



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL**

OFFICE OF THE  
SECRETARY

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**Secretary's Order No. 2011-W-0026**

**Re: APPLICATION OF THE UNITED STATES DEPARTMENT OF INTERIOR,  
FISH AND WILDLIFE SERVICE, PRIME HOOK NATIONAL WILDLIFE  
REFUGE FOR AUTHORITY TO REPAIR APPROXIMATELY 4,000 FEET OF  
BEACH SHORELINE ON FOWLER BEACH, SUSSEX COUNTY**

**Date of Issuance: April 6, 2011  
Effective Date: April 6, 2011**

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control (Department), the following findings, reasons and conclusions are entered as a final Order on the October 18, 2010 application submitted by the United States Department of Interior, Fish & Wildlife Service in order to protect the environment of the Prime Hook National Wildlife Refuge (Applicant). Applicant seeks authority under the Wetlands Act and Subaqueous Lands Act and regulations thereunder to repair up to 4,000 feet of dune that have been breached in two locations along the Delaware Bay shoreline south of Fowler Beach Road and Slaughter Beach, Sussex County and north of the bayfront residential community of Prime Hook Beach, Sussex County. The applicant has permit authority from the United States Army Corps of Engineers (USACE) with conditions, including time of year restrictions from March 1 to August 15.

**Background**

The Department published public notice of the application on November 10, 2010 and received requests for a public hearing from the Delaware Audubon Society and the Public

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Employees for Environmental Responsibility. The Department held a hearing March 9, 2011, in the Department's Dover offices before the Department's presiding hearing officer. In the interest of expedited consideration, I directed the hearing officer to forward the record to me without a report.

### **Findings and Reasons**

As a preliminary matter, the Department finds that the record consists of the transcripts of the public hearing, the documents admitted into the record at the hearing, and the documents identified in this Order. The record includes the attached memorandum from the Wetlands and Subaqueous Lands Section (WSLS) in the Division of Water, which recommends that the work be performed subject to reasonable permit conditions. The record includes the Department's topographic survey, dated March 7, 2011, which provides a detailed map of the area where the two breaches are located and the location of the sand on wetlands that will be used to fill the breaches.<sup>1</sup> In addition, the record includes the wetlands map of the area as shown on map DNR 128 and the Department's study of the Delaware Bay beaches as a recent comprehensive examination of the impact on the shoreline.

The Department finds that the record supports granting the application and issuing the Applicant the necessary approval for the Department's Division of Watershed Stewardship to perform the work as contractor to the applicant, subject to reasonable permit conditions. I find that the current site conditions pose a threat to public health, safety and property; the wetland ecosystem of Prime Hook National Wildlife Refuge is being significantly affected through the creation of less ecologically valuable open water habitats and the loss of wetlands; and that granting this permit will allow limited, albeit temporary, restoration of the dune that will reduce

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<sup>1</sup> This represents conditions at a certain time and the conditions may change and nothing in this Order prohibits the Department from relying on an updated survey when warranted.

the threat of flooding of the community of Prime Hook Beach and allow the wetlands an opportunity to recover. I also find that the permits can be conditioned to allow the project to be undertaken in a manner that will protect wildlife that utilize the area.

The Department finds that the breached shoreline should be repaired because the breaches have increased the risk of flooding of inland areas, which raises a significant public safety issue. The breaches allow high water conditions on the Delaware Bay, either from tides or storms, to flow through the breaches and cause higher water conditions westward of the shoreline than would occur if the shoreline barrier was intact. The breaches destroyed the intact shoreline role as a barrier to Delaware Bay's tidal influences and high water. The restoration of the shoreline barrier is a proper public safety purpose for the Department to approve even without the environmental benefits. The Department finds convincing the public comments from residents of Prime Hook Beach that the shoreline should be restored to provide protection to keep Delaware Bay's high water flowing unimpeded through the breaches and causing more flooding than otherwise would occur if the breaches are repaired.

The breaches enable more frequent flooding of areas that would be protected from flooding if the shoreline barrier was intact. The record shows the impact of flooding on houses in Prime Hook Beach, including flood waters that came from the landward side of Prime Hook Beach by Delaware Bay's water entering the breaches and the flooding from the marsh. The breaches also contribute to flooding of the sole public road that accesses Prime Hook Beach. The flooding of the public road creates a dangerous condition for motorists and endangers the public safety of residents of Prime Hook Beach. Moreover, the risk of harm to public safety personnel is increased by the flooded public road because the public safety personnel must use it, particularly during floods. The Department is sympathetic to the public comments that wanted

the restoration work done as quickly as possible due to the potential threat to public health and safety from storm events. The potential threats to public safety were reinforced in comments by both the Delaware Department of Transportation and the Sussex County Emergency Operations Center. The public safety concerns warrant the restorative work authorized by this Order because it will reduce the risk of flooding of roads that public safety personnel need to provide vital police, fire and medical services to the residents of Prime Hook Beach.

