

From: Defend Brigantine Beach, Inc and Downbeach

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RE: Comments to NJDEP for Atlantic Shores Offshore Wind South State Permit Applications for Project 1 – DLRP File # 0000-21-0022.2 LUP24001 and LL124001, and Project 2 – DLRP File# 000-21-0022.3 LUP240001

According to the information presented at the public hearings on May 14 and 29, 2024, Atlantic Shores Project 1 proposes the installation of the portion of the electric transmission export cable within NJ State waters within the Atlantic Ocean off the coast of Atlantic City in Atlantic County, the landfall of this export cable in Atlantic City, the installation of the onshore portion of the export cable to a proposed onshore substation located on Fire Road in Egg Harbor Township in Atlantic County, and the installation of the remainder of the export cable to interconnection for the Cardiff Substation in Egg Harbor Township in Atlantic County.

And, Atlantic Shores Project 2, proposes the installation of the portion of the electric transmission export cable within New Jersey State WATERS WITHIN Atlantic Ocean off the coast of the Borough of Sea Girt in Monmouth County to a future horizontal directional drill (HDD) exit area.

Defend Brigantine Beach, Inc represents thousands of beach goers, renters, homeowners, owners and employees of tourist industry related businesses, artists, photographers, owners and employees of businesses related to real estate, owners and employees of fisheries, water sports enthusiasts, recreational fishermen and women and many others who have a vested interest in the health and wellbeing of our ocean, coastal ecology and environment and social and economic conditions in our coastal communities. Our representation spans all along the New Jersey Coast but is mostly concentrated in Atlantic County, namely the island of Brigantine and the ocean front communities of Absecon Island as well as bay front communities. We have already submitted comments for Atlantic Shores South CZMA to NJDEP and many of our concerns and questions are the same since the two projects are next to each other and both have a severe negative impact on our communities.

Members of Defend Brigantine Beach and Downbeach attended the hearings and were outraged at the lack of information presented for the public to understand the impact of these projects and relative FILE #s. The NJDEP representative spent less than 3 minutes reviewing 1 slide with only very basic information about the projects and presented no explanation about the various file numbers and their significance. In addition, the thousands of pages of highly technical documents which are not clearly indexed by your agency or wind developer have made the review and understanding of them nearly impossible. For these reasons we request additional NJDEP meetings to inform the public and additional time of least 90 days for the public to read through these documents so they can address their issues. By listening to the comments made at the public meetings it is evident that residents were not even aware of the meetings and had little understanding of their

purpose. Of course, the offshore wind lobbyists attended and provided their pro-wind promotion comments that had nothing to do with the purpose of the meeting. NJPBU should strike their comments, representing a severe conflict of interest, from the meeting.

The lack of rigor in the reviews of the Atlantic Shores LLC project by the NJ Department of Environmental Protection (NJDEP) agency along with its consistent promotion of offshore wind raises serious doubts of its objectivity and unbiased consideration of the regulations it is missioned to uphold. It is essential that the NJDEP remains neutral and does not become a de facto political arm of the federal and state governments.

Offshore Wind Development Located at Farelly Marina in Atlantic City Will Interfere with the Marine Boaters.

Farley Marina is next to the Golden Nugget Casino and visible to the Borgata (MGM) Casino and respective restaurants. The Marina is a thriving and successful tourist attraction and promotes boating and recreational fishing activities. Construction and vessel traffic and air pollution from the ASOWNJ project and cumulative impact of other planned offshore wind projects will harm the tourist industry. It appears that the Atlantic Shores Facility will be located in the parking lot next to the Marina, which is used by boaters and tourists. The wind developers' ocean vessel traffic will interfere with the Marina traffic. Since Ocean Wind maintenance facility is in the same area, this will further increase the traffic near the Marina. Will the combined Wind Developers' ocean vessel traffic potentially close the Marina by making it less desirable for boaters to rent slips at the Marina? What is the amount of activity that will occur in the area with the addition of two offshore wind maintenance buildings in close proximity? How much pollution will the construction and operation of these facilities cause? How much strain will the large ocean vessel traffic cause on the ecosystems?

