, to the northern boundary of the Project parcel. Where the north-south line of the proposed bulkhead meets the Project parcel's northern property boundary line, the proposed bulkhead waterward face ends up seven (7) feet off the waterward face of the existing bulkhead at this location.

The total length of proposed new bulkhead is 541 linear feet (LF), broken down by location below.

- 243 LF of SSP bulkhead length along Clam Creek within the subject parcel.
- 105 LF of SSP bulkhead length where the Project site (Lot 2) line coincides with the Lot 1 property line along Clam Creek.
- 92 LF of SSP bulkhead to return the bulkhead along the south property boundary west to Maryland Avenue.
- 101 LF of SSP bulkhead to return the bulkhead along the north property boundary west to Maryland Avenue.

<u>Requirement:</u> *(e) Dune restoration, creation, and maintenance projects as non-structural shore protection and/or storm damage reduction measures, are encouraged. These projects, including sand fencing, revegetation, additions of non-toxic appropriately sized material, and measures to control pedestrian and vehicular traffic, shall comply with N.J.A.C. 7:7-10, Standards for Beach and Dune Activities.*

<u>Compliance:</u> The Project does not include dune restoration, creation or maintenance project, therefore this requirement is not applicable.

<u>Requirement:</u> *(f) Beach nourishment projects as non-structural shore protection and/or storm damage reduction measures are encouraged, provided:*

1. The particle size and type of the fill material is compatible with the existing beach material to ensure that the new material will not be removed to a greater extent than the existing material would be by normal tidal fluctuations;

2. The elevation, width, slope, and form of the proposed beach nourishment projects are compatible with the characteristics of the existing beach;
3. The sediment deposition will not cause unacceptable shoaling in downdrift inlets and navigation channels;
4. Public access to the nourished beach is provided in accordance with the lands and waters subject to the public trust rights rule, N.J.A.C. 7:7-9.48, and the public access rule, N.J.A.C. 7:7-16.9.

Compliance: The Project does not include beach nourishment; therefore this requirement is not applicable.

Requirement: (g) Structural shore protection and/or storm damage reduction measures that are conducted using monies from the Shore Protection Fund established by N.J.S.A. 13:19-16 and/or any other Department monies shall comply with (g)1 and 2 below.

1. The construction of new shore protection structures or expansion or fortification of existing shore protection structures, including, but not limited to, jetties, groins, seawalls, bulkheads, gabions, and other retaining structures to retard longshore transport and/or to prevent tidal waters from reaching erodible material, is acceptable only if the structure meets all of the following conditions:

i. The structure is essential to protect water dependent uses or heavily used public recreation beach areas in danger from tidal waters or erosion, or the structure is essential to protect existing structures and infrastructure in developed shorefront areas threatened by erosion, or the structure, for example, a retained earthen berm, is essential to mitigate the projected erosion in an erosion hazard area along a headland and provide erosion protection for a development that is otherwise acceptable under this chapter;

ii. The structure will not cause significant adverse impacts on local shoreline sand supply;

iii. The structure will not create net adverse shoreline sand movement downdrift, including erosion or shoaling;

iv. The structure will cause minimum feasible adverse impact to living marine and estuarine resources;

v. The structure is consistent with the State's Shore Protection Master Plan; and

vi. If the proposed project requires filling of a water area, the filling is consistent with the filling rule, N.J.A.C. 7:7-12.11, and all other applicable rules in this chapter; and

2. Public access to the shore protection project shall be provided in accordance with the lands and waters subject to public trust rights rule, N.J.A.C. 7:7-9.48 and the public access rule, N.J.A.C. 7:7-16.9.

Compliance: The Project is being privately funded and not being conducted using monies from the Shore Protection Fund or any other Department monies. This requirement is not applicable to the Project.

4.6 Subchapter 16. Resource Rules

7:7-16.2 Marine fish and fisheries

Requirement: (b) Any activity that would adversely impact the natural functioning of marine fish, including the reproductive, spawning and migratory patterns or species abundance or diversity of marine fish, is discouraged. In addition, any activity that would adversely impact any New Jersey based marine fisheries or access thereto is discouraged, unless it complies with (c) below.

(c) The following coastal activities are conditionally acceptable provided that the activity complies with the appropriate general water area rule(s) at N.J.A.C 7:7-12;

1. Construction of submerged cables and pipelines;

2. Sand and gravel mining to obtain material for beach nourishment, provided:

i. The beach nourishment project is in the public interest;

ii. There are no alternative borrow sites that would result in less impact to marine fish and fisheries;

iii. Any alteration of existing bathymetry within prime fishing areas, as defined at N.J.A.C. 7:7-9.4, does not reduce the high fishery productivity of these areas; and

iv. Measures are implemented to minimize and compensate for impacts to marine fish and fisheries; and

3. The establishment of Aquaculture Development Zones in accordance with N.J.S.A. 4:27- 1 et seq. and any rules developed and adopted pursuant thereto;

4. The establishment of living shorelines to protect, restore, or enhance a habitat area, in accordance with N.J.A.C. 7:7-12.23; and

5. Construction of a recreational dock or pier in accordance with N.J.A.C. 7:7-12.5.

Compliance: The purpose of the proposed bulkhead is bank stabilization and the prevention of further erosion at the Project Site. Construction of the bulkhead is anticipated to reduce water quality impacts resulting from the long-term erosion that has been occurring at this site. The Project is in compliance with the marine fish and fisheries resource rule.

7:7-16.3 Water quality

Requirement: (b) Coastal development which would violate the Federal Clean Water Act, or State laws, rules and regulations enacted or promulgated pursuant thereto, is prohibited. In accordance with N.J.A.C. 7:15 concerning the Water Quality Management Planning and Implementation process, coastal development that is inconsistent with an approved Water Quality Management (208) Plan under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., is prohibited.

Compliance: The proposed bulkhead is not a sewerage generating structure and, therefore, this rule is not applicable.

7:7-16.4 Surface water use

Requirement: (b) Coastal development shall demonstrate that the anticipated surface water demand of the facility will not exceed the capacity, including phased planned increases, of the local potable water supply system or reserve capacity, and that construction of the facility will not cause unacceptable surface water disturbances, such as drawdown, bottom scour, or alteration of flow patterns.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Basin, Delaware River Basin Commission requirements for groundwater withdrawal and water diversion rights.

Compliance: There is no surface water use proposed by the Project.

7:7-16.5 Groundwater use

Requirement: (b) Coastal development shall demonstrate, to the maximum extent practicable, that the anticipated groundwater withdrawal demand of the development, alone and in conjunction with other groundwater diversions proposed or existing in the region, will not cause salinity intrusions into the groundwaters of the zone, will not degrade groundwater quality, will not significantly lower the water table or piezometric surface, or significantly decrease the base flow of adjacent water sources. Groundwater withdrawals shall not exceed the aquifer's safe yield.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Basin, Delaware River Basin Commission requirements for groundwater withdrawal and water diversion rights.

Compliance: There is no groundwater use proposed by the Project.

7:7-16.6 Stormwater management

Requirement: If a project or activity meets the definition of "major development" at N.J.A.C. 7:8-1.2, then the project or activity shall comply with the Stormwater Management rules at N.J.A.C. 7:8.

Compliance: The Project does not meet the definition of "major development" at N.J.A.C. 7:8-1.2, therefore compliance with N.J.A.C. 7:7-16.6 is not applicable.