The Department finds that the record establishes that the restoration of the beach shoreline is consistent with the Department's purposes to protect the environment and public safety. The restoration of the beach shoreline by filling in the two breaches with the sand that washed inland (and hence caused the breach) will protect the environment because it will protect Applicant's freshwater wetland habitat from the damage now being caused by constant exposure to salt water intrusion from Delaware Bay. Delaware Bay's water contains a higher level of salinity that is causing the freshwater wetlands owned by the Applicant to be significantly affected. In addition, the breaches are causing the inundation of the wetland area and current water levels are too high to allow for the recovery of the wetland ecosystem. The removal of sand from the wetlands and its placement to fill in the breaches will restore the environment and protect the freshwater wetlands and marsh areas from damage from salt water intrusion. The record supports a finding that saltwater intrusion is from the two breaches, and the salt water threatens Applicant's fresh water habitat.

The Applicant created and manages the fresh water impoundment known as Unit 2, which includes a water control device to reduce salt water inflows and maintain a fresh water habitat. The breaches threaten this habitat and the purpose of creating Unit 2 and its water control device, which was partly funded by Ducks Unlimited in order to promote the habitat for

waterfowl. The Refuge serves as important habitat for waterfowl that migrate along the Atlantic Flyway. Thus, the purpose of restoring the shoreline and allowing the wetlands to return to a freshwater marsh is a valid environmental purpose that the Department supports as consistent with its statutory purposes.

The Department also finds that the restorative work approved by this Order will not cause any undue risk of environmental harm. The Department will impose permit conditions that will minimize the risk of any environmental harm from the temporary construction work needed to move the sand from the wetlands back to the beach shoreline to fill the breaches. The restorative work will only result in a temporary disruption during a short construction period, which the Department estimates as requiring between two to four weeks of work, depending on weather and other conditions not in the Department's control. Moreover, the work will be performed capably and in an environmentally sound manner because the Department's Division of Watershed Stewardship, Shoreline and Waterway Management Section (SWMS) is serving as the Applicant's contractor. SWMS has the expertise and extensive experience in performing such restoration work. Indeed, SWMS did similar restorative work in the same area in 2008 and does emergency restorative beach repair on state-owned land. SWMS will carefully push the sand from the wetlands and form a sand barrier along the shoreline where the two breaches now allow saltwater to enter. Thus, the work will be performed by those entrusted with protecting the environment and according to the Department's permit conditions.

The Department's approval also is based upon a finding that the shoreline will be restored using only the sand that was washed landward, primarily from sand that once was located where the two breaches currently are located. There is currently sufficient sand onsite to repair the

break but the Division of Watershed Stewardship cannot say with certainty that sufficient volumes of sand will be available onsite later in the year.

In addition, the restoration will return the shoreline barrier that separated the freshwater from salt water in the Delaware Bay. Applicant has determined that the freshwater wetlands are needed to benefit the purposes of the Refuge. Despite the comments in opposition to the project, the Department finds that the Applicant has the expertise and judgment to determine what is best in the performance of its duties as manager/operator of the Refuge. This application does not present the case where authority is sought for commercial or private reasons. While many support the application based upon preserving the value of their property, that does not impact on the Applicant's strictly environmental purpose, which is to protect and enhance the habitat of the Refuge. The opponents of the restoration of the shoreline may have a different view of what is best for the Refuge, but the Department supports and accepts Applicant's professional judgment of what is best for the Refuge in this application.

To this end, the permit shall include actions and reasonable conditions needed to adequately protect migratory birds that are listed either under the Migratory Bird Treaty Act or the Endangered Species Act. The Applicant's USACE permit includes a seasonal restriction preventing any work between March 1 and August 15 in order to protect birds during their nesting seasons. This permit condition must be amended to allow for any work to occur before August 15, 2011. Consequently, the Department will issue a state permit with more flexibility, but still protective permit conditions in the event that the USACE permit is amended to allow work to commence before August 15. If the Corps does not amend its permit before August 15, then SWMS will begin the work as soon as practicable after August 15.

