



The Delaware Estuary Information Gateway

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Abstract

The Delaware Estuary Information Gateway is a "one-stop-shop" information clearinghouse for environmental information, maps, studies, reports, web-links and related items associated with the Delaware Estuary and its watershed. The purpose of the Gateway is to provide a single point of contact for accessing publicly available information in an intuitive, web-based information management system. The Partnership for the Delaware Estuary (PDE) designed the Gateway in 2006, but it had not yet been populated with much information. With support from Clear into the Future, PDE broadened the Gateway architecture so that it is user friendly for diverse audiences such as children, the public, scientists and managers.

Users access information through either a geography-based portal or a topic-based portal. As of March 2008, nearly 5000 pieces of information, including file downloads and web-links, were added to this online library. Information has spanned the sciences, management, restoration and outreach and covered topics ranging from water resources, living resources, and habitat throughout the Delaware Estuary and its watersheds. Pages yielding more than 10,000 information access are planned. Future options include links to a geospatial platform, and integration with real-time monitoring by developing Delaware Estuary Watershed to Ocean Observing System.

Partnership for the Delaware Estuary

Since taking on the responsibility of the National Estuary Program for the Delaware Estuary in 2005, the Partnership has greatly expanded its scope and focus, and has been strengthening its science coordination, land restoration, and policy activities. The Partnership is now leading an assessment of current status, trends and needs regarding the science and management of natural resources in the Delaware Estuary and its watershed linkages. Of special importance is our new role in facilitating the exchange of educational resources and science and technical information among the many agency, academic, industry, and public groups in the region.

Why the Gateway is Needed?

Numerous agencies and other groups maintain inventories of environmental and scientific information for specific types of resources (e.g., water quality, fisheries) or issues (e.g., land use change), or for specific geographic sub-regions (e.g., states). Some of these materials are made available to the public, but are not easily accessible or are not generally known to exist. There is also no single entity charged with compiling and maintaining an inventory of broad types of environmental information for the Delaware Estuary. There is also no single point of contact to obtain direction regarding the location of diverse forms of science and technical information. The DEIG is designed to fill a vital niche as library for publicly available environmental information for diverse audiences, ranging from scientists and resource managers, to elected officials and the general public.

Goals

The Gateway is being devised to:

- Improve access to data and information that support the conservation and management of regional natural resources
- Promote the use of standards for data and information management, collection, and delivery; and,
- Improve access to web-based tools for data exploration from multiple sources and to educate the public.



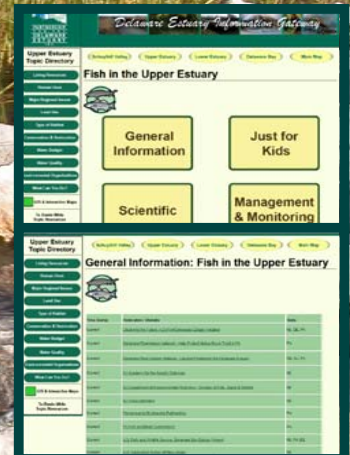
Outcomes

In this first phase of the Gateway development, we did not expect to obtain *all* available information that is valuable and accessible, nor will this ever be a reasonable goal because of the ever-growing information stream. Rather, our intent was to establish the organizational backbone for an information node, begin to populate it with substantial amounts of base information, and to pave the way for the continued growth of this bank of information.

These goals have been met. As of May 2008, 910 new web pages were created with an average of 5-10 information items per page, spanning the sciences, management, restoration, and outreach. Topics span a diverse range from water resources, living resources, and habitat throughout the Delaware Estuary and its watersheds. Information items include both downloadable PDF files, as well as links to other sources of information. More than 1000 web-pages are planned, yielding more than 10,000 information access points that includes most of the readily available information base for our region. Preliminary web traffic statistics show that over 5,000 page views have been recorded for the Information Gateway, indicating that the Gateway has the potential to be a very powerful tool for information sharing.

Next Steps

As new information is produced and less readily available past information is acquired, the Gateway will continue to grow. This information will be added to the Gateway as it becomes available, contingent on staff time and IT capabilities. Future plans include a possible interactive, geospatial platform (planned since 2006), a Google search function, a map gallery, and linkage or integration into the Delaware Estuary Watershed to Ocean Observing System, which PDE is helping design with partnering entities in the watershed.

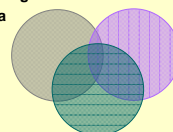


Description of Architecture

The DEIG architecture was based on the conceptual framework for the Delaware Estuary ecosystem, which was prepared in 2006 with assistance from the Science and Technical Advisory Committee. This framework was summarized in the tri-fold brochure titled *The Delaware Estuary: a Watershed of Distinction* (Figure 2). The organizational framework categorized subject material according to topics related to human uses, issues associated with human uses, major habitat types, and signature living resources (Figure 3). The same array of topics are examined within each of four watershed regions of the Delaware Estuary Program's study area, consisting of the Schuylkill Valley, Upper Estuary, Lower Estuary, and Delaware Bay (Figure 4).

Monitoring
Data

Scientific
Information



General Information



Management Applications

Viewed as a resource tool, the Gateway has the potential to be used as a rapid access point for reference information needed in the case of an environmental incident (e.g., oil spill). Contrasting the breadth or lack of information in the Gateway for selected management topics or natural resource information should shed light on key data gaps in our understanding of the Delaware Estuary ecosystem. This "gap analysis" can help strengthen monitoring so that it becomes more ecosystem-based, cross-linking also to indicator reporting for the Estuary.

ACKNOWLEDGEMENTS

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