



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**
RICHARDSON & ROBBINS BUILDING
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE
(302) 739-9000

Secretary's Order No.: 2024-W-0051

RE: Approval of the Issuance of the Subaqueous Lands Permit, Subaqueous Lands Lease, Wetlands Permit, and Coastal Construction Permit regarding the construction activities associated with the proposed offshore wind project of US Wind, Inc., and its related infrastructure

Date of Issuance: December 09, 2024

Effective Date: December 09, 2024

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC"), pursuant to 7 *Del.C.* §§6003, 6004, 6006, and all other relevant statutory authority, the Department issues this Order, approving the issuance of the Subaqueous Lands Permit, Subaqueous Lands Lease, Wetlands Permit, and Coastal Construction Permit regarding the construction activities associated with the proposed offshore wind project of US Wind, Inc. ("US Wind" or "Applicant"), currently pending before the Department at this time. It should be noted that the Section 401 Water Quality Certification ("WQC") required for the dredging associated with the United States Army Corps of Engineers ("USACE") permitting portion of the Applicant's proposed project was previously addressed by the issuance of Secretary's Order No. 2024-W-0042 (October 18, 2024), thereby enabling DNREC to provide input to the WQC process at the federal level. The remaining requisite permits for US Wind's proposed project currently pending before the Department, as listed above, are now being fully addressed in this separate, subsequent Secretary's Order.

Background, Procedural History and Findings of Fact

A joint virtual public hearing was held by DNREC on Tuesday, July 9, 2024, at 6:00 p.m. via the State of Delaware Zoom for Government Virtual Meeting Platform to receive comment on the following permit applications and authorizations of US Wind currently pending before the Department at this time:

- One (1) Subaqueous Lands Permit/Lease from the Division of Water (“DW”);
- One (1) Wetlands Permit from the DW;
- One (1) Beach Preservation Coastal Construction Permit from the Division of Watershed Stewardship (“DWS”).

The above permit applications/authorizations are necessitated by the Applicant’s proposal to develop a commercial-scale, offshore wind energy project within the Bureau of Ocean Energy Management (“BOEM”) Lease Area known as Lease OCS-A 0490 offshore of the State of Maryland (“proposed project”). The proposed project is comprised of up to 114 wind turbine generators, up to four (4) offshore substations, up to four (4) offshore/onshore export cables, and one (1) meteorological tower, in a gridded array pattern distributed across the Lease Area. Portions of the proposed export cables are located under state-regulated wetlands and subaqueous lands in the Atlantic Ocean within Delaware state waters and the Indian River Bay. The offshore/onshore export cables are proposed to land at 3R’s Beach near the parking lot and potential dune environments and to interconnect into a proposed substation to be constructed on Tax Parcel 233-2.00-2.01, adjacent to the Indian River Power Plant in Sussex County, Delaware.

The following section of this Order provides a brief description of the requisite permits/authorizations to be issued by the Department’s DW, Wetlands and Waterways Section (“WWS”) and DWS, Shoreline and Waterways Management Section (“SWMS”) for the proposed installation of cable ducts and offshore/onshore export cables using horizontal direction drilling, dredging and trenching, and for the proposed construction of a transition vault using horizontal directional drilling:

1. Subaqueous Lands Permit/Lease:

The proposed project impacting state-regulated subaqueous lands (starting at the 3-mile jurisdictional line) is comprised of up to four transmission cables totaling approximately 340,000 linear feet which will terminate into a proposed substation to be constructed on tax parcel 233-2.00-2.01, adjacent to the Indian River Power Plant in Sussex County, Delaware. The Applicant also proposes to install up to 51,000 square feet, or 38,250 cubic yards, of cable protection (concrete mattresses), if necessary. In addition, the Applicant proposes to hydraulically dredge up to 74,000 cubic yards of sediment from Indian River Bay. The dredged material is proposed to be transported via pipeline and contained within geo bags on an upland site, tax parcel 233-2.00-2.01, adjacent to the Indian River Power Plant in Sussex County, Delaware.

2. Wetlands Permit:

The Applicant proposes to temporarily place two 600-foot-long pipes associated with the proposed dredging activities across state-regulated tidal wetlands to transport dredge material to an upland dewatering facility adjacent to the Indian River, Sussex County, Delaware.

3. Beach Preservation Coastal Construction Permit:

The Applicant seeks authority under the Beach Preservation Act to utilize directional drilling for the installation of export cables and to construct four transition vaults in the 3R's parking lot in Delaware Seashore State Park, Sussex County.

As noted previously, the WQC necessitated by this proposed project was addressed separately in Secretary's Order No. 2024-W-0042 (October 18, 2024), and is expressly incorporated into the Record and available for the public's review on the Department's website.