Nevertheless, even with the restoration work authorized by this Order, the Department recognizes the high and ongoing risk of flooding and damage to public infrastructure and private property in this area in both the short and long-term. There are significant risks associated with low-lying property along the Delaware Bay and Atlantic Ocean that will only accelerate in the years ahead. The restorative work will only temporarily reduce these high risks. Future storms will likely cause future breaches at either the same or new locations and future repair action may be necessary then for the same reasons as exist for this Order. Moreover, sea level rise projections predict that this area will likely face increasing inundation in the near future.

The Department fully recognizes these growing long-term challenges and is in the process of evaluating policy alternatives. The Department has begun an analysis of potential short-term investments and cost-allocation mechanisms as well as long-term economic analyses and environmental consequences of various management alternatives. In addition, the Applicant is developing a Comprehensive Conservation and Management Plan that will provide guidance for the long-term management of the Prime Hook Refuge. These analyses will provide much needed data to inform long-term decision-making and therefore this work should only be considered a temporary solution that may last only as long as the next bad storm.

Finally, I find support for the work by the fact that the Department previously authorized Applicant to conduct restoration work in an August 21, 2008 permit, as supplemented on September 26, 2008. This work was not opposed by anyone. I find that the record supports authorization again and that the opposition to the work has not shown any harm from the work that offsets the benefits from the work.

The Department recognizes the need to repeat the authorization due to the forces of nature that act to cause erosion of the shoreline and its beach protection system. The Applicant

will use the Division of Watershed Stewardship for the work as the Division has the equipment and personnel to perform the work. The Department's approval also is based upon a record from the public hearing, where there was overwhelming support from Prime Hook Beach residents and local elected officials, notably State Representative Kenton and State Senator Simpson and Sussex County Councilwoman Deaver. The representatives from the Delaware Department of Transportation and Delaware Emergency Management Agency and Sussex County government supported the restoration work.

### **Conclusions**

The Department, based upon the record and the findings and reasons set forth above, concludes as follows:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding based on the record that supports granting Applicant SLA and Wetlands permits prepared by WSLS;
2. The Department provided adequate public notice of the applications and the public hearing as required by the law and the Department regulations;
3. The Department held a public hearing in a manner required by the law and its regulations and has considered all timely and relevant public comments in making its determination;
4. The Department rejects the comments that oppose the issuance of the permits because the position advocated by the Applicant is more consistent with the environmental protection and public safety purposes than the purpose of the comments, which would let the harm from flooding and salt water intrusion continue unimpeded;

5. The Department shall grant the permit authority for the construction required to move sand from the wetlands and to disturb subaqueous lands by restoring the beach shoreline to provide an intact barrier to reduce the risk of salt water intrusion in the Refuge's wetlands and reduce the risk of flooding; and that

6. The Department shall condition the permit in a way to ensure that all species of concern are protected during the temporary construction period and that the work may be performed sooner than August 15, 2011 if the USACOE permit is amended accordingly.

7. The Department shall publish this Order on its public web site and provide such other service and notice as required by law and Department regulation or otherwise determines necessary and appropriate.



Collin P. O'Mara  
Secretary



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**Technical Response Memorandum**

To: Robert Haynes, Hearing Officer

Through: Sergio Huerta, Acting Director, Div. of Water *SH 4/5/11*

Laura Herr, Section Manager, WSLs *LH 4/5/11*

From: Jim Chaconas, Environmental Scientist, WSLs *JC 4/5/11*

Date: April 5, 2011

Subject: Technical Review of Prime Hook National Wildlife Refuge Application to Restore the Dune Line Using Sand Deposited in Overwash Areas

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This memorandum provides a summary of the findings related to the above referenced Wetlands and Subaqueous Lands Permit application and the subsequent public hearing held to receive comments on the above-referenced project. The permit application from the Prime Hook National Wildlife Refuge (the Applicant) was received by the Department's Wetlands and Subaqueous Lands Section (WSLS) on October 18, 2010. The application proposed to restore up to 4,000 linear feet of sand dunes on the Refuge and private lands south of Fowler Beach Road using sand deposited in overwash areas in State regulated wetlands west of the dune line along the Delaware Bay. The State regulated wetlands are shown on DNR wetland map 128 and the overwash areas proposed for scraping are located in marsh wetlands. The work proposed in this permit application request is similar to an earlier permit application and subsequent permits issued by the WSLs to the Primehook Refuge in 2008. The WSLs issued Wetlands Permit WE-292/08, Supplemental Approval SU-386/08 and Water Quality Certification WQ-332/08 to the Primehook Refuge in August and September of 2008. The authorized work was completed in October, 2008. No negative environmental impacts were noted from the work, and in fact, the freshwater impoundment maintained by the Refuge behind the dune (which had been degraded by salt water intrusion) returned to a freshwater environment the following year.

