Ocean Wind
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Appendix F – Agency Correspondence

Ocean Wind
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Ocean Wind – New Jersey Department of Environmental Protection Division of Land Resource Protection Permit Pre-Application Meeting Minutes- November 09, 2021

Ocean Wind – New Jersey Department of Environmental Protection Permit Pre-Application Meeting Minutes

Meeting	NJDEP Permit Pre-Application Meeting
Meeting Date	Wednesday, November 09, 2021
Place	Microsoft Teams Meeting
Attendees	See Attachment 1
Attachments	Meeting Attendees
	Powerpoint Slide Show Presentation

NJDEP introduced the Ocean Wind Project as the focus of the NJDEP Permit pre-application meeting. It was noted that pursuant to N.J.A.C. 7:7-22.2(d), Ocean Wind provided notification of meeting at least 15 days prior to the entities listed in N.J.A.C. 7:7-22.2(d)2i through vi. A representative from Garden State Seafood Association was on the call. NJDEP asked Garden State Seafood Association to provide any written questions to the NJDEP following the meeting.

Ocean Wind gave an overview of the agenda and the purpose of the meeting which included a description of the Project schedule, Project description and high-level review of the plan sets. Ocean Wind noted the NJDEP Land Use Resources Protection (LRP) Permit Application is intended to be submitted in January 2022.

The Bureau of Ocean Energy Management (BOEM) is the lead federal agency, and the National Environmental Policy Act (NEPA) process included Notice of Intent (NOI) issued March 30, 2021. BOEM has advised the current schedule anticipates Record of Decision (ROD) March 2023.

Ocean Wind stated they would share the latest permit schedule with NJDEP. The Ocean Wind team is preparing a permit package submittal for NJDEP Freshwater Wetlands (FWW) Individual Permit (IP), Coastal Area Facilities Review Act (CAFRA) IP, Coastal Wetlands and Waterfront Development (WFD) IP and Flood Hazard Area (FHA) to be included as part of the CAFRA/WFD IP. In addition to the above listed IPs, Tidelands Grant Application, Green Acres Major Park Diversion and Lease of State Lands at Island Beach State Park (IBSP) will also be required.

Additional NJDEP feedback and coordination is required for the United States Army Corp of Engineers (USACE) Section 408 permit for two intercoastal waterway crossings and the crossing of a beach nourishment civil works project in Ocean City.

PSEG described the Oyster Creek and BL England onshore facility route options and highlighted the preferred alternatives. These were chosen in order to minimize impacts and use the most direct route option using previously disturbed areas. Horizontal Directional Drilling (HDD) is preferred as opposed to open cut but the Project final design is still in progress.

Wetland delineations have been conducted by HDR in the Oyster Creek and BL England areas. The NJDEP conducted a field verification and HDR is in the process of revising the wetland delineation plans.

Species-specific, threatened and endangered species and ecological community surveys have also been completed and no Swamp Pink, Knieskern's Beaked Rush or Bog Turtle were found in the Project area.

PSEG presented a high-level review of the preferred substations location and layout. It was noted that the Project design is still in progress and the Project team is looking to minimize the Project substations footprints as much as possible and utilize existing disturbed areas.

High level conceptual drawings of duct bank burial onshore and crossings were shown. All cable burials would be in accordance with NJDEP regulations and in coordination with USACE to ensure no interference with the beach nourishment project.

HDR described the cable landfall at Island Beach State Park (IBSP) from the Atlantic Ocean, and noted the cables largely avoid prime fishing areas and artificial reefs and historic wrecks. There are currently two options proposed for the IBSP cable crossing from the Atlantic Ocean to Barnegat Bay. The base case is an HDD under the beach, surfacing in the Ocean Swimming Parking Area 2 auxiliary lot, and then HDD continuing west into Barnegat Bay (referred to in this document as the southern alternative).

In response to significant comments from federal agencies regarding impacts to submerged aquatic vegetation (SAV), Ocean Wind developed an alternate route that avoided significant portion of SAV. A meeting was held October 27, 2021 with NJDEP Land Resources Protection and Division of Marine Fisheries, Ocean Wind, HDR and PSEG to present this alternative (referred to in this document as the northern alternative). The northern alternative would also use the Ocean Swimming Parking Area 2, but then continue northward either through the parking lot or alongside Shore Road, before turning westward toward Barnegat Bay through the IBSP maintenance yard. While this northern alternative would significantly reduce impacts to SAV, it would temporary construction impacts on IBSP.

The southern alternative, will also require dredging for maintenance, cable installation and barge access due to the shallow nature of the area. The northern alternative would likely require little dredging as it was historically dredged.

HDR also mentioned that a Sediment Analysis Plan would be submitted on November 09, 2021 to NJDEP and would include both alternatives.

Where the cable installation crosses Oyster Creek, following the crossing of Barnegat Bay, this Oyster Creek Crossing would also impact mapped shellfish, SAV and intertidal subtidal areas.

HDR provided a summary of mitigation needs for the project. As the Project design is still being refined to minimize impacts to regulated resources, it is anticipated that the NJDEP and USACE permit applications will be submitted and coordination for mitigation requirements and ratios would be done during the review process. Impacts to wetlands, intertidal/subtidal, SAV, riparian zone and shellfish habitat are anticipated. In accordance with NJDEP LRP regulations, the Project understands a mitigation plan has to be complete 90 days prior to any regulated construction activity.

Ocean Wind – New Jersey Department of Environmental Protection Permit Pre-Application Meeting Minutes

Ocean Wind summarized the cultural resource surveys conducted for the Project. For terrestrial Project areas, a Phase 1A and Phase 1B was conducted and recommended a Finding of No Adverse Effect. For marine Project areas. A Marine Archaeology Resources Assessment was conducted with 19 potential submerged cultural resources recommended for avoidance.

A Visual Effects on Historic Properties was also completed and submitted to BOEM. Six properties were identified that have a character-defining features with ocean views and were determined to have the potential for adverse effects.

Ocean Wind discussed the Project would impact three Green Acres (GA) encumbered parcels located in Ocean City. Coordination is ongoing for a Major Diversion of Parkland. Ocean Wind summarized the GA permit schedule.

Work conducted on IBSP would require a Lease of State Lands. The Lease would be a 24-year lease to match the Tidelands and lifespan of Project. A Tidelands License would also be required. It was stated that utility and dredging licenses would be required for dredging, operations and maintenance of the Project. The Tidelands application is anticipated for submittal January 2022, concurrently with the NJDEP LRP permit package submittal.

Ocean Wind discussed the Project would require an Environmental Protection Agency (EPA) Outer Continental Shelf (OCS) air quality permit. A Notice of Intent (NOI) was submitted to EPA on September 14, 2021. The OCS permit area is 25 nautical miles from the sources which for the Project touches landfall. Any area on land would be addressed through the NJDEP Air Quality Division. Coordination with the EPA and NJDEP is ongoing. The anticipated EPA OCS permit submittal is anticipated for Quarter 1 of 2022.

NJDEP asked if the IBSP alternative that would utilize the historically dredged channel (the northern option) was discussed previously with NJDEP and Parks and Forestry.

NJDEP and **Ocean Wind** clarified that a meeting was held on 10/27/2021 with NJDEP and Parks and Forestry to present the alternative. Ocean Wind is currently coordinating with NJDEP and BOEM.

NJDEP mentioned that there were no major red flags with the newly proposed IBSP alternative.

NJDEP asked if Ocean Wind was aware of the South Fork Project Air Quality permit change and any potential coordination. **PSEG** confirmed that the Project was aware of this.

PSEG presented a high-level presentation of the Oyster Creek onshore plan set drawings. The limits of disturbance, cables and existing disturbed dirt road along the Farm property were highlighted.

NJDEP asked what the work laydown area adjacent to Holtec Farm access road (blue box) would require, specifically if any tree or vegetation clearing would be required.

PSEG clarified that the area is a small, previously disturbed area, and no clearing would be required. It had been previously used as a staging area for an unrelated project.

NJDEP stated that the work area has a potential for northern pine snake and diamond back terrapin turtles to be in the area. Currently the temporary laydown/work area has jersey barriers, but terrestrial species can get between the jersey barriers. NJDEP asked if there were plans to have better barriers set-up and they would be required to be shown on the plan.

Ocean Wind clarified that the jersey barriers were already in place but that all Best Management Plans (BMPs), Soil Erosion Sediment Control (SESC) and any measures taken to keep out terrestrial species, as well as keep in environmental concerns, would be taken to maximum feasible extent possible and would be shown on the plans.

Ocean Wind clarified that each onshore drawing sheet would have a table that quantified temporary and permanent impacts for that particular sheet.

NJDEP agreed that they wanted each sheet to have the impact table with impact numbers for any impacts shown on that sheet.

HDR explained the permit application would have one table for cumulative impacts for the total project.

NJDEP asked for clarification that mitigation would be done pre-construction and not during permitting.

HDR stated that conversations on mitigation with agencies would be done during the permitting review process. As the design is still being finalized, the Project doesn't have the final impact numbers and, therefore, doesn't have the mitigation ratios required. NJDEP and USACE will provide input during the permit review for the team to develop appropriate mitigation.

NJDEP asked if thought had been given to opening Shellfish and SAV mitigation plans to stakeholders for the opportunity to comment.

PSEG stated that the Project team is aware of the Shellfish Memorandum of Understanding (MOU) dated August 2016 for the use and management of funds from the NJDEP's dedicated shellfish habitat mitigation. The Project will not create a prohibited area. Ocean Wind has existing relationships with key stakeholders (such as Reclam the Bay) and have been in talks with SAV mitigation consultants, specifically those that performed the mitigation in Atlantic City along Route 72. Thought has been given to public involvement and comment for mitigation, and the Project will continue to consider options for stakeholder engagement.

NJDEP asked if the cables going through IBSP had wetlands that were delineated included in the Wetland Letter of Interpretation (LOI): Line Verification that was recently reviewed by NJDEP.

HDR clarified it was not included because only the base case (southern) alternative was proposed at the time when the LOI: Line Verification was submitted. It is anticipated that a wetland delineation and tree survey will be completed at the second alternative proposed at IBSP during the last week of December.

NJDEP asked if the previously dredged recently proposed IBSP alternative is the preferred alternative.

Ocean Wind explained the base case remains the southern alternative, but as a result of significant comments from the National Marine Fisheries Service (NMFS), additional alternative areas were explored that didn't have as much impact to SAV. Ocean Wind is working with the regulatory agencies to determine the best available option to avoid impacts to natural resources

PSEG presented a high-level overview of the BL England onshore plan set drawings. The limits of disturbance, cables and existing Right of Way (ROW) were highlighted. The HDD entry and exit pits under Roosevelt Boulevard Bridge and Crook Horn Creek were also discussed. After the HDD exit pit under Roosevelt Boulevard, the HDD tie in is proposed to occur at the All Seasons Marina.

NJDEP Tidelands asked if any conversations have been had with the private marina owner about going through their property yet. They stated that there is an existing license and pending dredging license application in place for this area.

PSEG discussed that conversations have been ongoing and that a recent site visit with the marina owner was held to discuss the project needs. The marina owner discussed future development plans he has and PSEG is taking the private property owner's plans into consideration for the Project design.

HDR asked if there is an existing license or grant in this area, would that allow for it to be excluded from the Tidelands license that is issued by NJDEP.

NJDEP responded that they would need to check each existing grant or license, but it is possible that the Ocean Wind license wouldn't need to cover these areas.

Ocean Wind asked if the dredging license in the review process would overlap with our Project.

NJDEP stated they would check and let Ocean Wind know.

HDR presented a high-level overview of the HDD plans. It was stated that one line that overlaps the various years of Shellfish mapping and one line for various years of SAV mapping would be created for the plan sheet to avoid confusion and less line work. As the Project design is still in progress, the plan set shown included both open cut and HDD alternatives at the Holtec Farm Landfall, although HDD is the preferred alternative.

NJDEP discussed the plan requirements that the Office of Dredging and Sediment Technology would like to see. The area, existing water depth, depth of dredge, side slopes, volume of dredge material and type of dredging should be shown. Also, all references should be to Mean Low Water (MLW). How it is

depicted is up to the Ocean Wind team. NJDEP mentioned other applications have shown existing and proposed sheets so it is not all on one sheet.

NJDEP stated if the dredged channel alternative at IBSP is chosen, it would need to be clear why this would be the best option given the increased impacts to state land.

Ocean Wind explained that although there would be more impact to state land, the alternative would be only a portion of the impacts to SAV than the base case. Also, the current base case has very shallow water depth and would require dredging for cable installation, barge access and maintenance. The northern option is a historically disturbed (previously dredged) area.

Ocean Wind also clarified that NMFS requested BOEM evaluate alternatives that would lessen SAV impacts. NMFS additionally provided several alternatives, all of which would incur significantly more impacts to Island Beach State Park than this historic channel alternative. Several alternatives were analyzed but the northern option shown during the presentation maintains the Project purpose and need, and significantly reduces impact to SAV. The Project Alternatives Analysis section of the permit would identify and detail all alternatives examined and why each preferred alternative was identified.

HDR continued to show HDD pit permit plan drawings. It was mentioned that a hard stand would be required as well as a maintenance man-hole access point for long term maintenance of the project. Details for dredging equipment such as jet trenching and typical trench dimensions preliminary geometry was show. The HDD pits side view and profile were shown. The HDD pits for the Atlantic Ocean would be slightly larger than those from the Barnegat Bay.

NJDEP requested that during the permitting public notice process, the Ocean Wind team could combine the public notice letter for NJDEP LRP IPs with the public notice for Tidelands application in one letter. NJDEP offered to review a draft letter prepared by Ocean Wind team prior to being sent to the public.

Ocean Wind agreed and thanked NJDEP for their offer to review a draft letter.

Action Items

- Ocean Wind to share latest permit schedule with NJDEP
- HDR to draft public notification letter to public for NJDEP LRP permit that includes Tidelands license and send to NJDEP for review
- NJDEP (Tidelands) to provide Ocean Wind information on current marina dredging tidelands application

Attachment 1- Meeting Attendees

Janet Stewart-NJDEP

Katharine Todoroff- NJDEP

Colleen Brust- NJDEP

Elizabeth Lange- NJDEP (Fish and Wildlife)

Kelly David- (Fish and Wildlife)

Meghan Baratta- NJDEP

Sarah Bates- NJDEP

Andrew- NJDEP

Kevin Applegate- Green Acres

Adria Wentzel- NJDEP

Kristina Roselli-NJDEP (Bureau of Tidelands)

Ken Ratzman- NJDEP (Air)

Katherine Nolan- NJDEP

Andrew McTague- NJDEP

Kelly Davis- NJDEP

Elizabeth Lange- NJDEP

Gary Nickerson- NJDEP

Andrew Thompson- NJDEP

Todd Stewart- NJDEP

Pilar Patterson- Ørsted

Kate Brennan- Ørsted

Katharine Perry- Ørsted

Dave Brizzolara- HDR

Joseph Dennis- HDR

John Duschang- HDR

Attachment 1- Meeting Attendees

Sarah Zappala- HDR

Paul Bearden- HDR

Deidra Valianti- HDR

Rob Pollock- PSEG

Doug Gordon- PSEG

Jennifer Nicholas- PSEG

Doug Gordon- PSEG

Mike Pego- PSEG

Rob Pollock- PSEG

Tom Paterson- PSEG

David Hinchey- PSEG

Travis Barr- PSEG

Jason Smolinski– E2PM

Scott Mackey- Garden State Seafood Association

Ocean Wind

NJDEP Pre-Application Meeting for Oyster Creek and BL England

November 9, 2021

Ocean Wind
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Agenda

- Introductions
- Project Description
- Onshore Project Facilities
- Offshore Project Facilities
- Mitigation
- Cultural Resources
- Green Acres and Lease of State Lands
- Tidelands
- Air Quality
- Questions

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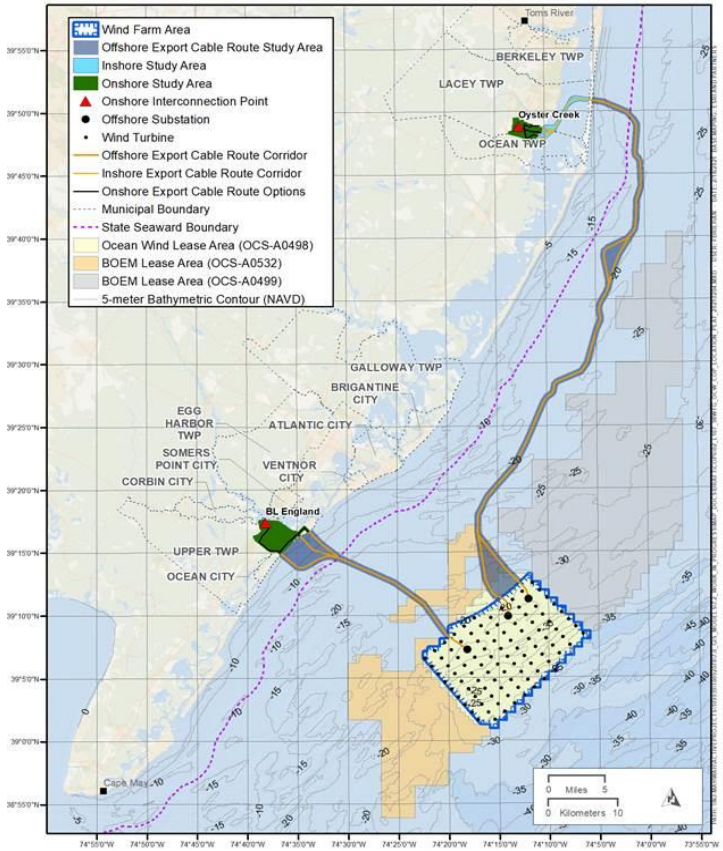
Ocean Wind
Awarded by the NJ BPU in June 2019



