DOCKET NO. D-2020-002-1

DELAWARE RIVER BASIN COMMISSION

PSEG Power LLC
New Jersey Wind Port
Lower Alloways Creek Township, Salem County, New Jersey

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on September 4, 2020 ("Application"), requesting approval of a new Delaware River dredging and marshalling port construction project (the "Project") at the property owned by PSEG Nuclear LLC on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey.

The application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Salem County Planning Board has been notified of pending action. A public hearing on the draft docket was held by the DRBC on August 11, 2021.

A. DESCRIPTION

1. **Purpose**. The purpose of this docket is to approve the dredging of the Delaware River and construction of an open wharf structure for the proposed New Jersey Wind Port, a marshalling port to support offshore wind energy development in New Jersey and throughout the eastern United States. The Project is located at River Mile 52.1 of the Delaware River in Lower Alloways Creek Township, Salem County, New Jersey and includes the dredging of approximately 1,960,000 cubic yards of sediment to accommodate the proposed approach channel, turning basin and berthing pockets.

2. **Location**. The Project is located within the site boundary of the PSEG Nuclear Salem and Hope Creek Generating Station on Artificial Island on the east bank of the Delaware River in Lower Alloways Creek, Salem County, New Jersey. Nuclear and fossil-fueled electric generating facilities, ancillary support equipment, switchyards, and related structures are located on the approximately 734 acres of the southern portion of Artificial Island. Situated at the northwestern end of the PSEG generating facilities, the Project site is 18 miles south of Wilmington, Delaware, 20 miles south of Philadelphia, Pennsylvania, and 7.5 miles south of Salem, New Jersey, at River Mile (RM) 52.1 in Water Quality Zone 5 of the Delaware River.

Specific location information has been withheld for security reasons.

3. **Project Area**. The proposed Project will occupy an approximately 30-acre area located within an existing 65-acre upland Confined Disposal Facility (CDF). Situated at the northwestern end of the PSEG site, the CDF is operated by PSEG under authorization of the New Jersey Department of Environmental Protection (NJDEP) and United States Army Corps of Engineers (USACE). The 65-acre CDF is approximately 2,000 feet wide by 1,400 feet long and is bordered by the Delaware River on the west, USACE Artificial Island CDF Cell No. 3 on the north, marsh areas on the north and east, and the Hope Creek Generating Station on the south.

The PSEG CDF was originally permitted by the NJDEP in 1975 for the disposal of dredge spoils and excavation fill from the construction of the Hope Creek Generating Station. PSEG (then PSE&G) received Type "B" Wetlands permit #W74-042 for the area. An agreement between PSE&G and the USACE dated January 19, 1968 allowed PSE&G to deposit dredge spoils in this area. The NJDEP wetlands permit was renewed or extended until 1985. The area was then included in Waterfront Development Permit #85-0738-1 for the disposal of maintenance dredging and desilting spoils. Currently, the area is authorized under NJDEP Waterfront Development (WFD) permit #1712-07-0002.6 / WFD 150001, and USACE Section 404 Permit #CENAP-OP-R-2006-6232.

The USACE owns and operates a separate CDF known as USACE Artificial Island Cell No. 3, which comprises approximately 300 acres adjacent to and immediately north of the PSEG CDF. This property is part of a pending land transfer between PSEG and the USACE. CDF Cell No. 3 will be utilized for borrow material needed for various aspects of the proposed Port development and for the disposal of the dredged spoils resulting from the Project. The Delaware River is approximately 150 feet to the west of the CDFs, across an existing dirt road that provides land access to the USACE's CDF Cells Nos. 1, 2 and 3. CDF Cell No. 3 is located at Block 26, Lot 2 in Lower Alloways Creek Township.

Additional details describing the site background, vegetation, wetlands, soils, floodplain, and sediment deposition patterns of the Delaware River adjacent to the site are provided in the Application.

4. **Project Description**. PSEG is proposing the construction of a marshalling port in support of offshore wind development in New Jersey and throughout the eastern United States. The Project involves both in-water and upland activities to prepare the site for use in construction, staging, vessel loading, and shipping of materials to offshore wind installations. The total area of disturbance for the Project includes approximately 86 acres of in-water area and approximately 30 acres of land areas. Approximately 1,080 linear feet of shoreline will be developed as an open wharf structure required for berthing of delivery and installation vessels for unloading and loading operations.