The application was placed on public notice with a 20 day public comment period beginning November 10, 2010. During the notice period two letters requesting a public hearing, one from Widener University School of Law (representing the Delaware Audubon Society and the Public Employees for Environmental Responsibility (PEER)) and a private citizen, George O'Shea, were received by the Department.

Also, during the public notice period it came to the Department's attention that one of the three private property owners involved with the proposed project reversed their decision to allow the dune restoration work to occur on their property. Consequently, the decision to hold a public hearing was delayed until January 13, 2011, after the owner decided to give permission to allow the work to proceed. After proper public notice to announce the hearing, the hearing was conducted on March 9, 2011 at the DNREC Auditorium in Dover.

Comments expressed at the hearing overwhelmingly supported the project. Commenters indicated that restoration of the two large breaches in the dune system will reduce the amount of water entering the marsh during storm events, which floods the road (Prime Hook Road) to the nearby Prime Hook community, thereby alleviating a public hazard and lessening the threat of flood damage to properties in the community. The community is comprised of approximately 200 residences and Prime Hook Road is the only means of accessing the community by car or emergency vehicle.

Written comments recommending denial of the proposed project were submitted by the Widener University School of Law at the hearing. Their reasons for requesting denial of the application were that they believed the application to be incomplete and that there would be negative environmental impacts resulting from the project. Reasons stated for the application being incomplete focused largely on the Environmental Summary submitted with the application. Their comments indicated that this document was "cursory and superficial" and they made reference to the "Final Environmental Assessment for Dune Work at Prime Hook National Wildlife Refuge" (EA), dated November, 2010, which provides a more detailed analysis of the project's environmental impacts. A copy of the EA was provided by Widener with their comments and was also available to the Department on line via internet. The EA was used, in part, to establish the Department's findings for this project.

Widener's comments also expressed concern that there will be negative impacts to migratory birds and shorebirds that use the habitat provided by the marsh and overwash areas. These concerns are also shared by the Department and expressed by the Applicant in their EA. Methods to address these concerns, largely by placing site specific restrictions and certain prohibitions on when, where and how the work can be conducted, have been proposed by the Department's Natural Heritage and Endangered Species Program (see attached "Draft Conditions for Wetlands Permit, Unit II, Prime Hook National Wildlife Refuge, South of Fowlers Beach

Road"). If a permit is issued, the Heritage Program's recommendations should be incorporated into enforceable permit conditions designed to protect horseshoe crabs, migratory birds and shorebirds utilizing the area.

Time of year work restrictions have also been recommended in the Applicant's EA. The EA's restrictions are designed to prohibit any work from being done when peak numbers of nesting birds, spring migratory shorebirds and horseshoe crabs are likely to be using the area.

The Department's Division of Watershed Stewardship, Shoreline and Waterway Management Section (SWMS) would serve as the Applicant's contractor, and has recently measured the amount of sand available on-site in the overwash areas adjacent to the two large dune breaches and determined that there is enough sand to restore the dunes across these breaches. The process of scraping the overwash sand out of the marsh will leave behind a portion of the sand in the foot print of the existing overwash areas, so some of the overwash will remain and will serve to replenish the marsh. Since large portions of the marsh are becoming open water, this is judged to represent an overall benefit to the State-regulated wetlands in this area.

**Conclusions:**

The WSLs has reviewed the application in accordance with the requirements of the State Wetlands Act, 7 Del. C. Chapter 66, the Wetlands Regulations, the Subaqueous Lands Act, 7 Del. C., Chapter 72 and the Regulations Governing the Use of Subaqueous Lands. The WSLs has evaluated the project purpose and recognizes that by implementing the project, the incidence of flooding on Prime Hook Road and a serious public safety concern will be reduced and a benefit to the public will be realized.

After a thorough review, it has been determined that the proposed project will meet all of the relevant environmental and public use regulatory criteria, provided that the Department's primary concern regarding potential impacts to horseshoe crabs, migratory birds and shorebirds during project construction are addressed. Consequently, the WSLs has determined that permits can be issued if they are appropriately conditioned to address these primary concerns. Toward that end, the WSLs sought input from the Department's experts in the Natural Heritage and Endangered Species Program and has included their detailed recommendations as an attachment to this memorandum. Should a permit be issued, these recommendations should be incorporated as enforceable conditions of the permit.

cc: Frank Piorko (Director, Div. of Watershed Stewardship)  
Dave Saveikis (Director, Div. of Fish and Wildlife)