The Applicant’s proposed project is subject to various state and federal regulatory requirements, as well as provided for under 7 *Del.C.* Ch. 60. Statutory authority for the Department’s review of the matters contained herein is established in the following:

- 7 *Del. C.* Chapter 72, *Subaqueous Lands Act*
- 7 DE Admin. Code 7504, *Regulations Governing the Use of Subaqueous Lands*
- 7 *Del. C.* Chapter 66, *Wetlands Act*
- 7 DE Admin. Code 7502, *Wetlands*

The Department processed all of the Applicant’s permit applications necessary for the proposed project together to assure transparency, and to make sure the public was afforded the ability to provide meaningful comment on the complete proposed project, as noted above. Again, the portion of US Wind’s project that fell under the permitting authority of the Department’s DW-WWS (specifically, the issuance of the *Clean Water Act* Section 401 WQC), was previously addressed with the issuance of DNREC Secretary’s Order No. 2024-W-0042 (October 18, 2024), thereby enabling DNREC to provide input to the WQC process at the federal level.

Given the level of public interest in this matter, and in accordance with the statutory and regulatory authorities noted above, the Department made the decision to issue a Joint Public Notice on April 28, 2024, of (1) the aforementioned permit applications submitted by US Wind having been received by the Department; (2) an in-person Joint Public Information Session (“public information session”) to be held by DNREC on June 5, 2024; and then (3) a Joint Virtual Public Hearing (“public hearing”) to be held by DNREC on July 9, 2024.

Department staff, representatives of the Applicant, and members of the public attended both the public information session and the public hearing events held by the Department in this matter.

The Department's public information session, held in-person on June 5, 2024, at Beacon Middle School, 19483 John J. Williams Highway, Lewes, Delaware, lasted approximately three (3) hours in length. The event provided the public an opportunity to review the applications and other related documents, and offered a platform for the public to ask questions of both the Department and the Applicant about US Wind's proposed project. The event also included presentation boards from the Applicant, as well as from DNREC staff and various Federal partners.

The Department's public hearing, held on July 9, 2024 (also lasting approximately three [3] hours in length), was held virtually on the Zoom platform, resulting in not only a greater level of participation by members of the public (when compared historically to in-person attendance at such events), but also enabling approximately 200 virtual attendees to use automated closed captioning in their choice of over 20 languages to further enhance their understanding of US Wind's proposed project. At the time of the public hearing, 34 attendees provided verbal comments to the Department regarding the Applicant's proposed project.

Subsequent to the public hearing, the Record remained open through September 9, 2024, giving members of the public a total of 134 days to provide comment to the Department regarding this matter, should they wish to do so. The Department received a total of 446 comments from the public regarding this matter: thirty-four (34) comments were received verbally at the time of the public hearing, and the remaining four hundred and twelve (412) comments were received in writing, submitted to the Department either before or after the public hearing, during the time period in which the Record remained open to receive public comment. All comments were posted on the DNREC public hearing web page dedicated to this matter upon their receipt. Proper notice of the hearing was provided as required by law.

Following the close of the public comment period on September 9, 2024, Hearing Officer Lisa A. Vest requested a Technical Response Memorandum (“TRM”) from the Department’s subject matter experts in the permitting Divisions identified above. The Department’s DW and DWS provided their joint TRM, dated November 7, 2024, in response to the public comments received by DNREC concerning US Wind’s proposed project, along with additional documentation in support of that TRM, and the same is discussed herein in greater detail below.

Subsequent to the receipt of the Department’s TRM referenced above, Hearing Officer Vest prepared her Hearing Officer’s Report (“Report”), dated November 25, 2024. Ms. Vest’s Report set forth the procedural history, summarized and established the record of information (“Record”) relied on in the Report, and provided findings of fact, reasons, and conclusions that recommend the approval of the Department’s issuance of the finalized permits/authorizations listed herein, with appropriate conditions, required for the Applicant’s construction activities associated with the proposed project that would be conducted within the Indian River Bay in Sussex County, Delaware.

The Report, along with its Appendices, is incorporated herein by reference. The Report also addressed the concerns associated with this proposed project, as voiced in the public comments received in this matter, and concluded that the same did not warrant the Department’s denial of the above listed permits/authorizations, nor the delay of the decision regarding the same to receive any additional information.

Reasons and Conclusions

Currently pending before the Department are the above listed permits/authorizations for US Wind’s proposed project. I find that the Applicant is required to obtain the requisite permits/authorizations for the reasons noted above, and that the proposed project is subject to various state and federal regulatory requirements, as previously set forth herein.