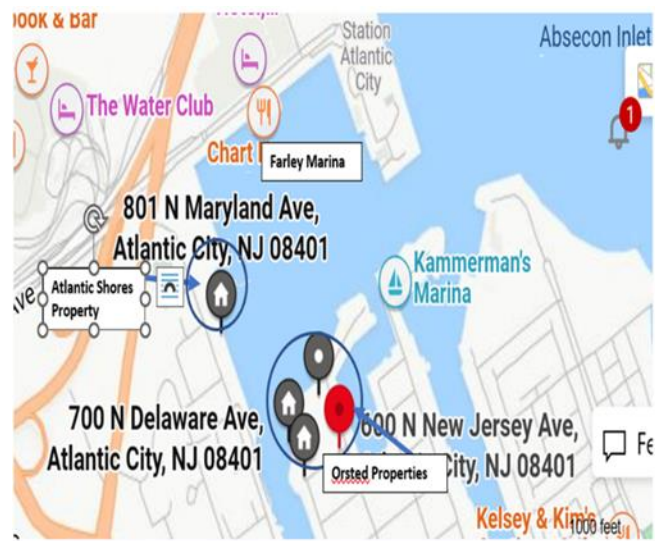
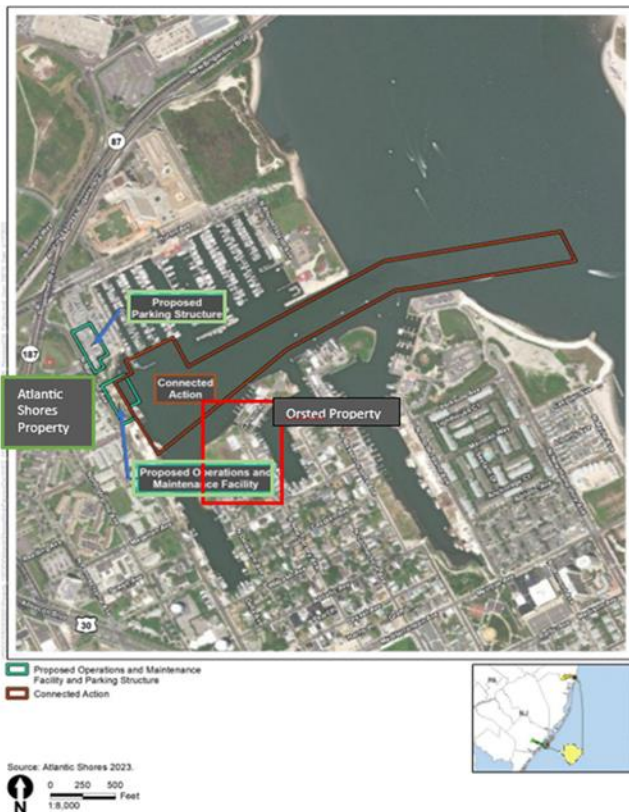
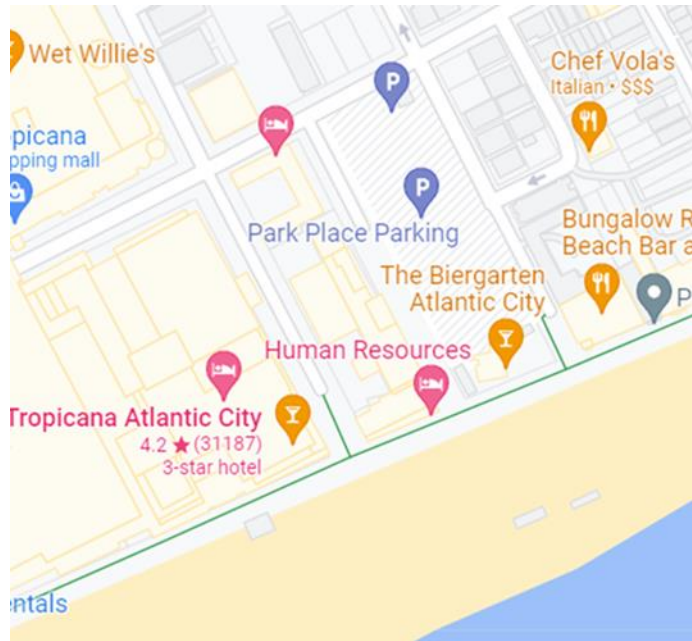
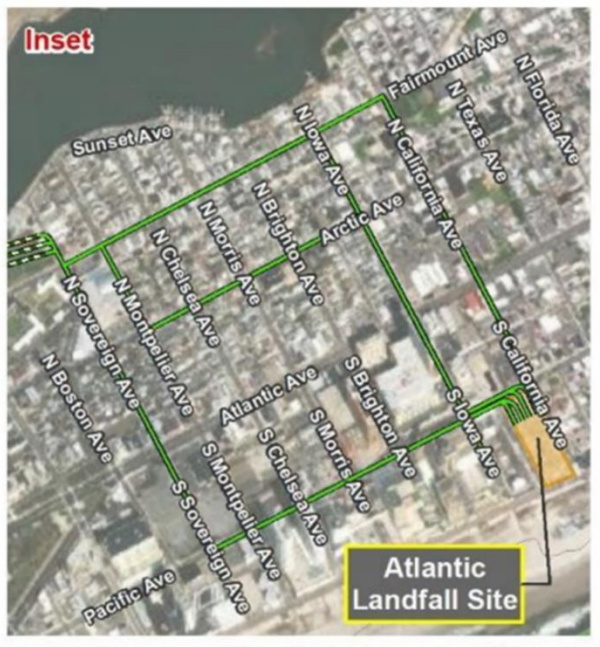