7:7-16.7 Vegetation

Requirement: (b) Coastal development shall preserve, to the maximum extent practicable, existing vegetation within a development site. Coastal development shall plant new vegetation, particularly appropriate coastal species, native to New Jersey to the maximum extent practicable.

Compliance: The Project site is currently vacant with minimal vegetation consisting of succession grassland. Once the bulkhead is constructed and associated grading is complete

the landward portion of the site will be seeded and stabilized in compliance with Soil Erosion and Control Standards. The Project is in compliance with this resource rule.

7:7-16.8 Air quality

Requirement: (b) Coastal development shall conform to all applicable State and Federal regulations, standards and guidelines and be consistent with the strategies of New Jersey's State Implementation Plan (SIP). See N.J.A.C. 7:27 and New Jersey SIP for ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, lead, and visibility.

Compliance: During the construction phase, emissions will occur from construction equipment and trucks hauling materials and equipment. Operators will be directed to turn off motors while the vehicles and equipment are not in use. Following construction, no significant adverse impacts to local air quality are anticipated because bulkhead does not include any features/ items that release emissions. Accordingly, the proposed Project will comply with N.J.A.C. 7:7-16.8(b).

Requirement: (c) Coastal development shall be located and designed to take full advantage of existing or planned mass transportation infrastructures and shall be managed to promote mass transportational services, in accordance with the traffic rule, N.J.A.C. 7:7-16.12.

Compliance: The proposed bulkhead will not generate additional traffic or visits to the site. Accordingly, this requirement is not applicable to the Project.

7:7-16.9 Public access

Requirement: (a) Public access to the waterfront is the ability of the public to pass physically and visually to, from, and along tidal waterways and their shores and to use such shores, waterfronts and waters for activities such as navigation, fishing, and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public accessways and public access areas include streets, paths, trails, walkways, easements, paper streets, dune walkovers/walkways, piers and other rights-of way. No authorization or approval under this chapter shall be deemed to relinquish public rights of access to and use of lands and waters subject to public trust rights in accordance with N.J.A.C.7:7-9.48. Further, no authorization or approval under this chapter shall be considered a Tidelands approval or shall exempt an applicant from the obligation to obtain a Tidelands approval, if needed.

(b) In addition to the broad coastal goals outlined at N.J.A.C. 7:7-1.1(c), public access shall be provided in a manner designed to achieve the following public access goals:

> *1. All levels of government in New Jersey shall seek to create and enhance opportunities for public access to tidal waterways and their shores, on a non-discriminatory basis;*
> *2. All existing public access to, and along tidal waterways and their shores shall be maintained to the maximum extent practicable;*

3. New development shall provide opportunity for public access to tidal waterways and their shores on or offsite;

i. Public access proposed by an applicant may include any one or combination of the following:

(1) A public accessway designed in accordance with (u) below, located parallel to the shoreline with perpendicular access;

(2) A boat ramp, pier, fishing, or other direct access to the waterway;

(3) A waterfront pocket park;

(4) Public restrooms to accommodate those utilizing public access; and/or

(5) Additional public parking to accommodate those utilizing public access;

ii. Public access proposed by an applicant shall incorporate, to the maximum extent practicable, fishing access and associated amenities, including parking that accommodates nighttime fishing for a reasonable duration of time, on or adjacent to tidal waterways and their shores. In the case of a beach, fishing access shall not be required in areas designated for swimming during hours designated for swimming.

4. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create conditions that may be reasonably expected to endanger public health or safety, or damage the environment. To that end, public access may be restricted seasonally, hourly, or in scope (for example, access restricted to a portion of the property, or access allowed for fishing but not swimming due to consistent strong currents); and

5. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create a significant homeland security vulnerability, as determined by the Department in consultation with the New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security. Therefore, public access may be prohibited in locations where homeland security concerns are present or where it is not practicable based on the risk of injury from hazardous operations or substantial permanent obstructions, and no measures can be taken to avert these risks.

5. Ports, as defined at N.J.A.C. 7:7-9.11, shall provide both visual and physical access as follows:

i. For existing ports, public access shall be provided as follows:

(1) No public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent onsite public access shall be provided. If it can be demonstrated that continued onsite public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no measures can be taken to avert these risks, equivalent public access shall be provided offsite on the same waterway and within the same municipality as the development. The Department shall consider factors such as the type of public access

available (for example, if linear or visual access is available onsite then linear or visual access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite.

(2) If the applicant demonstrates that offsite public access within the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (k)5i(1) above, equivalent offsite public access shall be provided on the same waterway within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

ii. For new ports, no public access is required.

Compliance: The site is adjacent to the Senator Frank S. Farley Marina, which provides significant public access opportunities.

The Project Site was formerly a petroleum product storage and distribution facility with a marine loading / unloading capacity to receive petroleum products for distribution. The Project consists of the replacement of a bulkhead that is in disrepair. The site does not provide public access. Pursuant to N.J.A.C. 7:7-16.9 (k)5, no public access is required.

7:7-16.10 Scenic resources and design

Requirement: (c) New coastal development that is visually compatible with its surroundings in terms of building and site design, and enhances scenic resources is encouraged. New coastal development that is not visually compatible with existing scenic resources in terms of large-scale elements of building and site design is discouraged.

Compliance: The proposed bulkhead is consistent with CZM rules governing scenic resources and design. As mentioned in other sections of this document, the project is located along the shoreline of Clam Creek with Senator Frank S. Farley Marina to the northwest and commercial fishing operations to the southeast. The proposed Project is consistent with the surrounding uses and the proposed bulkhead will improve scenic resources by eliminating the bulkheads that are in disrepair that are present at the site.

7:7-16.11 Buffers and compatibility of uses

Requirement: (a) Buffers are natural or man-made areas, structures, or objects that serve to separate distinct uses or areas. Compatibility of uses is the ability for uses to exist together without aesthetic or functional conflicts.

(b) Development shall be compatible with adjacent land uses to the maximum extent practicable.

1. Development that is likely to adversely affect adjacent areas, particularly special areas, N.J.A.C. 7:7-9, or residential or recreation uses, is prohibited unless the impact is mitigated by an adequate buffer. The purpose, width, and type of the

required buffer shall vary depending upon the type and degree of impact and the type of adjacent area to be affected by the development, and shall be determined on a case-by-case basis.

Compliance: The proposed bulkhead will not cause noise, dust, fumes, odors, or other similar undesirable effects to neighboring properties. The requirements of N.J.A.C. 7:7-16.11 are not applicable to a bulkhead.

7:7-16.12 Traffic

Requirement: (b) Coastal development shall be designed, located and operated in a manner to cause the least possible disturbance to traffic systems.

1. *Alternative means of transportation, that is, public and private mass transportation facilities and services, shall be considered and, wherever feasible, incorporated into the design and management of a proposed development, to reduce the number of individual vehicle trips generated as a result of the facility. Examples of alternative means of transportation include: van pooling, staggered working hours and installation of ancillary public transportation facilities such as bus shelters.*

Compliance: During the construction phase, traffic will occur from construction equipment and trucks hauling materials and equipment. Following construction, no significant adverse impacts to traffic are anticipated because the proposed bulkhead is not a use that will generate additional traffic or visits to the site. Accordingly, the requirements of N.J.A.C. 7:7-16.12 are not applicable.

7:7-16.13 Subsurface sewage disposal systems

Requirement: (a) Subsurface sewage disposal system means a system for disposal of sanitary sewage into the ground which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and to discharge the liquid effluent to a disposal field.