The Department's TRM provided a thorough review of the concerns voiced in the public comments received in this matter. The following section of this Order summarizes the main areas of concern raised in the public comments and the Department's responses to the same. It should be noted that, where comments received were similar in nature, the Department combined those comments together and paraphrased for the purposes of brevity and clarity. Again, all of the public comments received by the Department regarding US Wind's proposed project have been incorporated into the Record generated in this matter and are available for review in their entirety on the Department's hearing web page dedicated to this hearing matter.

The TRM notes the following areas of concern were raised in the public comments received by the Department in this matter:

- Financial Stability/Bonding/Decommissioning
- Emergency Response
- Navigation/Dredging
- Fisheries Impact
- Recreational Disruption
- Electromagnetic Fields ("EMF")
- Sediment/Water Quality
- Wetland Impacts
- General Environmental Concerns

As is typical with projects of this scope, the Applicant was required to provide additional information to the Department subsequent to the public hearing held on July 7, 2024, in order to fully address the concerns voiced in the public comments received, and to provide clarification regarding items identified during the technical review and in the public comments. Specifically, US Wind was required to submit the following supplemental information to the Department. It should be noted that the following documentation is attached to the TRM and is expressly incorporated into the Record:

- *Indian River and Indian River Bay Surface Water and Sediment Assessment*” (dated September 13, 2024);
- *Maryland Offshore Wind Project - Indian River Bay Turbidity Minimization and Monitoring Plan*” (dated September 13, 2024);
- *Decommissioning Plan – Delaware* (dated October 17, 2024);
- *Emergency Response Plan (ERP) – Delaware version 1a* (revised, October 24, 2024);
- *Maryland Offshore Wind Project - Monitoring Plan – Delaware* (revised, November 2024); and
- *Maryland Offshore Wind Project - Mitigation Plan – Delaware* (revised, October 2024).

The TRM notes that, collectively, the Applicant’s responses to the Department’s requests for additional information, along with US Wind’s original application materials, provided sufficient information for the Department’s subject matter experts to address the topics as indicated below.

1. Financial Stability/Bonding/Decommissioning

In response to the concerns voiced by the public in this area, the Department’s TRM notes that the long-term presence of private infrastructure on public subaqueous lands is not an uncommon practice. In fact, it is the very basis of the requirements for a subaqueous lands lease for this occupancy. As the owner/steward of such lands, the State of Delaware has issued thousands of fixed-term leases to individuals and corporate entities for structures (docks), fill, and utility lines in waterbodies throughout the State, including the rivers, bays, and ocean. Each of those leases contains specific language, such as the following, to make it clear that the occupancy of such lands is dependent upon the State of Delaware considering that occupancy to be non-detrimental:

Any actions, operations or installations which are found by the Department to be contrary to the public interest may constitute reason for the discontinuance and/or removal of said action, operation or installation. Removal and restoration shall be at the expense of the lessee and/or upland property owner.

It should be noted that the State of Delaware retains full legal authority to revoke the lease and require the removal of any infrastructure at the lessee's expense. The Subaqueous Lands Lease to be issued to US Wind for the proposed project is for 20 years. Pursuant to the statutory authority provided to DNREC under 7 Del.C. Chapter 72, *Subaqueous Lands*, the Department reserves the right to revoke said lease if at any time during that 20-year period the Secretary determines that the Applicant's proposed project is contrary to the public interest.

In the present case, the Department required the Applicant to provide a *Decommissioning Plan* for the project that commits US Wind to a course of action once the Maryland Offshore Wind Project is no longer in operation. That plan includes that "...structures and project elements will be decommissioned in the opposite order as they are installed and with the same or similar equipment" and that "[t]he plan presented assumes all components will be removed to 5 m (15 ft.) below the mudline..."

The *Decommissioning Plan* also acknowledges that the first wind farms in Europe are reaching the end of their design lives and are starting to enter the decommissioning process, which should result in the further development of refined methods and processes. Therefore, the Department has included a condition in the Draft Subaqueous Lands Lease necessitated for this proposed project that requires US Wind to submit a final *Decommissioning Plan* to DNREC for approval *prior* to commencing any decommissioning activities.

The TRM further notes that the above-stated elements are dependent upon US Wind being solvent as a corporate entity. The continued solvency of the Applicant was also identified as a concern in many of the public comments that were received in this matter. In order to address that concern, both the *Decommissioning Plan* and the Draft Subaqueous Lands Lease include the following clause:

US Wind Inc. will establish an appropriate financial assurance, such as a bond, to pay for removal of elements in the plan should US Wind Inc. be unable to remove the facilities in the future.

The bond or similar mechanism would be established 180 days *prior* to the start of onshore construction activities in Delaware waters.