Project overview

- 1,100 MW
- Up to 98 turbines to be installed
- 15 miles off the coast of Southern New Jersey
- Will power over half a million NJ homes with clean energy
- Commercial operations expected by the end of 2024
- Ocean Wind is a 75/25 Joint Venture with PSEG

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Ocean Wind Permitting Timeline: BOEM and NJDEP

BOEM

NEPA Process

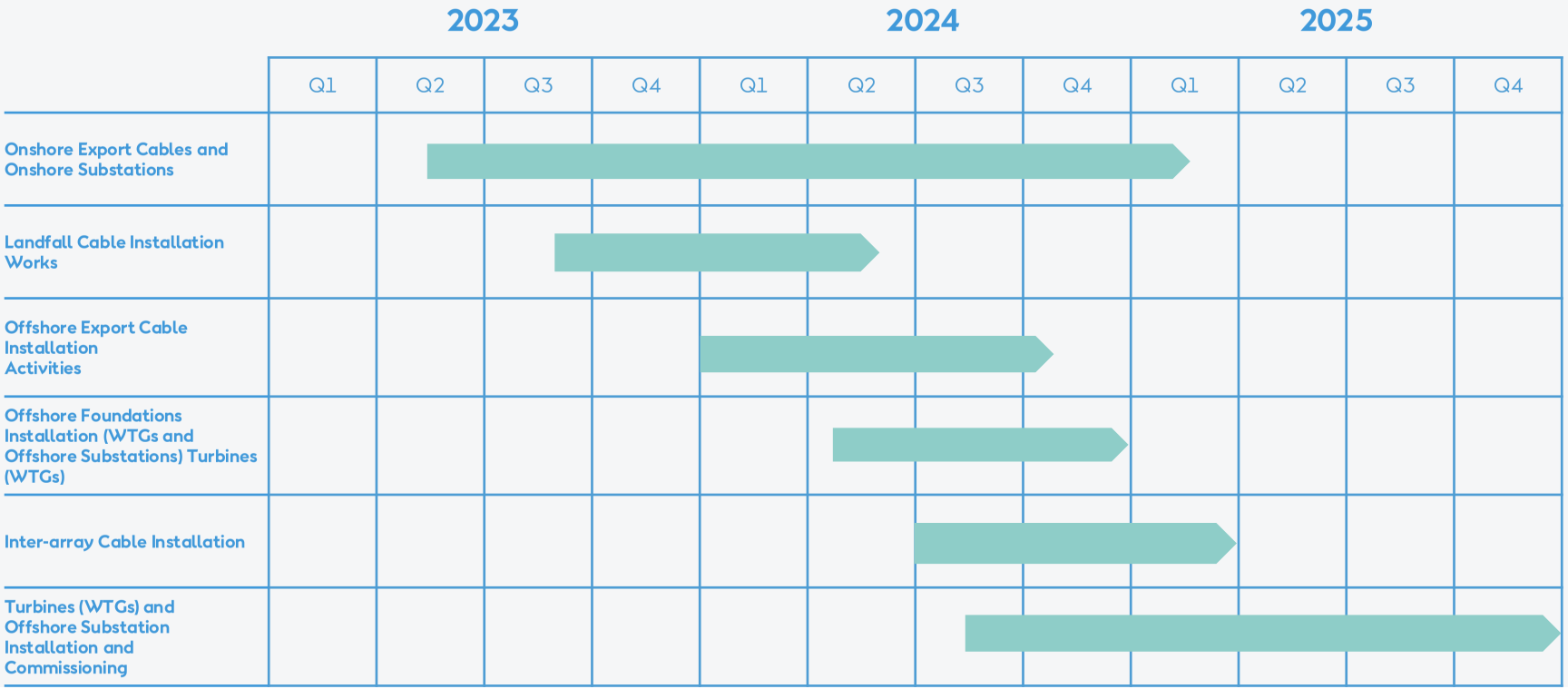
Action	Timeframe
Notice of Intent (NOI) to prepare an Environmental Impact Statement	Issued March 30, 2021
Draft Environmental Impact Statement	May 2022
Final Environmental Impact Statement	February 2023
Issuance of Record of Decision or combined Final EIS / Record of Decision	March 2023

NJDEP

Permitting

Action	Timeframe
Pre-application Coordination	Sept-Nov 2021
DLRP Permit Submittal (CAFRA/WFD, FHA, FWW)	January 2022
Federal Consistency Determination	October 28, 2022
Green Acres Approval	September-October 2022
DLRP Permit Approval	October-November 2022
State Lands Lease Execution	November 2022
Tidelands License Approval	November 2022
Water Allocation	Prior to construction
Construction Dewatering	

Ocean Wind 1 – Indicative Construction Schedule



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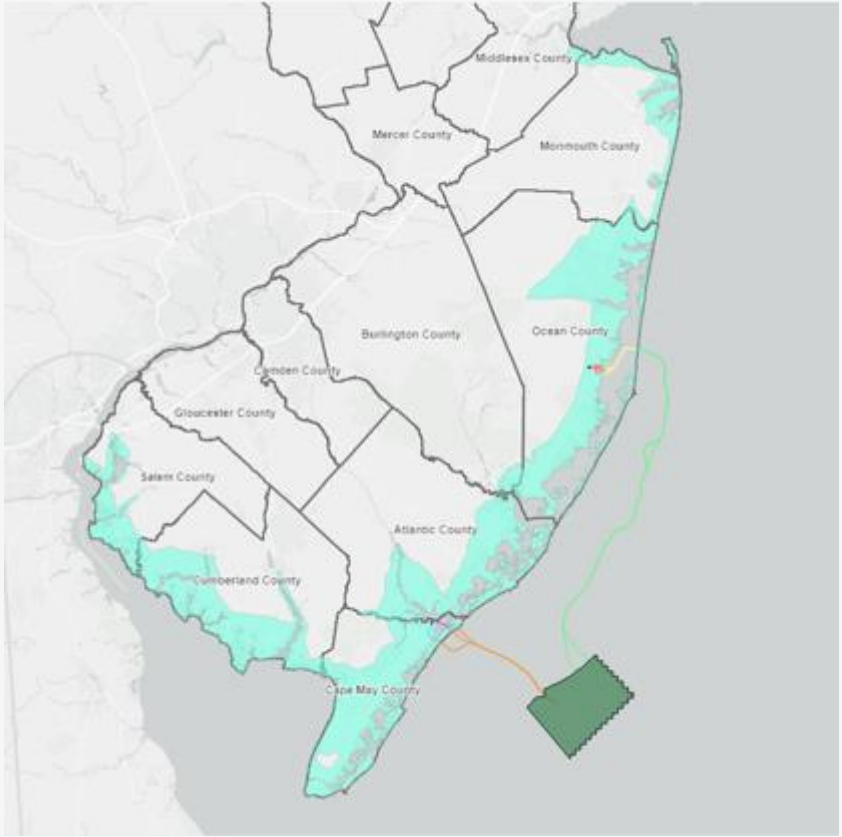
State Regulatory Approvals



NJDEP Land Resource Protection

- In-water Waterfront Development Individual Permit (N.J.A.C. 7:7)
- Coastal Area Facilities Review Act Individual Permit (N.J.A.C. 7:7)
- Coastal Wetlands Permit (N.J.A.C. 7:7)
- Flood Hazard Area (included as part of CAFRA/WFD; N.J.A.C. 7:13)
- Freshwater Wetlands Individual Permit (N.J.A.C. 7:7A)

NJDEP Tidelands License – Utility and dredging license (N.J.S.A. 12:3)

NJDEP Green Acres Major Diversion of Parkland (N.J.A.C. 7:36)

Lease of State Lands at Island Beach State Park

Other NJDEP input required for USACE Section 408 Permit and EPA OCS Air Permit

Oyster Creek – Onshore Facilities

Routing and Siting

- Holtec "Farm" Property – Lacey Township
- Bay Parkway – Ocean Township
- Lighthouse Drive – Ocean Township

Utilizing existing disturbed areas, paved roadways, parking lots, and dirt trails

Oyster Creek – Onshore Facilities Preferred Alternative

Holtec "Farm" Route

HDD/Open Cut at bay landfall and HDD across Oyster Creek

Wetlands and Watercourses Delineated

Habitat Assessments of Ecological Communities

Threatened and Endangered Species Surveys conducted. The following species not found:

- Swamp pink
- Knieskern's Beaked Rush
- Bog turtle

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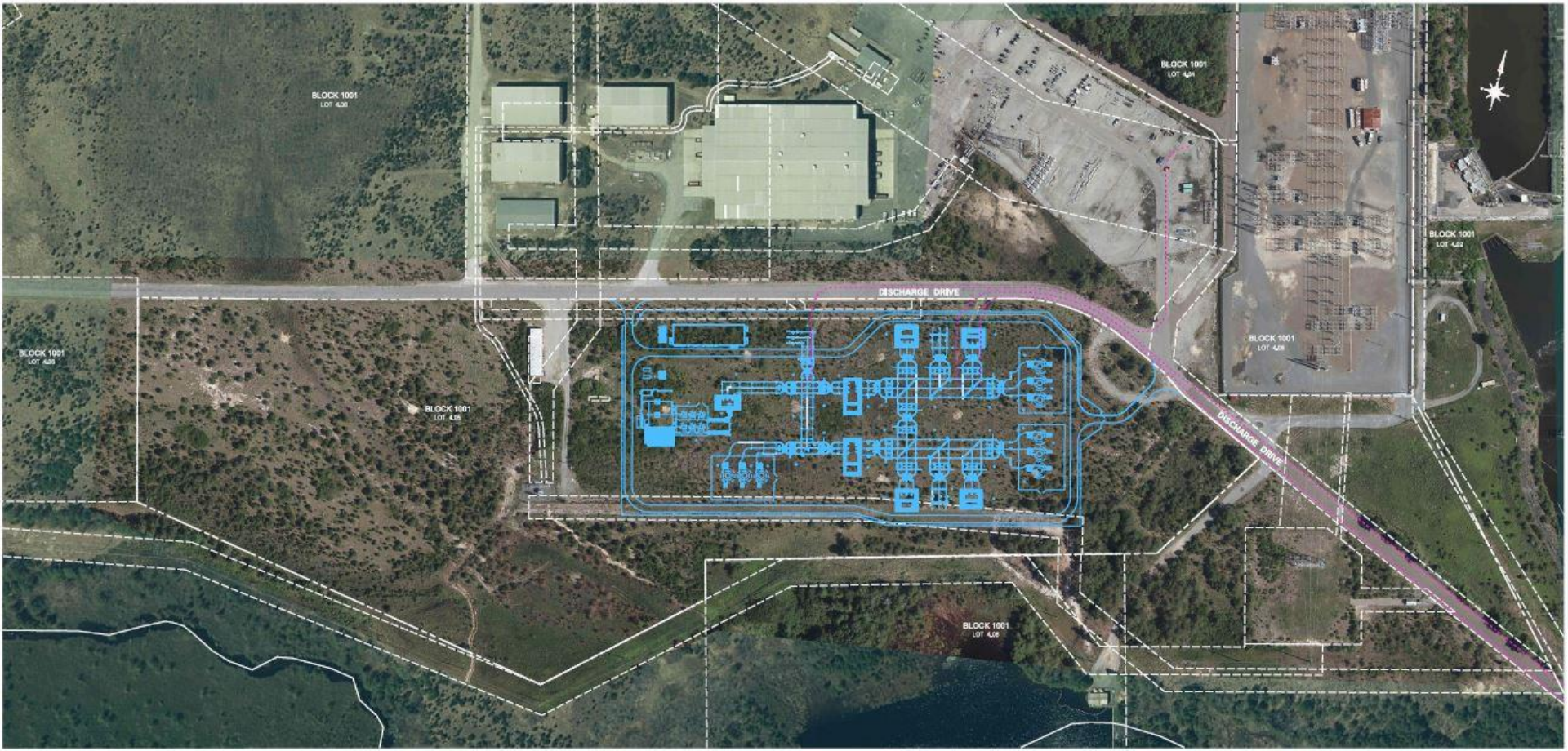
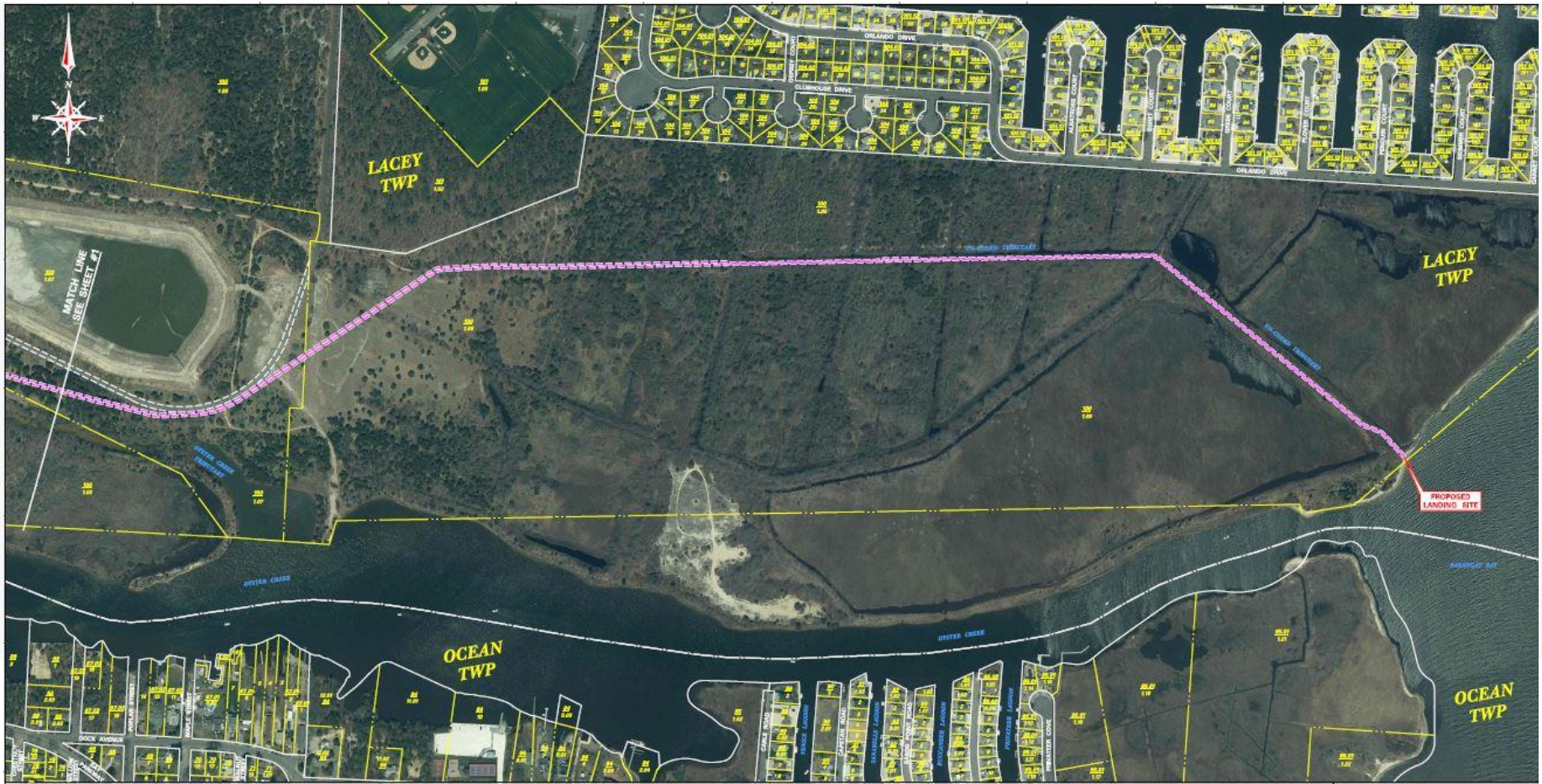
Oyster Creek – Onshore Substation



Oyster Creek – Onshore Facilities



BL England – Onshore Facilities

Wetlands and Watercourses Delineated

Habitat Assessments of Ecological Communities

Threatened and Endangered Species Surveys conducted. The following species were not found:

