



The 2011 State of the Delaware Estuary and Basin Technical Report: Overview of Restoration Indicator

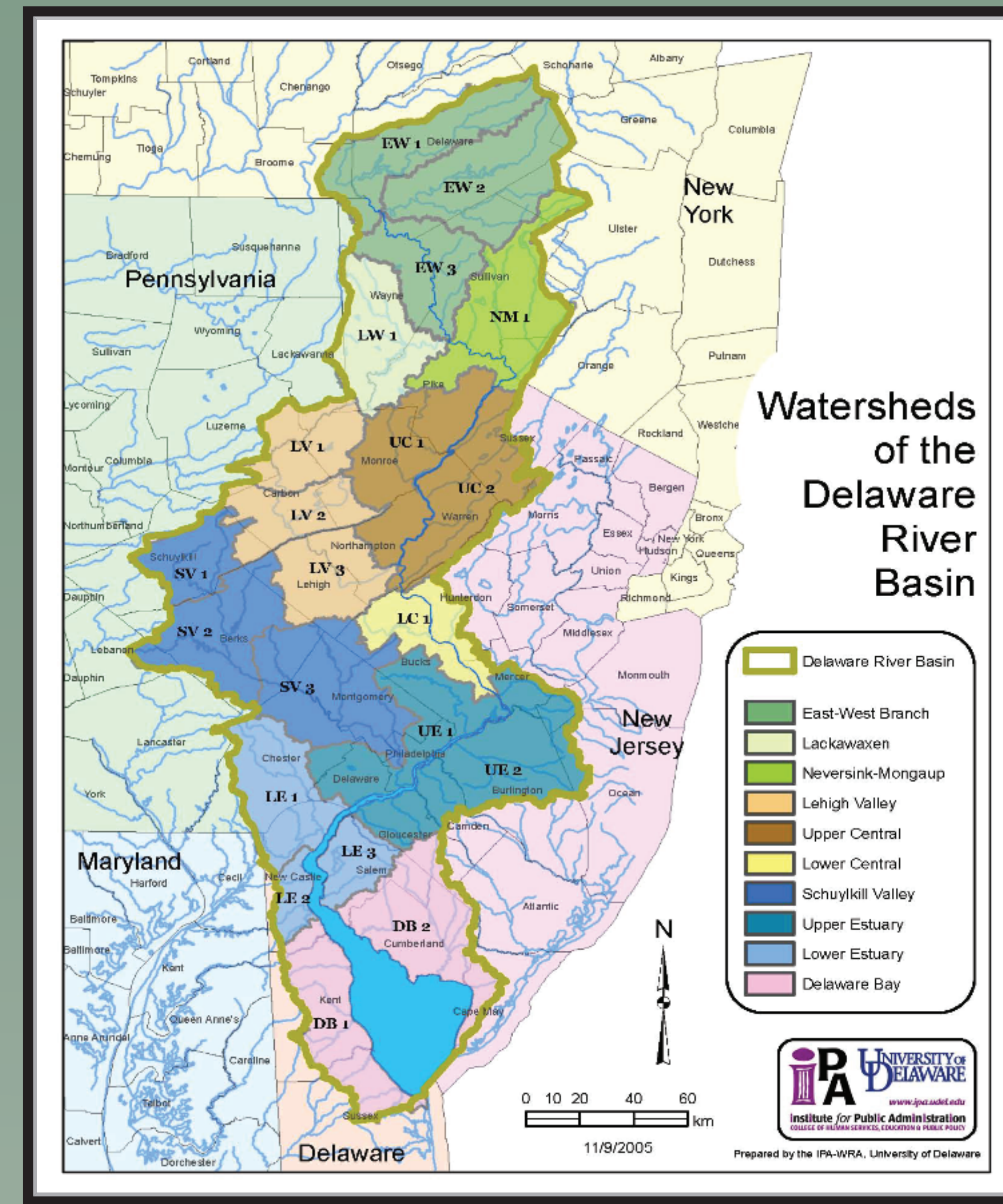
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Introduction

As discussed on the orientation poster, the Partnership for the Delaware Estuary (PDE) and the Delaware River Basin Commission (DRBC) are watershed-based organizations that periodically prepare State of the Estuary and River Basin reports that review the status and trends for key environmental indicators. Since the basin includes several states and diverse types of resources, these efforts are challenging by the lack of data for some key resources, data inconsistencies, and data sharing limitations.