4.1 Dredging. The total estimated dredged material quantity is approximately 1,960,000 cubic yards (cy) to accommodate the approach channel, turning basin and berthing pockets, based upon current hydrographic data. This total is based on 1,770,000 cy of required dredge spoils and 190,000 cy of material of overdredge allowance. The channel is proposed to be approximately 550 feet wide by 5,000 feet long and dredged to a depth of 37 feet. The approach channel will accommodate one-way traffic between the Port and the Federal Navigation Channel (“Channel”).

Hydraulic dredging methods will be used for the largest extent of proposed dredging. Limited mechanical dredging (estimated at approximately 170,000 cy) will be required at the berth slope. For this area, a clamshell dredge or similar dredge type will be used. The material excavated by mechanical dredging will be placed in scows or hopper barges that will be towed to the disposal area and unloaded using hydraulic equipment. The total area of in-water disturbance required to complete the proposed dredging is approximately 86 acres.

Sediment in the Estuary near RM 52 is characterized by predominantly fine-grained silts, clays, and fine sand. Near the shoreline, sediments are typically sandier as a result of shallower water depth and the effect of wave action. Dredging operations are proposed to occur during the summer of 2022 outside of typical spring anadromous fish migration periods. The disposal location for dredge material will be the proximal CDF Cell No. 3, which has been used by the USACE for spoils disposal in this part of the Delaware River for decades. As part of a pending land transfer, PSEG will take ownership of the CDF and continue its operation. Existing dredge spoils in the CDF will be used to raise the elevation of the CDF dikes to elevation 20 feet NAVD 88. Approximately 600,000 to 1,000,000 cy of existing dredge material comprised of structurally suitable sand located in the northern half of USACE CDF Cell No. 3 will be excavated and used to conduct surcharge operations at the Project site to achieve the structural bearing capacity needed for the development. Additional structural sand may be used for maintenance or construction activities related to the Project or within the Salem and Hope Creek Station. The use of this material will significantly increase the dredge disposal capacity of CDF Cell No. 3.

4.2 Wharf/Berth Structure Construction. Approximately 1,080 linear feet of shoreline will be developed as an open wharf structure required for berthing of delivery and installation vessels for unloading and loading operations. The open wharf structure will consist of a concrete deck supported by steel sheeting (parallel to the shoreline and at the landward extent of the wharf structure, allowing for the open wharf design) and 30-inch concrete square piles. The fender line for the wharf will generally align with the existing timber bulkhead line and the mean high water (MHW) elevation contour. To provide structural support to the upland areas of surcharged fill (see description below) the Project includes the installation of a new steel sheet pile bulkhead wall, which is located approximately along the MHW line. The bulkhead wall will extend along approximately 1,080 linear feet of shoreline and will be driven to a depth of approximately -43.0 feet NAVD 88. The sheet pile wall will be comprised of hot rolled interlocking sheet piles (AZ 14-770). A 3-foot sheet pile wall cap will be installed at the top of the bulkhead wall.

The shoreline will be divided into two (2) pile-supported berthing areas comprising concrete slabs, including a 479-foot, 6-inch installation berth and a 599-foot, 10-inch delivery berth. The top elevation of these platforms will be 10.5 feet NAVD 88. The installation berth is the larger of the areas, which will be used for mooring of larger installation vessels sufficient in size to haul large components of wind turbines to be delivered to the offshore construction areas. The wind turbine components are typically staged on the barges in an upright fashion for ease of handling in the offshore work areas. Typically, these towers extend approximately 300 to 500 feet in height. As such, the jack-up installation vessels are expected to have 300-foot spuds. A 450-foot by 250-foot crushed gravel mat is also proposed waterward of the installation berth to provide support along the river bottom to these large vessels. This mat will be utilized as a stable area to support installation vessels mooring at the port. The area will be over dredged, and the gravel will be placed

so that the top of gravel matches the grade of the dredged river bottom at the approach area (elevation -35.5 feet NAVD88). The delivery berthing area will be smaller in size to accommodate the delivery of wind turbine components which will be assembled at the port prior to delivery out to the offshore construction areas. These vessels will be standard ocean vessels, requiring less space for mooring and off-loading. The berthing areas will be supported by 1,700 30-inch square concrete pre-cast piles. 1,056 of these piles will be located below the MHW line, resulting in 6,600 square feet (SF) of permanent in-water impacts.