Figure 2.1-7. Proposed operations and maintenance facility

EMF Cables through Tourist District and Atlantic City Chelsea Neighborhood and Public School Building in Atlantic City

The installation of onshore cabling including trenching, horizontal direct drilling and jack and bore will result in the degradation of tourist area and underserved population in Atlantic City. The landfall site will eliminate a parking lot covering an entire block in Atlantic City. According to the NOAA survey, 49% of people ranked convenient parking as very important as a beach characteristic.

[2019.07.Econ .Impacts.Marine.Debris.complete.wFN 30Aug2019 508 \(1\).pdf](#)



Environmental Justice

Will the wind development harm Environmental Justice populations? Historically, the negative aspects of electricity generation have disproportionately fallen on populations categorized as “environmental justice populations” or those in an economically less advantaged sector. Renewable energy, because of its presumed “cleanliness” could avoid imposing such burdens on these populations. Although Atlantic Shores ignores the issue, the project construction and installation, O&M, and decommissioning would have short-term to long-term adverse impacts on environmental justice populations. In fact, the project will have major adverse impacts on environmental justice populations. This violates the dictum to promote environmental justice. The project disproportionately burdens Atlantic City residents, one of the largest minority and most disadvantaged populations in New Jersey. Other areas in NJ with much larger per capita income and with far greater carbon emissions do not share the burden equally. Although relative, the projects should not burden one of the most economically depressed populations in the state with the entire buildout of offshore wind development.

According to DEP and EPA Laws: Environmental Justice requires fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, in the development, implementation and enforcement of environmental laws, regulations and policies. This goal can only be achieved when everyone enjoys the same degree of protection from environmental and health hazards and has equal access to the decision-making processes in the places they live, learn, and work, and recreate in a community of concern; the presence of disproportionate environmental and public health stressors; and the absence or lack of environmental and public health benefits.

Specifically, the Law directs the DEP to determine how to address these permit applications based on a comparative analysis that determines if the additional environmental or public health stressors from the permitted action would, together with the baseline stressors already impacting the community, cause or contribute to adverse cumulative environmental or public health stressors within that Community.

According to Subsection 7.7-9.41, Special Urban Areas, development that would adversely affect the economic well being of these areas is discouraged, when an alternative which is more beneficial to the special urban areas is feasible.

Table B.4-7 in Appendix B in the DEIS includes data on at-place employment by industry in the New York and New Jersey geographic analysis area. The industries that employ workers reflect recreation and tourism's importance to these counties. A greater proportion of workers in these counties are employed in accommodation and food services (31.1 percent in Atlantic County, 18.8 percent in Cape May County, 9.9 percent in Monmouth County, and 8.9 percent in Ocean County) than in New Jersey as a whole.

Environmental justice populations would have to adjust somewhat to account for disruptions due to notable and measurable adverse impacts.