Compliance: No subsurface sewage disposal is proposed, and this rule is not applicable to the Project.

7:7-16.14 Solid and hazardous waste

Requirement: (b) Coastal development shall conform with all applicable State and Federal regulations, standards and guidelines for the handling and disposal of solid and hazardous wastes, including the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Solid Waste Management rules, N.J.A.C. 7:26, the Recycling rules, N.J.A.C. 7:26A, and the Hazardous Waste rules, N.J.A.C. 7:26G.

Compliance: Solid waste generated during construction will be managed by the contractor. Once construction is complete, waste will not be generated on site. Accordingly, the proposed Project complies with N.J.A.C. 7:7-16.14.

5.0 Compliance with Applicable Flood Hazard Area Control Act Rules

5.1 Applicable Flood Hazard Area Control Act Rules

7:13-10.3 Conditions applicable to an individual permit

Requirement: (a) A person conducting regulated activities pursuant to an individual permit shall comply with:

1. The conditions set forth in the individual permit itself; and
2. The conditions that apply to all permits at N.J.A.C. 7:13-22.2.

(b) In addition to the conditions that apply to every individual permit under (a) above, the Department shall establish conditions in a specific individual permit, as required on a case-by-case basis, to ensure the authorized regulated activity meets all applicable requirements of this chapter and its enabling statutes. For example, in cases where a proposed regulated activity involves disturbance to a Category One water or its riparian zone, the Department may impose additional conditions to ensure that the water quality of the regulated water is protected.

Compliance: The Applicant will conduct the construction of the bulkhead and the associated grading in compliance with the conditions set forth in the IPs itself and the conditions that apply to all permits at N.J.A.C. 7:13-22.2.

7:13-11.3 Requirements for a regulated activity in a floodway

Requirement: (a) This section sets forth specific design and construction standards that apply to any regulated activity proposed in a floodway.

(b) Except as provided in (c) below, the Department shall not issue an individual permit for the following activities:

1. The placement of any aboveground structure in or above a floodway;
2. Any regulated activity that would result in the placement of fill in a floodway;
3. Any regulated activity that would raise the ground elevation in a floodway; or
4. Any regulated activity that would obstruct the passage of floodwaters in a floodway.

(c) Notwithstanding (b) above, the Department shall issue an individual permit for the following regulated activities in a floodway, provided all other requirements of this chapter are satisfied for each activity:…

6. The construction of a retaining wall or bulkhead, in accordance with N.J.A.C. 7:13- 12.13;
7. The restoration and/or stabilization of a bank or channel, in accordance with N.J.A.C. 7:13-12.14, which requires the placement of fill in a floodway, provided the fill is necessary to:
i. Protect nearby structures or trees from undermining or failure; or

ii. Restore or improve the ecological health or habitat value of a regulated water, such as the restoration to a natural condition a regulated water that is enclosed by a structure, such as a pipe or culvert, or which has been previously straightened, channelized or lined with revetments;

Compliance: Per N.J.A.C. 7:13-3.4(d)(ii) under Flood Hazard Area Method 2 (FEMA Tidal Method):

Where FEMA flood mapping does not provide a floodway limit for the section of regulated water in question, the floodway limit shall be equal to the top of bank along the regulated water or channel. The Atlantic Ocean and other non-linear tidal waters such as bays and inlets do not have a floodway.

Therefore, there is no floodway associated with Clam Creek.

7:13-11.4 Requirements for a regulated activity in a flood fringe

Requirement: (a) This section sets forth specific design and construction standards that apply to any regulated
activity proposed in a flood fringe.
(b) This section provides standards for the volume of material that may be placed aboveground in a flood fringe as well as other activities that would reduce the flood storage volume on a site. When material is placed aboveground in a flood fringe, it will occupy a space that would otherwise be filled with floodwaters during a flood, and, thus, will reduce the flood storage volume on the site. Construction also reduces the flood storage volume by preventing floodwaters from entering a space that it would otherwise occupy, such as the space inside a building or stormwater management basin, or behind an embankment. For example, although the space within a building may be empty, the building's walls might prevent floodwaters from entering that space. Since the entire space within the walls has been rendered inaccessible to floodwaters, the entire space, though empty, displaces flood storage volume. The Department also recognizes that some structures, such as garages, sheds and other buildings that are not dry flood-proofed are not likely to prevent the entry of floodwaters, and, therefore, the space within the walls of such a structure may not actually displace flood storage volume.

c) The Department shall issue an individual permit for a regulated activity (or combination of regulated activities) in a flood fringe only if one of the following is satisfied:

1. The regulated activity is not subject to the flood storage volume displacement limits of this section, in accordance with (d) below;

(d) The following regulated activities (or combination of regulated activities) are not subject to the flood storage volume displacement limits of this section, provided the activity is not associated with a major Highlands development:

1. Any activity located in a tidal flood hazard area;

Compliance: The regulated activity is not subject to the flood storage volume displacement limits of this section since it is located in a tidal flood hazard area.

7:13-11.5 Requirements for a regulated activity in or along a regulated water with fishery resources

Requirements: (a) This section sets forth specific design and construction standards that apply to any regulated activity proposed in the channel and/or riparian zone of a regulated water containing fishery resources. Further standards for the construction of a bridge or culvert in or along waters with fishery resources are described at N.J.A.C. 7:13-12.7.

(b) The waters identified by the Department as containing fishery resources are listed in the Department's Surface Water Quality Standards at N.J.A.C. 7:9B, and are further supplemented by the following reports as updated, which are included here by reference. Copies of these reports are available from the Department at the website set forth at N.J.A.C. 7:13-1.4:

1. "Classification of New Jersey Waters as Related to Their Suitability for Trout";
2. "List of Waters Stocked with Trout by the New Jersey Division of Fish and Wildlife"; and
3. "Locations of Anadromous American Shad and River Herring During Their Spawning Period in New Jersey's Freshwaters Including Known Migratory Impediments and Fish Ladders."

(c) The Department shall issue an individual permit for a regulated activity in the channel and/or riparian zone of a regulated water containing fishery resources only if the following requirements are satisfied

Compliance: Clam Creek is a tributary to the Absecon Inlet, and ultimately, marine waters of the Atlantic Ocean. Clam Creek is classified as a FW2-NT/SE1 (non-trout/saline estuarine) waterbody by the New Jersey Surface Water Quality Standards (N.J.A.C. 7:9). These waters are generally not suitable for trout because of their physical, chemical or biological characteristics, but are suitable for a wide variety of other fish species. Clam Creek and Absecon Inlet are not listed on *Locations of Anadromous American Shad and River Herring During Their Spawning Period in New Jersey's Freshwaters Including Known Migratory Impediments and Fish Ladders* Clam Creek does not contain a fishery resource regulated under this requirement; therefore N.J.A.C. 7:13-11.5 is not applicable to the Project.

7:13-11.6 Requirements for a regulated activity in or affecting a present or documented habitat for threatened or endangered species

Requirements: (a) This section sets forth specific design and construction standards that apply to any regulated activity proposed in or affecting a present or documented habitat for a threatened or endangered species.

Compliance: As detailed previously the Habitat Evaluation prepared by DuBois & Associates analyzed the potential presence of endangered or threatened wildlife and plant species habitat on the subject site (Attachment I). The habitat evaluation was performed to determine any biological regulatory implications or project constraints pursuant to the New Jersey CZM Rules (N.J.A.C.7:7) and the Federal Endangered Species Act of 1973 (16

U.S.C. 1531-1544, 87 Stat. 884). It was concluded that the Project would not have result in adverse impacts to present of documented habitat of threatened or endangered species.