2. Emergency Response Planning

As part of the Department's technical review of the Application packet, and as also as a result of this concern being identified in the public comments, it was determined that more details were needed from US Wind with regard to emergency response preparedness. The Department required the Applicant to submit an *Emergency Response Plan* for review and approval. That plan was provided to the Department by US Wind on October 10, 2024. Slight modifications to the plan were requested on October 22, 2024, after review by the Department's Emergency Response Program. The responses to the Department's requests were incorporated into the final *Emergency Response Plan* received from the Applicant on November 4, 2024.

In addition to providing the *Emergency Response Plan*, US Wind has committed, as part of their compensatory mitigation plan, to provide additional resources to facilitate emergency response activities in the areas of their infrastructure. These commitments include funding for:

- Coordination and training of local Emergency Response personnel to respond to situations that might occur as a result of the construction and long-term operation/maintenance of the export cables and related interconnection infrastructure, both onshore and offshore, including specialty equipment necessary to provide appropriate services in both onshore and offshore environments.
- Improvements of regional dock structures and access channels to ensure that safety personnel and gear can reach those in need (e.g. ensure that strategically located dock facilities can accommodate small vehicles, stretchers, and other necessary equipment to transport injured personnel to local medical facilities).

3. Navigation/Dredging

The Department's TRM notes that navigation of Delaware's Indian River and Indian River Bay poses challenges, due to intricate hydrodynamics, shallow depths, and shifting sediments and channels. Boaters have expressed these concerns long before the Department began to receive comments regarding the Applicant's proposed project. This has resulted in the Department taking on certain dredging and channel marking responsibilities in addition to (and in some instances, in lieu of) federal obligations.

Given the existing challenges for commercial and recreational users attempting to safely traverse these waterways, it is not surprising that these concerns have been exacerbated by the Applicant's proposed activities, as evident in some of the comments received in this matter. Acknowledging the possible unknown impacts from sediment redistribution during jet plowing, possible cable exposure, and the potential for scouring around cable structures in and near navigation channels, US Wind has made the following commitments as part of the compensatory mitigation package submitted to the Department in this matter:

- The Applicant will provide DNREC with adequate funding for more frequent channel marking in Indian River and Bay, with regular bathymetric surveys outside of US Wind's export cable corridor, and the removal of marine debris in Indian River and or Indian River Bay.
- The Applicant will provide DNREC with the funding for improvements to regional dock structures and the maintenance of access channels to ensure that first responders continue to have unfettered access in the event emergency services are needed for users of the river and bay (e.g., to ensure that strategically located dock facilities can accommodate small vehicles, stretchers, and other necessary equipment to transport injured personnel to local medical facilities).

The TRM states that it is important to note that "dredging of public waterways to enhance recreational boating safety and restore Inland Bays ecosystems" is part of the Community Benefit Payments outlined in the Term Sheet between US Wind and the State of Delaware. As a result, dredging of non-emergency navigation channels is not included in the compensatory mitigation package, but is anticipated to be addressed through other agreements and mechanisms. The above-stated compensatory mitigation elements are included in US Wind's *Mitigation Plan – Delaware*, which was submitted to DNREC in October 2024. As specified in the plan, the obligations will become effective 180 days *prior* to any construction work beginning in Delaware waters.

4. Fisheries Impacts

As the Applicant's proposed project moves forward, US Wind will conduct jet-plowing and dredging through 10 miles of the bottom habitat of the Indian River Bay to install high voltage transmission cables from 3Rs Beach to a substation in Millsboro, Delaware. This activity has the potential for disrupting fisheries in the impacted waterbodies. Concerns regarding these possible impacts were evident in the comments received from the public in this matter, and the TRM acknowledges that this aspect of the proposed project was a significant portion of the technical review of the Application and the supporting materials.

In response to this area of public concern, the Department's TRM notes that the potential for impacts to aquatic life from chemicals in sediments was thoroughly evaluated by the Applicant and their contractors. Results of the evaluation are summarized in the DNREC approved "*Indian River and Indian River Bay Surface Water and Sediment Assessment*" report dated September 13, 2024. While chemical impacts to aquatic life are not expected, the proposed cable burial activities do have the potential to disrupt fish and shellfish habitat, and the potential to affect economically, recreationally, and environmentally important species via habitat disruption and potential suspended sediment impacts. The transmission cables are a critical component of the Applicant's proposed project that cannot be avoided. Therefore, appropriate mitigation is necessary to offset the unavoidable disturbance during cable installation and potential impacts from the infrastructure's long-term presence and operation.

As part of US Wind's approved "*Monitoring Plan – Delaware*," dated October 2024 and revised November 2024, engineering controls (e.g., turbidity curtains) will be strategically installed and intensive turbidity monitoring will be conducted before, during and after cable installation activities. During construction, if turbidity exceeds 200 mg/L above background conditions at a distance of 500 feet from project activities, work will cease until acceptable levels are achieved and can be maintained. This permit requirement will help to protect aquatic life (such as shellfish and clams) from excessive long term high turbidity conditions. In addition, Electromagnetic Field ("EMF") monitoring will be conducted in the vicinity of the cable corridor by US Wind after cable installation and energizing.

