



The Delaware Estuary

FACTS & FIGURES

ECOLOGY:

- The Delaware Estuary is utilized by over 200 fish species, both residents and migrants.
- The Estuary provides habitat for federally protected endangered species populations of dwarf wedgemussels, short-nose sturgeon, bald eagles, and bog turtles.
- The Estuary region is representative of 185 natural-community types encompassing 35 broader-scale ecological systems.
- The Delaware Estuary currently contains more than 405,000 acres of wetlands, more than 126,000 acres of which are recognized as internationally important.
- The Delaware Estuary is home to one of the largest freshwater tidal estuaries in the world.
- The Estuary supports the largest breeding population of horseshoe crabs in the world.
- The Delaware Estuary is one of the four most-important shorebird migration sites in the world with the second-highest concentration of shorebirds in North America. The estuary also provides wintering and migratory habitat to many species of songbirds and raptors.

ECONOMICS:

- The Delaware River and Estuary system provides drinking water to over 9 million people within the watershed and an additional 6 million people outside the watershed.
- The port system generates \$19 billion in annual revenue.
- The Estuary supports the world's largest freshwater port (approximately 3,000 vessels a year) and is the largest receiving center for crude oil, steel, paper, and meat imports.
- The annual harvest of Eastern oysters from the Estuary exceeds \$1.5 million in market value.
- 70% of the oil shipped to the East Coast of the United States passes through the Delaware Estuary, making it the second-largest refining petrochemical center in the nation.

MISCELLANEOUS:

- Just over 6,000 square miles of land area drains directly into the Delaware Estuary's study area.
- Over 6 million people live in communities located within the Estuary's study area, and 9 million people in the entire Delaware River-Estuary system.
- The Delaware Estuary is the only tri-state Estuary system included in the National Estuary Program.



Partnership for the Delaware Estuary
One Riverwalk Plaza
110 S. Poplar Street, Suite 202
Wilmington, DE 19801



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The Delaware Estuary

A WATERSHED OF DISTINCTION

What makes the **Delaware Estuary** uniquely valuable? What distinguishes it from other large American estuaries? What are its hallmark animals, plants, and resources? What are the principle environmental challenges it faces? This brochure summarizes answers to these questions by highlighting the "signature" environmental traits and issues within four regions of the Delaware Estuary: Schuylkill Valley, Upper Estuary, Lower Estuary, and Delaware Bay.

The message is clear — the Delaware Estuary is a unique resource that is internationally important for historical, socioeconomic, and environmental reasons. Once home to the first major city in the New World and the initial seat of the United States, the Delaware Estuary was the principle corridor for commerce that sustained the Industrial Revolution in America, and a major strategic port for national defense. This storied legacy of the Delaware as a working river of national strategic importance continues into the 21st century. But unknown to many, coexisting with this commercial backdrop are some of the nation's best environmental treasures not to be found anywhere else in the world.

Inside, the distinguishing land uses, habitat types, animals and plants, and environmental concerns are identified for each of these regions by using a simple graphical depiction based on the most current scientific information. Also highlighted are examples of interesting socioeconomic and environmental facts about the Delaware Estuary's ecosystem. Together, these diagrams and facts provide an ecologically-based conceptual framework that integrates natural features and societal impacts to describe the environmental landscape of the Delaware Estuary.

For more information, visit the Delaware Estuary Information Gateway on the web, our new clearinghouse for environmental information, and links at the Partnership for the Delaware Estuary's website:
www.DelawareEstuary.org

Partnership for the Delaware Estuary: A National Estuary Program
One Riverwalk Plaza, 110 South Poplar Street, Suite 202, Wilmington, DE 19801
1-800-445-4935 • Tel: 302-655-4990 • Fax: 302-655-4991