- Swamp pink
- Bog turtle

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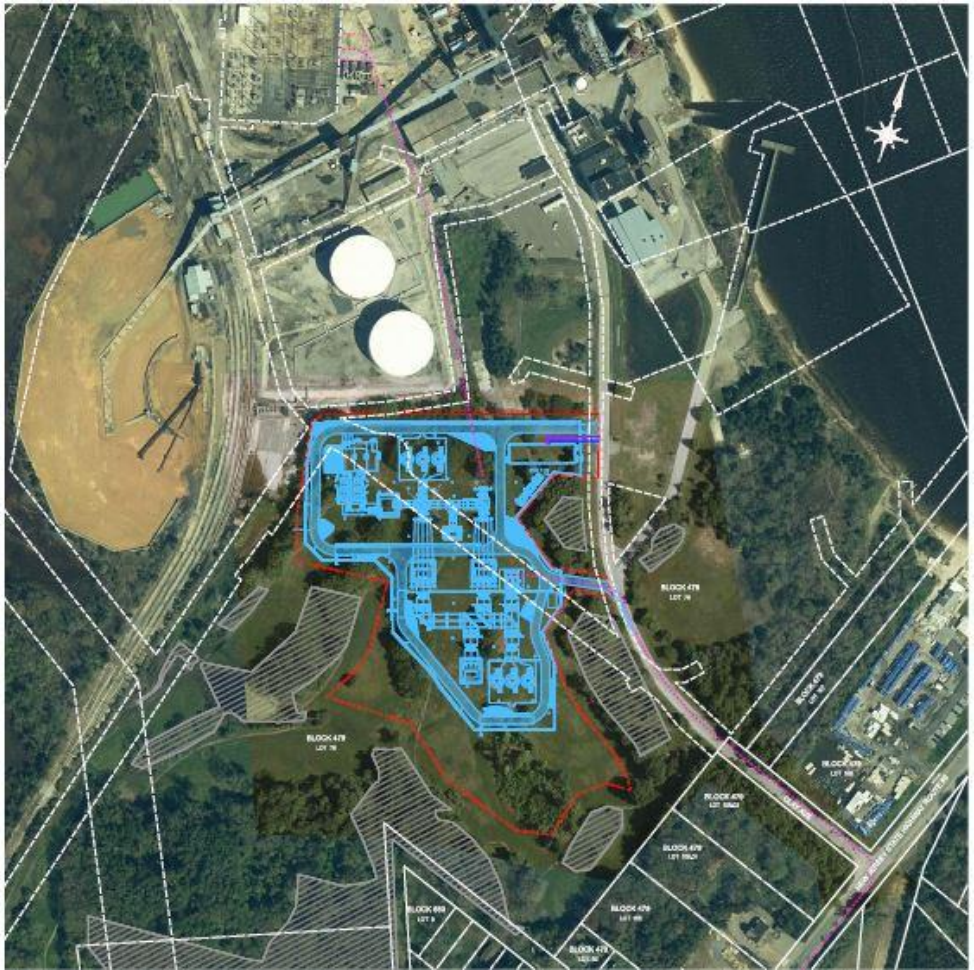
BL England – Onshore Facilities



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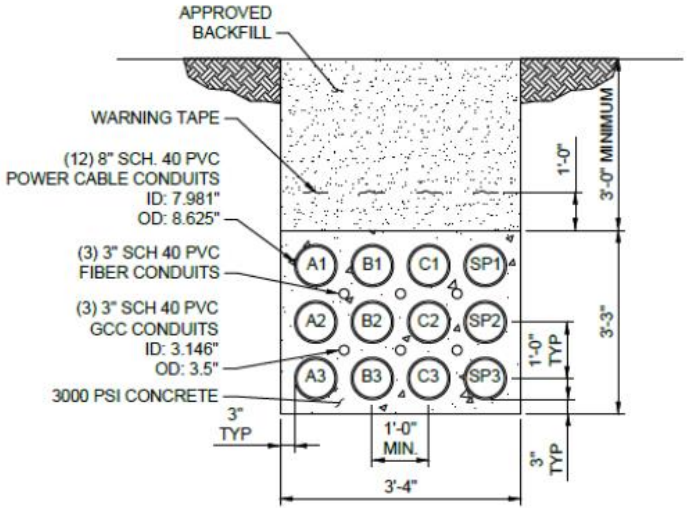
BL England – Onshore Facilities

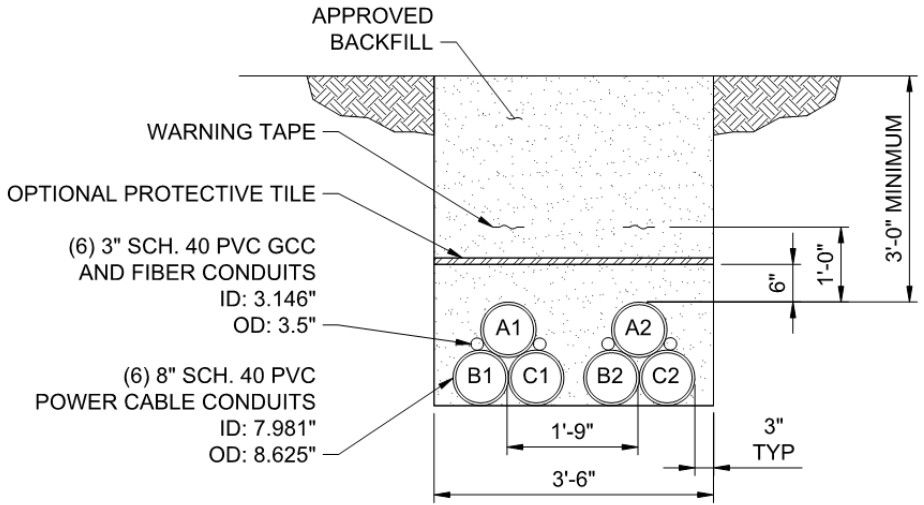
Onshore Facilities Installation Technology

Traditional duct bank cable burial, limited vegetation clearing, HDD Oyster Creek and Crook Horn Creek (Roosevelt Blvd Bridge)

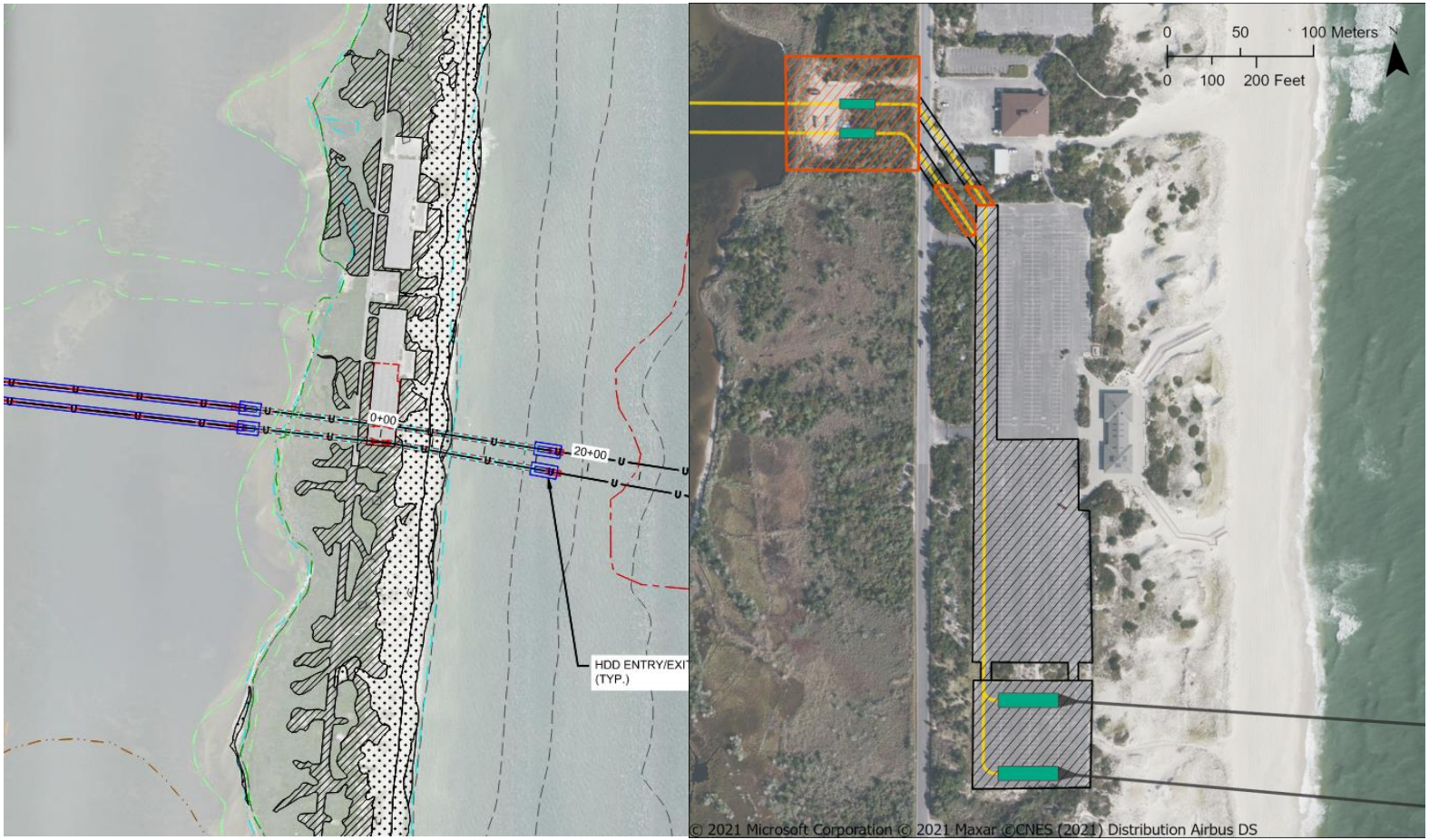


3 X 4 CONCRETE-ENCASED DUCT BANK CROSS SECTION

NOT TO SCALE



Offshore Facilities – Oyster Creek Atlantic Ocean Island Beach State Park Landing



- Intertidal subtidal shallows
- Beaches
- Dunes
- Prime fishing areas
- Artificial reefs/wrecks

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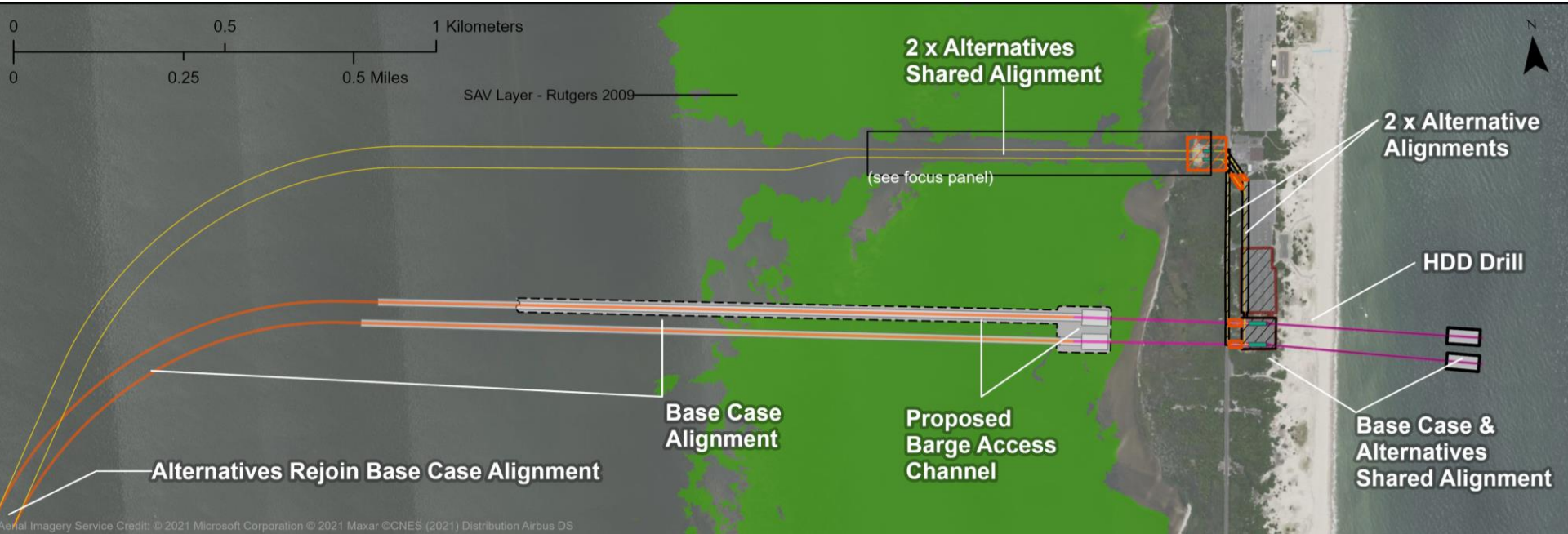
Offshore Facilities – Oyster Creek Barnegat Bay Crossing, Lacey Township Landing

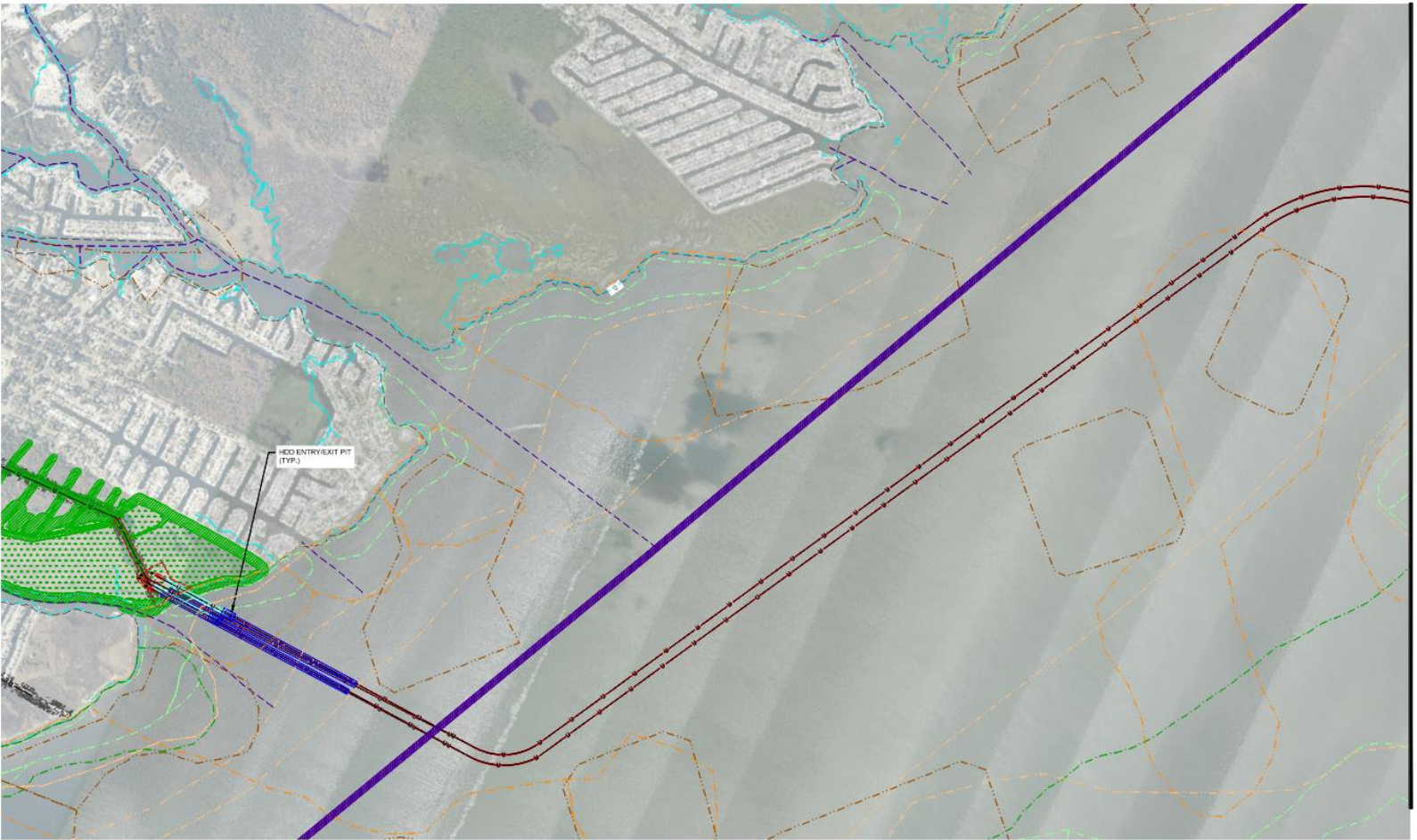
Submerged Aquatic Vegetation
Shellfish Habitat
Intertidal subtidal shallows
Beaches
Dunes
Prime fishing areas

Sediment Sampling and Analysis Plan to be submitted for potential areas of dredging

- HDD pits
- Maintenance dredging
- Cable installation



Offshore Facilities – Oyster Creek Barnegat Bay Crossing, Lacey Township Landing



Submerged Aquatic Vegetation

Shellfish Habitat

Intertidal subtidal shallows

Offshore Facilities – BL England Ocean City Landing

- Intertidal subtidal shallows
- Beaches
- Dunes
- Prime fishing areas
- Artificial reefs/wrecks

USACE Section 408 Coordination

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Mitigation

- Project has been designed to avoid and minimize impacts to regulated resources wherever possible
- Mitigation will be conducted in accordance with NJAC 7:7-17, NJAC 7:7A-11, and NJAC 7:13-13 which allows for mitigation for impacts to wetlands, riparian zone, shellfish, SAV, intertidal and subtidal shallows
- Mitigation plan to be submitted for approval prior to Project construction in 2023, in accordance with 7:7-17.3(a) and 7:7-17.7(a)
  - *Mitigation required under a general permit authorization or individual permit shall be performed prior to or concurrently with the regulated activity that causes the disturbance*
  - *A mitigation proposal be submitted at least 90 calendar days prior to the commencement of regulated activities authorized by a permit.*

Cultural Resources

Terrestrial

- Phase 1A and Phase 1B conducted; ongoing surveys for route micrositing
- Archaeological and Geomorphology characterization and assessment
- Results reported in Terrestrial Archaeology Resources Assessment
  - Finding of No Adverse Effect recommended.