The berthing areas will extend 57 feet waterward of the bulkhead line, overhanging the Delaware River and supported by concrete piles. Coastal wetland and intertidal mudflat that is currently east of the existing timber bulkhead will be excavated to create open water area beneath the overhanging wharf. This will allow for the installation of the rip rap revetment waterward of the sheet pile wall. This activity will result in approximately 2.036 acres of new water area. Beneath the overhang of the wharf, the slope will be protected by 4 feet of rip rap revetment along a 3:1 slope extending waterward just past the fender to an elevation of -35.5 feet NAVD 88.

The platforms will be constructed of a 2-foot cast-in-place (CIP) bentonite cap, covered with a one-foot thick CIP concrete topping, and granular fill ballast to an elevation of 10.5 feet NAVD 88. The platforms of the berthing areas will include a fascia beam at the face of the concrete, affixed with a fender installed with a counterfort. The delivery platform will also include a 6-foot battered pile cap approximately 36 feet landward of the sheet pile wall cap.

Two (2) mooring dolphins and one (1) breasting dolphin will also be installed north of the installation berth in the northern section of the development site. The dolphins will connect to the installation berth via a 5-foot-wide elevated walkway, which connects to each concrete dolphin platform. The mooring dolphin platforms will be 19 feet by 29 feet, and the breasting dolphin platform will be 29 feet by 39 feet. The area of the three proposed mooring/breasting dolphins is 2,613 SF.

An approximately 260 linear foot steel sheet pile/king pile wall will be installed within the river between the port and existing submarine cables that extend from the shoreline across the Delaware River. This wall is required to protect the existing cables from damage from the activity at the Port.

To support the development of the shoreline, approximately 2.15 acres of wetland and mudflat along the shoreline will be dredged and approximately 2.036 acres of new open water created. However, 6,600 SF of that open water will be filled from the installation of concrete pile supports. Additionally, approximately 2.25 acres of intertidal shallows, most of which are unvegetated mudflat, will be impacted by shading from the overhanging berthing platforms, which will extend 57 feet waterward of the bulkhead line. An approximately 112,000 SF area of the river bottom will also be covered in gravel for the proposed gravel mat. This area will be over-dredged and then filled with the crushed gravel, so it will be level with the remaining dredged river bottom.

The proposed port includes a new stormwater collection, conveyance and treatment system to address stormwater from the 30-acre facility. The stormwater conveyance system will consist of a series of five (5) 2-foot-wide trenches that collect stormwater throughout the site and gravity drain the effluent to the north and south via underground conveyance to collection vaults. Stormwater treatment will be achieved using two manufactured treatment devices, which are comprised of a

series of one (1) Peak Diversion Stormfilter and two (2) 8-foot by 24-foot Stormfilter units manufactured by Contech. Treated stormwater effluent will ultimately be discharged into the Delaware River via two (2) new 60-inch stormwater outfalls located along the sheetpile bulkhead wall.

4.3 Demolition. The Project will not involve demolition of any existing in-water structures, as no such structures have been identified.

4.4 Water Withdrawals and Wastewater Discharges. No groundwater withdrawals or surface water withdrawals are proposed for the Project. While supporting offshore wind construction projects, temporary trailers will be installed at the facility to support operational personnel. These will include temporary stand-alone water and sewer facilities that do not require hook-ups to permanent systems. Water supply infrastructure such as surface water intakes, groundwater withdrawals, and wastewater conveyance, treatment, and discharge facilities will not be required, because the facility will be active only when offshore wind development projects are occurring, and there will be extended periods of operational dormancy.

5. **Cost**. The total cost of the Project is estimated to be $300,000,000.

