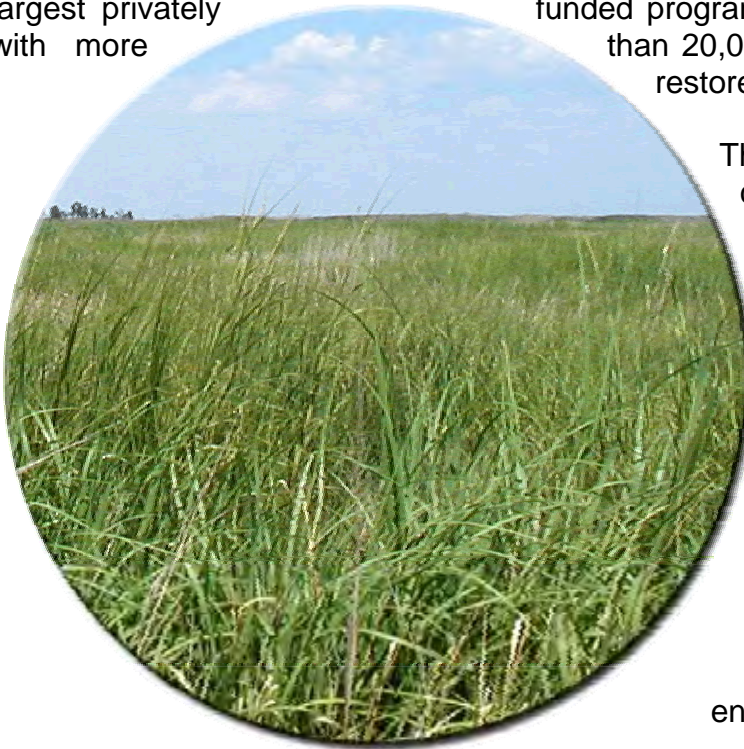


The Salem Generating Station, in response to its New Jersey Pollutant Discharge Elimination System (NJPDES) permit, embarked on an unprecedented effort to help restore a portion of the Delaware Estuary by establishing the Estuary Enhancement Program (EEP) in 1994. Today, the EEP is recognized as the largest privately funded program of its kind in the country, and perhaps the world with more than 20,000 acres of salt marsh and adjacent uplands being restored, enhanced and/or preserved.



The EEP was developed and implemented in cooperation with recognized experts in salt marsh restoration, ecology and aquatic biology, as well as with independent scientists, environmental groups, natural resource and land management agencies, public officials and local communities. Overall, the goals of the program are to:

- Provide long-term benefits to the environment, ecology, natural resources, economy, and people of the Delaware Estuary;
- Promote fisheries and aquatic resource productivity through a combination of innovative environmental improvement initiatives;
- Restore, enhance, and preserve degraded salt marsh habitat and adjacent uplands along the Delaware Estuary in both New Jersey and Delaware; and
- Minimize the effects of the Salem Generating Station (Station) on Delaware Estuary biota.

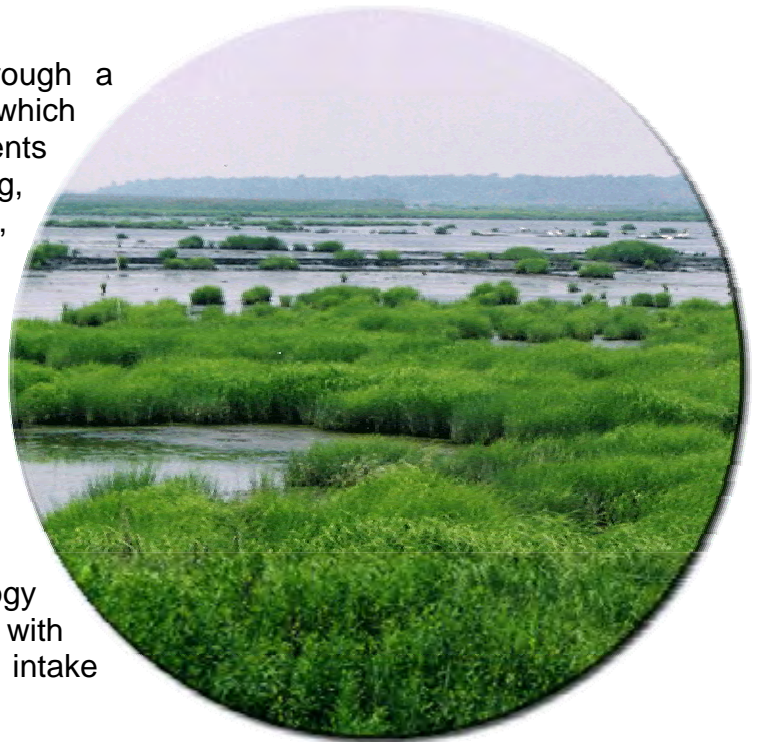
Designed to expand and protect the habitat for fish and other aquatic species in the Delaware Estuary, the EEP has implemented the restoration of diked salt hay farms and degraded *Phragmites*-dominated marshes.

- The objective of the salt hay farm wetland restoration was to restore natural tidal inundation, through the creation of channels and the breaching of dikes, to allow fish access to the marsh plain, promote re-vegetation by *Spartina* spp. and other naturally occurring marsh vegetation, and provide for the exchange of detritus between the restored marsh and the Delaware Estuary.
- The objective of the restoration efforts at the *Phragmites*-dominated sites was to control the tall invasive plant, *Phragmites australis*, commonly known as “foxtail” or “common reed”, to induce the re-establishment of smaller channels, improve the quality of fish habitat, decrease the availability of *Phragmites* seed and the potential for spread of *Phragmites* by rhizomes, provide a suitable

substrate for colonization by more desirable species, such as *Spartina alterniflora*, and reduce shading of the developing desirable plant species.

Together with its partners (local communities, scientists, regulators), the EEP has also implemented the following:

- Construction of 13 fish ladders to help river herring overcome barriers blocking migration into historic freshwater spawning and nursery grounds.
- A bay-wide biological monitoring program, the most comprehensive ever undertaken for the Delaware Estuary, to provide data for assessing EEP success and expanding knowledge available to resource managers.
- Research on the control of *Phragmites* through a carefully designed Test Area program which implemented and monitored a variety of treatments in various combinations, including: mowing, seeding, micro-topographic modification, glyphosate-based herbicide application, and grazing.
- The use of an upgraded Station cooling water system with state-of-the-art fish protection technology and limitation of cooling water intake to minimize harm to fish and increase fish survival.
- Studies to investigate underwater technology (sound, strobe lights and air bubble curtains) with potential for deterring fish from the Station's intake area.
- Construction of public use facilities and enhancements, development of public use programs, installation of educational signs, and access to vast natural areas for recreation, environmental education, research, and ecotourism.
- Support for artificial reef programs in New Jersey and Delaware, scientific research related to salt marshes and salt marsh ecology, and environmental education programs.





Long-lasting benefits of the EEP include:

- Expanded habitat, nursery grounds, shelter, and foraging opportunities for fish and other aquatic species;
- Increased fisheries and primary food source production;
- Increased habitat availability for endangered and threatened species, and resident and migrating birds;
- Increased biodiversity; and
- Increased public use opportunities.

The EEP represents an innovative approach to resolving complex environmental issues in a way that provides long-term benefits for the ecology, environment, fisheries, wildlife, economy, and people of the Delaware Estuary region. This landmark program is a true demonstration of positive results achieved through public participation, consensus building, public-private partnering, and creative thinking.