Marine

-Geological, pre-contact, and historical background research

-Gradiometer, side-scan sonar, sub-bottom profiler and HRG and geotechnical survey results and Paleolandscape reconstruction

-19 potential submerged cultural resources identified – avoidance recommended

-Results reported in Marine Archaeology Resources Assessment

BOEM using NEPA substitution for NHPA Section 106 review

BOEM tentative distribution of reports to consulting parties scheduled April 27, 2022

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Green Acres

Ocean City Parcels Encumbered

- Block 611.11, Lots 145 and 137
- Block 3350.01, Lot 17

Ocean City scoping hearing Q1 2022

Pre-Application & Final Application Part 1 Submittal Q2 2022

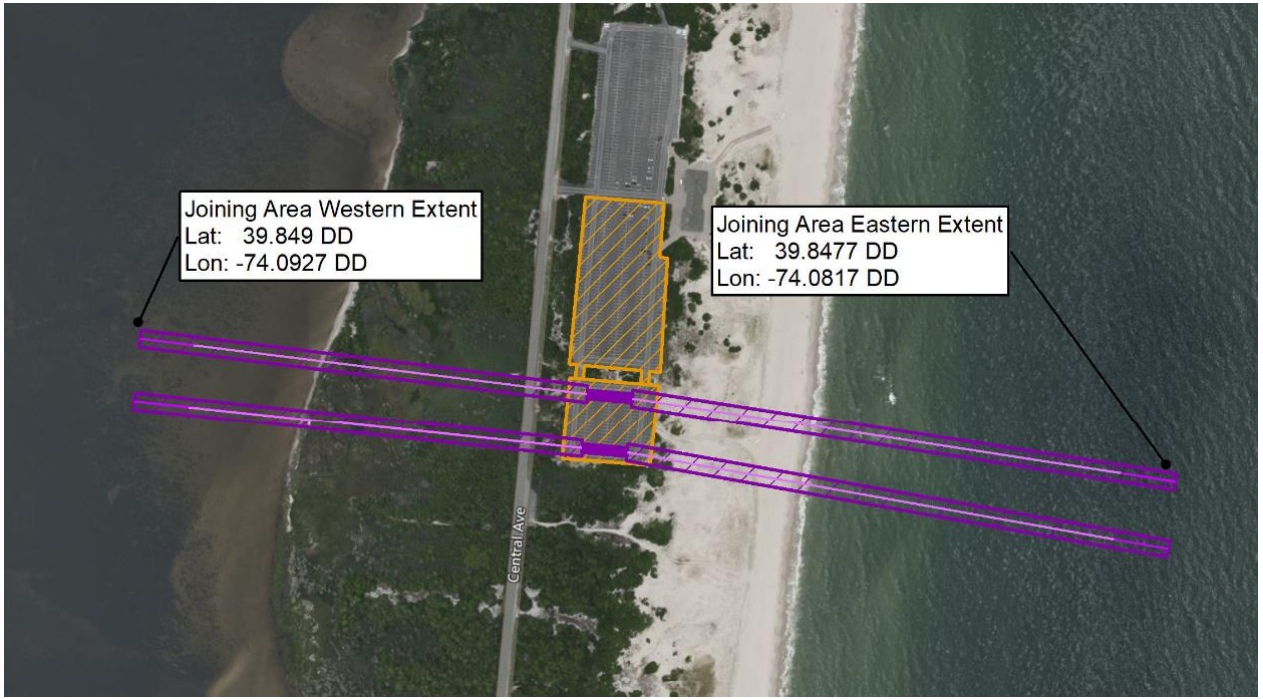
Final Application Part 2 Submittal Q3 2022

State House Commission Meeting Q3/Q4 2022

IBSP Lease of State Lands

Ongoing coordination

- Appraisal Submittal Q4 2021
- Construction Right of Entry – Execute Q3 2022
- Lease Agreement – State House Commission meeting Q2 2022; Lease Execution Q4 2022



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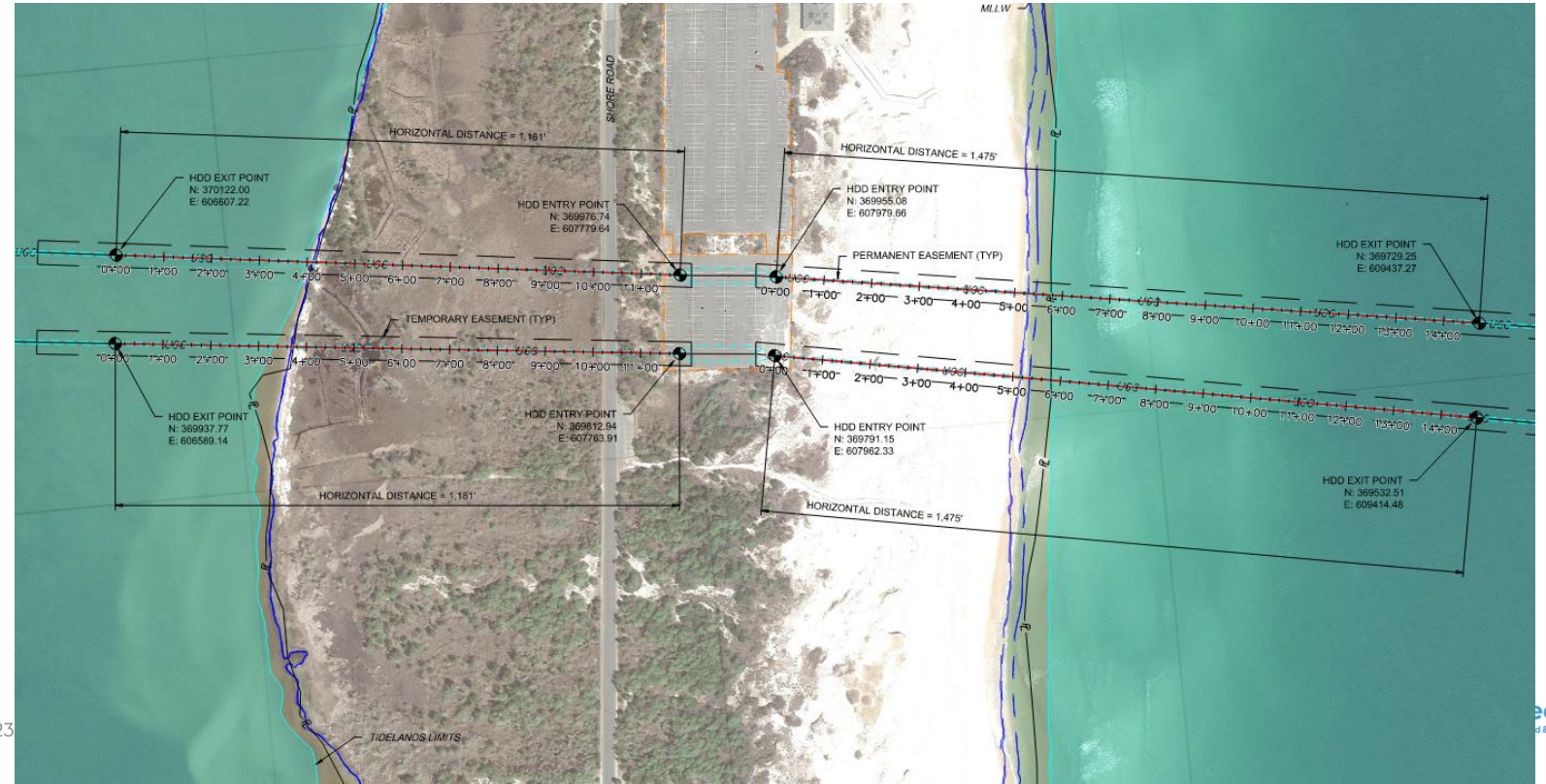
Tidelands License

Utility and Dredging Licenses



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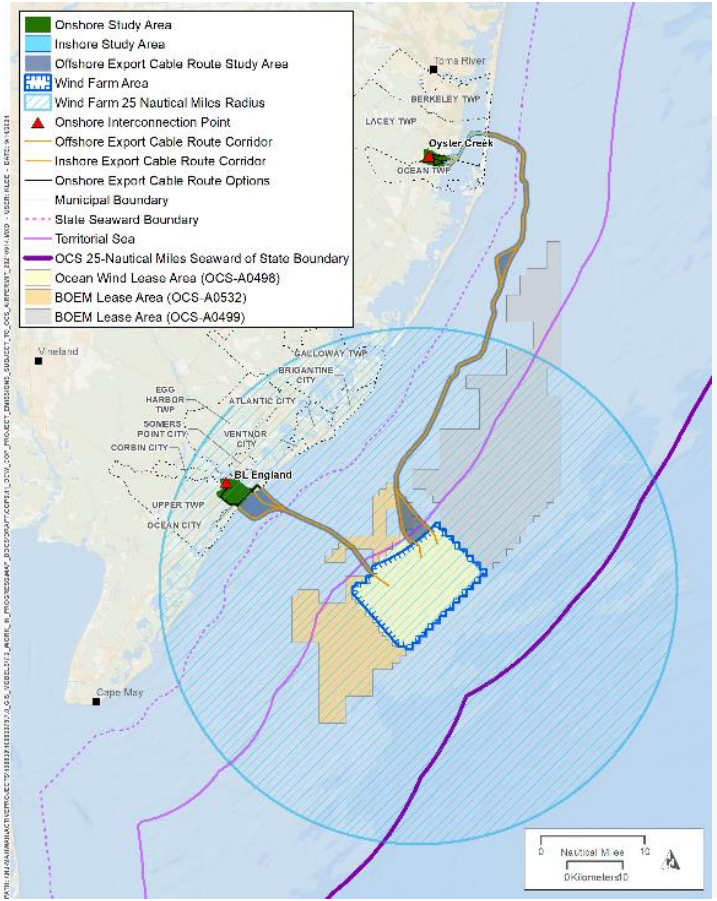
Air Quality

- Submitted Air Notice of Intent (NOI) September 14, 2021
- NOI Kick-off Meeting with USEPA and NJDEP September 15, 2021

- Application submittal Q1 2022
- Ongoing coordination with NJDEP and USEPA



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Questions and Comments?

Thank you!

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New Jersey Department of Environmental Protection
Pre-Application Regulatory Correspondence - Submerged Cables and Shellfish Habitat
December 8, 2020

NJDEP Pre-Application Meeting Minutes

Meeting	NJDEP Pre-Application Meeting - Oyster Creek Interconnection
Meeting Date	Tuesday, December 08, 2020
Place	Microsoft Teams Meeting
Participants	Ocean Wind: Pilar Patterson, Bryan Stockton, Katharine Perry, Anthony Vachez, Martin Grindlay, Ewan Porteous, Marc Reimer HDR: John Duschang, David Brizzolara, Sarah Zappala Riker Danzig: Steve Senior, Jaan Haus PSEG: Dave Hinchey, Mike Pego NJDEP (Various Departments): Deputy Chief of Staff - Jane Rosenblatt, Chief of Regulatory Affairs - Sean Moriarty, Watershed and Land Use Management Assistant Commissioner - Vince Mazzei, Katherine Nolan, Megan Brunatti, Diane Dow, Janet Stewart, Lindsay Davis, Joseph Cimino, Collen Brust.

Ocean Wind Team/HDR reviewed the agenda, stating that the purpose of the meeting was to have a focused discussion on the Oyster Creek Interconnection Point, from landfall to substation, discussing project area, installation methods and potential impacts. In particular, Ocean Wind discussed the objective of the meeting was also to confirm their understanding of the Coastal Zone Management (CZM) rules as they relate to the installation of electric transmission cables and the Project's consistency under the current CZM rules as they prepare to submit permits later this year.

Ocean Wind provided a project update on the latest developments related to the Construction and Operations Plan (COP). Ocean Wind's revised COP was submitted to BOEM in September 2020 with preliminary comments received in November 2020. BOEM coordination is ongoing and Ocean Wind anticipates the Notice of Intent (NOI) to be issued early in 2021. Ocean Wind also provided an update on the virtual public open house meetings that took place in October. These meetings were well-attended (300-400 attendees) and the presentations remain available on the Ocean Wind website. As the project moves forward into permitting, Ocean Wind has begun initial discussions with property owners to obtain landowner project acceptance related to Green Acres. Ocean Wind recognizes that Green Acres is a critical path item and is looking forward to beginning coordination with the NJDEP at pre-application meetings in the coming weeks.

Ocean Wind Team/Riker Danzig discussed the existing regulatory framework and its application to the Ocean Wind electric transmission export cable installation through Barnegat Bay and shellfish habitat. They stated that the issue of the Barnegat Bay crossing had been discussed at a technical and legal level with NJDEP on a number of occasions, and we are hoping to have confirmation of those discussions today.

Ocean Wind has determined that the installation of submerged electric transmission export cable is permissible under the existing CZM rules. Of note, the installation in the bay is not prohibited by the Shellfish Habitat rule because the project export cable is not "submerged cable" as used and defined in the CZM rules. Submerged cable, as defined and used in the rules, is underwater telecommunications cable. As a result, the temporary displacement or disturbance of sediment in connection with the cable installation described during the meeting is not prohibited by the Shellfish Habitat rule. Any potential adverse impacts associated with installation activities could be considered for mitigation consistent with the CZM rules.

NJDEP confirmed this understanding and agreed that it is their interpretation as well. NJDEP will accept and review the permit application under this interpretation and will look at details of mitigation and crossing in the application. NJDEP confirmed the activity is not prohibited under the shellfish habitat rule.

Ocean Wind Team/HDR described the location of the facilities for the Oyster Creek Interconnection point from Landfall at Island Beach State Park (IBSP), across Barnegat Bay, and onshore to the NJ mainland and decommissioned Oyster Creek Nuclear Facility where Ocean Wind proposes to build an onshore substation. Routing is still being finalized. Figures displayed on screen represent indicative routes that may deviate within a larger study area based on future design investigation. The route will consist of two cables across Barnegat Bay parallel to each other.

Ocean Wind Team/HDR reviewed NJDEP's regulated natural resources within Barnegat Bay and onshore and described how they intend to minimize impacts. Natural resources include NJDEP's mapped shellfish (2012, 1986, and 1963), submerged aquatic vegetation (SAV; 1985 and 1979) and wetlands. The current indicative route across the bay avoids all 2012 moderate and high density hardclam areas and the vast majority of these areas mapped in the 1986 dataset. The 1963 data set, developed as part of the assessment of the Intracoastal Waterway by the U.S. Department of the Interior, displays extensive high and moderate value hardclam areas in our project location that would be very difficult to avoid completely. Ocean Wind would like to avoid all shellfish areas to the furthest extent practicable.

Ocean Wind Team/HDR described the SAV mapped across Barnegat Bay. SAV is consistent across years and corresponds to what Ocean Wind has seen in the aerial photography surveys that were conducted in 2019 and recently ground-truthed with in-water surveys this fall. Ocean Wind is hoping to minimize impacts, and, if possible avoid impacts, to SAV through the use of trenchless technologies. Investigations are ongoing to assess feasibility.

Ocean Wind Team/HDR then moved to onshore regulated resources such as streams, wetlands and wetland buffers. Ocean Wind shared a map displaying NJDEP mapped wetlands, NWI mapped wetlands and the wetland delineations along the proposed onshore route options that have been conducted to date. Wetlands and wetland buffers would be avoided by burying cable within existing disturbed areas such as roadways and existing parking lots.

Ocean Wind described installation methods that are being proposed in order to reduce impacts and the limitations governing their feasibility. Horizontal Directional Drilling (HDD) has its limitations including sediment type, duct size, cable weight, slope ratio and angle which dictate friction forces and cable tension limits. Based on the current analysis, the maximum HDD distance that is feasible for this project is about 1000m (~3300 feet). HDD across the bay would require a chain of 1000m spliced segments, multiple cofferdam locations, and additional impacts to the benthic environment which would have implications on duration of construction.

Ocean Wind's proposed method of cable burial is jetting technology (jet sled/plow). Ocean Wind shared a schematic and pictures of typical towed sleds with jet swords that fluidize the sediment allowing the cable to sink to the desired depth. Ocean Wind would likely tow a sled at a constant speed. Speed of the jetting device is usually dictated by sediment characteristics and required depth of burial, and detailed analysis will be carried out prior to construction to inform speed and rate of cable installation. An advantage of the jet sled/plow is that the sled skid widths can be adjusted according to the sediment type to reduce impacts to the benthic environment. Ocean Wind shared a video showing the jetting process and described the minimized impacts in terms of sedimentation and footprint. There would be two cables spaced approximately 50m (~164ft) apart. Ocean Wind is also considering tracked jetting equipment as well and has shared these schematics with NJDEP in the past.

Ocean Wind Team/HDR then discussed the three potential onshore cable route options after landfall. Northern most location (Finninger Farm Property, Lacey Township) mostly avoids roads and disruptions to the community but there are additional wetlands and watercourses within this area where impacts would need to be permitted. The southern two locations (Bay Parkway and Lighthouse Drive, Ocean Township) make landfalls within roadways and follow roadway right-of-ways. All three locations eventually lead to Route 9, a State-owned roadway, and eventually to the proposed onshore substation location. Target burial depth will be 4 feet within roadways and would be based on soil characteristics and existing utilities. The onshore route would additionally need splice vaults but the positioning and location are still in development and details would be provided in the permit application.

NJDEP mentioned that the application submitted must go through a detailed analysis of the hierarchy to avoid, minimize and then mitigate for impacts and assess feasibility. The application would need to detail for NJDEP why certain technologies (e.g. HDD) would or would not be feasible and the reasoning behind route selections.