Views of offshore WTGs could also have impacts on individual locations and businesses serving the recreation and tourism industry, based on visitor decisions to select or avoid certain locations. Because the service industries that support tourism are a source of employment and income for low-income workers, impacts on tourism would also result in impacts on environmental justice populations.

Impacts would result from navigational complexity within the WTA, disturbance of customary routes and fishing locations, and the presence of scour protection and cable hardcover, leading to possible equipment loss and limiting certain commercial fishing methods. Overall, during construction and installation, O&M, and conceptual decommissioning, the offshore structures for the Proposed Action alone would have minor to moderate impacts on marine businesses (Sections 3.6.1, 3.6.3, and 3.6.8), resulting in long-term, continuous, negligible to minor impacts on environmental justice populations due to the impact on low-income workers in marine industries and low-income residents who rely on subsistence fishing.

During both construction and operations, the impacts on low-income employees of marine industries and supporting businesses (commercial fishing, support industries, marine recreation, and tourism) from all IPFs would range from negligible to moderate.

Damage to Atlantic City Neighborhoods Related to EMF Cable Installation

The installation of onshore cabling including trenching, horizontal direct drilling and jack and bore will result in the degradation of tourist area and underserved residential population in Atlantic City. The landfall site will eliminate a parking lot covering an entire block in Atlantic City. According to the NOAA survey, 49% of tourists

ranked convenient parking as very important as a beach characteristic. You intend to claim close to 2.5 acres of these residents' valuable parkland, plus a temporary impact for another 11 acres of parkland. Purchasing land as a potential replacement outside of Atlantic City as a replacement does absolutely nothing for Atlantic City. The installation of onshore cabling including trenching, horizontal direct drilling, and jack and bore will result in significant degradation of neighborhoods, and destruction of tourist areas, recreation areas and most importantly the climate justice populations in Atlantic City. This project will not be just disruptive, it will add significant noise, air pollution, diminished access, dust and dirt which will be a nightmare for the residents.

Health Risks of EMF Cables to Atlantic City Neighborhoods

And most importantly, based on current science there will be significant health risks for our neighbors living in these environmental justice protected areas because of EMF (Electro-Magnetic Frequency) emitted from high voltage underground cables.

First, Atlantic Shores LLC fails to use a respected source but instead uses the International Commission for Non-Ionizing Radiation Protection (ICNIRP) guidelines in evaluating EMF exposure. Studies have shown that this organization's guidelines fail to meet fundamental scientific quality requirements and are not suited to set EMF exposure limits. Medical research scientists who study health based impacts of EMF rely on the World Health Organization (WHO) and the Institute for Research in Immunology and Cancer (IRIC).

Back in 2007 the WHO and IRIC stated that EMF was not harmful. Then in 2011, these scientific institutions classified EMF exposure under a category called "Group 2B". Group 2B states something is "possibly carcinogenic", but that classification comes from studies that were looking at less than a measurement of 3 Milligauss.

Now we have even more recent studies that show that even a small increase in EMF will change health outcomes. Examples found on PubMed are both meta-analysis of the exposure to EMF related to childhood leukemia and fetal development.

The first study, titled, ***Exposure to magnetic fields and childhood leukemia: a systematic review and meta-analysis of case control and cohort studies, published in the journal, Reviews in Environmental Health, was a Childhood Leukemia Metanalysis printed in 2022***, including 36,000 children diagnosed with childhood leukemia going back to 1970. The study concluded that statistically significant associations were observed between exposure to ELF-MF (**extremely low frequency-magnetic field**) and childhood leukemia. Altogether there was a 2 fold increase in childhood leukemia.

The second study was another meta-analysis of 6 studies and only included power line based EMF exposure. Children of pregnant women who were exposed to 4 Milligauss or higher were found 14 times more likely to develop all cancers over 4 years. The results of the study showed that the residential period of more than 4 years near high-voltage power lines before or after birth is an important factor for all in childhood. Material exposure to EMFs significantly increased development disorders in their fetus such as embryonic development. There was a 3.95 times and significant increase in placental apoptosis or cell death. There were 5-fold central nervous system defects and spina bifida increase as well as a significant increase in club foot in the fetus.