7:13-12.1 Requirements that apply to all regulated activities.

Requirements: (b) The Department shall issue an individual permit for a regulated activity only if it determines that the regulated activity is not likely to cause significant and adverse effects on the following:

1. Water quality;
2. Aquatic biota;
3. Water supply;
4. Flooding;
5. Drainage;
6. Channel stability;
7. Threatened and endangered species or their current or documented historic habitats;
8. Navigation;
9. Energy production; and
10. Fishery resources.

Compliance:

1. Water quality;

The purpose of the proposed bulkhead is bank stabilization and the prevention of erosion at the Project Site which if left unaddressed may result in a negative impact to the water quality of Clam Creek. Adverse impacts to water quality are not anticipated.

2. Aquatic biota;

The bulkhead replacement project may result in minor temporary disturbances to aquatic biota during construction. Temporary impacts will include disruption of sediment and possible siltation of water near the proposed bulkhead location. Significant adverse impacts to aquatic biota are not anticipated.

3. Water supply;

The Project will not create any demand for potable water and therefore there will be no impact to the water supply.

4. Flooding;

The project has been designed to be in compliance with the Flood Hazard Area Control Act Rules as detailed in Section 5.0 of this document. The proposed regulated activities will not cause significant or adverse flooding impacts.

5. Drainage;

The Project is not anticipated to result in an adverse impact to drainage as the bulkhead has been designed to have no impact on drainage.

6. Channel stability;

There is no channel associated with the proposed bulkhead replacement therefore, this will not cause significant or adverse effects to channel stability.

7. Threatened and endangered species or their current or documented historic habitats;

A Habitat Evaluation was prepared by DuBois & Associates (Attachment I) and it was concluded that the proposed Project would not result in significant or adverse impacts to threatened and endangered species or their current or documented historic habitats

8. Navigation;

According to the NOAA's Office of Coast Survey ENC Viewer, there is no marked navigational channel in Clam Creek. The nearest buoy on the mapping is located at the confluence of Clam Creek and Absecon Inlet. Additionally, it is noted that there is a Federally sponsored project (Absecon Inlet) which includes an entrance channel from Absecon Inlet into Clam Creek and turning basin. (Figure 10) Neither the Federal project nor channel markers or channel will be impacted by the construction of the proposed bulkhead.

9. Energy production; and

The proposed bulkhead replacement will have no impact on energy production.

10. Fishery resources.

The Project is located on Clam Creek in Atlantic City. According to the Prime Fishing Grounds data layer on NJ-GeoWeb, Clam Creek is not a prime fishing area. Additionally, the bulkhead will not create a physical barrier that prohibits the movement of finfish along migratory pathways. The Project is not anticipated to have an adverse impact on fishery resources.

Requirements: (c) A permittee shall obtain all necessary approvals from the local Soil Conservation District prior to commencing any activity approved in an individual permit issued under this chapter.

Compliance: An approval from the Cape Atlantic Soil Conservation District will be obtained prior to commencing regulated activities.

Requirements: (f) The Department shall issue an individual permit for a regulated activity that adversely impacts a property not owned by an applicant as set forth in (g) below, only

if the applicant demonstrates that one or more of the following requirements are satisfied for each adversely impacted property:

1. The applicant is a public entity that intends to appropriate the adversely impacted property through its power of eminent domain;

2. The applicant has entered into a contract to purchase the adversely impacted property;

3. The applicant has obtained an easement that encompasses the entire area that will be adversely impacted by the proposed activity, which specifically allows the applicant to undertake the proposed activity; or

4. The applicant has obtained written permission from the owners of the adversely impacted property. Written permission shall include the following:

i. An explanation of the nature and purpose of the project;

ii. An estimate of the length of time regulated activities will occur;

iii. An estimate of the extent to which the adversely impacted property will be affected by flooding or stormwater discharges and the frequency at which these impacts are expected to occur; and

iv. The notarized signature of all owners of the adversely impacted property.

Compliance: The proposed regulated activity is not anticipated to adversely impact property not owned by the Applicant.

Requirements: (g) The Department shall consider a regulated activity to adversely impact a property not owned by an applicant if the activity meets one or more of the following. For the purpose of determining compliance with (g)4 and 5 below, calculations shall be rounded to the nearest 0.1 feet:

1. The regulated activity is situated, in whole or in part, on property that is not owned by the applicant;

2. A stormwater discharge is directed overland onto property that is not owned by the applicant and the Department determines that the discharge will significantly increase or concentrate overland flow and/or cause erosion or increased flooding on the property not owned by the applicant;

3. The applicant relocates a regulated water or otherwise alters its top of bank such that the limit of the riparian zone encroaches further onto an offsite property;

4. The applicant proposes to undertake one or more of the following regulated activities:

i. The construction of a new bridge or culvert, which does not meet the offsite flood requirements of N.J.A.C. 7:13-12.7(d)1;

ii. The reconstruction of an existing bridge or culvert, which does not meet the offsite flood requirements of N.J.A.C. 7:13-12.7(e)1; or i

ii. The restoration of a regulated water to a natural condition, which does not meet the offsite flood requirements of N.J.A.C. 7:13-12.14(d);

5. The applicant proposes to undertake a regulated activity not listed in (g)4 above, and the regulated activity will result in one or more of the following offsite impacts during any flood event described in (i) below:

i. The regulated activity subjects any offsite habitable building, railroad, roadway, or parking area to increased depth or frequency of flooding;

ii. The regulated activity increases offsite flood depths by more than 0.2 feet, in cases where the applicant owns or has development rights on both sides of a regulated water; or
iii. The regulated activity increases offsite flood depths by more than 0.1 feet, in cases where the applicant owns or has development rights on only one side of a regulated water.

Compliance: The proposed regulated activity is not anticipated to adversely impact property not owned by the Applicant.

Requirements: (h) If a project results in a significant change in the cross-sectional area and/or hydraulic capacity of a channel or floodway, the Department shall presume that the project has the potential to adversely impact a property not owned by the applicant, as described at (g) above. In such a case, the Department shall require the applicant to provide hydrologic and/or hydraulic calculations that identify the properties that would be adversely impacted, or which demonstrate that such impacts will not in fact occur. Examples of projects that may require such an analysis include a channel modification, flood control project, the construction or removal of a water control structure, and the placement of a significant volume of fill in a floodway

Compliance: The Project will not result in a significant change in the cross-sectional area and/or hydraulic capacity of a channel or floodway.

Requirements: (i) Where this chapter requires consideration of potential offsite flooding impacts, the following flood events shall be analyzed:
1. The flood hazard area design flood;
2. The 100-year flood;
3. The 50-year flood
4. The 25-year flood;
5. The 10-year flood; and
6. The two-year flood.

Compliance: This requirement is not applicable to the Project since the regulated activities are not anticipated to adversely impact property not owned by the Applicant as detailed in N.J.A.C. 7:7-12.1(f).

7:13-12.3 Requirements for excavation, fill and grading activities.

Requirements: (b) The Department shall issue an individual permit for excavation, fill and/or grading only if the following requirements are satisfied:
1. The overland flow of stormwater is not impeded and floodwaters can freely enter and exit the disturbed area, unless the area is graded to impound water for a stormwater management structure that meets the requirements of the Stormwater Management rules at N.J.A.C. 7:8;
2. Any slope of greater than 50 percent (a ratio of two horizontal to one vertical) is stabilized using soil bioengineering, retaining walls, rip-rap or other appropriate slope protection;

3. The excavation, fill and/or grading does not endanger the integrity of any existing structure; and
4. All excavated material is disposed of lawfully.