6. **Relationship to Other Estuary Section 3.8 Approvals.** Recent, new dredging projects approved by or pending with the Commission are as follows:

Docket/Application No.	Project Location	River Mile	Approved	Dredged Volume (cubic yards)
D-2010-044 CP-1	Paulsboro Marine Terminal	89.5	May 11, 2011	334,000
Resolution No. 2013-1	Southport Marine Terminal	96	March 6, 2013	1,306,000
D-2017-009-1	Gibbstown Logistics Center Dock 1	86	December 13, 2017	371,000
D-2017-009-2	Gibbstown Logistic Center Dock 2	86	June 12, 2019	665,000
D-2020-003 CP-1	Port of Wilmington Edgemoor Expansion	72	pending	3,325,665

B. FINDINGS

The docket holder applied for approval of its New Jersey Wind Port Delaware River dredging and marshalling port project, which involves dredging 1,960,000 cy of material from the Delaware River to a depth of 37 feet below (-37) MLLW to accommodate an approach channel, turning basin, berthing pockets, and a new, pile-supported wharf structure.

New Jersey's commitment to offshore wind energy under Executive Order 92 sets New Jersey's offshore wind generation target at 7,500 MW by 2035. The offshore wind industry is still in its infancy in the region and will require the development of supporting infrastructure, such as this proposed port. Specifically, one of the major challenges to U.S. offshore wind development is the lack of port infrastructure that meets the requirements to enable these large-scale offshore developments. Due to the industry's preferred installation method, which uses jack-up vessels, an efficient offshore wind marshalling port must be outside of all vertical height restrictions, such as bridges and power lines, and must be able to accommodate loads of up to 5,000 pounds per square foot at the quayside. Currently, there are no ports on the east coast of the U.S. that fully meet these requirements. This large port infrastructure is needed across a project's entire life cycle, from construction, through operations, to decommissioning and deconstruction. (Decommissioning typically occurs at least 25 years after installation.) Given the size and weight of components used to build offshore wind projects, the bulk of manufacturing and final assembly typically takes place at or close to the port. Large and heavy components such as offshore wind nacelles (the unit on top of the turbine tower that converts the energy from the rotating blades into electricity), blades, and foundations are too large to travel over conventional roads and can generally only be transported by water. This requires purpose-built port capacity that will likely increase over time if the offshore wind industry continues to develop.

1. Project Need. The need for the Project, the demand for wind energy in target markets and the design of the Project related to those wind energy demands will continue to be reviewed by other federal and state agencies with authority to define energy needs, develop wind energy plans, and/ or regulate the transmission of energy other than hydropower.

2. Dredging Procedures. Approximately 1,960,000 cy of sediment (primarily silt, with some fine sand and trace gravel) will be dredged from the Delaware River over an 86-acre area to achieve a dredging depth of -37 feet NAVD 88, allowing and accounting for 1.5 feet of over-dredging. Most sediments will be mechanically dredged using a cutter suction dredge (CSD) with direct pipeline discharge to USACE CDF Cell No. 3. Hydraulic dredging best management practices (BMPs) will be implemented to the maximum extent practicable, as follows:

- Undercutting as opposed to overcutting the sediment being dredged,
- Increasing the intake velocity of the cutterhead; and
- Fully burying the cutterhead and not overburying the cutterhead in the sediment being dredged.

To match the new fender line to the existing timber bulkhead line, and to facilitate construction of the wharf structure and the eastern portions of the berthing pockets, portions of the shoreline will be dredged. A drag-line or some other form of bucket excavation will be deployed

from upland staging areas to dredge these sections. These shore-based operations will incorporate turbidity curtains. The turbidity curtains will remain in place during wharf construction as well and will serve as a barrier to prevent transport of sediment mobilized by the activity to the fullest extent practical.

Limited mechanical dredging (estimated at approximately 170,000 cy) will be required at the berth slope and will be performed with a clamshell dredge or similar dredge type. The material excavated will be placed in scows or hopper barges that will be towed to CDF Cell No. 3, where the material will be unloaded using hydraulic equipment. Dredging will utilize the best management practices (BMPs) set forth below to limit the potential for sediment resuspension and associated impacts on water quality and aquatic biota:

- controlling the rate of descent of the bucket to maximize the vertical cut it makes, while not penetrating the sediment beyond the vertical dimension of the open bucket (i.e., not overfilling the bucket);
- ensuring complete closure of the bucket before it is lifted through the water at a rate of two feet per second or less;
- controlling the "bite" of the bucket to: (a) minimize the total number of passes needed to dredge the required sediment volume, and (b) minimize the loss of sediment due to extrusion through the bucket's vent openings or hinge area;
- placing material deliberately in the barge to prevent spillage of material overboard;
- using barges or scows with solid hull construction or hulls sealed with concrete to transport sediments;
- discharging barge and scow decant water solely within CDF Cell No. 3; and
- not dragging the dredge bucket along the sediment surface.