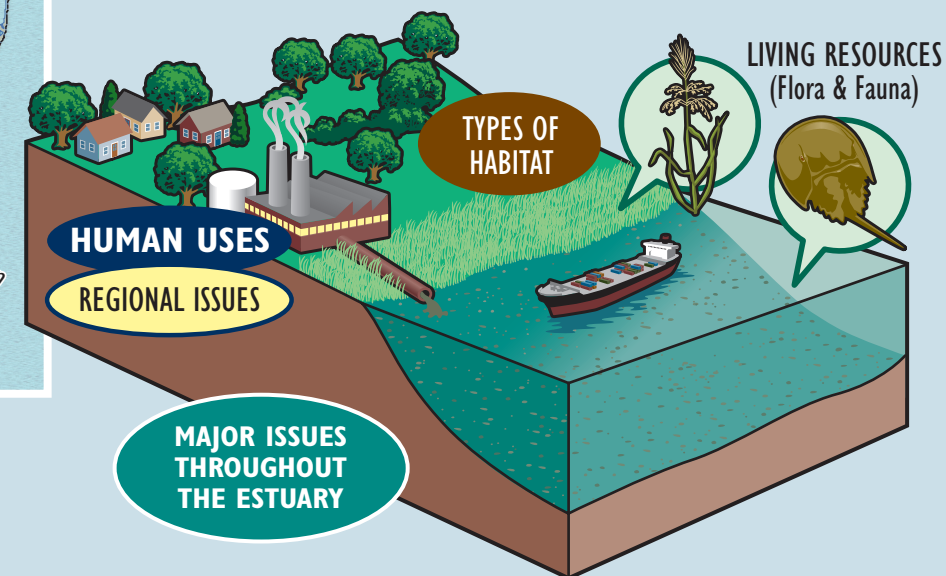


You can also click on any of the four colored watershed regions on the map to find more information.

DELAWARE ESTUARY INFORMATION GATEWAY:

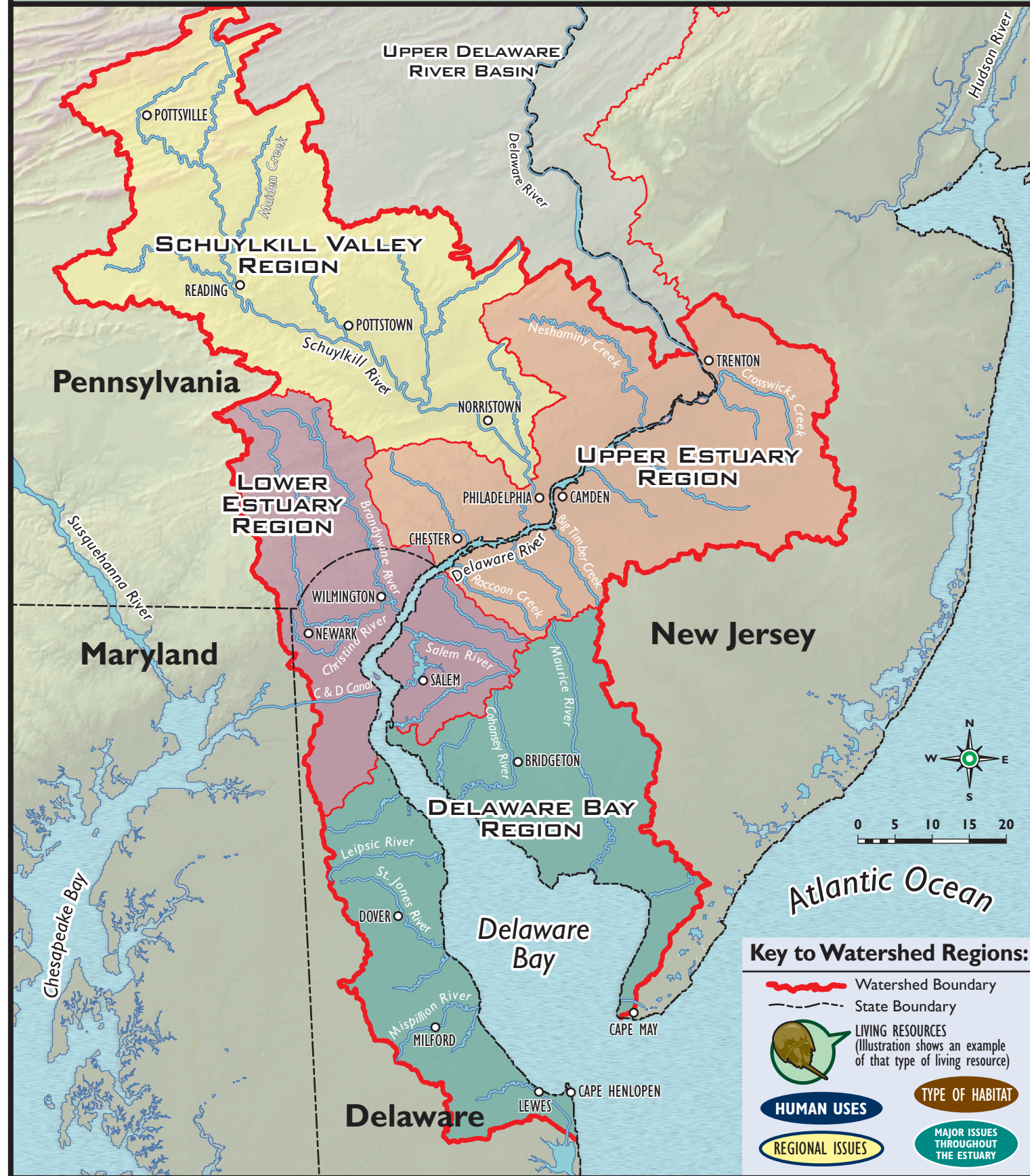
www.DelawareEstuary.org/gateway

Go to our website and click on any topic for detailed information and the latest scientific data.

