

ESTUARY TERMINOLOGY

What is an Estuary?

Estuaries are places where a river meets the sea or ocean. The freshwater of a river mixes with the salt water of the sea, and ocean tides and river currents create areas with varying degrees of salinity and complex water movements.

Estuaries are among the most productive habitats on earth. They host more wildlife births than any other ecosystem and are vital to spawning, nursery, and feeding grounds for a spectrum of creatures. Estuaries also support wading and migratory birds, reptiles and mammals. Estuaries are critical to the health of coastal environments, as well as to the people they support for the purposes of drinking water, industry, food production, and recreation. Estuaries are lined with vital wetlands that filter sediments and pollutants from the land and serve as buffers that protect land from flooding and erosion.

What is a Wetland?

A wetland is an area that has water at or near the soil surface for some time of the year and supports plants that are adapted to surviving in saturated, often anaerobic (low-to-no oxygen content), soil conditions. An area does not have to be saturated throughout the year to be considered a wetland. Wetlands must be saturated within one foot of the ground surface for two weeks or more of the growing season in most years to be considered a wetland.

What is a Watershed?

Watershed is the term used to describe the geographic area of land that drains water, along with sediment and dissolved materials, to a common destination. The drainage system and the watershed include the area surrounding the stream system that captures precipitation, filters and stores water, and determines water release into stream systems. Stream systems are the visible, above-ground portions of larger drainage systems.

What is a Tributary?

A tributary is a secondary stream or river that flows into another parent river or body of water. A tributary may not flow directly into the ocean.

Tributaries provide nearly 40% of the freshwater to the Delaware Estuary. The Schuylkill River is the largest and arguably the most important tributary to the Delaware River, emptying in to the Delaware River at the Port of Philadelphia and providing nearly 10% of the Delaware's freshwater. The Christina River Basin is another important tributary system to the Delaware Estuary consisting of the Brandywine Creek, Red Clay Creek, White Clay Creek, and the Christina River, which ultimately enter the Estuary at Wilmington, DE.

Tributaries provide a variety of habitat areas that adjacent to or nearby the stream. Anadromous fishes migrate from marine or estuarine waters into freshwater tributaries to spawn. The cleanliness and health of the Delaware River's tributaries is paramount to the survival of certain fish species, notably American shad and river herring.

What is a Bay?

A bay is an area of water surrounded by land on three sides. The Delaware Bay is bordered by New Jersey to the north and east, and Delaware to the west and south. The average depth of Delaware Bay is about 31.5 ft, although the River is much deeper in places within the main channel.