The TRM further notes that the above described turbidity controls and monitoring activities alone do not address the potential loss of clam habitat caused by the suspension and redeposition of subsurface sediment resulting from jet plowing, cable structures, and scouring and exposure around cabling protection structures, if needed. Therefore, US Wind will monitor shellfish populations across all of Delaware's Inland Bays every five years, for a period of 30 years, to document changes that may occur as a result of the temporary disruption from transmission cable installation and subsequent operation. Shellfish monitoring protocols will be developed in cooperation with DNREC's Division of Fish & Wildlife.

To compensate for potential impacts to commercial and recreational shellfish operations (from loss of potential harvesting area to general inconvenience due to the Applicant's operations in the Delaware Indian River and Indian River Bay), US Wind will provide funds to DNREC for the construction of a docking, offloading, and landing facility for local commercial fish and shellfish harvesters in the Inland Bays. This facility will not be located on property owned by the state and will be constructed and operated by a private entity. Additionally, US Wind will provide an annual contribution, for six (6) years, to an Aquaculture Startup Grant Fund. Finally, US Wind will establish a process by which impacted Delaware commercial and for-hire recreational fishers can be compensated for impacts caused due to construction and operation/decommissioning of the proposed project.

In addition to above activities, US Wind will provide funding to DNREC to establish an acoustic receiver network in the Delaware Indian River Bay and the Delaware River, and to acoustically tag targeted species to monitor and record movements over time. The study will inform whether the operation of high voltage cables (and associated EMF) is impacting local and anadromous fish species that utilize Delaware jurisdictional waters and that will pass over and through transmission cable corridors if traditional migration routes are followed. Numerous species will be monitored, including sturgeon and striped bass.

With regard to potential fisheries impacts (including recreational users), US Wind will establish a Maintenance and Research Fund to support other research or resource management projects related to impacts from the Applicant's infrastructure and operations in State of Delaware waters. Furthermore, because the chosen path for transmission cable installation is within the location of historic high value Submerged Aquatic Vegetation ("SAV") beds, the proposed activities have the potential to alter future re-establishment and growth, both in the short and long term. To compensate for this potential disruption, US Wind will provide funding for the construction and operation of a SAV Restoration Facility in Lewes, Delaware. The facility will be able to process, store and provide seed (eel grass and widgeon grass) for SAV propagation and restoration activities in the Inland Bays, thereby greatly enhancing the ability to restore these grasses.

The above-stated compensatory mitigation elements are included in US Wind's revised *Mitigation Plan – Delaware*, which was submitted to DNREC in October 2024 (and revised in November, 2024). The mitigation plan will be activated once construction work begins in Delaware jurisdictional waters. The Department's review of the proposed activities and their potential impacts to fisheries has concluded that the proposed permit/lease conditions, the proposed/required monitoring, and the associated proposed mitigation adequately addresses the primary fisheries-related concerns associated with the project.

5. Recreational Disruption

Other comments voiced concern with regard to recreational disruption caused by the development of the Applicant's proposed project. The proposed high-voltage cable corridor will cross valuable and sensitive clam beds in Delaware. Activities that require permits do not sufficiently address the potential long-term changes and possible loss of recreational opportunities, which could result in behavioral changes from the recreational boating, clamming, and fishing communities. There may also be temporary restrictions on access to in-water activities due to the construction and maintenance of project elements.

In response to these concerns, the TRM notes that, although the Applicant's proposed activities will not have a permanent impact on state-owned boat ramps, docks, or piers in the Inland Bays, mitigation measures have been proposed by US Wind to address the potential disruption to recreational uses in Delaware's Indian River Bay due to the presence of buried export cables. For instance, the proximity of the cables might alter the patterns of recreational users, leading them to avoid certain areas for clamming or to choose different boating facilities. As such, the Applicant has committed to provide funding for maintenance and or upgrades to state-owned recreational access facilities in the Inland Bays to compensate for potential behavioral changes and inconvenience to recreational users of Delaware's Inland Bays.

6. Potential Electromagnetic Field Impacts

Electromagnetic Fields ("EMF") are caused by the movement of electrons through all electronic devices and all transmission lines. There are many factors that influence the extent and magnitude of EMF fields and the potential impacts from those fields are proportional to both the extent and magnitude. The TRM goes into great detail to discuss the modeling performed by the Applicant's consultant, Exponent, which is summarized in their report entitled, *US Wind Inc. Maryland Offshore Wind Project, Offshore Electric- and Magnetic- Field Assessment*.