NJDEP asked what the technological limit of cable burial depth is with jetplow/jetting technologies. The commercial fishing industry has expressed concern at stakeholder meetings (Environmental NGO and Public Open Houses meetings). **Ocean Wind** responded that it is highly dependent on sediment characteristics and the Cable Burial Risk Assessment (CBRA). The CBRA will produce the required depth of burial in order to ensure the cable is protected from fishing activities and anchoring. Sand tends to be more stable than more coarse material like gravel and cobbles. Ocean Wind can share portions of the CBRA to provide NJDEP a better understanding of the technical limitations. NJDEP reiterated that this was a frequent comment heard at stakeholder meetings for NJPACT rule change and concerns were expressed about safety related to cable depth.

NJDEP asked that whatever Ocean Wind can share with NJDEP to help ensure commercial shellfishing activities will not run into any safety issues would be greatly appreciated. This information would also help to inform decisions for regulating projects and the protected areas. Ocean Wind offered to provide more information on the CBRA in the coming months.

Ocean Wind Team/HDR next discussed potential mitigation measures to be implemented with the project including seasonal work windows, construction monitoring, best management practices (BMPs), and habitat restoration/compensatory mitigation, as necessary. Ocean Wind recognizes that the Project will encompass many different activities over a large area, and an extended duration and is taking into account seasonal work windows in the project schedule. Construction monitoring will be completed, as necessary, and Ocean Wind would like to work with NJDEP to identify what types of monitoring will be required. In particular, any pre-construction monitoring may need to be incorporated into the project schedule for planning purposes, even before permit applications are submitted . Ocean Wind is familiar with the standard BMPs such as time of day restrictions and erosion and sediment controls. Marine/Offshore BMPs are less common but Ocean Wind will identify BMPs and include them in the permit applications. Habitat restoration/compensatory mitigation planning will be conducted as necessary as project design and permitting advances, with a focus on SAV and wetlands. Ocean Wind would like to work with NJDEP to identify potential mitigation requirements to aid project planning.

Ocean Wind Team/HDR recognizes that the focus of this pre-application meeting was the Barnegat Bay crossing and Oyster Creek interconnection point. As the Project moves into state permitting, Ocean Wind would like to continue to engage the NJDEP on additional topics. These topics include the crossing at Island Beach State Park, discussion of the BL England Interconnection Point in Cape May, state permitting timeline, and a more focused discussion on construction monitoring.

NJDEP will include other programs at some of these meetings (e.g. Division of Coastal Engineering at IBSP meeting). NJDEP is interested in temporary and permanent easements at IBSP and identified the Lease of State Lands at IBSP as a critical path approval with a long lead time in addition to Green Acres approvals. Ocean Wind would like to schedule a meeting with NJDEP for IBSP in January 2021.

Ocean Wind mentioned that a CZM consistency statement was submitted as part of the revised COP to BOEM in September. That statement was prepared prior to the understanding of the most recent CZM discussions from today's meeting. NJDEP agreed it would be best for the CZM consistency statement to reflect the most recent understanding, and Ocean Wind agreed to investigate revising this document. NJDEP intends to meet BOEM's timeline and will issue a consistency determination at least 60 days prior to ROD in line with the state permit approvals.

Ocean Wind
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New Jersey Department of Environmental Protection
Pinelands Correspondence
December 7, 2021

State of New Jersey
THE PINELANDS COMMISSION
PO BOX 359
NEW LISBON, NJ 08064
(609) 894-7300
www.nj.gov/pinelands

PHILIP D. MURPHY
Governor
SHEILA Y. OLIVER
Lt. Governor

General Information: Info@pinelands.nj.gov
Application Specific Information: AppInfo@pinelands.nj.gov

RICHARD PRICKETT
Chairman
SUSAN R. GROGAN
Acting Executive Director

December 7, 2021

Janet Stewart, Section Chief (via email)
NJDEP, Division of Land Use Regulation
Bureau of Coastal Regulation
Mail Code 501-02A, P.O. Box 420
Trenton, NJ 08625-0420

Re: Application # 2005-0618.002 (Oyster Creek)
Block 100, Lots 1.05 & 1.06
Block 1001, Lots 4.05 & 4.06
Lacey Township
Block 41, Lot 43
Ocean Township
Bay Parkway, Lighthouse Drive and Route 9 rights-of-way
Application# 2009-0135.004 (BL England)
Block 479, Lot 76
Roosevelt Blvd., Garden State Parkway, Shore Road & Clay Ave. rights-of-way

Dear Ms. Stewart:

This letter serves as a follow-up to our October 27, 2021 virtual meeting held with your office and representatives of Orsted regarding the potential onshore cable routes for Orsted's offshore wind project to the Oyster Creek site and the BL England site.

Although the proposed cable routes are not located in the state-designated Pinelands Area, they are, at least partially, located in the federally designated Pinelands National Reserve (PNR).

In February of 1988, the Commission entered into a Memorandum of Agreement (MOA) with the New Jersey Department of Environmental Protection (NJDEP) to formalize a framework for coordinating the activities of NJDEP's Coastal Management Program and the Pinelands Comprehensive Management Plan (CMP) in those portions of the PNR located in the Coastal Zone. That MOA provides that NJDEP will implement the CMP within the coastal zone and consider comments submitted by the Pinelands Commission for certain types of NJDEP development applications in the PNR. The Commission's review comments are intended to address the extent to which the proposed development is consistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978 creating the PNR and the Pinelands Protection Act of 1979.

The CMP defines the proposed cables as public service infrastructure.

The cable route for the BL England offshore wind project is located in the Parkway Overlay District and a Pinelands Regional Growth Management Area. The proposed cable (public service infrastructure) is a permitted land use in the Parkway Overlay District and a Pinelands Regional Growth Management Area.

Based upon review of the submitted Figure entitled, *Oyster Creek Export Cable Route Landfall-Pinelands Management Areas* prepared by HDR Ocean Wind and dated October 27, 2021, the currently proposed cable route to the Oyster Creek offshore wind project is located in a Pinelands Rural Development Area and a Pinelands Forest Management Area.

The proposed cable (public service infrastructure) is a permitted land use in a Pinelands Rural Development Management Area.

To be a permitted land use in a Pinelands Forest Management Area, the proposed cable route (public service infrastructure) must be intended to primarily serve only the needs of the "Pinelands." The CMP defines the "Pinelands" as that area comprising the combined geographic boundaries of both the state-designated Pinelands Area and the federally designated PNR. As indicated during our meeting, although the proposed cable does not strictly meet the Pinelands Forest Management Area permitted use standard for public service infrastructure, the proposed development does not raise an issue that rises to a level that it causes the proposed development to be inconsistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978 creating the Pinelands National Reserve and the Pinelands Protection Act of 1978.

Please note that the proposed cables in the PNR must also meet the wetlands protection, threatened and endangered species and cultural resource protection standards of the CMP. To the extent that any proposed onshore cable route is located within existing developed road rights-of-way, the proposed cable route should not raise an issue with these CMP standards.

Due to the Coronavirus, the Commission offices remain closed to the public. Please submit all application-related materials, including large reports and plans, in digital format to appinfo@pinelands.nj.gov. All plans must be in .pdf format.

If you have any questions or need additional information, please let me know.

Sincerely,

Branwen L. Ellis
Environmental Specialist

c: Stacey Roth (via email)
Susan R. Grogan, Acting Executive Director, Pinelands Commission (via email)
Megan Brunatti (via email)
Katie Nolan (via email)

Ocean Wind
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New Jersey Department of Environmental Protection
Office and Dredging and Sediment Technology- Sediment Sampling and Analysis Plan Approval
January 24, 2022

State of New Jersey

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Watershed & Land Management
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625-0420
www.nj.gov/dep/landuse

SHAWN M. LATOURETTE
Commissioner

January 24, 2022

Ocean Wind LLC
c/o Marc Reimer
399 Boylston St, 12th Floor
Boston, MA 02116

RE: Sediment Sampling and Analysis Plan
File and Activity No.: 0000-21-0008.1 DRG210001
Applicant: Ocean Wind LLC
Project: Ocean Wind Offshore Wind Farm

Dear Applicant:

This is in response to your November 22, 2021, request for a sediment sampling and analysis plan (SSAP) to characterize sediments along two routes of submarine export cables that will connect to an offshore wind farm, located approximately 15 miles off the coast of Atlantic City. The export cables are proposed to be installed via a combination of horizontal directional drilling (HDD), jetting, and dredging. This SSAP is designed to characterize sediments that will be removed along the cable route as well as suspended during the submarine cable installation.

The submarine cables will connect to the onshore electrical grid via two points of interconnection (POI). The first POI will be situated at the decommissioned Oyster Creek Nuclear Generating Station, located in Lacey Township, Ocean County. Two export cables laid in parallel will originate from the wind farm within the Atlantic Ocean and will continue northward until they make landfall at Island Beach State Park (IBSP). HDD will be utilized from the southern parking lot of IBSP Swimming Area 2 into the Atlantic Ocean to bring the cables ashore. Once ashore, the cables will head north on land until reaching the 'Prior Channel', a historic channel located off the western shore of IBSP, where the cables will enter Barnegat Bay. Dredging of the Prior Channel is required to provide adequate water depths for jetting equipment and vessels that will used during construction. The cable route within the Prior Channel will extend 1.2 miles off the west side of IBSP before turning southwest for approximately 3 to 3.3 miles, where jetting will be used for cable installation. The route will continue westward towards a parcel designated as 'Holtec Property', located in Lacey Township, where HDD and/or dredging will be employed to facilitate cable installation. Once onshore, the cables will follow a land route until the POI at the Oyster Creek Nuclear Generating Station is reached. In addition, dredging of the Oyster Creek Federal Channel is proposed so that construction vessels will have access to Barnegat Bay. The second POI is proposed at the BL England Generating Station, located in Upper Township, Cape May County. This route will consist of a single cable originating from the wind farm that will run westward until it makes landfall via HDD at a

property designated as the 'BL England Cable Landfall, located at 35th Street in Ocean City, Cape May County. The cable route will continue on land until it reaches the second POI.

After reviewing the proposed sampling plan and core locations, the Office of Dredging and Sediment Technology (ODST) concurs that the plan put forth will adequately characterize the material that will be disturbed by the proposed sediment generating activities. The approved core locations are depicted on sheets 26 through 42 (17 sheets) included with the SSAP Package entitled: "Draft Sediment Sampling and Analysis Plan (SSAP) for Near Shore and Inshore Installation Activities," dated January 2022.

The proposed sampling plan stated that the Tier II - effluent (modified) elutriate testing will be required if hydraulic dredging is proposed. Please be aware that hydraulic dredging may require either Tier II effluent (modified) elutriate testing or Tier II – elutriate testing, depending on the dewatering method and final placement site of the dredged material. Modified elutriate would be required if dredged material is to be dewatered in a confined disposal facility (CDF). Elutriate testing would be required if material is dewatered in geotubes, or a similar structure, or a belt filter press. Please contact ODST with any questions regarding these requirements.

Additionally, please note that the Division reserves the right to require additional turbidity modeling and/or contaminated sediment transport and fate modeling depending on the results of the sediment analysis. It is recommended that sediment results be forward to ODST when they become available.

If you have any questions, please feel free to contact Katherine Todoroff by email at Katherine.Todoroff@dep.nj.gov.

Sincerely,

Gary Nickerson
Office of Dredging and Sediment Technology
Division of Land Resource Protection

Ocean Wind
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New Jersey Department of Environmental Protection
Ocean Wind 1 Submerged Aquatic Vegetation Meeting
March 31, 2022

Ocean Wind Project Submerged Aquatic Vegetation– Meeting Minutes

Meeting	Ocean Wind Submerged Aquatic Vegetation Meeting
Meeting Date	Thursday, March 31, 2022
Place	Microsoft Teams Meeting
Attendees	See Attachment 1
Attachments	Meeting Attendees Powerpoint Slide Show Presentation

Ocean Wind stated the purpose of the meeting was to discuss the Ocean Wind (Project) component of the prior channel in Barnegat Bay near Island Beach State Park (IBSP) and how to accurately characterize submerged aquatic vegetation (SAV) based on existing data, mapping and site-specific data collection as well as survey data to be collected.

Ocean Wind then discussed the Barnegat Bay preferred alternative route. The initial route was to horizontal direction drill (HDD) from the Atlantic Ocean onto landfall at IBSP's Swimming Area #2 Southern Auxiliary Parking Lot then another HDD west from the same parking lot into Barnegat Bay. After discussion on the initial route with National Marine Fisheries Service (NMFS) and New Jersey Department of Environmental Protection (NJDEP), alternative routes were analyzed that would minimize impacts SAV, but also balance impacts to other natural resources such as wetlands, beaches and dunes while also considering impacts to the park's recreation and operations.

Ocean Wind discussed the preferred alternate route which is located north of the original base case and would utilize a previously dredged channel that opens into Barnegat Bay. This option would have less impacts to SAV, while also minimizing impacts to existing wetlands and the park. The work will be conducted in the park's offseason to avoid impacts to tourism.

There will be an open cut at the IBSP transition joint bays (TJBs) into the Barnegat Bay. The trench excavation would be supported by sheetpiles. The open cut at the TJBs allows the cables to be installed closer together (staying within the extents of the prior channel), which reduces the overall area of impacts to SAV. The cable would then be spooled off a barge and floated into place for an onshore cable pull-in. The installation will be completed by a combination of jet sled, diver jetting and controlled flow excavation (CFE). Ocean Wind is conducting geotechnical investigations to further inform design and evaluate the potential need for dredging as part of cable installation activities.

NJDEP asked for clarification on where the Project will require open cut versus HDD.

Ocean Wind explained that from the Atlantic Ocean to IBSP, HDD would be conducted underneath the beaches and dunes, to avoid impact, and surface in the parking lot at Swimming Area #2 Southern Auxiliary Parking Lot. The onshore cable would stay within the parking lot to the north, before making a brief crossing of Shore Road and would then exit IBSP via open cut into Barnegat Bay from the IBSP

maintenance yard. HDD would also be conducted on the west side of Barnegat Bay to landfall in Lacey Township.

NJDEP asked if most of the Project would be installed in Barnegat Bay via jet plow.

Ocean Wind confirmed that most of the work would be done via jet plow and HDD in the aforementioned locations with some potential dredging to be determined after field surveys.

NJDEP asked if the dredging would be conducted with a clamshell excavator and a barge.

Ocean Wind explained that a barge will be floated into the Barnegat Bay and a clamshell excavator will be used to dredge and then material would be moved elsewhere for proper disposal.

Ocean Wind described the physical characteristics that support SAV. The optimal water depth for SAV growth is 0.5-1.0 meters (1.6-3.3 ft) based on the direct correlation of light with water depth and water quality.

NJDEP stated that in New Jersey, 6.0 feet or less is used as water depth tolerance for SAV. Although SAV is not likely to exist in 5.0-6.0 feet it can still survive in that depth.

Ocean Wind stated SAV growth typically occurs in low energy areas with low current and water velocities. Seagrass can grow in substrates ranging from mud to gravel but has a high survivability in silt and clay surface sediments, according to a report from the National Resources Conservation Service (NRCS). The presence of hydrogen sulfide is toxic to seedling and young adult plants as they produce less oxygen to react to hydrogen sulfide present in the sediment. Excess nitrogen and phosphorus can create algae blooms (common in Barnegat Bay) that deplete dissolved oxygen (DO) levels that harm and kill SAV.

NJDEP requested the report from the NRCS as their findings have been that SAV grow best in fine sand.

Ocean Wind stated they would provide the report to NJDEP. Ocean Wind then presented water depths of the prior based on National Oceanic and Atmospheric Administration (NOAA) topography and bathometric LIDAR from 2014 (post Superstorm Sandy). During a presence/absence SAV survey conducted in the area, there were four ponar grab samples. Two of the samples were mostly black mud with some fines and had a sulfur odor. The other two samples consisted of sands, with one have macroalgae present.

Ocean Wind presented several existing SAV mapping datasets. The 2009 and 2003 datasets from Rutgers show an absence of SAV habitat in the prior channel. The 1996 Rutgers dataset show SAV in the prior channel with an absence in a similarly shaped polygon shifted south. This is believed to be a mapping error. The 1986 dataset from NJDEP presents outlying data, showing the contours of the prior channel but the entire map is rudimentary with the SAV being a hand drawn polygon. Ocean Wind asked

Ocean Wind Project Submerged Aquatic Vegetation– Meeting Minutes

how precise that mapping is and if there is a report that is available to show the methodology used to delineate the SAV as presented on the map.

NJDEP stated that in the 1980s, maps were hand drawn. Based on the abundance of data available from other maps and reports, the 1986 NJDEP SAV map can be discounted.

Ocean Wind stated they would reach out to Richard Lathrop of Rutgers University to discuss the anomaly in the 1996 mapping to better define the SAV habitat line.

Ocean Wind described that an SAV presence/absence survey was completed to get information quickly prior to the end of the season to determine if the prior channel alternative was worth pursuing further. The trend of the results showed a significant absence of SAV in the middle of the channel.

Ocean Wind asked how the SAV impacts should be accounted for in the NJDEP permit application. If all previously discussed mapping from NJDEP and Rutgers is accounted for then it would be approximately 13 acres with dredging. However, the results of the bathymetric and geophysical surveys will determine how much dredging will be required. An SAV protocol survey will occur in the summer of 2022.

Based on discussions, and the assumption that the 1986 dataset is not accurate, a more appropriate SAV habitat mapping line was shown. Using this new mapping line, there would only be approximately 1 acre of SAV impact.

Ocean Wind asked NJDEP if this line would be allowable in the NJDEP permit application.

NJDEP Division of Land Resource Protection said they would defer to the expert opinion of the Bureau of Shellfisheries, Principal Fisheries Biologist who agreed with the Ocean Wind proposed methodology. Although they are not part of the Land Use Resource Program, they are comfortable using 1979, 2000s and data collected with enough evidence provided to determine that 1986 mapping can be eliminated.