These studies represent populations such as children and fetuses whose cells aren't developed, and whose DNA is easily cleaved.

The authors concluded that the 2011 guidelines must be revised to reflect recent studies. Even a small amount of enhancement of exposure will result in unacceptable health consequences of our future generations. EMF exposure is a significant environmental danger for pregnant women and their fetuses.

Atlantic Shores is planning to run EMF cables on the exact beaches, parks, where young mothers who may be expecting another child and fathers bring their children to play. Atlantic Shores LLC is planning to run EMF cables through residential neighborhoods and next to the Sovereign public school building. Is Atlantic Shores LLC going to guarantee that the children who live, play and go to school in these areas are safe?

Atlantic Shores has stated in their documents that these export cables will operate at peak loads at up to 349mG versus the studies which determined that 4mG is potentially dangerous. Have you had neighborhood meetings with these underserved communities to inform them of these dangers to the health and welfare, most importantly their children?

Increased Air Pollution in Climate Justice Areas

According to the American Lung Association, Atlantic County has one of the lowest air pollution levels in New Jersey. The climate justice areas will be affected by the Atlantic Shores project's local pollution more than any other area.

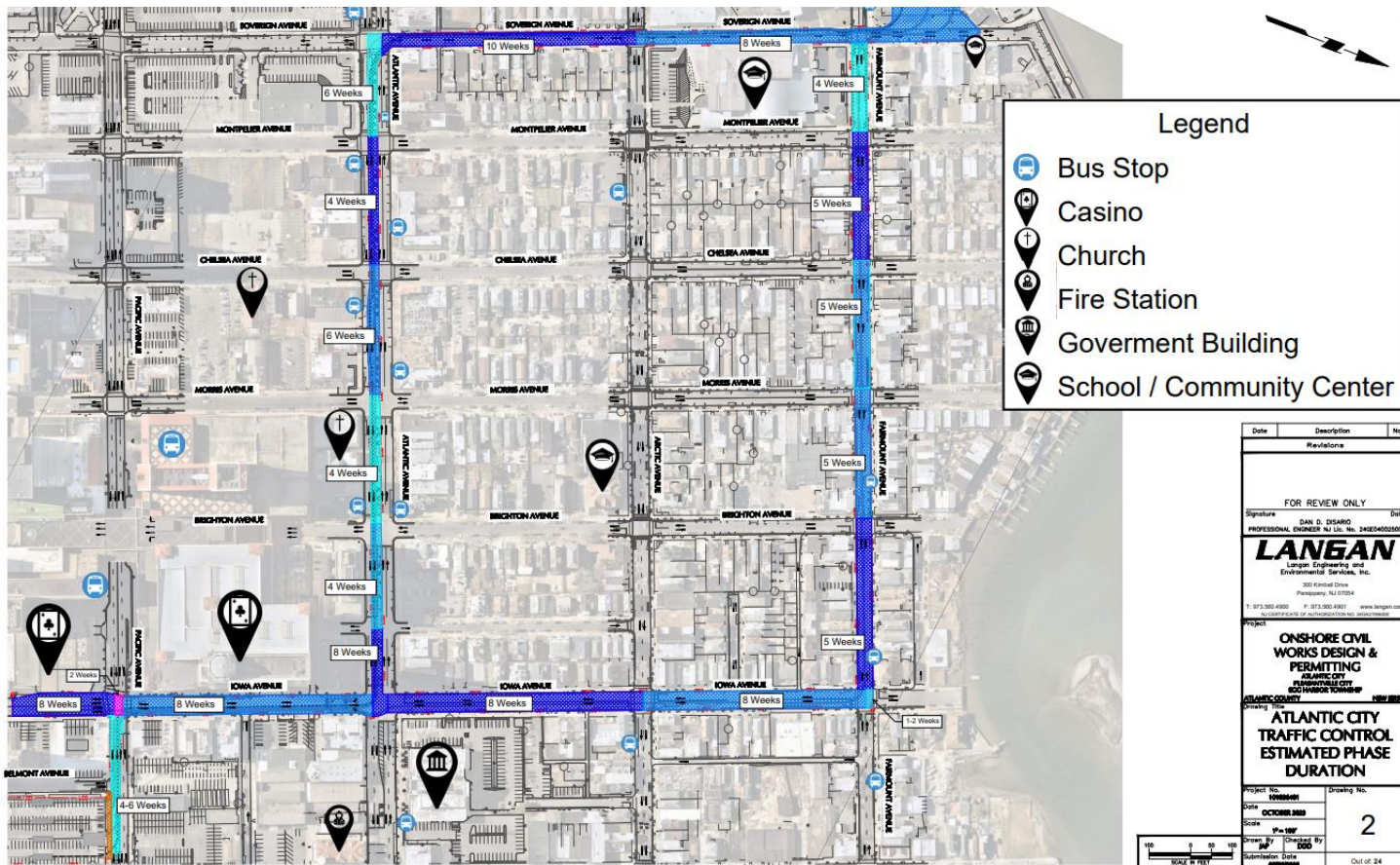
[12 NJ Counties Ranked Among Worst Air Quality In The USA: Report | Rumson, NJ Patch](#)