It should be noted that the presented model results were based on the initially proposed burial depth of one (1) meter (3.3 feet). Instead, the Department will require a minimum two (2) meter burial depth, which would result in all predicted EMF values decreasing accordingly. This means that the magnetic field level at the seabed, now 6.6 feet above the cables, is now estimated to be 12 milligauss (mG), as opposed to the 148 mG presented in the tables set forth in the TRM. Furthermore, the EMF levels depicted in the water column table therein are also expected to be much lower than 12 mG.

The TRM further notes that there are numerous references to, and assessments of, magnetic and electric fields included with the information provided by the Applicant. Specific to the potential impacts associated with human exposure, the referenced standards from the Institute of Electrical and Electronics Engineers and International Commission on Non-Ionizing Radiation recommend a continuous exposure limit of no more than 1 millitesla (mT) or 10,000 mG. Based on the presented modeling, the expected fields that will be generated as a result of the proposed activities are predicted to be 12 mG or less, significantly below the above threshold. Continuous human exposure is not a realistic expectation in that only transient occupancy of the waters above the cables is likely.

Additionally, both the comments received from the public and the information submitted by the Applicant spoke to the potential for EMF impacts to the biota. These included concerns about potential behavioral changes in pelagic and demersal fish species as well as potential long-term impacts to benthic species. While the comments primarily expressed these concerns in general terms, the studies mentioned in the application-supporting documents cited specific laboratory and limited field studies associated with the potential impacts. In response, the TRM notes that most of the laboratory studies exposed the test species to EMF levels exceeding those predicted for the proposed cables, ranging from 500 mG to over 1,000,000 mG, with most studies over 1,000 mG. The Exponent report concludes that, based on the modeling of the predicted EMF and the literature cited, the Applicant does not anticipate significant impacts to aquatic species.

The above conclusion is consistent with DNREC's review of the referenced literature and other similar studies. However, most studies also indicate the need for additional, site-specific, assessments. Further, the conclusions set forth within the Department's TRM assume that the EMF that would be produced by the proposed activities would be in the range of those calculated by the modeling submitted in support of the Application. Those predicted results also need to be field validated.

The TRM's recommendation to validate the models with field data is aligned with both the EMF monitoring being proposed by the Applicant and elements of the proposed mitigation package. The submitted *Monitoring Plan – Delaware* from US Wind includes EMF monitoring components in Appendix B-II, *Indian River Bay Electromagnetic Field Monitoring Plan*. The Department's subject matter experts further note that any Subaqueous Lands Lease should require that the monitoring occur as indicated in the *Monitoring Plan – Delaware*, and at future times when the energy being produced equals 25%, 50% and 100% of the project's peak operating capacity. Moreover, the resident/local/anadromous fish study and the shellfish population monitoring included in the Applicant's Mitigation Plan will enable the Department to track any impacts from the operations, thereby providing additional site-specific studies. Based upon the materials submitted and the available literature reviewed, the Department believes that the proposed buried transmission lines should have negligible impacts to people and the biota in the vicinity of those lines, provided that the operating conditions are as proposed/anticipated.

7. Sediment/Water Quality

As noted above, the Applicant is proposing to utilize a USACE Individual Permit to install up to four (4) transmission cables utilizing various methods of installation which include jet plowing and hydraulically dredging up to 74,000 cubic yards of sediment from the Indian River Bay and Indian River. The dredged material is proposed to be transported via hydraulic pipeline and contained within geo bags on an upland site adjacent to the Indian River Power Plant in Sussex County, Delaware. Once dewatered, it is proposed that the material will be disposed of at the Jones Crossroads landfill.

Pursuant to federal regulations, a Section 401 WQC is required for any federal license or permit that authorizes an activity that may result in a discharge. In addition, the proposed project site is located in Delaware Exceptional Recreational or Ecological Significance (ERES) Waters. Designated ERES waters must be accorded a level of protection and be monitored in excess of that provided in most other waters of the State (7 DE Admin. Code 7401, Section 5.6.1.1). As set forth previously in Secretary's Order 2024-W-0042 (October 18, 2024), the Department has reviewed the WQC aspect of the proposed project, including, but certainly not limited to, the *Indian River and Indian River Bay Surface Water and Sediment Assessment* report (September 13, 2024). Both the USACE and the EPA were also consulted as part of the review.

In response to the comments voicing concern about sediment and water quality, the Department's DWS-SWMS reviewed the analysis of chemical constituents in the sediments and found that the final documentation provided in the Application adequately characterized the potential water quality concerns that might result from the proposed activities associated with this project. Concerns addressed included the evaluation of potential impacts to both human and aquatic receptors, and from both the dredging and plowing activities and the dredge material disposal activities. The contaminants evaluated were metals (including mercury), semi-volatile organic compounds, dioxins/furans, polychlorinated biphenyls ("PCBs"), per- and polyfluoroalkyl substances ("PFAS"), and organochloride pesticides.