NJDEP also clarified that it would be helpful to do another review of the proposed methods and data analysis for interpreting percent cover, shoot density, etc. to ensure everyone is in agreement on survey protocol and deliverable format.

For deeper water areas, camera can be appropriate but all sampling, especially shallow water areas, should be supplemented with diver surveys. Impacts for easement and vessels such as potential for scour and anchor damage on either side of the mapped SAV flats should be evaluated for permitting and considered for proposed construction. Based on the information provided during the meeting, the prior channel seems to be devoid of SAV.

Ocean Wind asked is the Project can reduce the impacts to SAV within the prior channel but the potential anchor and scour impacts to the route across the Barnegat Bay need to be calculated.

Ocean Wind Project Submerged Aquatic Vegetation– Meeting Minutes

NJDEP confirmed that yes, there are known SAV flats, with the Project having a strong potential to have barges left in the Barnegat Bay anchored with vessels to transport people and equipment to the barge which would cause impacts to the SAV. Ways to reduce scour including mooring anchors in deeper water (during non-working hours and overnight) and having the mooring location be the same spot so it is easier to monitor the impacts to SAV in that one location. Areas needed for the SAV survey would be coordinated with NJDEP. NJDEP also mentioned that the Project should consider looking at track lines to eliminate as much as pre and post survey work to be needed as possible.

Ocean Wind asked what the minimum buffer distance from the SAV areas should be implemented for mooring areas to determine impact.

NJDEP emphasized the importance to having consistency and predictability for SAV impacts. The buffer distance should be the swing distance radius plus a small buffer due to shading. However, they are not as concerned with shading as the swing radius. The tidal cycle should be evaluated so that when tide is out the vessel is still floating. Based on the NOAA bathymetric data and water depths, the best place for anchoring the would be around the 6.0 ft point at the western end of the prior channel.

Ocean Wind asked when submitting the draft NJDEP LRP permit draft drawings, can the SAV line be redrawn based on the conversation held. Again, the Division of Land Resource Protection said they would defer to the Bureau of Shellfisheries based on their expertise. To which the Bureau of Shellfisheries stated they are comfortable using 1979, 2000s and data collected, with enough evidence demonstrated that 1986 mapping can be discontinued.

NJDEP asked where the amphibious crawler for geotechnical investigations would be located and the timing of the use of the crawler.

Ocean Wind stated that the timing of geotech work to be performed at each boring would only be on the scale of minutes. The location of the amphibious crawler would be located on the western side of the Barnegat Bay by Lacey Township and on the eastern side of Barnegat Bay by the Maintenance Yard.

NJDEP asked if there is a way to include the footprint of the crawler on the drawings with a note that clarifies it becomes a boat at 3-4 ft water depth.

A discussion was held about if the crawler impacts to SAV would be considered temporary or permanent. If the tracks dig into the substrate and rip out the SAV it would be most likely be considered permanent impact while flattening the SAV would have a better chance of repairing itself and would be a temporary impact.

Ocean Wind asked if the geotech area should be included in the Project benthic monitoring that will be conducted in order to determine if the impacts to SAV are temporary or permanent to properly address restoration and/or mitigation.

Ocean Wind Project Submerged Aquatic Vegetation– Meeting Minutes

NJDEP agreed that yes, that would be appropriate because all SAV impacts to this area are seen as one project so they can be mitigated for together in the future.

Ocean Wind went over the next steps which include providing follow-up information to NJDEP when the bathymetric and geophysical data is received as well as providing the SAV survey protocol prior to work commencing.

NJDEP asked if there was time to discuss the BL England Route in Peck Bay. In the Phase 1 Survey, SAV was identified in Peck Bay. If there is going to be an impact to the mapped SAV then a Phase 2 or Presence/Absence survey would need to be collected.

Ocean Wind stated there would be no impact to mapped SAV in Peck Bay due to the Project installation method. The work conducted would be HDD, approximately 30 ft below the channel with no open cut nor any in-water impacts. With an upland entry/exit pit setback of 200-300 ft from the mean high water (MHW) line in previously disturbed areas.

NJDEP expressed their concern for surface ancillary impacts. They asked for additional information regarding the mechanics of HDD to better understand any potential impacts.

Ocean Wind showed a profile view of the HDD under Peck Bay. It was then explained that when Project engineers are designing the HDD profile, one of the primary factors assessed is geotechnical information to support the assessment of the stability of the HDD borehole. To keep the borehole open, a mixture of mud and water is pumped through the hole. For the hole to remain open, the subsurface soil needs to be stable. Ocean Wind agreed to pull language from the NJDEP permit application to provide additional information on HDD methodology.

<u>Action Items</u>

- Ocean Wind to provide NRCS report on SAV growth in silts and clays– complete
- Ocean Wind to prepare and submit and SAV Survey Protocol to NJDEP prior to conducting the survey in the summer of 2022 – complete, submitted for review June 17, 2022.
- Ocean Wind to provide NJDEP the results of the Geophysical and Bathymetric surveys when available
- Ocean Wind to provide NJDEP with HDD information – complete

DRAFT

Ocean Wind

Barnegat Bay/Island Beach State Park
Prior Channel Existing Conditions

March 31, 2022

Ocean Wind
An Ørsted & PSEG project

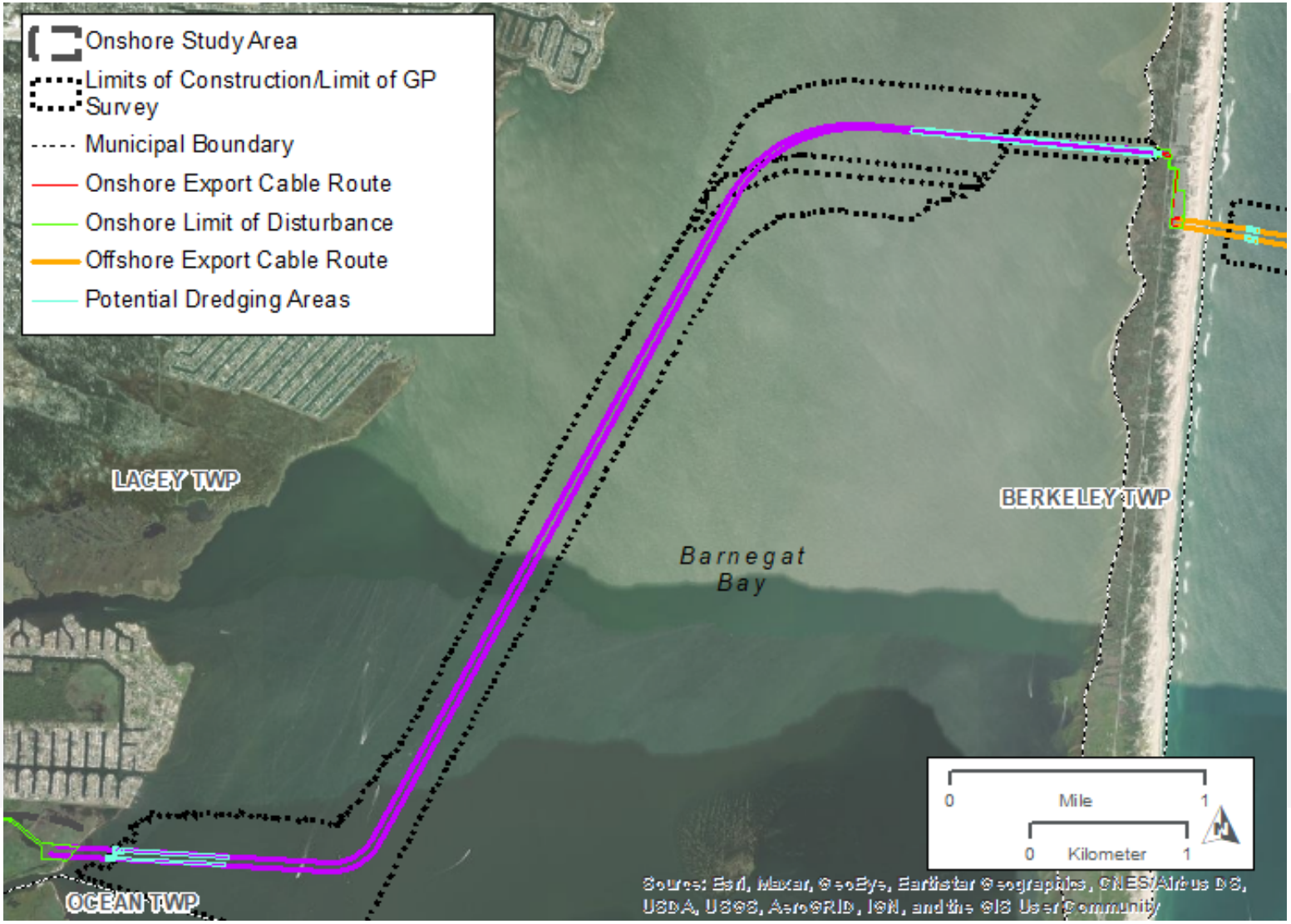
Agenda

- Introductions
- Anticipated work in Prior Channel
- Physical Characteristics Supporting SAV
- Prior Channel Existing Conditions
- Ocean Wind Prior Channel SAV Survey
- LRP Permit Application

Overview of IBSP & Barnegat Bay Work

DRAFT

RESTRICTED



Ocean Wind
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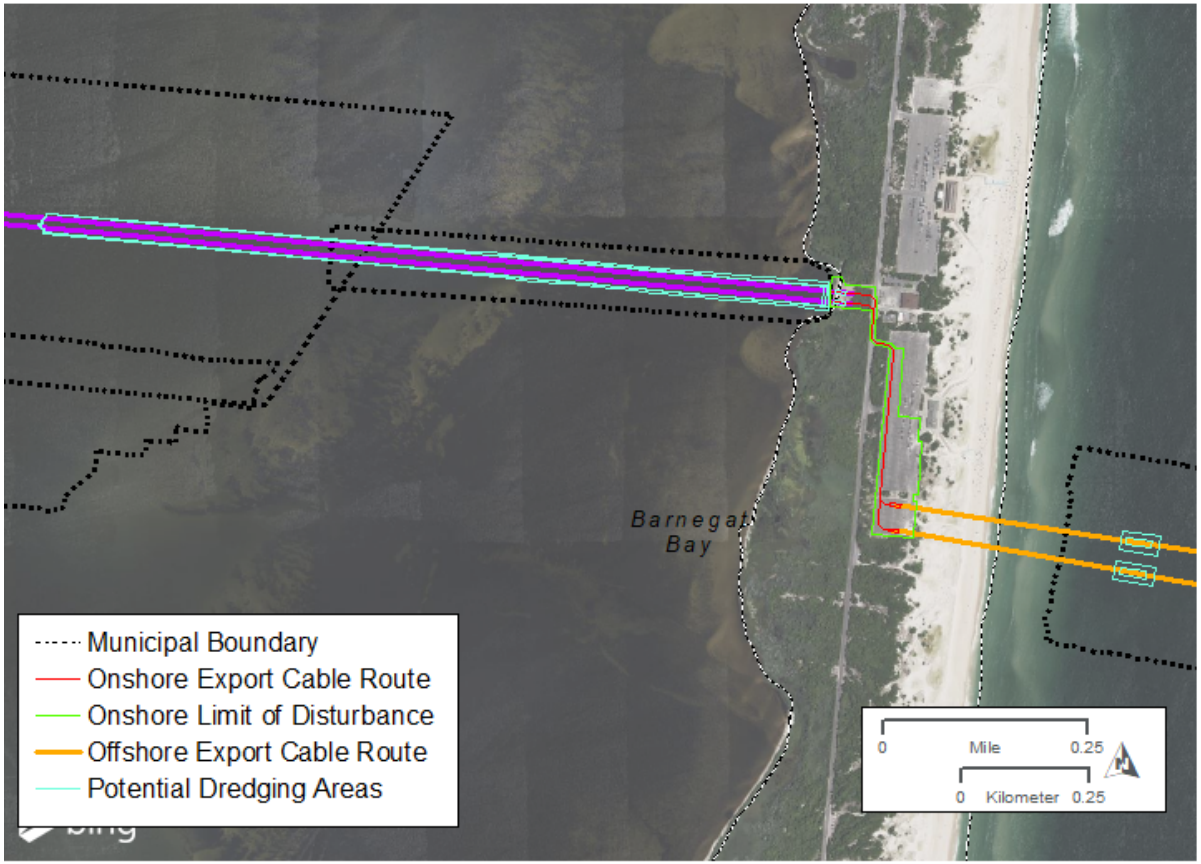
Island Beach State Park Onshore & Atlantic Ocean Nearshore Works



Barnegat Bay Scope of Work:

-Dredging (clamshell):

- -Potential dredging of prior channel pending site investigation activities
- -Will be performed in accordance with NJDEP's ODST standard permit conditions & BMPs

-Open Cut: IBSP TJBs → Barnegat Bay

- -Trench excavated through shoreline to onshore TJBs and supported with sheetpile
- -Cable to be spooled off a barge and floated into position for onshore cable pull-in
- -Cable installation to be completed through combination of jet sled, diver jetting, controlled flow excavation

Physical Characteristics Supporting Submerged Vegetation

Water Depth:

- growth directly related to amount of light, which is correlated with water depth and water quality (TSS and eutrophication);
- maximum Mid-Atlantic Depth range 0.5 – 1.0 meters (1.6 – 3.3 ft; Lee et al. 2007). Seagrasses in Barnegat Bay grow in water depths of less than 1 meter (Barnegat Bay Partnership)

Current/Water Velocity:

- growth typically occurs best in low energy areas (de Boer 2007)

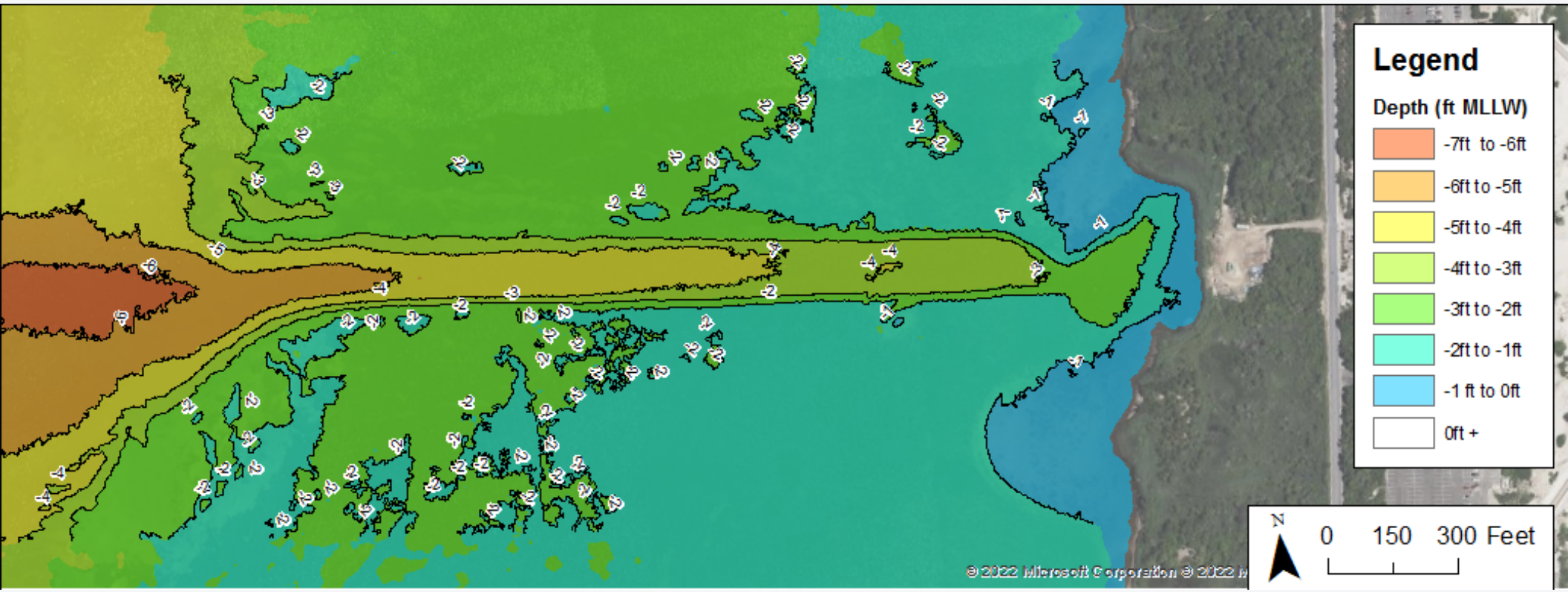
Sediment:

- Seagrass can survive in substrates ranging from mud to gravel, but has a higher survivability in silt and clay surface sediments (NRCS 2018)
- studies have shown that the presence of hydrogen sulfide can be toxic to seedling and young adult plants as they produce less oxygen to react to the hydrogen sulfide present in the sediment (Dooley 2015)

Water Quality:

- Excess nitrogen and phosphorus can create algae blooms and depleted dissolved oxygen levels (USNPS 2018)