When discussing the next report, the Science and Technical Advisory Committee (STAC) decided to add an indicator that analyzes restoration in the estuary compared to other estuaries. The restoration indicator will be a new addition to the 2011 Technical Report on the Estuary and Basin (TREB). The goal is to analyze habitat creation, restoration, and protection on a sub-watershed scale.



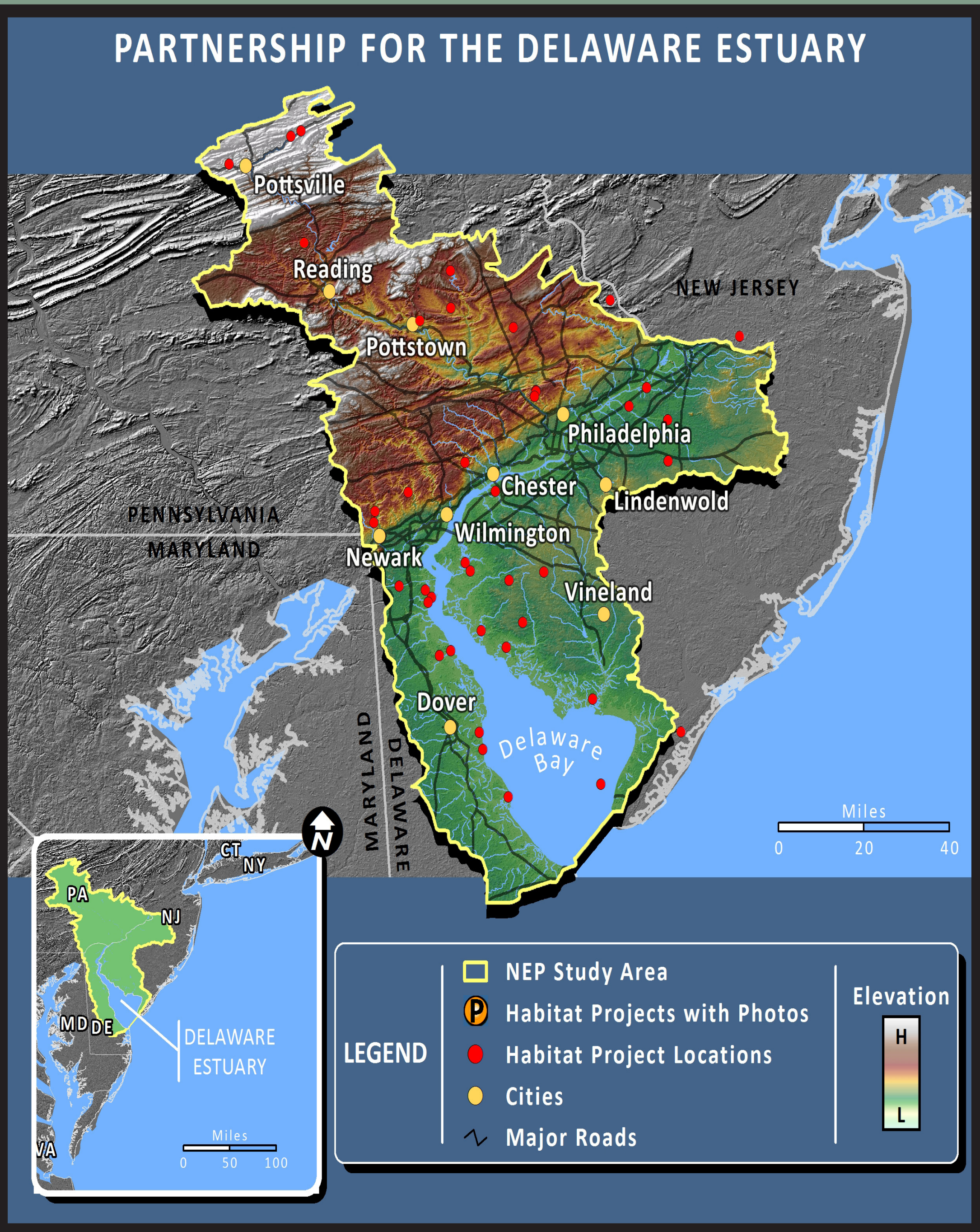
Goals and ideas for Restoration Indicator:

Primary Indicators:

Habitat creation and use by receptors (habitat diversity/landscape complexity):

Ideas for researching restoration activity:

1. Look at \$ invested per capita in different sub-watersheds.
2. Acres restored annually through the EPA National Estuary Reporting tool (NEPORT) compared to acres lost, mitigated (SEPs and NRDAs), or protected
 - a. Mitigation acreage can be a possible feature box explaining how that acreage is not the same as restored acreage
3. Acres mitigated (SEPs and NRDAs).
4. Best management practices tracking - stormwater, nutrient management, native species.
5. Restoration project types %- tidal & non-tidal wetlands, headwaters (in-stream, urban waterfronts, uplands).
6. Restoration needs- Possible feature box about proportion of PDE Registry projects not funded compared to \$ funded, and compare that to funding. given to other estuaries such as Chesapeake Bay, Puget Sound, or Tampa Bay.
7. Dollars invested per impaired river mile.



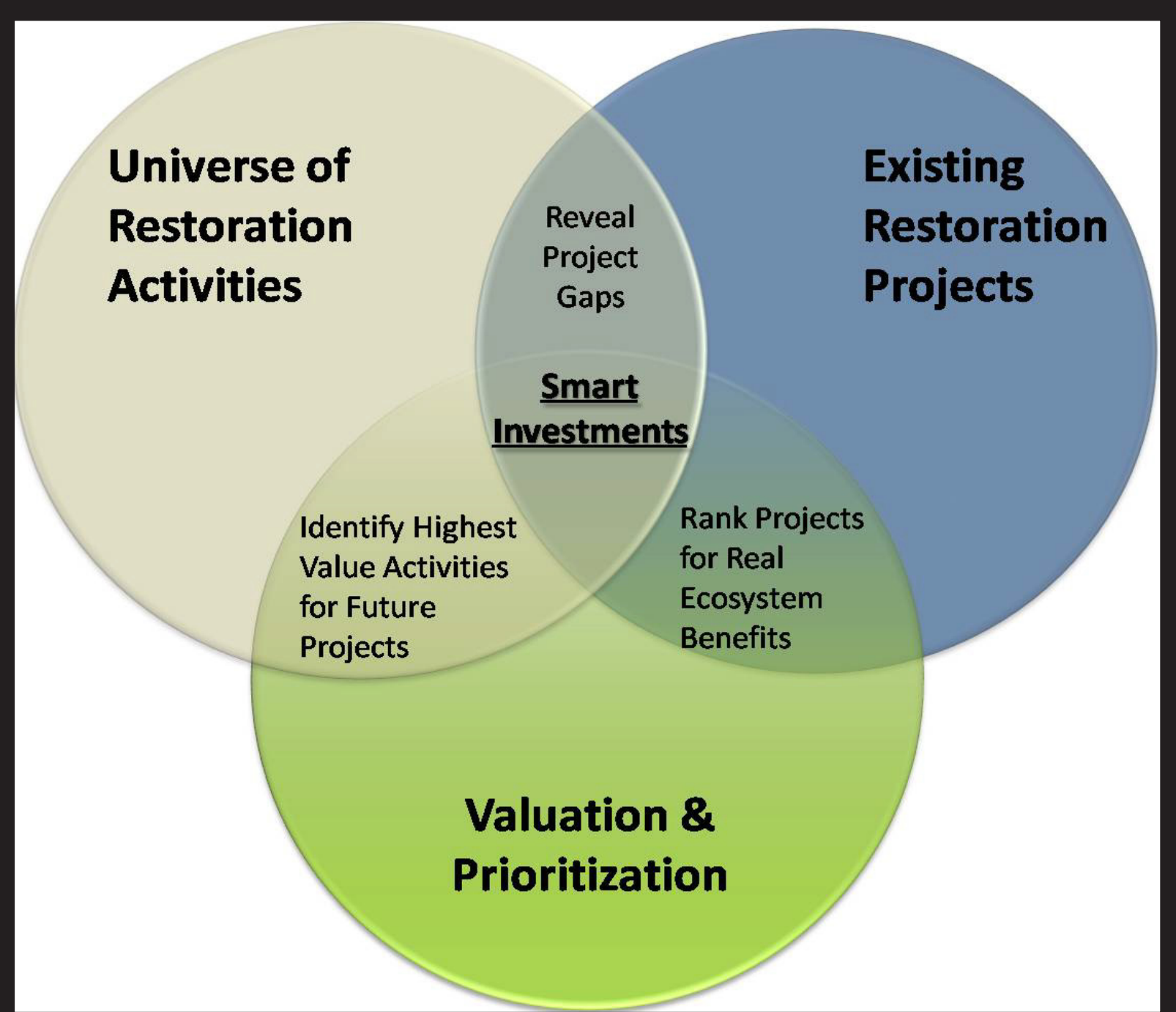
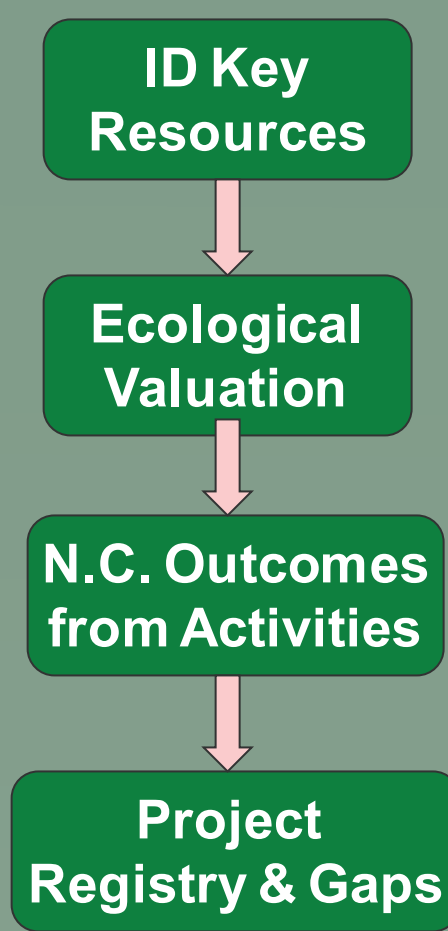
2009 Delaware Estuary habitat restoration projects reported to EPA through National Estuary Online Reporting Tool (NEPORT). Data exists for all NEPs from 2005-2010.