Turbidity was also evaluated as a contaminant due to the criterion that exists in the Inland Bays to support SAV growth. Exceedances of applicable criteria are possible during plowing and dredging activities. Therefore, engineering controls will be utilized to minimize impacts of the disturbance to ecologically sensitive areas. In addition, monitoring approaches summarized in the DNREC-approved *Indian River Bay Turbidity Minimization and Monitoring Plan* (September 13, 2024) will be employed. Monitoring details (e.g., monitoring locations, frequency, etc.) will be provided to DNREC for approval prior to initiation of construction activities.

A detailed summary of the sediment and surface water quality assessment, including a synopsis of the various assessment methodologies and results, is contained in the Water Quality Certification (WQ-043/24)-US Wind Inc., issued by DNREC's DW on October 18, 2024.

8. Wetland Impacts

Concerns were voiced by the public with regard to the potential wetland impacts associated with this proposed project. In response, the TRM notes that US Wind will dredge approximately 74,000 cubic yards of material from the Indian River and will also utilize horizontal directional drilling ("HDD") to install connections beneath state-regulated wetlands at the proposed substation. The transmission cables are an essential aspect of the US Wind development that cannot be circumvented. Consequently, suitable mitigation measures are required to address the unavoidable impacts associated with cable installation.

The dredged sediment will be transported via a hydraulic pipeline. Two temporary 600-foot-long pipelines will be used and removed once dredging operations are complete. This type of activity is standard for dredging projects that require pipelines to temporarily cross state-regulated tidal wetlands. The pipelines will be installed across state-regulated wetlands in a way that minimizes harm to the surrounding environment. Permit conditions will require that any wetlands temporarily disturbed during dredging be restored to their original condition. The pipeline will be maintained in good condition, at all times, with any leaks or breaks addressed promptly and properly.

The TRM notes that HDD is considered the least environmentally disruptive construction method for installing pipelines or conduits in underwater areas or facilities that must remain undisturbed. In compliance with Department requirements, a Monitoring Plan titled "*Maryland Offshore Wind Project-Monitoring Plan-Delaware*," dated October 2024 and revised November 2024, outlines the approach for monitoring construction activities, including any inadvertent releases. This plan includes proposed monitoring of HDD drilling activities to identify and prevent potential "frack-out" events, as well as acoustic and seismic monitoring of land-based construction activities.

In light of the temporary impacts to state-regulated wetlands, US Wind has proposed mitigation measures that significantly exceed the minimal disturbance caused by the temporary placement of the pipelines. Specifically, the Applicant will fund DNREC's proposed Okie Preserve Habitat Restoration and Shoreline Protection Project, or a similar ecological restoration initiative in Delaware's Inland Bays. The Okie Preserve Project aims to restore coastal habitats that have been severely affected by erosion, which has altered the character of the shoreline habitat protecting a valuable publicly owned nature preserve. The project intends to implement nature-based practices to restore native habitats, mitigate habitat loss and erosion, enhance public access, establish resilient shoreline habitats, and support nutrient sequestration. The completed project will lead to the restoration and protection of ecologically significant coastal habitats, thereby strengthening coastal resilience for both the natural area and surrounding communities.

In addition to the above highlighted areas of concern, the TRM notes that there were other comments received by the Department in this matter that expressed general environmental concerns associated with US Wind's proposed project. Such comments are similar in nature to those received by the Department for any large, proposed project (i.e., comments voicing concerns related to various general environmental impacts that potentially affect Delaware's natural resources), and are typical of comments regarding similar utility transmission projects that have been permitted by the Department and are already operational throughout the State of Delaware. Provided such activities are permissible within Delaware's regulations, and the appropriate monitoring and operational conditions are incorporated into the requisite permits for such projects, potential impacts to the environment can be effectively minimized and/or mitigated.

It should also be noted that there were a significant number of public comments received by the Department that voiced support of this proposed project. While the supportive comments were given the same weight as any others, the Department's TRM did not individually address the same, other than to note that such support speaks to the potential need for, and benefits of, this project, and that those comments encouraged the timely issuance of the permits necessitated for this project, provided that the same are appropriately conditioned to minimize any and all potential environmental impacts.

