



# PDE Alliance for Comprehensive Ecosystem Solutions

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## ABSTRACT

The PDE Alliance for Comprehensive Ecosystem Solutions is an effort to build multi-sector support for priority restoration, protection, and enhancement projects in the Delaware Estuary watershed.

Each year starting in 2010, the PDE Alliance identifies the top most critical projects for restoration, protection and/or enhancement of the Delaware Estuary, using the process represented in the flow chart to the right. This process incorporates three critical elements:

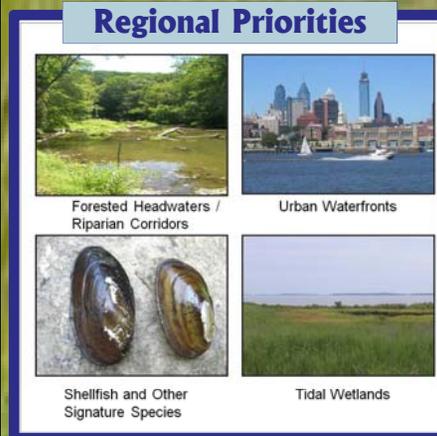
**1.** The best available science information, tools and expertise are used to find projects that best address the needs and opportunities for improving the Delaware Estuary. A STAC-affiliated workgroup assesses projects based on established criteria. These components are represented in green in the flow chart to the right.

**2.** Input from stakeholders across the region is used to cultivate a pool of sound and diverse projects. A new online Project Registry and a public comment period allow stakeholders from across the region to submit their projects, and submit input on others' projects, for consideration. These components are represented in grey in the flow chart to the right.

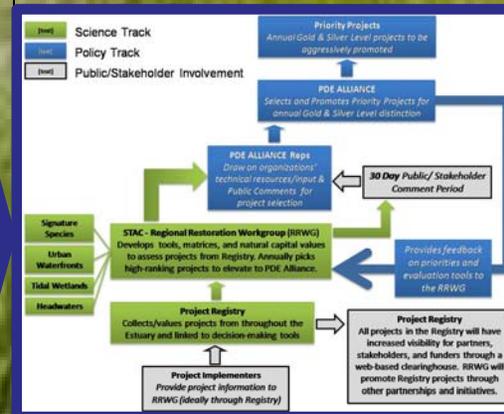
**3.** A public/private partnership of key leaders from government, industry, foundations, and non-profit entities – the PDE Alliance – uses a consensus-based process to select from available projects those that best address Regional Priorities. The result is a list of priority projects that Alliance members work together to promote, support, and implement by capitalizing on each of their unique sets of resources. These components are represented in blue in the flow chart to the right.

By harnessing the enthusiasm, expertise, and commitments of the public and private sectors, the PDE Alliance leverages resources and maximizes success. This poster is an introduction to the PDE Alliance concept and its development so far. For more information, contact Jennifer Adkins at [Jadkins@DelawareEstuary.org](mailto:Jadkins@DelawareEstuary.org).

## The Process



2010 was a pilot year for the PDE Alliance, but that didn't stop the group from selecting an ambitious set of projects, together in need of over \$2 million. The PDE Alliance project selection process is now underway for 2011.



## Alliance Members

- Members of the PDE Steering Committee**
- The Regional Administrator from EPA Regions II & III
  - Secretary or Commissioner from DNREC, PADP and NJDEP
  - The Commissioner of the Philadelphia Water Department
  - The Executive Director of the Delaware River Basin Commission
  - The Chairman of the Board of Directors of the Partnership for the Delaware Estuary
- Up to six (6) other non-agency members selected by the PDE Board, from the following sectors:**
- Academia
  - Environmental NGO
  - Science
  - Industry
  - Development
  - Economic
- Others**
- Representatives of additional federal agencies such as the US Army Corps of Engineers, the US Coast Guard, NOAA, USFWS, if determined useful and/or necessary by the Alliance
  - Executive Director of the Partnership for the Delaware Estuary

## PROJECT REGISTRY OF THE DELAWARE ESTUARY

at [DelawareEstuary.org](http://DelawareEstuary.org)

## The Projects (2010)

The **Delaware Bay Oyster Restoration Project** is a cooperative effort led by the Rutgers University Haskin Shellfish Research Laboratory to revitalize eastern oysters, a signature species of the Delaware Estuary. This is being accomplished through sustained shell planting, whereby oyster beds in the Delaware Bay are replenished with strategically-placed ocean sea clam and oyster shells. Shell planting sites provide clean, hard surfaces to which baby oysters, or "larvae," can attach in order to grow. In 2010, PDE issued a \$50,000 challenge to its partners and donors to raise an additional \$150,000 for shell planting in 2011. This challenge has succeeded in raising both awareness and funds. With commitments from both New Jersey and Delaware, \$50,000 remains to be raised by the end of April.

The Pennsylvania Environmental Council (PEC) seeks to restore 15 acres and 2,000 linear feet of shoreline along the Delaware River in Philadelphia as part of the **Bridesburg Urban Waterfront Restoration Project**. The project area includes 2 parcels with upland, river-bank, and intertidal land along the northern Delaware River Greenway Trail where PEC is working to restore a mixture of riverfront forests, meadows, and freshwater tidal wetlands. In 2010, preliminary ecological restoration designs were completed and a restrictive covenant was put in place to allow for eco-restoration and recreational development to begin. The site was also recently recognized as the potential location for a new park in the Philadelphia Department of Recreation Parks 2015 plan.

In 2010, the New Jersey Audubon Society, working with PDE and volunteers from Mannington Mills, took the third and final step to complete a major habitat restoration project in Salem, New Jersey. By restoring 15 acres of riparian habitat (land along a river's edge) with trees, shrubs and native grasses, the **Mannington Mills Scrub-shrub Riparian Restoration Project** has helped to improve conditions in waterways, marshes, and grassland habitats for declining birds. The restored site will provide habitat for a number of targeted species, including migrating birds seeking resting and refueling habitat during their north- and southbound migrations, and will last for 30 years before eventually becoming forest. Well over 3,000 native trees and shrubs were planted to complete this project in 2010. Yearly monitoring and maintenance will continue there.



Today, nearly 40% of the streamside areas in the Delaware Estuary lack forest cover. The Academy of Natural Science's **Strategic Reforestation of Riparian Zones Project** is building a strategy for reforesting the Delaware River Basin, and will seek to implement that strategy by working with conservation groups within targeted areas to assemble volunteers for tree and shrub plantings. In 2010, PDE introduced modelers at the Academy to local watershed groups in the Schuylkill and Christina watersheds to begin the process of testing scenarios for local watershed restoration. With support from PDE, these watershed groups will work with the Academy to identify and begin implementing the most effective restoration projects in their local watersheds.

Funding is still needed for the **Mill Creek Stream Restoration Project**, where approximately 2,175 linear feet of Mill Creek and 2.5 acres of wetlands are in need of restoration. The Delaware Department of Natural Resources and Environmental Control seeks to employ a variety of restoration techniques to change the stream's pattern profile and dimension to accommodate for the effects caused by development. Native trees and shrubs will also be planted in the wetland areas and along the stream.