In accordance with Section C. Decision, condition 1 below, before the docket holder places any dredge material at a location other than Cell No. 3 or that is not authorized by the Waterfront Development Permit, the docket holder shall provide DRBC with both the application to NJDEP and NJDEP's corresponding written approval for placement in such location. In accordance with Section C. Decision condition 2, best management practices shall be implemented at CDF Cell No. 3 to remove practically all total suspended solids (TSS) in decant water prior to any discharge.

3. <u>Wharf/Berth Construction Procedures.</u> As described above, the construction of the Project will entail the development of approximately 1,080 linear feet of shoreline as an open wharf structure required for berthing of delivery and installation vessels for unloading and loading operations. The open wharf structure will consist of a concrete deck supported by steel sheeting (parallel to the shoreline and at the landward extent of the wharf structure, allowing for the open wharf design) and 1,700 30-inch square concrete piles.

To protect water quality and aquatic life, measures to be employed for all construction activities shall include:

- employment of a soft start procedure that utilizes low velocity impacts to initiate high energy activities such as pile driving, , to encourage animals in the vicinity of the work area to move out prior to the start of higher velocity activities;

- use of in-place sediment control devices, turbidity curtains, booms, tarpaulins, floats, staging, and other devices as necessary to prevent materials from entering the water and leaving the immediate vicinity of the proposed construction;

- use of effluent discharge control to prevent oils, fluids, concrete, wash water, and other impurities used on the construction site from entering the Delaware River; and

- minimal potential bottom disturbing activities, such as manipulation of piling and pile spuds.

4. **Wetlands.** The Project will result in impacts to 2.049 acres of coastal wetlands, 0.801 acres of intertidal/subtidal areas, and an estimated 0.009 acres of riparian zone vegetation. In accordance with the NJDEP's Coastal Permit Program rules, these impacts will be mitigated through the purchase by PSEG of credits from the NJDEP-approved Abbot Creek Mitigation Bank, operated by Evergreen Environmental, LLC in Fairfield Township, New Jersey, at a ratio of one (1) acre of impact to regulated resources to one (1) Bank credit.

A total of 0.772 acres of freshwater wetlands will be impacted by the landside portion of the Project. Freshwater wetland impacts were evaluated as part of a freshwater wetland individual permit issued by NJDEP.

5. **Water Quality and Aquatic Life.** The Commission's Comprehensive Plan and Water Code provide that the quality of waters in Zone 5 shall be maintained in a safe and satisfactory condition for: industrial water supplies after reasonable treatment; maintenance of resident fish and other aquatic life, propagation of resident fish from R.M. 70.0 to R.M. 48.2, passage of anadromous fish; wildlife; recreation; and navigation.

Although dredging and construction of the in-water components of the port facility may result in temporary, localized impacts to water quality resulting from sediment resuspension, these impacts will not "substantially impair or conflict with" the water quality standards and uses established by the Commission's Comprehensive Plan and implementing water quality regulations. The states of New Jersey and Delaware both have issued federal consistency determinations pursuant to the federal Coastal Zone Management Act (CZMA) of 1972 and state laws implementing that legislation. These determinations signify that after careful review of the Project by their respective technical agencies, the states have determined that the federal actions—in this instance, approvals for dredging and filling within or outside of the state's coastal zone—that have a reasonable potential to affect the coastal resources or uses of the state's coastal zone, are consistent with the state's enforceable coastal policies, to the maximum extent practicable. The State of New Jersey's federal consistency determination includes a Clean Water Act Section 401 water quality certification for the Project, signifying that the dredging and filling activities as conditioned will comply with applicable water quality standards, effluent limitations, new source performance

standards, toxic pollutants restrictions and other appropriate water quality requirements of state or tribal law.