Compliance: Overland flow of stormwater is not impeded, and floodwaters can freely enter and exit the proposed disturbance area. A replacement bulkhead is proposed to stabilize the slope along the shoreline which is greater than 50 percent. The proposed slopes on the balance of the site are less than 50 percent. The regulated activities include removal of existing upland on site structures. The proposed regulated activities will not endanger the integrity of any existing structures. Excavated material will be disposed of lawfully and in accordance with local Soil Conservation District requirements.

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7:13-12.4 Requirements for a structure

Requirements: (b) The Department shall issue an individual permit to construct or reconstruct a structure only if the entire structure is designed and constructed to:
1. Resist impact from water and debris during the flood hazard area design flood;
2. Resist uplift, flotation, collapse and displacement due to hydrostatic and hydrodynamic forces resulting from the flood hazard area design flood;
3. Resist overturning and sliding pressure, as well as pressure from the freeze/thaw cycle of the soil; and
4. If the structure is located in or adjacent to a channel, resist undermining caused by channel erosion

Compliance: The bulkhead will be designed to resist impact from water and debris during the flood hazard area design flood. The structures will also be designed to resist uplift, flotation, collapse and displacement due to hydrostatic and hydrodynamic forces resulting from the flood hazard area design flood as well as overturning and sliding pressure, and freeze/thaw cycle of the soil. There is no stream channel associated with this project therefore Item 4 is not applicable to the Project.

7:13-12.13 Requirements for retaining wall or bulkhead.

Requirements: (a) Except as provided in (b) below, this section sets forth specific design and construction standards that apply to any retaining wall or bulkhead which is located within a regulated water, a floodway, or within 25 feet of any top of bank.
(b) This section does not apply to any retaining wall or bulkhead in a tidal flood hazard area that is authorized under a valid coastal permit, or is exempt from requiring a coastal permit under N.J.A.C. 7:7-2.4(d)6.
(c) The Department shall issue an individual permit to construct or reconstruct a retaining wall or bulkhead subject to this section only if the following requirements are satisfied:
1. The retaining wall or bulkhead is designed with stable footings. In general, footings shall extend at least three feet below grade, unless such footings are not possible to construct or necessary for stability;
2. The retaining wall or bulkhead is designed to withstand displacement, overturning, and failure due to undermining and/or pressure from soil, water, and frost; and

3. If located within a regulated water or within 25 feet of any top of bank, the retaining wall or bulkhead is designed to be resistant to erosion as well as the possibility of a shifting bed and/or bank over time.

(d) The Department shall issue an individual permit to construct or reconstruct a retaining wall or bulkhead subject to this section, which is four feet in height or greater, only if the applicant provides an engineering certification confirming that the requirements of (c) above are satisfied.

Compliance: The construction of the proposed bulkhead does not include footings. The bulkhead consists of sections of steel sheet pile that will be installed with a vibratory hammer. The bulkhead is designed to withstand displacement, overturning, and failure due to undermining and/or pressure from soil, water, and frost. The bulkhead is designed to be resistant to erosion as well as the possibility of a shifting bed and/or bank over time. A certification statement is provided on plan sheets prepared by ST Hudson Engineering.

7:13-12.21 Requirements for removal of existing fill or an existing structure.

Requirements: (a) This section sets forth specific standards that apply to any proposed removal of existing fill or an existing structure in any regulated area.

(b) The removal of existing fill or an existing structure is subject to the requirements of this section only as follows:

1. The fill or structure to be removed lies in a floodway; or

2. The fill or structure to be removed lies in a regulated area outside a floodway, but does not qualify for permit-by-rule 4 at N.J.A.C. 7:13-7.4.

(c) The Department shall issue an individual permit for the removal of existing fill or an existing structure as described in (b) above only if the following requirements are satisfied:

1. All disturbed regulated areas are properly stabilized;

2. If the fill or structure to be removed lies in a floodway, the applicant demonstrates through a hydraulic analysis that the removal will not adversely impact a property not owned by the applicant, pursuant to N.J.A.C. 7:13-12.1(f) and (g), unless the Department determines, based on a visual inspection of submitted site plans and without a review of calculations, that the proposed removal poses no threat to offsite properties;

3. Any removed fill is disposed of in accordance with all applicable Federal, State, and local laws; and

4. Any removed structure is disposed of outside of any regulated area and in accordance with all applicable Federal, State, and local laws.

Compliance: All disturbed regulated areas will be properly stabilized. Removal of fill will be conducted in accordance with all applicable Federal, State, and local laws. Removed structures will be disposed of outside of any regulated area and in accordance with all applicable Federal, State, and local laws.

6.0 Statement of Required Findings

6.1 N.J.S.A. 13:19-10 Compliance

The Department shall issue a permit pursuant to the CAFRA Act upon a finding as required by N.J.S.A. 13:19-10 that the development:

1. *Conforms with all applicable air, water, and radiation emission and effluent standards and all applicable water quality criteria and air quality standards;*

   All air, water, and radiation emission and effluent standards will be adhered to. Applicable water quality criteria will also be adhered to.

2. *Prevents air emissions and water effluents in excess of the existing dilution, assimilative, and recovery capacities of the air and water environments at the site and within the surrounding region;*

   Air emissions from vehicles during construction will be temporary and will not exceed the existing dilution, assimilative and recovery capacity of the water environment at the site and surrounding region.

3. *Provides for the collection and disposal of litter, recyclable and solid waste in such a manner as to minimize adverse environmental effects and the threat to public health, safety, and welfare;*

   The proposed Project during construction provides for the collection and disposal of litter, recyclable and waste in a manner that will minimize adverse environmental effects and the threat to public health, safety and welfare.

4. *Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies;*

   The Project is not anticipated to impair the regenerative capacity of water aquifers, other ground or surface water supplies.

5. *Would cause minimal feasible interference with the natural functioning of plant, animal, fish, and human life processes at the site and within the region;*

   The Project complies with all applicable resource policies, rules and regulations as detailed herein. Specifically, the Project has been assessed and found to be in compliance with the applicable Special Areas and Resource CZM Rules.

6. *Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety and welfare; and*

   The proposed Project is located and will be constructed so as not to endanger human life or property nor otherwise impair the public health, safety and welfare.

7. *Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas, and existing public scenic attributes at the site and within the surrounding region.*

The Project complies with all applicable resource policies designed to protect important land types, historical and archeological resources and scenic attributes.