How will the vessel and road traffic from constructing and maintaining 400-500 wind energy bases and turbines off our coast impact the air pollution in Atlantic County? Below is the table of ocean vessels that will be used for just the Atlantic Shore South Project. According to Atlantic Shores North COP

“Currently, maximum estimates for the total number of vessels required for any single offshore construction activity range from two vessels for scour protection installation to up to 16 vessels for OSS installation. For export cable installation, it is currently estimated that up to six vessels could be operating at once. Across the Projects, if all construction activities were occurring concurrently (which is unlikely), a total of 51 vessels could be present at any one time.”

According to Construction Timelines in Atlantic Shores North and Orsted Ocean Wind 1 Projects construction plans, many of the construction phases will be running currently for both projects. Construction will continue to increase air pollution as Atlantic Shores North and Ocean Wind 2 projects are constructed. Reporting is absent for increased air pollution and there is no mention of on shore road traffic vehicles and their pollution. On shore pollution from construction and maintenance vehicles is equally ignored.

According to the map below (in Appendix O, Maintenance and Protection of Traffic), there will be 109 weeks of drilling, noise, pollution, dust, vibrations impact the disadvantaged residential neighborhoods in Atlantic City when the cables are installed.



Vegetation, Wetland, Bay and River Disruption and Destruction

According to the table 2.5 Vegetation table in Wetland and Stream Delineation Report, in the Cardiff area alone, the project will disrupt total of 465 acres and 185 acres of vegetation covered areas including wetlands, forests, inland bays, tidal rivers and other tidal waters, recreational land, marshes, and horticultural areas. The project will destroy 21.5 acres of recreational land. The public deserves a complete understanding of how the vegetation will be impacted by these projects. This is 185 acres of vegetation that now serve as a carbon sink for our planet and will be removed from the natural carbon cycle.

Table 2. Vegetation/Land Cover Within the Cardiff Study Area

Land Cover Class	Acres	Percent Cover (%)
Commercial/Services	75.4	16.2
Transportation/Communication/Utilities	51.2	11.0
Major Roadway	48.1	10.3
Mixed Forest (>50% Coniferous With >50% Crown Closure)	44.9	9.6
Deciduous Forest (>50% Crown Closure)	35.0	7.5
Tidal Rivers, Inland Bays, And Other Tidal Waters	31.3	6.7
Other Urban Or Built-Up Land	28.1	6.0
Residential, High Density Or Multiple Dwelling	24.1	5.2
Recreational Land	21.5	4.6
Upland Rights-Of-Way Undeveloped	12.8	2.8
Residential, Single Unit, Medium Density	10.3	2.2
Mixed Forest (>50% Deciduous With >50% Crown Closure)	9.6	2.1
Mixed Deciduous/Coniferous Brush/Shrubland	8.2	1.8
Residential, Single Unit, Low Density	7.7	1.7
Airport Facilities	6.9	1.5
Residential, Rural, Single Unit	6.7	1.4
Stadium, Theaters, Cultural Centers And Zoos	5.1	1.1
Saline Marsh (Low Marsh)	4.7	1.0
Railroads	4.0	0.9
Coniferous Forest (>50% Crown Closure)	3.3	0.7
Industrial	3.2	0.7
Old Field (< 25% Brush Covered)	2.5	0.5
Coniferous Wooded Wetlands	2.4	0.5
Cemetery	2.1	0.5
Phragmites Dominate Interior Wetlands	2.1	0.4
Transitional Areas	2.0	0.4
Herbaceous Wetlands	1.8	0.4