Legacy sediment contamination. The Delaware River Estuary has a 200-year history of dense urban development and heavy commercial and industrial use. Water quality improvements achieved over the course of half a century have resulted in remarkable improvements in water quality and in the diversity and number of fish stocks. However, legacy pollutants remain present in sediments, the water column and fish tissue. Fish consumption advisories issued by all three Estuary states—Delaware, New Jersey and Pennsylvania—have been eased slightly in recent years as a result of continuing water quality improvements but remain in effect for several species.

In 2019 and 2020, bulk samples of the sediment within the proposed dredging footprint were collected. A physical analysis was performed on each sample, including grain size and settling column (particle size) analysis. Chemical analysis was conducted on the bulk sediment samples and the modified elutriates prepared from each sample. Samples were analyzed for chlorinated biphenyl congeners, polychlorinated biphenyls (PCBs), semi-volatile organic compounds, organochlorine pesticides, dioxins and furans, metals, mercury, cyanide, hexavalent chromium, and trivalent chromium. Polychlorinated biphenyls (PCBs) concentrations in some of the elutriate samples exceed the DRBC stream quality objective for *Carcinogens - Fish Ingestion Only*, of 0.000016 micrograms per liter (ug/l). Where PCB congeners were detected, concentrations were at or above the laboratory method detection limit (MDL) and represent approximate values. Elutriate results also indicate the presence of pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and Dieldrin), polycyclic aromatic hydrocarbons (PAHs) (dibenz(a,h)anthracene, benzo[a]pyrene, benzo[b]fluoranthene, and indeno[1,2,3-cd]pyrene), and certain metals (silver, zinc, and thallium) in concentrations in excess of DRBC stream quality objectives for *Carcinogens - Fish Ingestion Only*, or *Systemic Toxicants - Fish Ingestion Only*. Except for PAHs, and in some cases pesticides, analyte concentrations were detected at or above the MDL and represent approximate values. No contaminants of concern were detected in concentrations exceeding the NJDEP Residential or Non-Residential Soil Cleanup Standards.

Salinity. The Delaware Main Channel Deepening project comprised an approximately 5-foot channel depth increase along a longitudinal (i.e., parallel to the prevailing tidal currents) distance of 102 miles of the Delaware Bay and River. The potential effects of the Main Channel Deepening on Estuary salinity were studied in depth in 2010 and found to have a negligible effect on the Estuary's salinity gradient.[1] The proposed wind port access side channel is approximately 1 mile in length at a long-river "point" located at RM 52, oriented perpendicular to the prevailing tidal currents. Given the comparatively small area of the planned access channel and its orientation, the proposed channel is not expected to increase tidal exchange along the main longitudinal axis of the Estuary. No substantial impact on longitudinal salinity distribution is expected from the Project.

[1] *See*, Keu W. Kim and Billy H. Johnson, Assessment of the Channel Deepening in the Delaware River and Bay: A Three-Dimensional Numerical Model Study, prepared for U.S. Army Engineer District, Philadelphia (Technical Report CHL-98029), September 1998 (including a finding that maximum differences in salinity over the oyster beds between RM38 and 43 attributable to the Main Channel Deepening were less than 0.2 ppt under extreme low flow conditions.)

Turbidity. Notably, the Project site is located near the turbidity maximum in the Estuary, which is an area where light penetrates no more than a few feet below the water's surface. With the use of best management practices, temporary, localized increases in suspended sediment during dredging and construction of the vessel berthing area are expected to be below thresholds that would adversely impact vulnerable life stages of susceptible benthic invertebrates and fish. To minimize the potential impacts on aquatic life of sediment resuspension during Project construction, as noted above, in-water construction and dredging activities will occur outside the spawning migration windows of fishes in the area. Operation of CDF Cell No. 3 in accordance with applicable best management practices is expected to result in discharge of waters with low TSS content. The increase in turbidity due to vessel traffic from port operation is not expected to have a significant impact on fishes in the vicinity of the project.