Legend

- Site Location
- Municipal Boundary

Sources:
NJOIT, Municipalities of NJ, 2020
USGS, US Topo, The National Map
Oceanville and Atlantic City Quads, 2019
STATE PLANE COORINATES
E 512408
N 197393

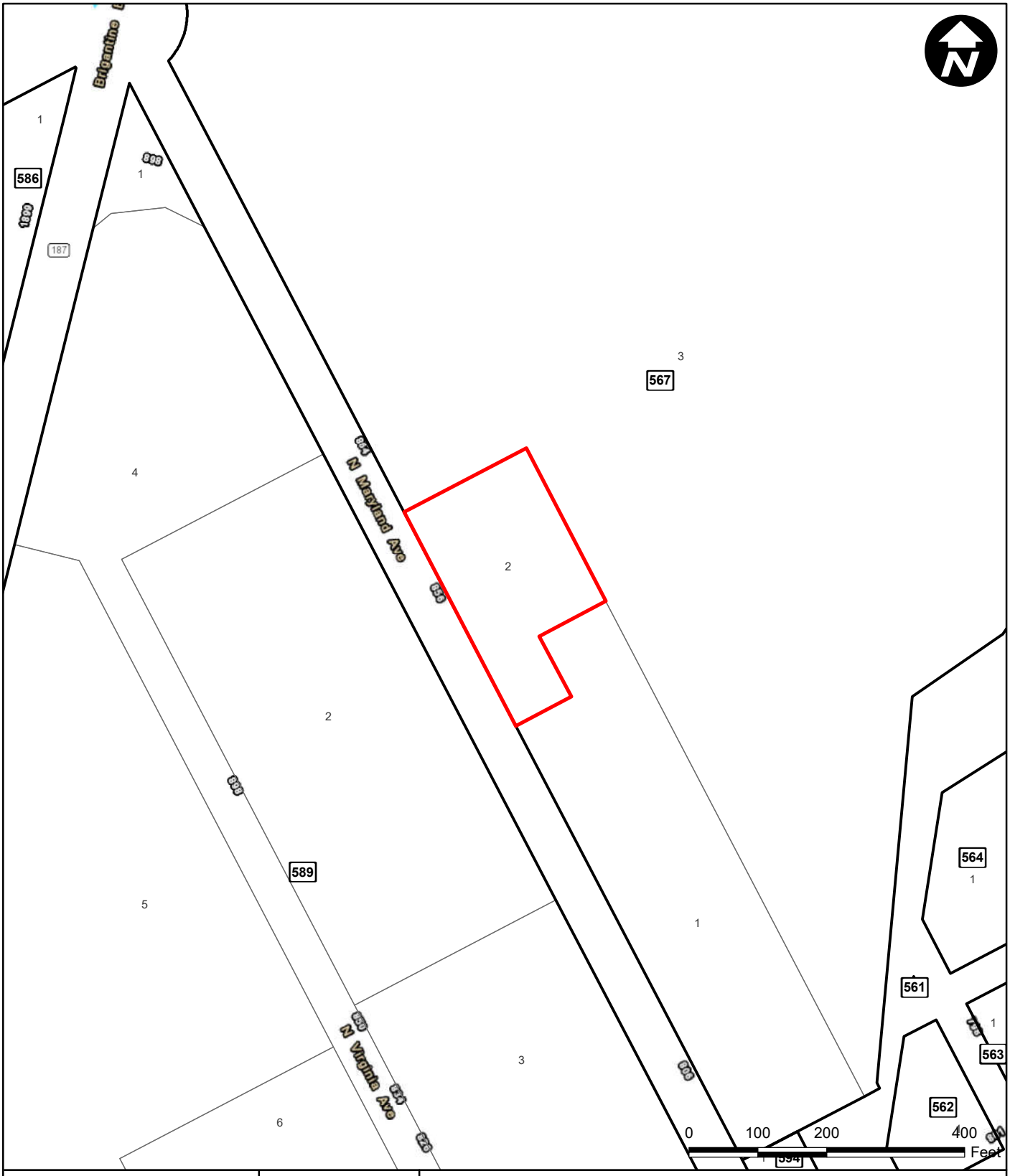
PS&S
3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

USGS SITE LOCATION MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Drawn By: ML	Scale: 1" = 1,500'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 1

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig01_USGS_20231128_01.mxd



Legend

- Site Location
- Block
- Lot

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3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

TAX MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Sources:
NJOIT, OGIS, Parcels Composite of NJ, 2022
Esri, World Transportation, 2023

Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 2

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig02_Tax_20231128_01.mxd

Legend

Site Location

Sources:
Esri, World Street Map, 2023

3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

STREET MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Drawn By: ML	Scale: 1" = 500'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 3

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig03_Street_20231128_01.mxd

Note: The wetlands data is displayed for screening purposes only. The Land Use Regulatory Program (LURP) of the NJDEP determines the extent and final determination of wetlands in the State of New Jersey on a case by case basis.

Sources:
Wetlands, NJDEP 2012 Land use/Land cover Update, 2015
Esri, World Transportation, 2023
Esri, World Imagery, 2022

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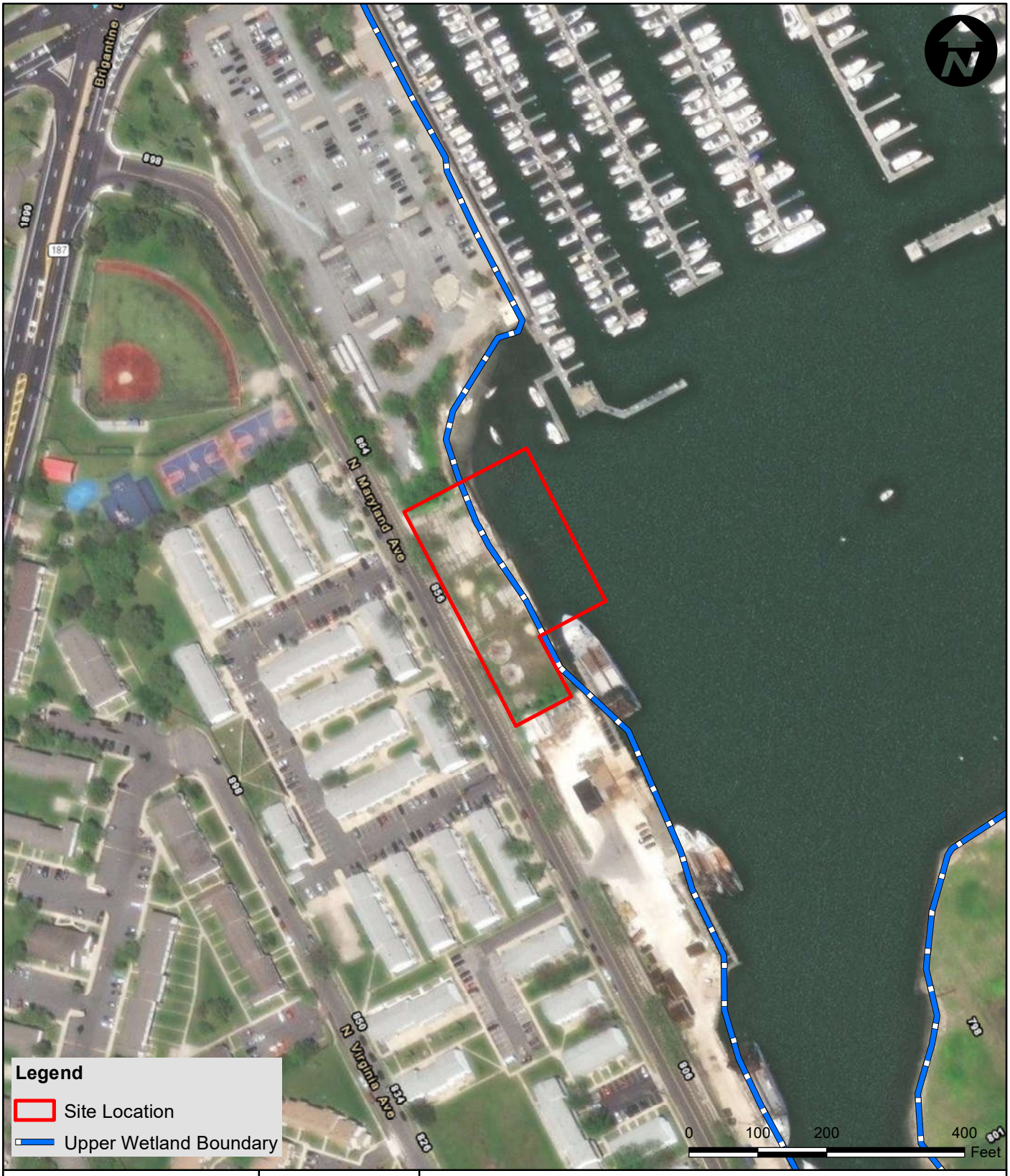
WETLANDS MAP
Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 4

