

Press Release



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For more information contact:

Joanna Wilson, 302-739-9902, Delaware Dept. of Natural Resources & Environmental Control
Kathy Reshetiloff, 410-573-4582, U.S. Fish and Wildlife Service
Ben Sherman, 202-253-5256, National Oceanic and Atmospheric Administration
Tim Ireland, 302-992-4127, DuPont

Restored Mispillion Wetland Offsets Losses from Superfund Site

Along the Mispillion River in Kent County, Delaware, an eroded, degraded marsh has been transformed into vital habitat for local wildlife. The 56-acre private site consists of one of the river's original meanders and associated wetland with more than 2,000 feet of river frontage. Today, representatives from the public-private partnership that made the project possible gathered to celebrate its success with a tour of the site.

This restoration, which was completed in June, is a Natural Resource Damage Assessment and Restoration (NRDAR) project for the DuPont Newport Superfund Site located in Wilmington, Delaware. The Trustees, Delaware Department of Natural Resources and Environmental Control (DNREC), National Oceanic and Atmospheric Administration (NOAA), and the U.S. Fish and Wildlife Service (US FWS), were authorized to recover damages to trust resources associated with a release of a hazardous waste at the Newport site.

The Trustees worked cooperatively with DuPont to identify a project that would replace the resources lost at the Newport Superfund Site. The restoration site selected was one of 40 considered.

"This project proves that the public and private sectors can create a magnificent legacy when they solve environmental problems together," said Sheryl Telford, director of the DuPont Corporate Remediation Group. "It was a pleasure working with the Trustees to select and restore this stretch of the Mispillion River."

Over the past 50 years, this site had taken a beating. The oxbow channel had filled in. The marsh was degraded by sediment and infested with phragmites (*Phragmites australis*), an invasive plant. The western edge of the marsh was severely eroded due to boat wakes. All this, coupled with the highly erodible soils, meant certain death for the marsh without intervention.

The Trustees came up with a plan. In order to reopen the long-silted-in oxbow, sediment was dredged out and spread over the marsh in a thin layer. They also dredged selected mudflats that were once tidal pools, creating vital fish rearing areas.

To provide immediate protection from erosive forces such as boat wakes, large diameter woody debris (LWD), were anchored along the riverbank in a crisscross pattern. The LWD consisted of green hardwood trees between 12 and 25 feet long with a root ball. In addition, rows of Coir™ logs (made of coconut fiber) were placed behind the LWD.

This less intrusive bioengineering method not only protects the river bank but also traps organic and mineral sediment while providing roosting, nesting and foraging opportunities for fish and wildlife.

“This successful cleanup and restoration is a great example of the efforts NOAA’s Damage Assessment Remediation and Restoration Program encourages,” said Robert Haddad, NOAA Chief - Assessment and Restoration Division. “Working with our partners and co-trustees, we have been able to repair a degraded marsh and restore important habitat.”

Restoration of the marsh began with the removal of phragmites. The marsh responded, and now a more diverse plant community covers 90 percent of the area, including salt marsh cordgrass (*Spartina alterniflora*), which began to grow on its own after the phragmites were removed. Native plants, such as pickerelweed (*Pontederia cordata*), arrow arum (*Peltandra virginica*) and salt marsh cordgrass now dominate the site. Wild rice (*Zizania aquatica*) also has begun to colonize areas where the soil is in thin layers.

“By removing the invasive plants, native vegetation has come back to the marsh, providing critical habitat for local and migratory birds,” said Michael Thabault, Northeast Assistant Regional Director - Ecological Services, U.S. Fish and Wildlife Service. “The natural materials used to protect the river bank will also enhance habitat for fish.”

The restoration site will remain in private hands, with a conservation easement held and enforced by DNREC, which will also take responsibility for the project following a five-year monitoring phase.

“We utilized the expertise of all the agencies involved to protect a river, restore a beautiful wetland, and recover resources lost at a Superfund site. This is the how the Natural Resource Damage Assessment and Restoration partnership works,” said DNREC Secretary John A. Hughes. “Working together to restore and enhance Delaware’s living resources will yield environmental benefits far into the future.”