Endangered species. USACE is currently engaged in a consultation with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act concerning two threatened and endangered sturgeon species and the critical habitat for the Atlantic sturgeon (Acipenser oxyrhynchus). NMFS has yet to render its biological opinion for the Project, which is a prerequisite to issuance by the USACE of a Section 10/404 permit.[2] In accordance with Section C. Decision condition 4 of this docket, the permittee must adhere to all conditions and guidance issued by the National Marine Fisheries Service for the protection and conservation of habitat for federally-listed shortnose sturgeon and Atlantic sturgeon.

Mussels and benthic organisms. The Project site is located in the oligohaline portion of the Estuary (i.e., mean salinities ranging from 0.5 to 5.0 ppt). For this reason, listed shellfish (freshwater mussel) species do not occur near the PSEG Nuclear property because they are intolerant of the low salinity; however, eastern oysters are known to better tolerate low salinities, and do occasionally settle on hard substrates provided by in-water structures in the area, especially in warm, dry years, and significant populations can be found just to the south.

The benthic organisms present within the accumulated sediments of the Delaware Estuary near the Project site represent colonial, ephemeral, or ubiquitous invertebrate taxa that are highly tolerant of extremes of estuarine water quality parameters such as salinity and turbidity. These taxa include infaunal polychaetes, nematodes, oligochaetes, and epifaunal crustaceans (e.g., amphipods, mud crabs, and blue crabs). As a result of dredging, an area of 87 acres of benthic habitat of these species will be permanently disturbed. This area is expected to be recolonized by similar resident species from outside of the dredge area or by deeper resident species where final water depths will be greater because of dredging.

Submerged aquatic vegetation. The Project site is located near the turbidity maximum in the Estuary, where light penetrates no more than a few feet below the water's surface. Coupled with variable salinities, energetic tidal currents, and depth, the turbidity near the site creates an aquatic

[2] Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) requires that regulated activities, including among others, dredging and construction, conducted below the Ordinary High Water elevation of navigable waters of the United States be approved and formally permitted by the USACE. Section 404 of the Clean Water Act (33 U.S.C. § 1344) provides that filling, grading, mechanized land clearing, ditching, other excavation activity, and piling installation in waters of the United States require a Section 404 permit from the USACE prior to the commencement of construction.

environment that precludes establishment of SAV. A 2007 side-scan sonar survey of the approaches to the Salem and Hope Creek Generating Station intake structures, a 2009 survey conducted to support potential future development in the area, and a side-scan sonar survey conducted in 2020 for the Project all found no SAV near the site. Although the Project involves new dredging, neither historic mapping nor past/current field surveys noted SAV in the area or adjacent areas.

6. Signatory Party Permits.

TABLE B-1 below lists the application submittal dates and the status of the permits and approvals required for the Project, including the NJDEP Waterfront Development Individual Permit and Water Quality Certificate, the USACE Section 10/404 Individual Permit, and other local, state, and federal permits.

TABLE B-1: **Project Permits/Approvals**

PERMIT TYPE/NUMBER	APPLICATION SUBMISSION DATE	STATUS/ ISSUANCE DATE
NJDEP CAFRA, Waterfront Development Individual Permit (In-water), Coastal Wetland and Water Quality Certificate	7-2020	6-24-2021
NJDEP Freshwater Wetlands Individual Permit	6-17-2020	7-23-2021
NJDEP Tidelands License (Dredging)	3-1-2019	Pending
NJDEP Tidelands License (Fixed Structure)	3-1-2019	Pending
DNREC Federal Consistency Determination	8-21-2020	5-29-2021
USACE Jurisdictional Determination	6-17-2020	Pending
USACE Section 10/404 Individual Permit	6-18-2020	Pending
Cumberland-Salem Conservation District Soil Erosion and Sediment Control Plan Certification	2020	Pending

7. Section 3.8 Finding. Provided that the project is constructed and operated in accordance with the provisions and conditions established by this docket and the permits noted in **TABLE B-1** above, the Project will not substantially impair or conflict with the Commission's Comprehensive Plan.

C. DECISION

Effective on the approval date for Docket No. D-2020-002-1 below, the Project and facilities described in Section A "DESCRIPTION" of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

Monitoring and Reporting

1. Before the docket holder places any dredge material at a location other than Cell No. 3 or that is not authorized by the NJDEP Waterfront Development Permit, the docket holder shall provide DRBC with both the application to NJDEP and NJDEP's corresponding written approval for placement in such location.