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig04_Wetlands_20231128_01.mxd



COASTAL WETLANDS MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

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Sources:
NJDEP Upper Wetlands Boundary/Upper Wetlands Limit for New Jersey, NJDEP, 2002
Esri, World Transportation, 2023
Esri, World Imagery, 2022

Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 5

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig05_CoastalWetlands_20231128_01.mxd

Note:
Delineation of the lateral limits of flood hazard area is approximate and requires additional topographic survey. This map is not a delineation of the flood hazard area pursuant to NJDEP NJAC 7:13-3.1.

Vertical Datum: NAVD88

Sources:
FEMA, Atlantic County Preliminary FIRM Data, 1/30/2015
Esri, World Transportation, 2023
Esri, World Imagery, 2022

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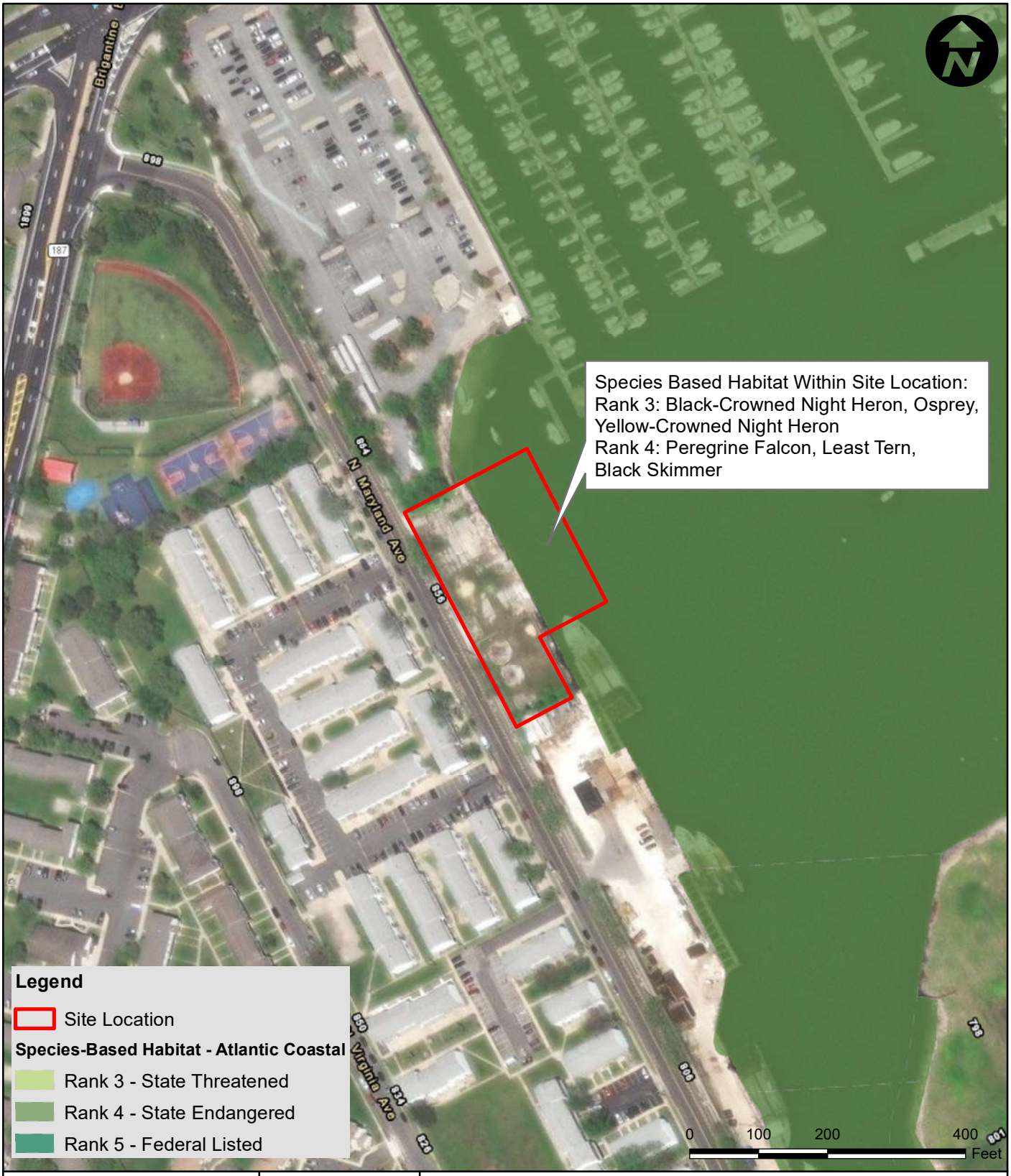
PRELIMINARY FEMA FLOOD HAZARD MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Drawn By: ML	Scale: 1" = 300'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 6

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig06_FEMA_20231128_01.mxd



Note:
Rank 3 - assigned to species-specific patches containing one or more occurrences of State threatened species.
Rank 4 - assigned to species-specific habitat patches with one or more occurrences of State endangered species.

Sources:
NJDEP Division of Fish & Wildlife Endangered Nongame Species Program, NJDEP Landscape Version 3.3, 05/2017
Esri, World Transportation, 2023
Esri, World Imagery, 2022