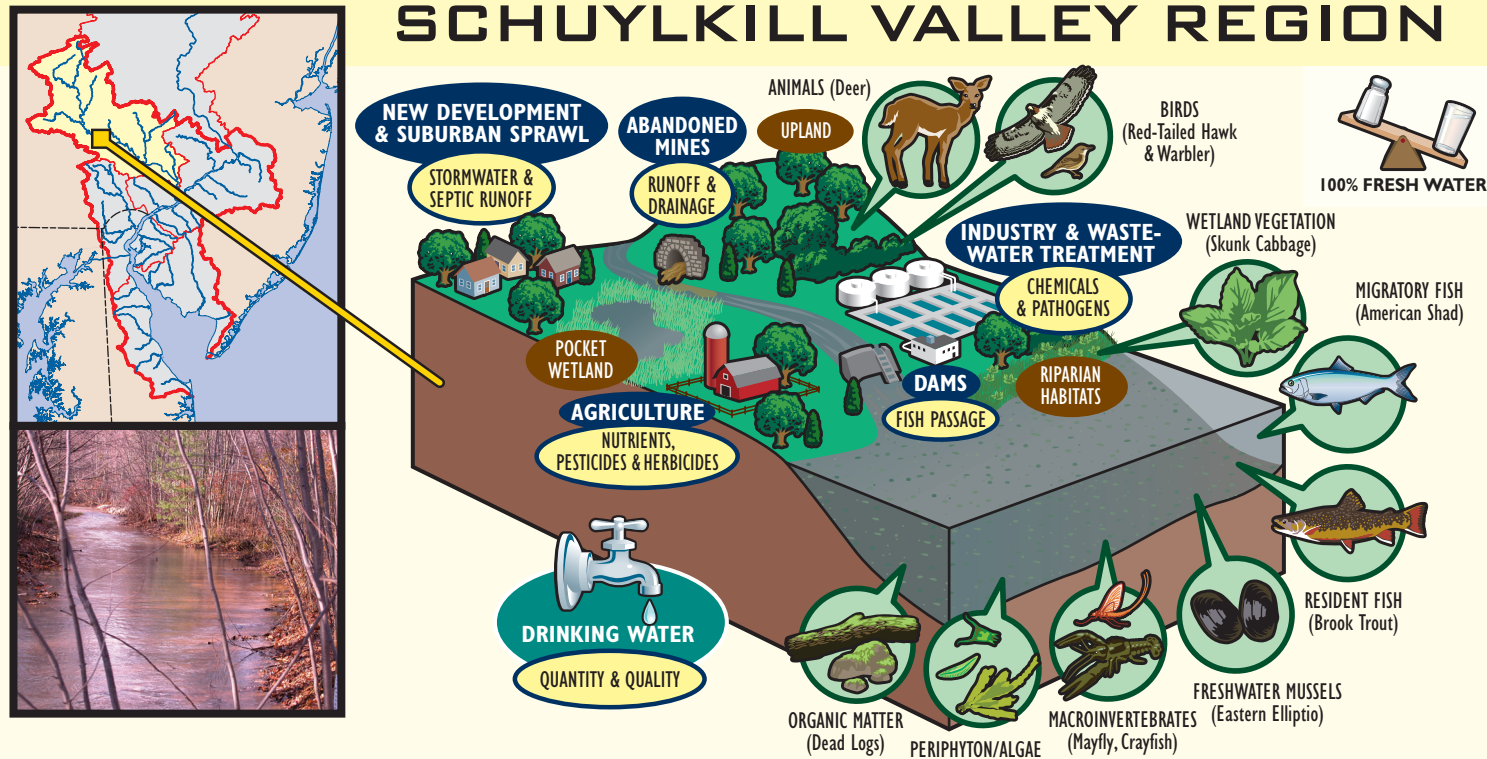


THE FOUR REGIONS OF THE DELAWARE ESTUARY WATERSHED*

* The Delaware Estuary is one of 28 National Estuary Programs. The study area for the Partnership for the Delaware Estuary covers the lower 6,827 square miles of the Delaware River Watershed, which in its entirety is 13,611 square miles, below the head of the tide in Trenton.