Prior Channel Bathymetry – NOAA Topo/Bathy LIDAR 2014 (Post-Sandy) DRAFT



Prior Channel – Site Investigation Ponar Grab Samples

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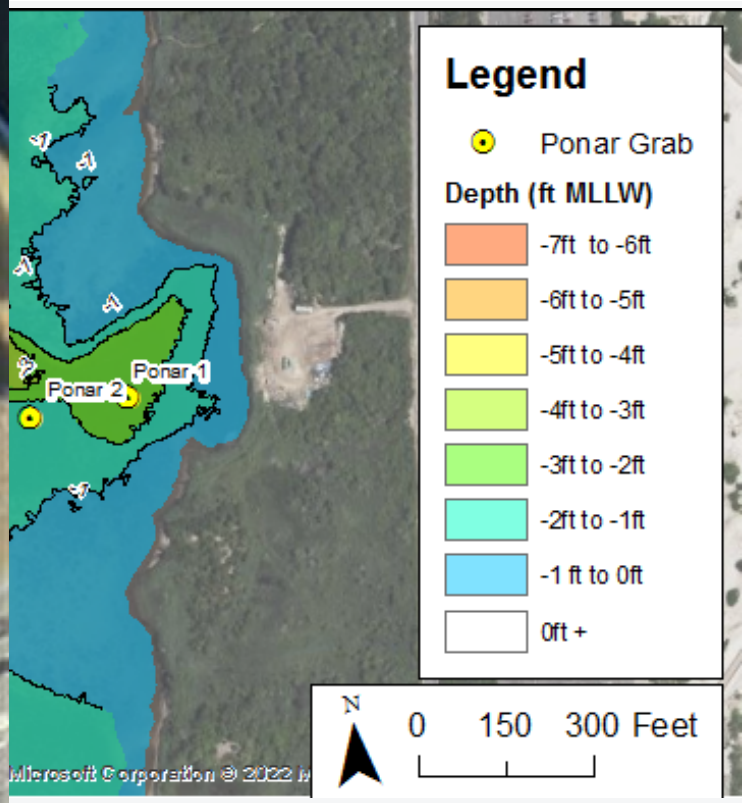

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Prior Channel – Existing Mapping

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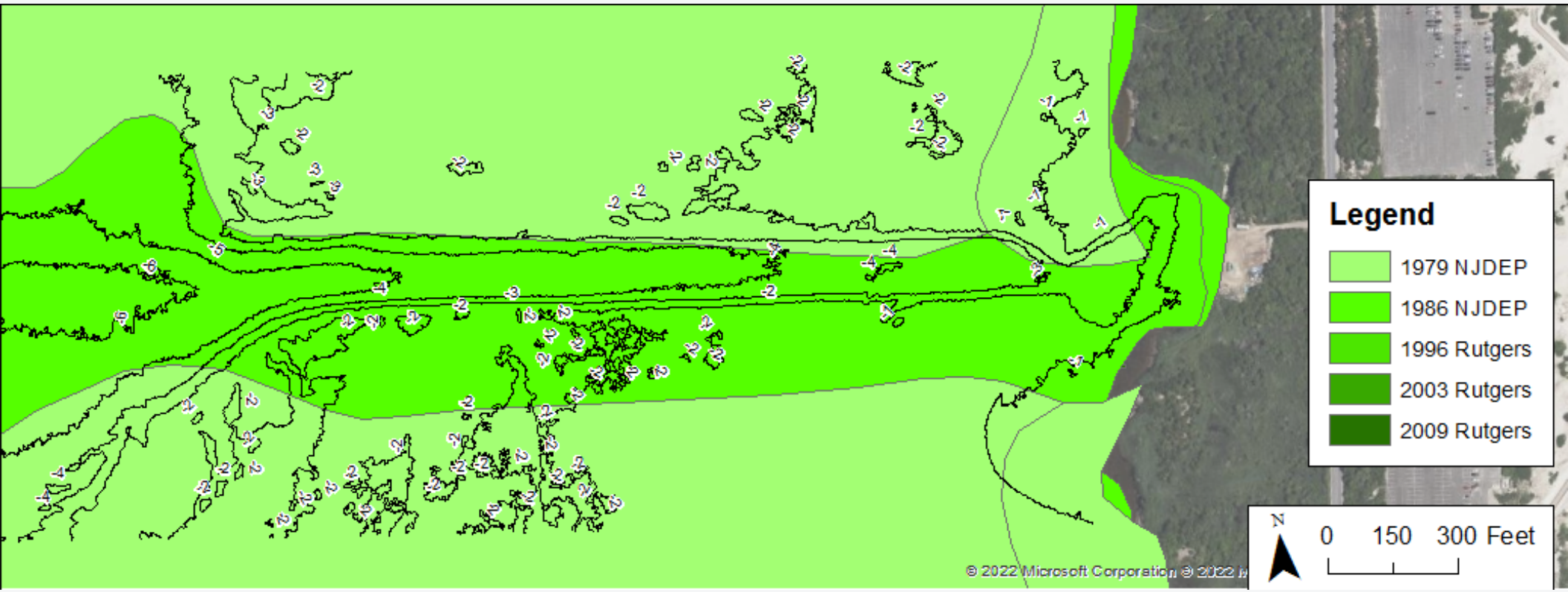

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Prior Channel SAV Survey – October 2021

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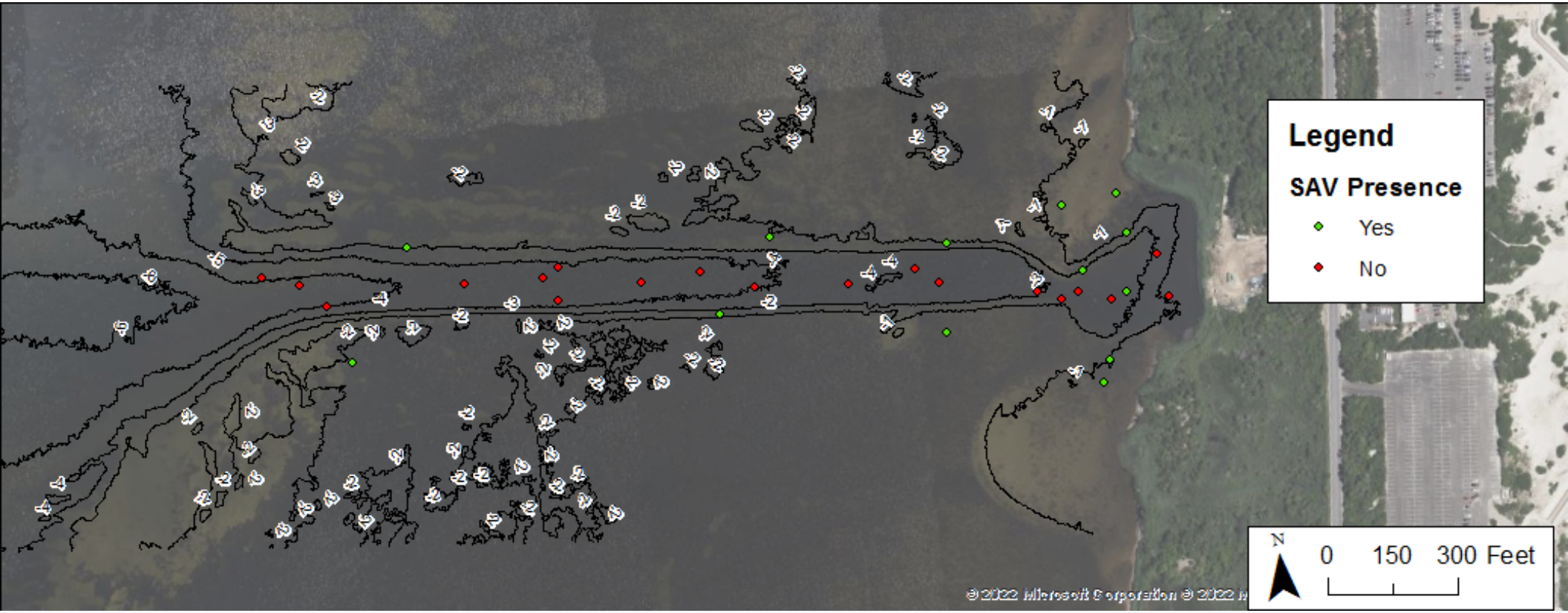

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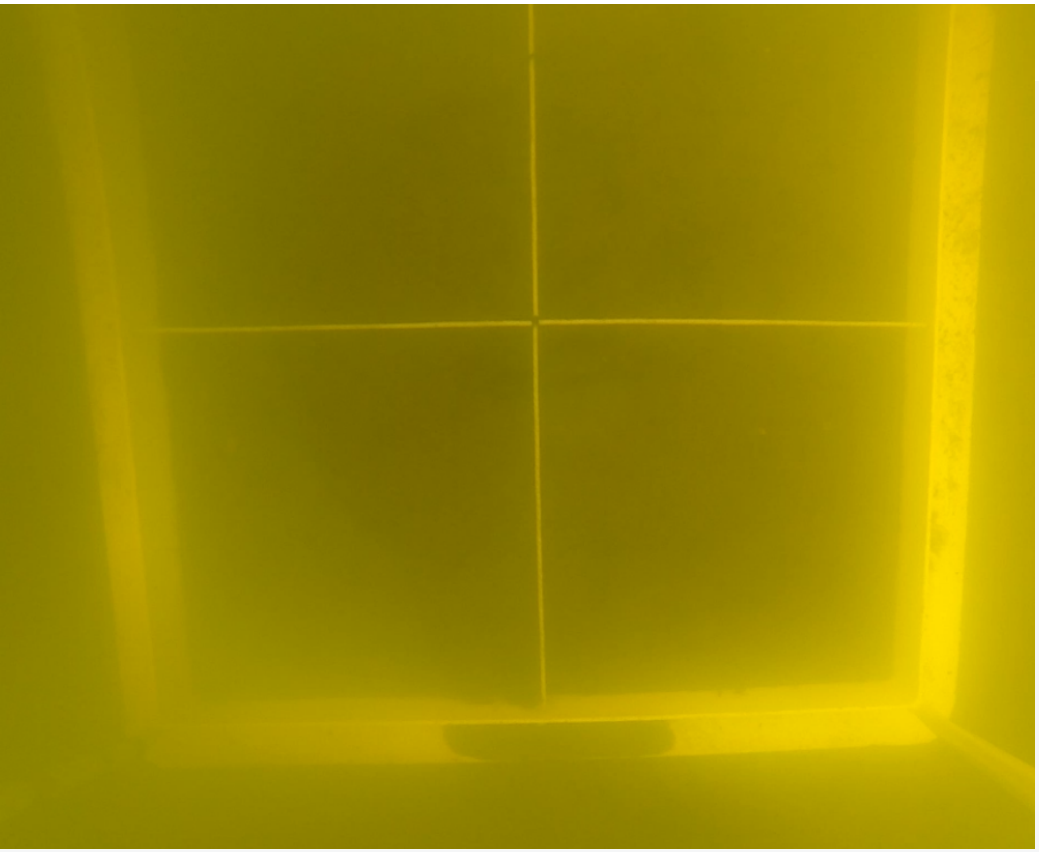
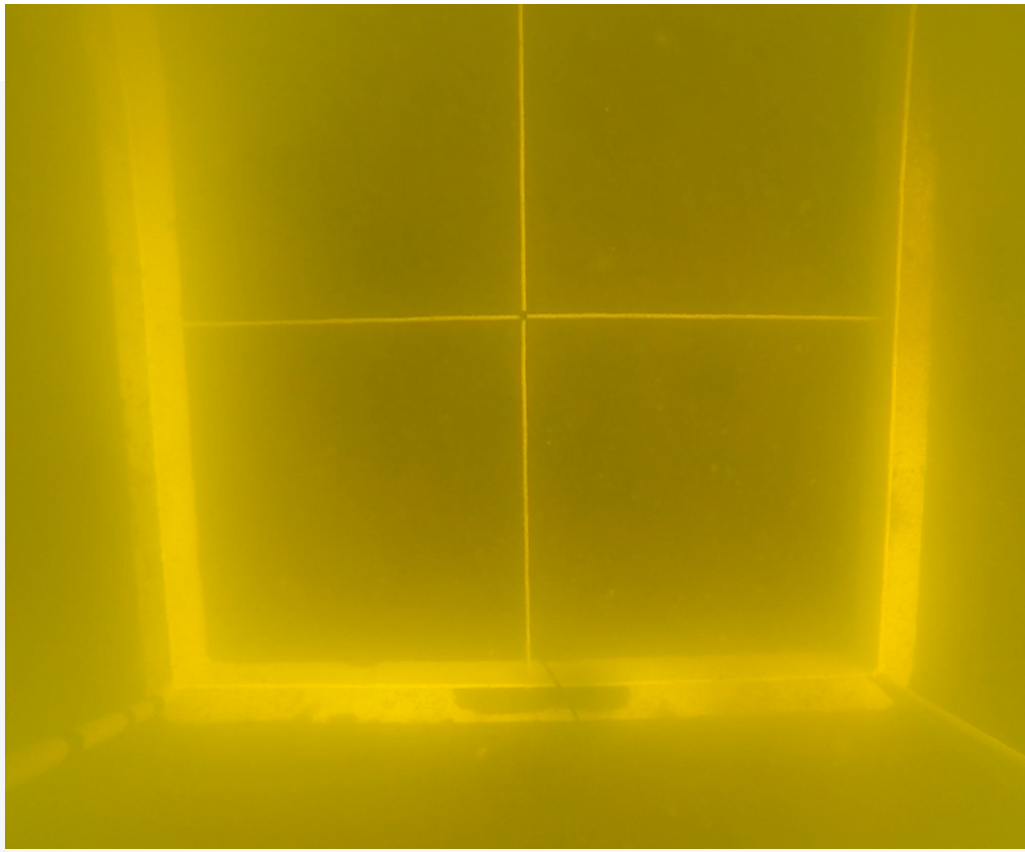
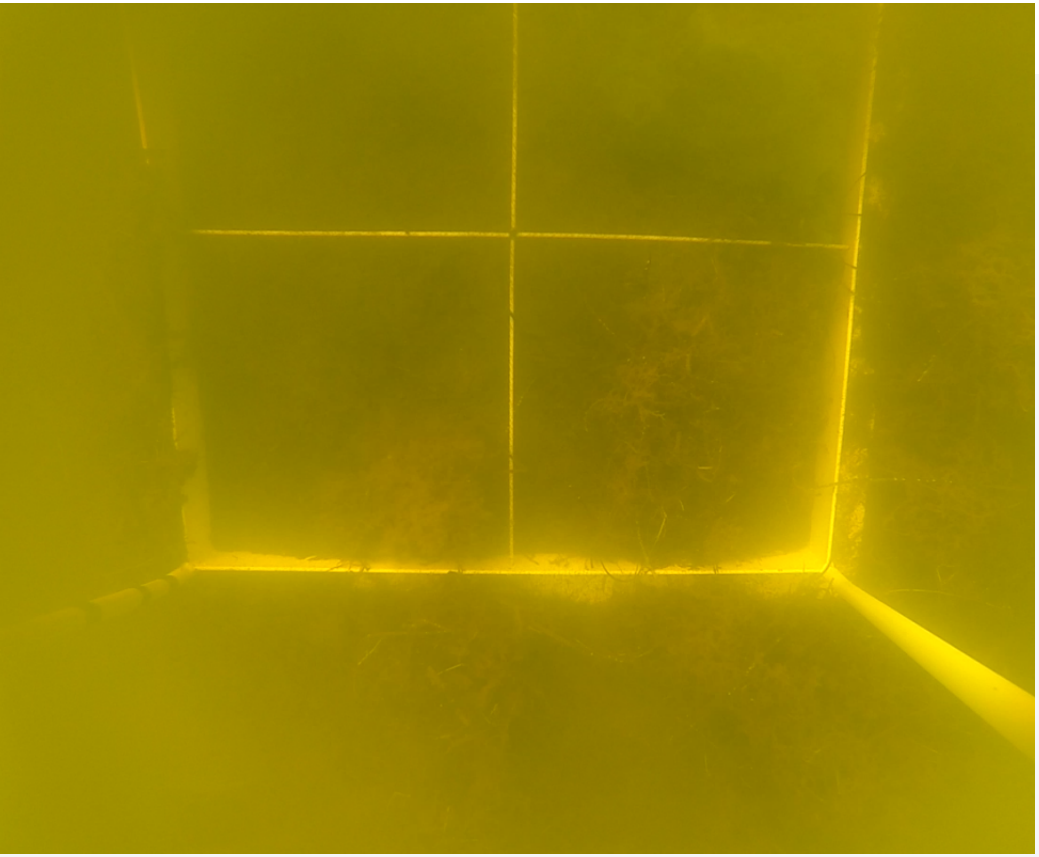
Prior Channel SAV Survey – October 2021