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PHONE: (732) 560-9700

LANDSCAPE PROJECT MAP
Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 7

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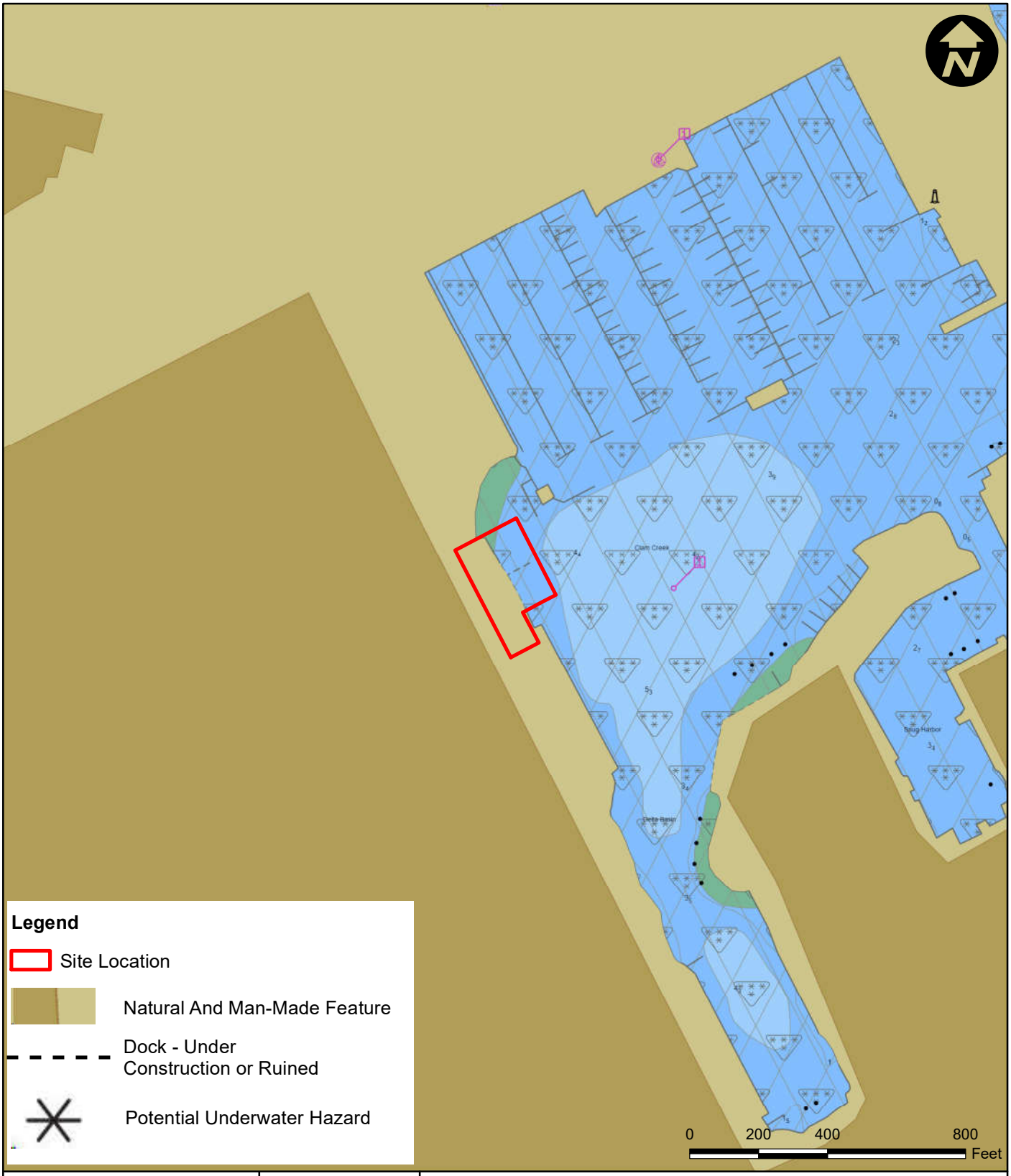

NOAA NAV CHART
Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

PS&S
3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

Sources:
NOAA Electronic Navigational Charts (ENC), 2023
Esri, World Transportation, 2023
Esri, World Imagery, 2022

Drawn By: ML	Scale: 1" = 400'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 8

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Legend

Site Location

PS&S
3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

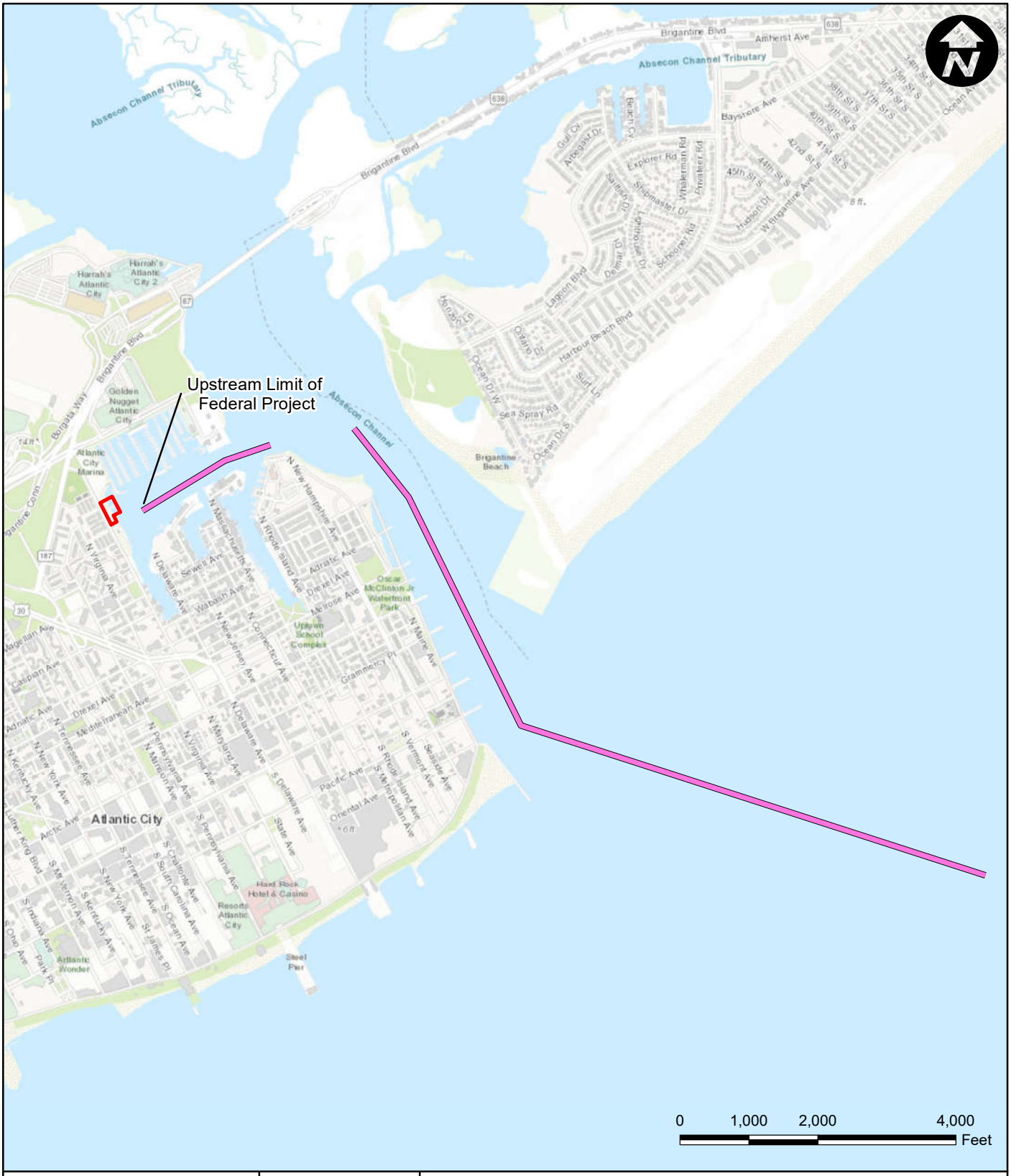
1995 AERIAL MAP

Block 567, Lot 2
City of Atlantic City
Atlantic County, New Jersey

Sources:
NJOIT, NJ Infrared 1995 Imagery
Esri, StreetMap USA, 2012

Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 9

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig09_1995_Aerial_20231128_01.mxd



Legend

- USACE Absecon Inlet Project
- Site Location

Sources:
USACE Absecon Inlet Project
Esri, World Topographic Map, 2023

PS&S
3 MOUNTAINVIEW ROAD
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700

LOCATION OF USACE ABSECON INLET PROJECT

City of Atlantic City
Atlantic County, New Jersey

Drawn By: DO	Scale: 1" = 2000'	Project No. 06646.0001
Chk'd By: DS	Date: 11/28/2023	Figure No. 10

Path: P:\06646\0001\DWGs\Y-GIS\Maps\ASOW Bulkhead\Fig10_AbseconInletProject_20231128_01.mxd