2. Best Management Practices (BMPs) shall be implemented at CDF Cell No. 3 to remove practically all TSS from decant water prior to any discharge. These BMPs shall include:

a. A minimum of two feet of freeboard below the top of the CDF berms shall be always maintained.

b. Pumping of dredged material into the CDF shall cease if a minimum of two feet of freeboard cannot be maintained at any given time.

c. The CDF shall be visually inspected by the docket holder and/or its contractor during active hydraulic dredging to ensure adequate freeboard requirements and integrity of the berms.

d. Decant water must be retained for a minimum of 24-hours prior to discharge back to the watercourse. All decant water shall ultimately be discharged into the Delaware River by means of discharge from the CDF weir structure.

e. The docket holder is responsible to assure that the confined disposal facility (CDF) including dikes, cross-dikes, cells, weir box and outlet structure are prepared and maintained to assure integrity and to minimize sedimentation or turbidity from entering surrounding waters and/or wetlands.

Other Conditions

3. To protect anadromous fish species, such as the federally-listed Atlantic sturgeon and shortnose sturgeon and other commercially and recreationally valuable species during their spawning periods, the docket holder shall adhere to a seasonal restriction on all sediment-generating activities (e.g., pile-driving, sheet driving, dredging, etc.) and other work (e.g., site preparation work) below the mean high water line from March 1 through June 30 of each calendar year. Physical measures that will be utilized to avoid impacts to habitat, such as the installation of a floating turbidity barrier, shall be conducted prior to the commencement of authorized activities and shall be monitored weekly, maintained, and kept in place until project completion.

4. The docket holder shall adhere to all conditions and guidance issued by federal resource agencies (i.e., US Fish & Wildlife Service; National Oceanic and Atmospheric Administration; National Marine Fisheries Service) for the protection and conservation of habitat for federally-listed shortnose sturgeon and Atlantic sturgeon.

5. Sound practices of excavation, backfill and re-seeding shall be followed to minimize erosion and deposition of sediment in streams.

6. This approval of the construction related to the facilities described in this docket shall expire three years from the approval date below unless prior thereto the docket holder has commenced operation of the subject project or has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval.

7. Within 10 days of the date that construction of the Project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

8. Upon completion of construction of the approved Project, the docket holder shall submit a statement to the DRBC, signed by the docket holder's engineer or other responsible agent, advising the Commission that the construction has been completed in compliance with the approved plans, and the date the Project is placed into operation.

9. Dredging, dredge spoil management, and wharf/berth construction shall be conducted in accordance with the practices described in Sections A. and B. of this docket. If in the view of the Executive Director of the DRBC the dredging, dredge spoil management, and/or wharf/berth construction operations are at any time being conducted in a manner contrary to that described in Sections A. and B. of this approval, or such that these operations are otherwise adversely affecting water quality or impeding the passage of anadromous fish, the Executive Director may direct that these operations be suspended, and the docket holder may be subject to enforcement action.

10. Construction and operation of the facility shall be operated at all times to comply with the requirements of this docket approval and the Commission's Water Quality Regulations.

11. State and federal programs not replicated by the Commission are nevertheless essential to implementing the Commission's Comprehensive Plan. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other state, federal or local government agencies having jurisdiction over the Project.

12. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

13. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (*see* 18 CFR 401.43).

14. This approval is transferable upon submission of a request by the docket holder to the DRBC Executive Director, provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in ownership. The request shall be submitted on the appropriate form and accompanied by the appropriate fee (*see* 18 CFR 401.43).

15. If the docket holder changes its name, it shall submit a request to the Commission for a name change on the appropriate form and accompanied by the appropriate fee (*see* 18 CFR 401.43).

16. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

17. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

18. The Commission reserves the right to open this docket at any time, and to reconsider its decision and any and all conditions imposed hereunder in light of further information developed by, or decisions rendered in, pending or future proceedings conducted by agencies of its member states and the United States concerning the development and operation of the New Jersey Wind Port and related facilities.

BY THE COMMISSION

APPROVAL DATE: September 9, 2021