Wetland and Stream Delineation Report
Cardiff Study Area

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Land Cover Class	Acres	Percent Cover (%)
Stormwater Basin	1.5	0.3
Saline Marsh (High Marsh)	1.2	0.3
Mixed Forest (>50% Deciduous With 10-50% Crown Closure)	1.1	0.2
Mixed Urban Or Built-Up Land	0.9	0.2
Bridge Over Water	0.9	0.2
Deciduous Forest (10-50% Crown Closure)	0.8	0.2
Orchards/Vineyards/Nurseries/Horticultural Areas	0.7	0.1
Mixed Wooded Wetlands (Coniferous Dom.)	0.6	0.1
Managed Wetland In Built-Up Maintained Rec Area	0.5	0.1
Deciduous Brush/Shrubland	0.5	0.1
Mixed Wooded Wetlands (Deciduous Dom.)	0.4	0.1
Disturbed Wetlands (Modified)	0.4	0.1
Artificial Lakes	0.3	0.1
Coniferous Brush/Shrubland	0.2	0.1
Coniferous Forest (10-50% Crown Closure)	0.1	0.01
Phragmites Dominate Urban Area	0.1	0.01
Deciduous Wooded Wetlands	0.03	0.01
Mixed Scrub/Shrub Wetlands (Coniferous Dom.)	0.02	0.003
Total	465.4	100

Source: Land Use/Land Cover of New Jersey 2015 (NJDEP, 2015).

Substation in Egg Harbor Township

According to BOEM documents, the following chemicals will be used by the Substation in Egg Harbor Township. Have the residents living in close proximity to the substation been informed of the use of SF6, one of the most potent and persistent greenhouse gas known to man? The U.S Environmental Protection Agency reported, "SF6 is the most potent greenhouse gas known. It is 23,500 times more effective at trapping infrared radiation than an equivalent amount of CO2 and stays in the atmosphere for 3,200 years." The agency also notes that a relatively small amount can "have a significant impact on global climate change" and that leaks can occur during "installation, maintenance and servicing." Employees must evacuate the work area during leak events. The question is how many such leaks go unreported.

Each Onshore Substation can use up to :

1,500 Gals of Diesel Fuel	15,000
272,500 Gals of Mineral Oil	2,725,000
400 Gals of Sulfuric Acid (batteries)	4,000
1,275 Gals of Water/Ethylene Glycol	12,750
794 lbs of Refrigerent	7,940
10 Gals of Lubricant	100
11,023 Lbs of Sulfur Hexaflouride	110,230