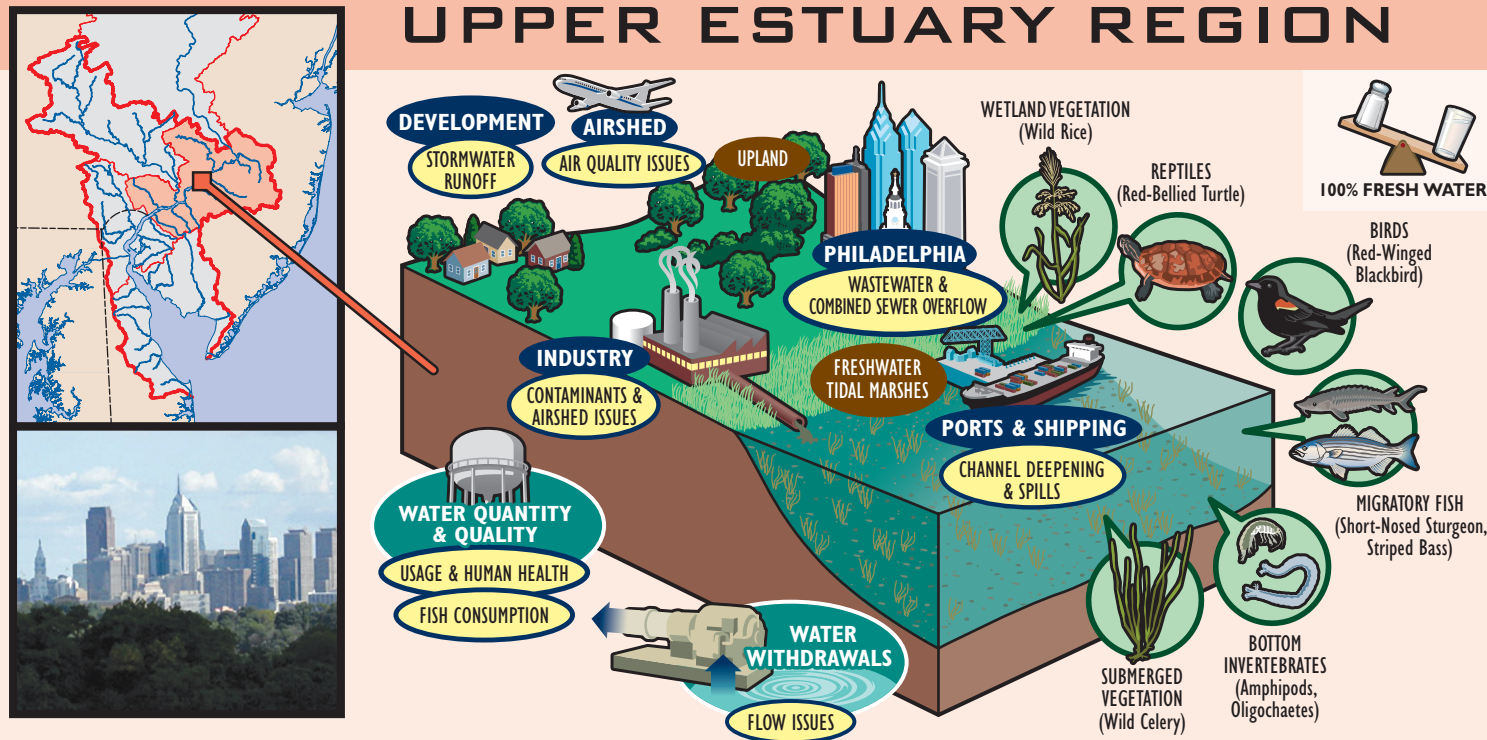


SCHUYLKILL VALLEY REGION



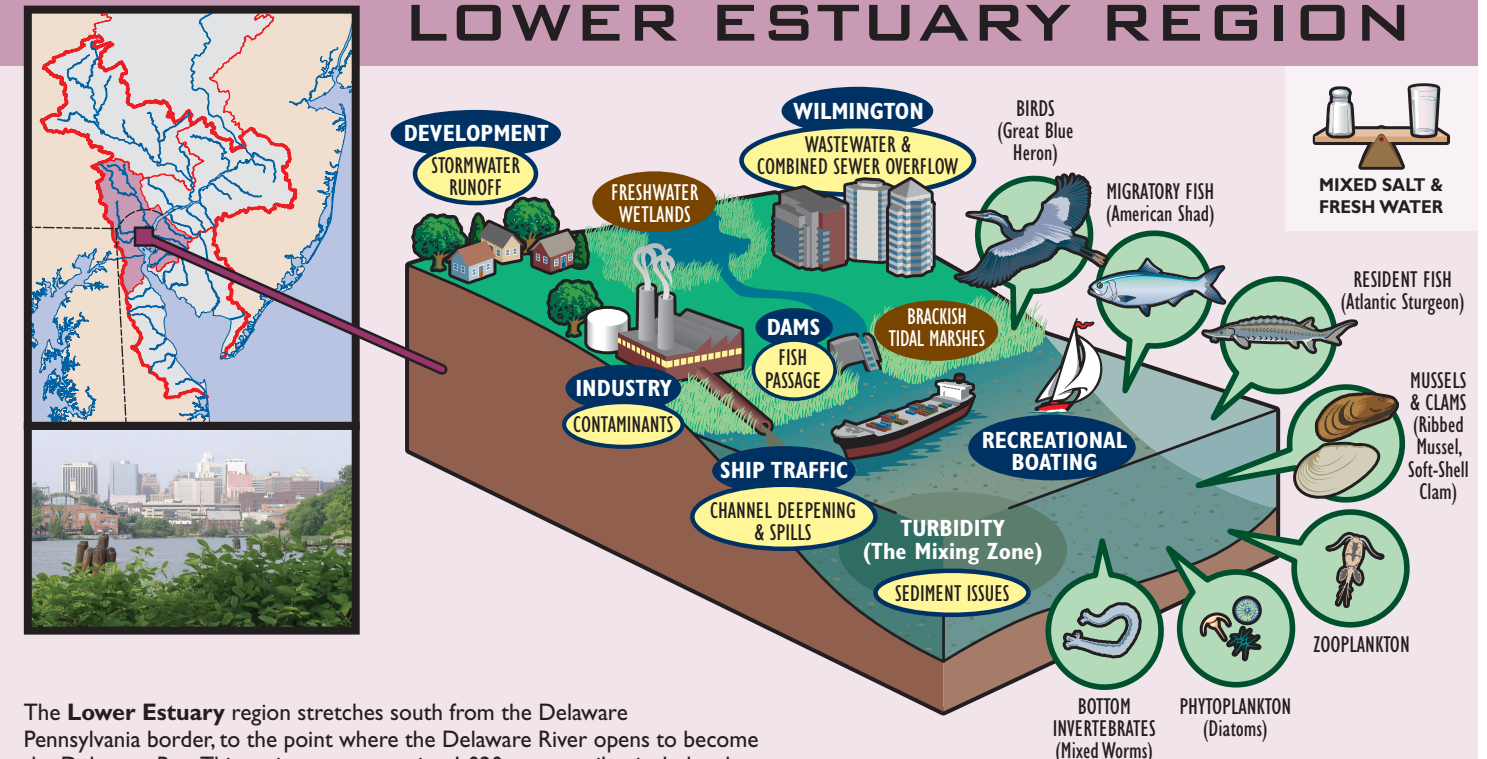
The **Schuylkill Valley** region consists of the 1,890-square miles Schuylkill River Watershed in Pennsylvania, stretching from its headwaters in Schuylkill County, southeast to the City of Philadelphia. Primarily forested and mountainous in its northeastern reaches, the region overall is characterized by rolling topography and a patchwork landscape of farms and woodlands densely veined with streams. This region is increasingly dominated by residential and commercial development as it approaches Philadelphia. Approximately 1.75 million people get their drinking water from the Schuylkill or its tributaries, making threats to water quality a critical issue not only for ecosystem health, but also for the human population. Pollution resulting from a legacy of coal mining, runoff from farms, increasing stormwater resulting from development, and industry and wastewater are major sources of concern in this region.