Lastly, the TRM notes that there were a number of comments received from the public that pertained to matters beyond the jurisdiction of the State of Delaware's regulatory and statutory authority (i.e., those activities occurring in federal waters beyond Delaware's boundary). While such topics are not germane to the review of US Wind's proposed project under the State of Delaware's subaqueous jurisdictional authority (and, as such, are not included in the conclusions set forth in the Department's TRM), it should be noted that, under federal law, DNREC was provided the opportunity to opine and contribute to such discussions by the previous issuance of the Water Quality Certification (*see* Secretary's Order 2024-W-0042, issued October 18, 2024) and other associated federal consistency review documentation.

I find that the Department's TRM offers a thorough and balanced review of the aspects of the Applicant's proposed project. I further find that the Department's experts in the DW-WWS and the DWS-SWMS have reviewed and considered the public comments that concern US WIND's proposed project, and have subsequently prepared the draft permits/authorizations, with appropriate conditions, accurately reflecting the information contained in the Record.

The mission of DNREC is to engage stakeholders to ensure the wise management, conservation, and enhancement of the State's natural resources; protect public health and the environment; provide quality outdoor recreation; improve quality of life; lead energy policy and climate preparedness; and educate the public on historic, cultural, and natural resource use, requirements, and issues. Furthermore, it is the policy of DNREC that no person shall, on the grounds of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance, as provided by Title VI of the *Civil Rights Act of 1964*, the *Rehabilitation Act of 1973*, the *Civil Rights Restoration Act of 1987*, and all other related nondiscrimination laws and requirements. In the present matter, the Department has determined that the draft permits/authorizations are consistent with the Department's Environmental Justice policy.

The Record developed in this matter reflects that the Department's experts in the DW-WWS and the DWS-SWMS have, based upon their technical review of the information provided by US Wind in the original Application, along with subsequent submittals in response to both the public comments received and the Department's inquiries, weighed public benefits of the issuance of the finalized permits/authorizations against potential detriments and have recommended approval of the same, as detailed in the Record established in this matter. As with any other similar permitting activity, there will be disturbance to Delaware's natural resources during construction, and potential changes to those resources through the course of the project's operation, and controls to limit those impacts have been included in the proposed conditions for the permits/authorizations being considered. In addition, the TRM notes that, where the environmental impacts may be significant enough, or concerns still remain, the Applicant's commitments included in the approved *Mitigation Plan - Delaware* appropriately offset those impacts and/or provide the means to address those concerns. As such, the TRM concludes that the Department's comprehensive review has provided sufficient detail and assurances to support the issuance of the appropriately conditioned Subaqueous Lands Permit, Subaqueous Lands Lease, Wetlands Permit, and Coastal Construction Permit, to be protective of human health and the environment.

I find and conclude that the Record supports finalization and approval of the draft Subaqueous Lands Permit, Subaqueous Lands Lease, Wetlands Permit, and Coastal Construction Permit, as prepared by the Department's subject matter experts, as set forth above. The finalized permits/authorizations to be issued by the Department will be reflective of the applications submitted by US Wind, and consistent with the Department's technical review of the Applicant's proposed project, to ensure continued protection of public health and the environment, and consistent with the Record developed in this matter.

Accordingly, this Order hereby approves the issuance of the finalized draft permits/authorizations, with appropriate conditions, as necessitated for US Wind's proposed project, as set forth above.

Further, the Department concludes and specifically directs the following:

1. The Department has jurisdiction, as provided for under *7 Del.C. Ch. 60*, and all other relevant statutory authority, to make a final determination on the aforementioned pending permits/authorizations requested by the Applicant, after holding a public hearing, considering the public comments, and all information contained in the Record as it relates to U.S. Wind's proposed project;
2. The Department considered all timely and relevant public comments in the Record as it relates to the Applicant's proposed project, as established in the Department's TRM (with enclosures), dated November 7, 2024, and the finalized permits/authorizations, all of which have now been expressly incorporated into the Record generated in this matter;
3. The Department has carefully considered the factors required to be weighed in issuing the finalized permits/authorizations necessitated by the Applicant's proposed project, and finds that the Record supports approval of the same;
4. Furthermore, the Department has reviewed the Record generated in this matter in the light of potential Environmental Justice issues existing in the area surrounding the Applicant's proposed project, and has determined that the issuance of the finalized permits/authorizations are consistent with the Department's Environmental Justice policy;
5. The Department shall issue to the Applicant the finalized permits/authorizations, as set forth above, consistent with the technical review of the Applicant's proposed project, as conducted by the subject matter experts in the Department's DW-WWS and DWS-SWMS, and consistent with the Record developed in this matter;

6. Moreover, the finalized permits/authorizations shall include all conditions as set forth in the Department's TRM and draft permits/authorizations, to ensure that Delaware's environment and public health will be protected from harm;
7. The Department adopts the Report and all Appendices thereto as further support for this decision;
8. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary; and
9. The Department shall serve and publish its Order on its internet site.



Shawn M. Garvin
Secretary