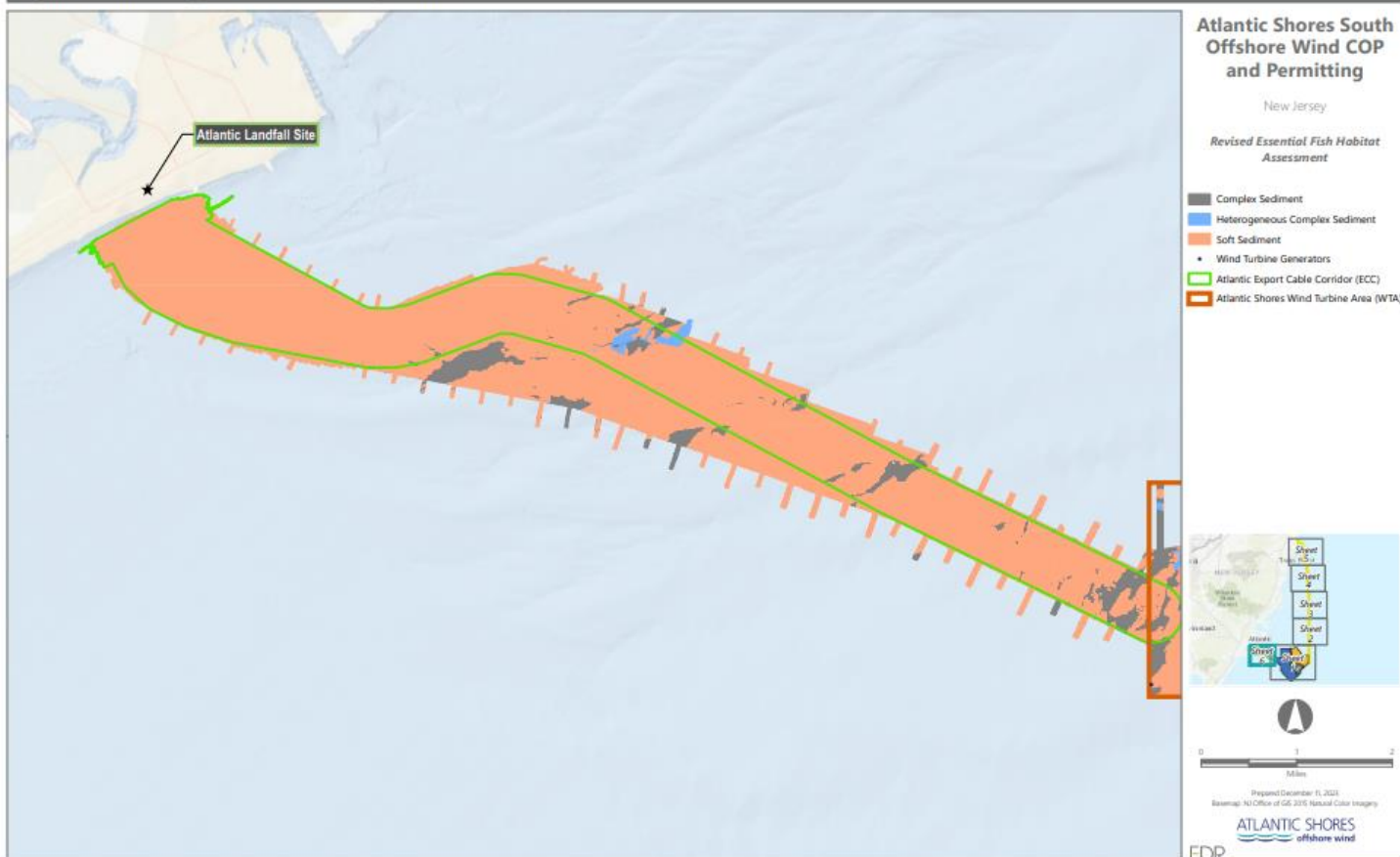
Other Concerns

Our other concerns include the affected environment including the pelagic and benthic habitats, impacts to fish, and the habitat of particular concern for the Sandbar Shark as stated in Figure 5 of the Revised Essential Fish Habitat Assessment Report.

Our bays are heavily used fishing and recreation areas under considerable environmental distress. Adding large diameter power cables in a trenching process adds additional stress including Electric Magnetic Fields (EMF). Very few marine life species have been tested for potential impacts from EMF exposure. The cables are to be buried 3 to 7 feet deep. Cables buried the same depth from the Block Island, RI offshore wind project came to the seafloor surface in the ocean and on a tourist beach and remained exposed for up to two years before being reburied. Our permitting process should not be a shortcut to allow Atlantic Shores to save money.

The picture of the export cable corridor shows a vast disruption to the ocean and is over a mile wide up to the beach area.

Figure 2. Habitat Types in Offshore Project Area



How might jet plowing hurt our water? The developers use jet plows to trench down 4-6 feet into the seabed and riverbeds to lay the cables. Although efficient, this process will resuspend sediment laden with the toxins deposited for centuries. Toxins could include lead, mercury, arsenic, and other heavy metals, DDTs and other pesticides, hexavalent Chromium, Sulfur Dioxide, Benzene, Azo Dyes, PFOAs, and BPAs. All these compounds are known to harm human health.

The jet plowing process will create sediment plumes that could resuspend toxic chemicals into the water column. Through bioaccumulation and biomagnification, resuspended toxins could contaminate the marine food web and compromise human and wildlife health. Has Atlantic Shores only used computer modeling or have they conducted field tests to ensure the safety of the jet plowing or trenching process?