Secondary Indicators:

- Riparian Increases
- Dam Removals- ex. indicates miles of habitat for migratory fish
- Shell-plant acres
- Low Impact Development
- Sediment Reduction
- Carbon Sequestration per \$ invested
- Improved Water Quality
- Habitat Connectivity
- Recreation

Next Generation/Future Indicators

- a) Quantifying restored services
- b) Analysis of traditional and innovative approaches to shoreline stabilization



Seeking data for the Restoration Indicator:

The team working on this restoration indicator is seeking help to find the appropriate data sets to help tell the story about restoration in the Delaware Estuary and it's indication on the state of water quality, land use, habitat function, etc.

We would greatly appreciate any suggestions If you have any suggestions for how we can use restoration as an indicator in the Technical Report on the Estuary and Bay. If you have any suggestions or know of data sets that would be helpful, there are notecards available in the envelope next to this poster or feel free to leave a business card. Thank you for your help!

Data available:

1. National Estuary Reports(NEPORT) of habitat acres restored/protected/enhanced for each year between 2005 and 2010.
2. NOAA Restoration Center Watershed Project
3. Delaware Estuary Project Registry
4. Ecosystem Service valuations from the Regional Restoration Initiative case studies



What is the Project Registry?

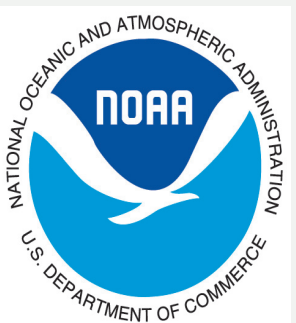
The Project Registry, part of the overall Delaware Estuary Regional Restoration Initiative, identifies regional restoration needs and matches them with high impact projects and regional priorities.

The goals of the Project Registry are:

- to provide a comprehensive collection of projects that anyone can populate or query through an online web platform
- to increase the visibility of projects and assist funders in locating projects they wish to support.



pennsylvania environmental council



Delaware River Basin Commission
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