

# Gibbstown Levee Ecological Assessment - Wetland Climate Change Evaluation

Gibbstown, New Jersey



Located less than a mile from banks of the Delaware River, the low-lying community of Gibbstown, New Jersey consists of residential housing, commercial and municipal buildings, and several major transportation routes. Much of the area between the town and the river consists of herbaceous

*Important wetland resource types and distribution are substantially changed by river-levee interactions, stormwater, flooding changes and projected future sea level rise.*

and forested wetlands with a network of interconnected streams and ditches. While a 4.5-mile levee constructed in the early 1800s has provided some flood protection, it has been breached several times.

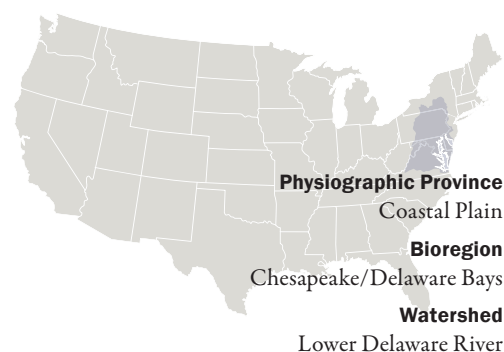
To help the U.S. Army Corps of Engineers determine how these floods were affecting wetland resources, Biohabitats performed a change assessment of the wetland system along and behind the levee. The assessment provided a generalized estimate of the types and extent of habitat that could be lost or converted under current conditions of periodic flooding with continued management. The project also identified how wetland habitats would potentially change in the future, based on assumptions regarding system changes since the 1970s.

Habitat loss estimation efforts included a projection 50 years into the future based on sea level rise scenarios and annual flooding continuing without a new levee. Biohabitats modified the habitat impact evaluation to include habitat conversion from one type to another as direct result of changes in inundation.

The assessment revealed how wetland resource types and distribution are substantially changed by river-levee interactions, stormwater, flooding changes, and projected future sea level rise.

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