



Regional Restoration Initiatives (RRI) for the Delaware Estuary



FACT SHEET
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WHY IS A REGIONAL RESTORATION INITIATIVE NEEDED FOR THE DELAWARE ESTUARY?

The Delaware Estuary is a unique natural resource that faces the challenge of competing interests and various political boundaries. The Estuary and watershed region encompasses three states, two regions of the US Environmental Protection Agency, and a diverse array of other federal and local governmental entities. The Delaware Estuary Regional Restoration Initiative (RRI) will be launched in Fall, 2008 as a comprehensive multi-jurisdictional effort to: a) identify and characterize ecologically significant and/or critical species and habitats; b) identify and inventory partnering/collaborating opportunities and projects for their conservation, enhancement or restoration; c) use a natural capital valuation approach to elucidate highest value activities that will result in maximum natural resource goods and services over both the short-and long-term; and identify high value activities for which we still need projects in different watershed regions. The RRI is expected to be science-based and immediately responsive to requests for project prioritization using the best weight-of-evidence so that decision-makers and stakeholders are provided with useful tools to set priorities and select projects within the region. Over time, the decision tools developed through the RRI are expected to become more rigorous, yielding a long-term, strategic framework to guide restoration of natural resources and ecological functions the Delaware Estuary region.

WHAT ARE THE BENEFITS OF REGIONAL RESTORATION IN THE DELAWARE ESTUARY?

Typically, enhancement and restoration projects are implemented piecemeal and often in response to incidents or mitigation needs, with limited regional focus. Regional restoration planning provides a holistic framework for addressing safeguards and improvements in a coordinated fashion, thereby ensuring equitability among sub-regions and habitat types, cost reduction through increased efficiency, and attention to whole ecosystem needs in a changing landscape. The RRI would ensure enhancement and restoration is:

1. **Coordinated:** A diverse array of agency and non-profit programs are being identified and their resources and experiences will be pooled to provide for implementation of larger, more ecologically significant restoration projects with increased efficiency.
2. **Comprehensive:** The RRI will cover all major ecosystem components and habitat types from the headwaters and uplands to the ocean. The RRI considers the Estuary watershed as being comprised of four sub-regions, coinciding with the current Partnership for the Delaware Estuary (PDE) Conceptual Framework and Information Gateway initiatives. This approach ensures that there are no gaps in consideration at local, regional and watershed scales. PDE will take a coordinating role with this initiative to maximize opportunities for partnering among the various public and private stakeholders and restoration practitioners while attending to multiple objectives outlined in the Partnership's Comprehensive Conservation and Management Plan (DELEP 1996), Programmatic Strategic Plan (PDE 2007), White Paper on the Status and Needs of Science in the Delaware Estuary (Kreeger et al 2006), and Conceptual Framework (PDE 2006; www.delawareestuary.org/gateway).
3. **Inclusive:** This Initiative will consider all projects contributed by all environmental stakeholders in the region (i.e. non-profit organizations, companies, agencies) on regional benefit merits. By including all projects in a comprehensive project directory, without prioritization in the initial phases of the RRI, we anticipate widespread participation.

4. Credible: A Delaware Estuary RRI workgroup, under the guidance of the STAC, will be a collaborative effort to engage the best resource management, academic, and institutional restoration expertise from throughout the region.
5. And ultimately, Prioritized: based on best science and recent advances in natural capital valuation, the RRI will ultimately focus on key life-sustaining functions (a.k.a. “ecological service flows”) and signature resources with greatest economic and ecological value to the Delaware Estuary and watershed region.

As seen by the examples listed below, regional restoration can be conducted at various geographical scales and using a variety of approaches (e.g., conceptual, GIS statistical modeling at species and/or habitat level, ecological function or biodiversity focused). Watershed-based values and long-term goals should be defined as soon as possible in the process to maximize success and enable measurement of progress towards meeting objectives. Thereafter, these values and goals may need to be managed and redefined adaptively as environmental needs, opportunities and knowledge develop.

WHAT IS THE STATUS OF THE RRI?

The Regional Restoration Initiative is being initiated in Fall, 2008 with support from the National Estuary Program. The Partnership will lead this effort, working closely with multiple governmental and non-governmental organizations. A “RRI Blueprint” report (available upon request) was developed to guide the initiative. As described in the report, a technical workgroup will be formed immediately. This workgroup will divide the Estuary into four major subregions. For each, basic restoration matrices (BRMs) will be developed that contrast the range of restoration activities that may be applied to benefit various natural resources. Each BRM will be linked to a new Project Registry that includes project banks reported by partners to show where current opportunities exist as well as highlighting areas of project need, especially for “signature” natural resources within that region. The BRMs will evolve into Value Added Restoration Matrices (VARMs) which will include a natural capital layer that includes ecoservice values. This layer will enable decision-makers to pick projects that will yield the highest value of natural capital per restoration investment, and considering long-term ecological trajectories and outcomes. For the initial phase of the RRI during 2008-2009, the Partnership’s workgroup will develop BRMs and preliminary VARMs for up to three natural resource case studies: tidal wetlands, shellfish, and urban waterfront.



EXAMPLES OF REGIONAL RESTORATION APPROACHES ELSEWHERE

The following is a list of several relevant efforts under development throughout the country:

- Louisiana Regional-Restoration Planning (http://www.losco.state.la.us/ps_rrpprogram.htm)
- New Hampshire Estuary Program (<http://www.nhep.unh.edu/>)
- North Carolina (<http://www.ncdmf.net/habitat/index.html>)
- San Juan County (<http://www.sjcmrc.org/programs/msaplan.htm>)
- Great Lakes National Program, EPA (<http://www.epa.gov/greatlakes/collaboration/>)
- Rhode Island (<http://www.edc.uri.edu/restoration/>)

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The Partnership for the Delaware Estuary, a National Estuary Program based in Wilmington, leads collaborative and creative efforts to protect and enhance the Delaware Estuary, and its tributaries for current and future generations. We envision everyone working together to make the Delaware Estuary the most inviting, prosperous and healthy natural recourse of its kind in the nation