

Delaware gets millions to help beaches, wetlands

(Photo: SUCHAT PEDERSON/THE NEWS JOURNAL)

Three wetlands, Bombay Hook, Mispillion Harbor and the marshes near Little Creek, will be part of a \$102.7 million federal initiative to build storm and sea-level-rise resilience by using green infrastructure – such as beaches and wetlands – to minimize the impact of flooding, coastal destruction and storm surge.

Each of the grants, announced Monday, includes matching dollars to bring the total spending in Delaware to \$11.4 million.

The Delaware projects include:

- \$4.5 million to restore Delaware Bay wetlands and beaches in Mispillion Harbor and Milford Neck. The areas are important habitats during seasonal shorebird migration.

- \$2 million for wetland and beach restoration in central Delaware Bay. Areas where water levels are raised and lowered for waterfowl habitats, called impoundments, will be moved further inland to make them more resilient.

These two projects will be managed by the state Department of Natural Resources and Environmental Control.

- \$400,000 for the University of Delaware to develop a 3-D wetland model for Bombay Hook National Wildlife Refuge.

The grants provide money for the work over the next two years and came from Superstorm Sandy relief money.

"We are taking the lessons learned from this natural disaster to help local communities strengthen natural barriers between themselves and major storms such as Sandy that can cause major flooding and other damage," said U.S. Interior Secretary Sally Jewell.

The National Fish and Wildlife Foundation, the grant administrator, received 375 proposals and selected 54 for funding. The projects were announced on Monday.

DNREC Secretary Collin O'Mara said central bay projects will include work at Ted Harvey and Little Creek wildlife areas. There, large impoundments draw waterfowl during fall migration but have become vulnerable to both storm overwash and impacts from sea-level rise.

State officials have a two-step approach, O'Mara said. First, they will use clean sediment from dredging projects on the Little River and maintenance dredging on the Delaware Bay shipping channel to rebuild and elevate the depleted marsh. Then, they will move the impoundments further inland to maintain the valuable habitat but make it less vulnerable.

"We're trying to make these systems more dynamic," O'Mara said.

At Mispillion, the project will include marsh restoration to create better roosting habitat for shorebirds, beach repairs at Mispillion Harbor – an important area for horseshoe crab spawning – and repairs to the jetty at Mispillion Inlet. Sediment for those projects will come from both Cedar Creek and Mispillion Inlet maintenance dredging, O'Mara said.

At Bombay Hook, University of Delaware researchers will gather information about the marshes there, some of which have converted to open water.



James Kirby, a professor in civil and environmental engineering, and associate professor Christopher Sommerfield, both from the College of Earth, Ocean and Environment, will be taking a detailed look at how the marshes at Bombay Hook grow or erode and how the network of channels influences the hydrology.

One thing they hope to look at is the influence of waves on the open-water areas. One question, Kirby said, is that once these areas open up, is there enough wave action to cause additional marsh erosion.

Contact Molly Murray at (302) 463-3334 or mmurray@delawareonline.com. Follow her on Twitter @MollyMurraytnj.