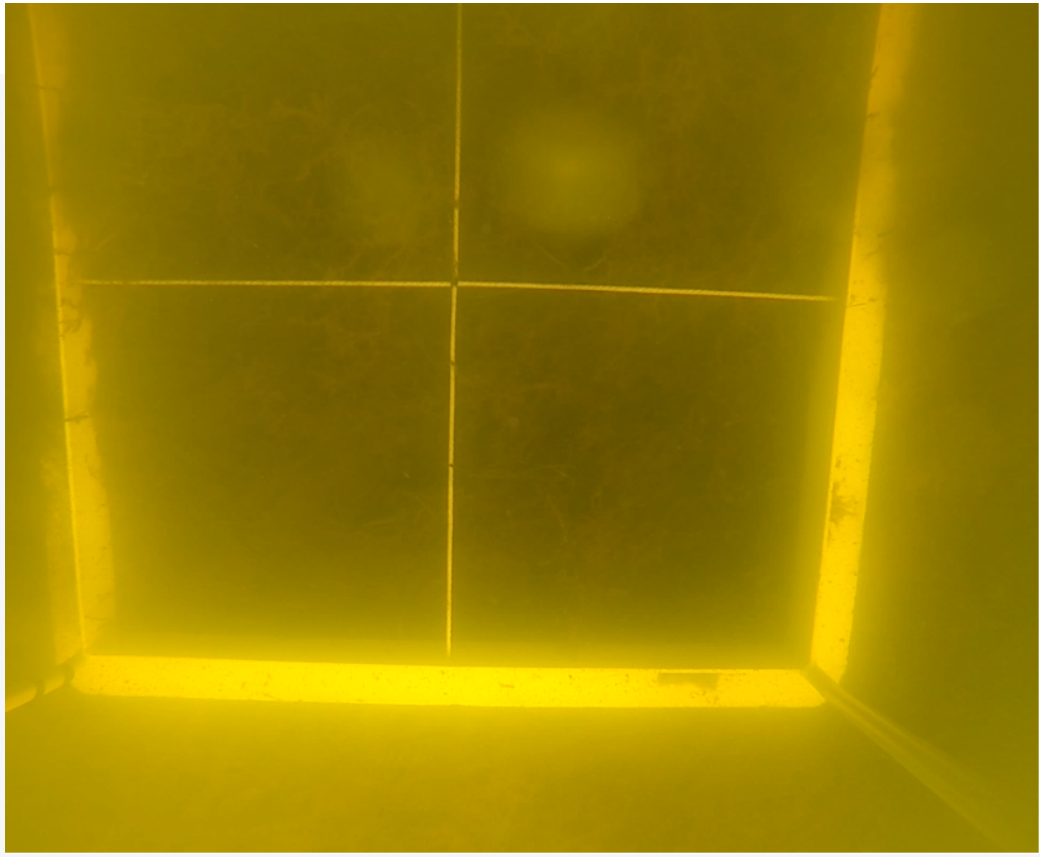




Bare sediment observed within the prior channel in approximately 4-5 ft water depth

Prior Channel SAV Survey – October 2021





Eelgrass and widgeon grass observed on edge of the prior channel in approximately 2-3ft water depth

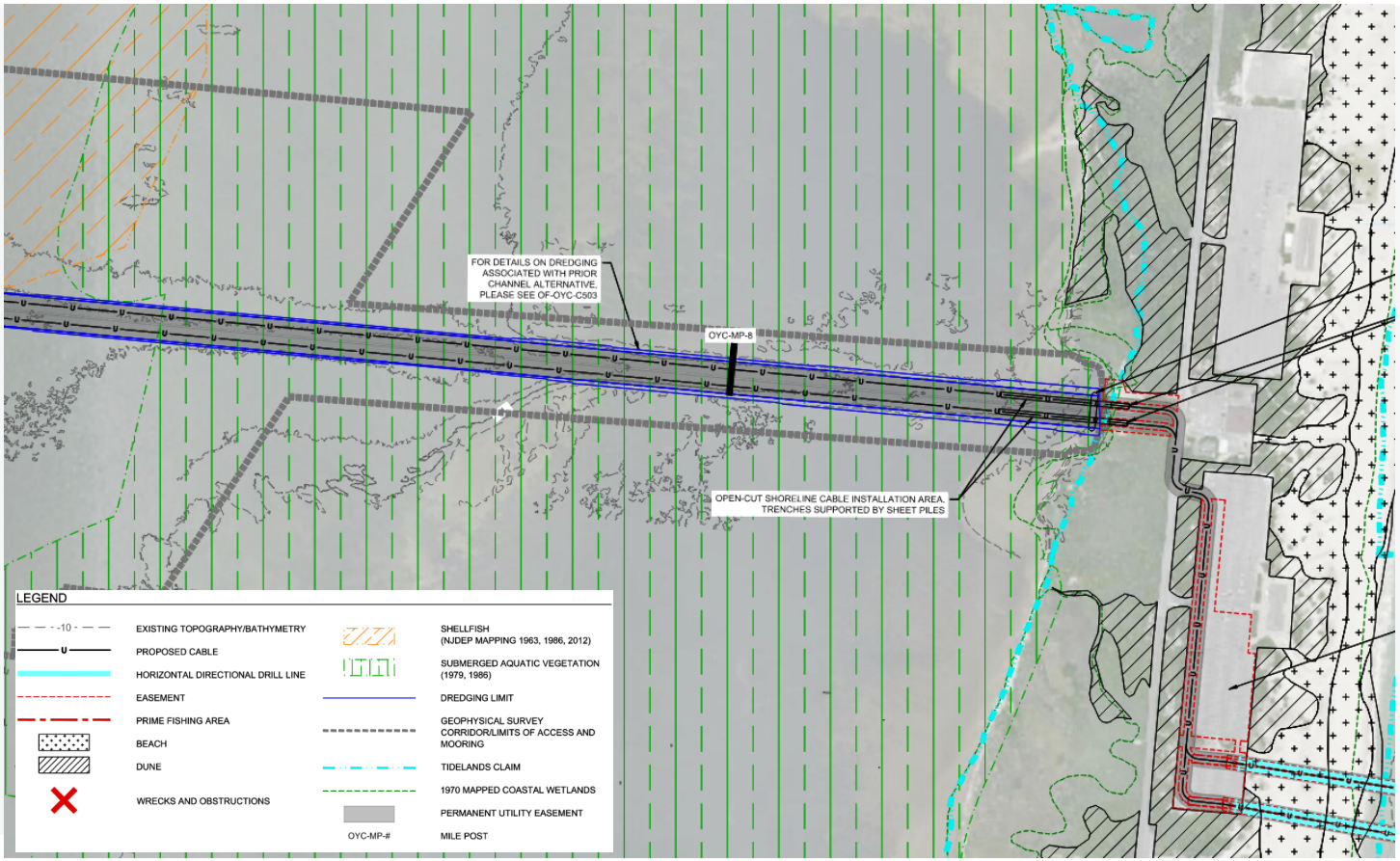
NJDEP DLRP Permit Application Submittal

Impacts on area mapped as SAV Habitat within the prior channel which does not currently support SAV growth:

- Potentially up to 13 acres, should dredging be required within the channel

Impacts on SAV habitat that is suitable for SAV growth:

- <1 acre based on existing information gathered to date



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Next Steps

- Follow up information to be provided to NJDEP as more data is collected in coming weeks
- Continuing future surveying, monitoring, mitigation discussions

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Thank you

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NJDEP Wetland Resource Classification Correspondence
January 27, 2022

Valianti, Deidra

Subject: RE: Ocean Wind Revised Wetland Mapping

From: Davis, Lindsey [DEP] <Lindsey.Davis@dep.nj.gov>
Sent: Thursday, January 27, 2022 12:49 PM
To: Brizzolara, David <David.Brizzolara@hdrinc.com>; Katharine Perry <KAPER@orsted.com>
Cc: Stewart, Janet <Janet.Stewart@dep.nj.gov>; Kosowski, Brett [DEP] <Brett.Kosowski@dep.nj.gov>; Anderson, Ryan [DEP] <Ryan.Anderson@dep.nj.gov>; Nolan, Katherine <Katherine.Nolan@dep.nj.gov>
Subject: RE: Ocean Wind Revised Wetland Mapping

Hi Dave and Katharine,
Apologies on the delay in getting this information to you, but below you will find information on the wetland resource classifications for both the Oyster Creek and BL England routes. As the permit applications for the work will be submitted soon, I would suggest submitting a request to withdraw the pending LOI application. That way, you can make the request for the fees from the withdrawn LOI application be applied towards the permit applications. Since you will be submitting through the portal, you would need to select the "Bill me" option at the end of the service. Please make it clear in the application that you wish to utilize the fees from the withdrawn LOI application towards the permit application fees.

UPPER TWP. OCEAN CITY PORTION / BL ENGLAND INTERCONNECTION EXPORT CABLE ROUTE:

Wetlands Resource Value Classification
The Division determined the resource value and the standard transition area or buffer required adjacent to the delineated wetlands are as follows:

Exceptional Resource Value Wetlands: [150-ft. wetland buffer].

W221-W241

W489-W529

W401-W426, W450-W463

WL-WD-1 to WL-WD-8

Intermediate Resource Value Wetlands: [50-ft. wetland buffer].

All remaining *delineation points* and *line segments.* [50-ft. wetland buffer].

Vernal Habitat:
In addition, there are wetlands on the subject site which potentially meet the definition of a "vernal habitat". These determinations may affect the requirements for an Individual Wetlands Permit, the types of Statewide General Permits available for the wetlands portion of this property and the modification available through a transition area waiver. Please refer to the Freshwater Wetlands Protection Act and implementing rules for additional information.

Mapped Coastal Wetlands:

Be advised, 'Mapped Coastal Wetlands' exist onsite as the promulgated line and identified on the approved plan. The promulgated line is also referenced on the 1970 Coastal Wetlands Map **#161-2004**. These areas are regulated by Waterfront Development Law (N.J.S.A 12:5-3), Coastal Area Facility Review Act (N.J.S.A 13:19) and/or Coastal Wetlands Act of 1970 (N.J.S.A. 13:9A). A buffer of up to ***300-ft*** may be required adjacent to these wetlands.

LACEY TWP PORTION / OYSTER CREEK INTERCONNECTION EXPORT CABLE ROUTE:

Wetlands Resource Value Classification
The Division determined the resource value and the standard transition area or buffer required adjacent to the delineated wetlands are as follows:

Exceptional Resource Value Wetlands: [150-ft. wetland buffer].

All freshwater wetlands associated with the **WLD**, **WLH** and **WLI** lines.

WL-L-18 through **WL-L-31**

WL-E-13 through **WL-E-18+**

WL-N-11 through **WL-N-1** and **OC-Trib-1**; **OC-Trib 19** through **OC-Trib-20**

All freshwater wetlands associated with **WLM**

WE-101 to **WE-112**

WAE-1 through **WAE-14**

WD1-WD-18 and **WD9-WD1-B**

WA19-WA-32

WE-123 to **WE-138**, **WE12** to **WE-19**, & **WE197** to **WE203**

WF14, **WF-77** to **WF-73**

Intermediate Resource Value Wetlands: [50-ft. wetland buffer].

All remaining *delineation points* and *line segments.* [50-ft. wetland buffer].

Vernal Habitat:
In addition, there are wetlands on the subject site which potentially meet the definition of a "vernal habitat". These determinations may affect the requirements for an Individual Wetlands Permit, the types of Statewide General Permits available for the wetlands portion of this property and the modification available through a transition area waiver. Please refer to the Freshwater Wetlands Protection Act and implementing rules for additional information.

Mapped Coastal Wetlands:
Be advised, 'Mapped Coastal Wetlands' exist onsite as the promulgated line and identified on the approved plan. The promulgated line is also referenced on the 1970 Coastal Wetlands Map **#357-2124, #357-2130, #357-2136, #250-2124, #250-2130, #250-2136**. These areas are regulated by Waterfront Development Law (N.J.S.A 12:5-3), Coastal Area Facility Review Act (N.J.S.A 13:19) and/or Coastal Wetlands Act of 1970 (N.J.S.A. 13:9A). A buffer of up to ***300-ft*** may be required adjacent to these wetlands.

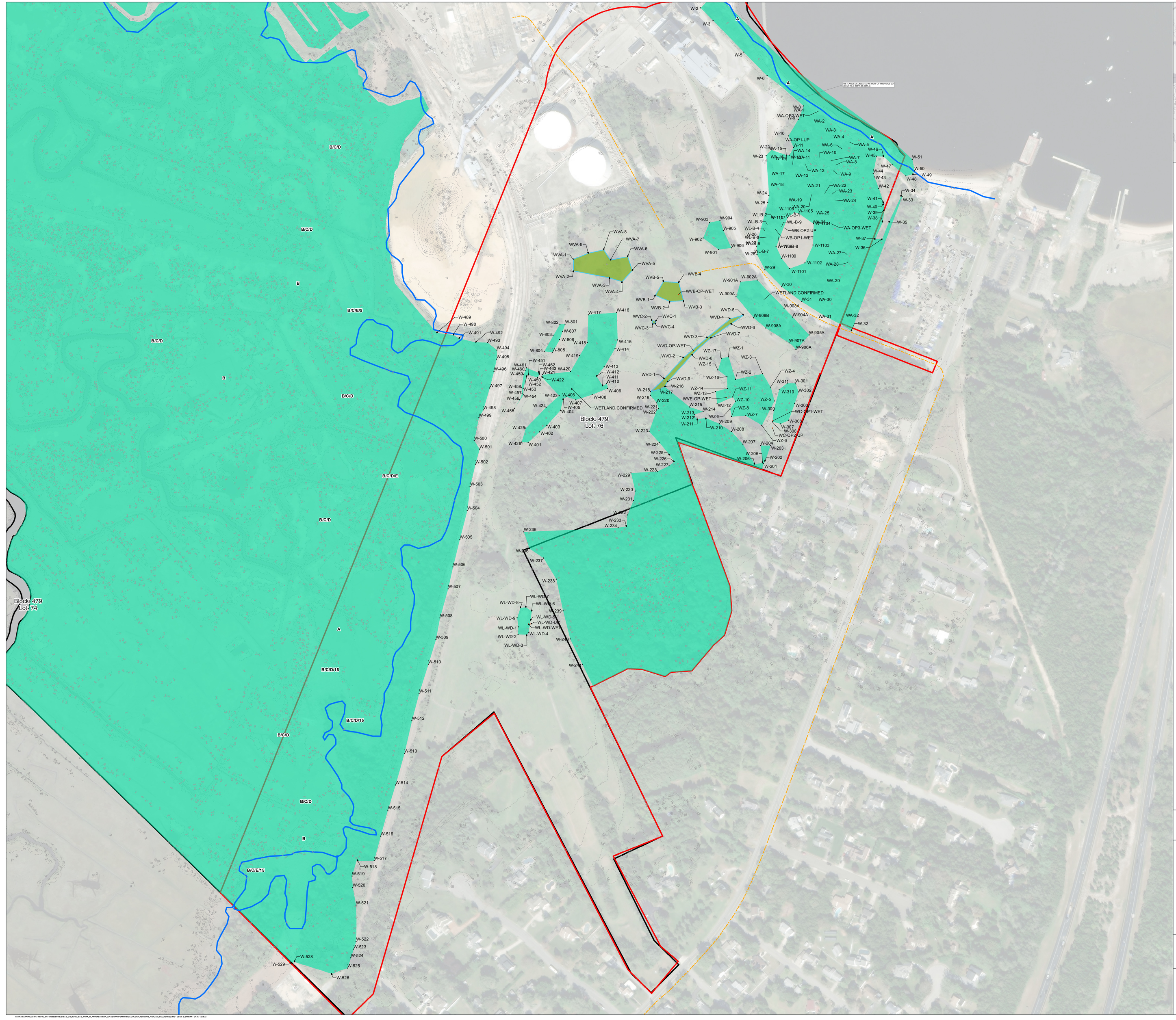
EPA Priority Wetlands
All wetlands / waters which are a component of the *"Barnegat Bay Tributary System"* are considered part of this **EPA** priority listing. Please see the EPA Priority Wetlands for New Jersey publication dated March 1994 for details and limits on jurisdiction.

Lindsey J. Davis, M.S.
Environmental Scientist 3

Division of Land Resource Protection
New Jersey Department of Environmental Protection
Phone: (609) 633-2289
Fax: (609)292-5399

ATTENTION: Effective October 5, 2021, applications for most land use authorizations and permits **must** be submitted electronically through NJDEP Online. Such applications include general permits, individual permits, water quality certificates, freshwater wetland transition area waivers, and associated flood hazard area verifications. Paper applications will **NOT** be accepted for the aforementioned types of authorizations and permits. For more information, please visit https://www.nj.gov/dep/landuse/eservices/lur_auth_permits.html.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION



GENERAL NOTES:

1. 1970'S COASTAL WETLAND LINE GRID NUMBERS INCLUDED:
161-2004
2. LINEWORK ON MAP IS SOURCED FROM NJ 1970 WETLANDS BASEMAP (BLACK AND WHITE) MAPPED COASTAL WETLAND IMAGERY AVAILABLE VIA NJ GEOGRAPHIC INFORMATION NETWORK (UPDATED JULY 2, 2019)

DATA SOURCES: Countours - NJGIN 2019 LiDAR

OCEAN WIND LETTER OF INTERPRETATION TOPOGRAPHICAL SURVEY

BL ENGLAND INTERCONNECTION EXPORT CABLE ROUTE

N

1 inch = 125 feet

0 200 400 FEET

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FIGURE 1 OF 1

LEGEND
- Proposed Alignment
- Freshwater Wetland
- Coastal Wetland
- Previous LOI Wetland
- Delineated Watercourse
- Wetland Delineation Area
- Parcel Boundary

GENERAL NOTES:

1. 1970'S COASTAL WETLAND LINE GRID NUMBERS INCLUDED: 3572124, 3572130, 3572136, 2502124, 2502130, 2502136
2. LINEWORK ON MAP IS SOURCED FROM 1970 WETLANDS BASEMAP (BLACK AND WHITE) MAPPED COASTAL WETLAND IMAGERY AVAILABLE VIA NJ GEOGRAPHIC INFORMATION NETWORK (UPDATED JULY 2, 2019)

DATA SOURCES: Countours - NJGIN 2019 LiDAR

OCEAN WIND LETTER OF INTERPRETATION TOPOGRAPHICAL SURVEY

OYSTER CREEK INTERCONNECTION EXPORT CABLE ROUTE

N

1 inch = 400 feet

0 400 800 FEET

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FIGURE 1 OF 1