UPPER ESTUARY REGION



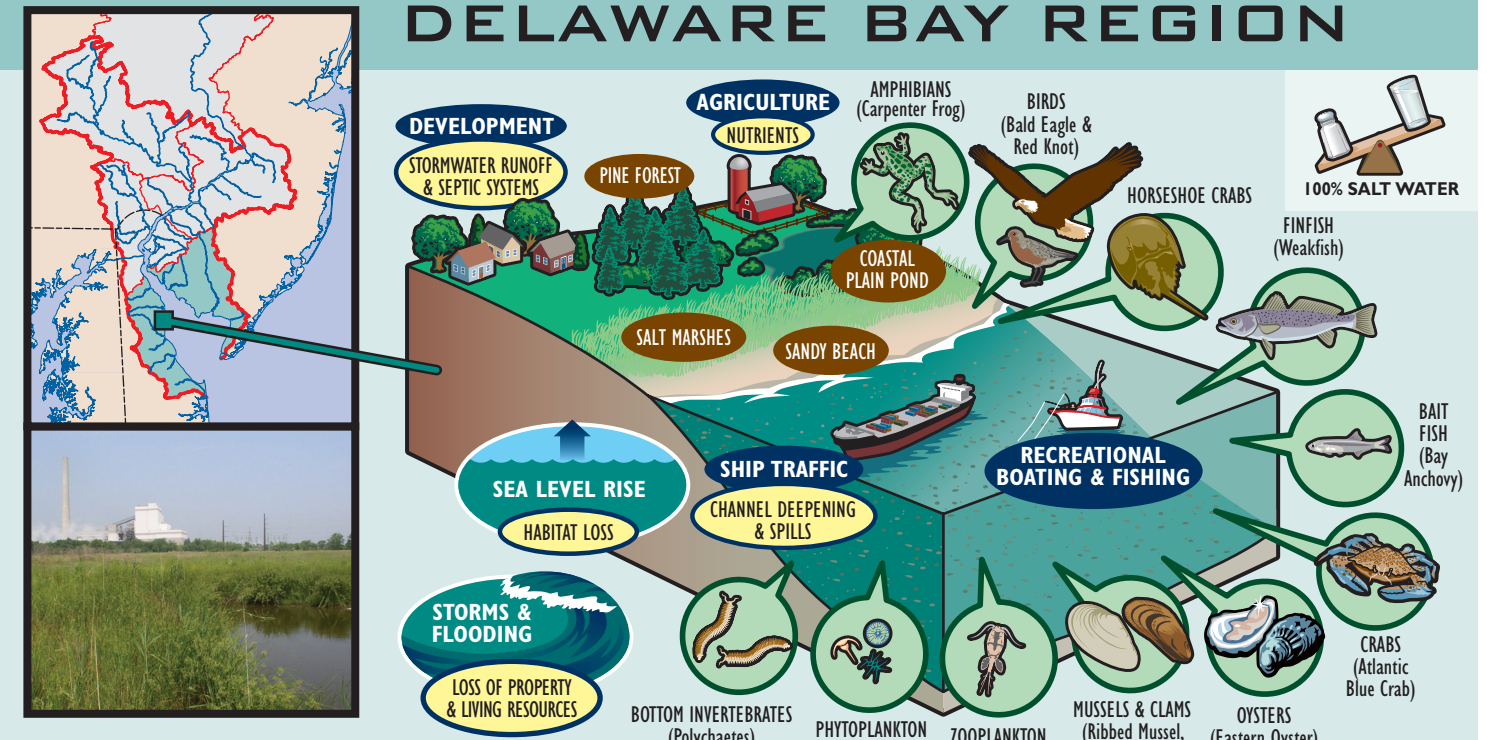
The **Upper Estuary** region stretches from Trenton, New Jersey southwestward to the Pennsylvania Delaware border, and it consists of 1,743 square miles of small sub-watersheds in Pennsylvania and New Jersey. This region is characterized by a gently sloping topography, defined largely by the main stem of the Delaware River, and a diverse landscape of forests and fields frequently punctuated by significant development, including the cities of Philadelphia, Trenton, and Camden. Riverfront industry and development, as well as several major ports, make the Delaware River a critical economic resource to both states in this region, presenting both opportunities and challenges. Contaminants from an industrial legacy and water withdrawals serving the needs of industry and urban populations are the major sources of concern here. Freshwater tidal wetlands are rare throughout the nation but are a signature trait of this region; unfortunately, most have been lost over the past few hundred years.

LOWER ESTUARY REGION



The **Lower Estuary** region stretches south from the Delaware Pennsylvania border, to the point where the Delaware River opens to become the Delaware Bay. This region, encompassing 1,020 square miles, includes the Christina River Basin in Delaware and the Salem River Watershed in New Jersey, as well as several smaller watersheds. The region is characterized by gently sloping topography in the north, giving way to relatively flat coastal plain to the south, and a patchwork landscape of forests and fields punctuated by development throughout, including most densely the City of Wilmington. Riverfront industry and the Port of Wilmington make this area a significant economic resource, and thus presents many of the same opportunities and challenges as in the Upper Estuary region. The mixing of salt and fresh water in this portion of the Delaware River makes turbidity and its effects on legacy pollutants a major concern. The importance of maintaining wetlands here for water quality and flood control makes sediment budgeting an important issue.

DELAWARE BAY REGION



The **Delaware Bay** region stretches southeast from the widening of the Delaware River, to the Atlantic Ocean. This region of 1,539 square miles includes the Maurice River Watershed in New Jersey and the Mispillion River Watershed in Delaware, as well as smaller sub-watersheds along both sides of a wide Delaware Bay. This region is characterized by relatively flat coastal plain topography, extensive salt marshes, the occasional sandy beach along shorelines, and a mixture of relatively large farms and low-lying forests inland, with modest but increasing development, especially along major roads, in the southern resort areas. Recreational boating, fishing, and tourism are major economic benefits in this region, offering both challenges and opportunities. Runoff from agriculture and stormwater from increasing development (on shallow soils) are major concerns.