

# SALT MARSHES IN THE LONG ISLAND SOUTH SHORE ESTUARY RESERVE



Salt marshes are a type of tidal **wetland** found along coastlines. They are periodically saturated, flooded, or ponded with water and are characterized by herbaceous (non-woody) vegetation that is salt-tolerant and adapted to wet conditions. Salt marshes in the Reserve are typically dominated by ***Spartina***, commonly called cordgrass. Salt marshes are created when sediments are deposited in shallow coastal waters, allowing cordgrass to become established and grow. As the marsh accumulates sediment, salt marshes grow upward and outward over time.

The **Long Island South Shore Estuary Reserve** encompasses New York State's largest area of salt marsh. These extensive salt marshes, perhaps the most striking feature of the Reserve's landscape, cover approximately 19,000 acres and make up about 15% of total estuarine acreage in the Reserve. Salt marshes are key contributors to the Reserve's high level of biological diversity, and are integral to the ecological health of the Reserve.



**Salt marshes in the South Shore Estuary Reserve**

*The Reserve is outlined in red and existing salt marshes are shown in yellow.*

## **SALT MARSHES** are an important South Shore Estuary Reserve habitat because they:

- ◆ Provide spawning, nursery, and feeding habitat for finfish and shellfish;
- ◆ Provide nesting, loafing, and foraging habitat for wading birds, shorebirds and waterfowl;
- ◆ Protect coastal areas from storms and help stabilize the shoreline;
- ◆ Clean water by filtering sediments, nutrients, and other pollutants; and,
- ◆ Provide unique opportunities for fishing, waterfowling, canoeing, kayaking, observing wildlife, education, and research.



### **Did you know?**

Salt marshes are among the most productive ecosystems on earth. They receive nutrients and organics from surface and tidal water and they produce more basic food energy per acre than any other known ecosystem, including tropical rainforests and freshwater wetlands.



## THREATS TO SALT MARSHES IN THE SOUTH SHORE ESTUARY RESERVE

- ◆ **Stormwater runoff** becomes polluted from oils, sand, and salt on roads; lawns that have been fertilized or treated with pesticides; pet waste; and, other pollutants that are picked up by rain or snowmelt, which washes into creeks and bays over land and through storm drains.
- ◆ **Invasive species** are non-native plants and animals introduced into an area as a result of human activity. They establish a population and reproduce rapidly, crowding out native species, reducing habitat function and biological diversity.
- ◆ **Mosquito ditching** drains salt marshes, resulting in dried up marsh pools and ponds, which reduces habitat value for fish, waterfowl, and wading birds and increases potential for invasive plant establishment.
- ◆ **Construction activity** in salt marsh buffer areas can interrupt fresh surface and groundwater inputs and cause disturbances that create opportunities for invasive species to take hold and spread.
- ◆ **Shoreline hardening structures** such as bulkheading and seawalls, cause increased wave scour and changes in water levels, which can damage or destroy salt marshes.
- ◆ **Vessel wakes** increase wave action, causing erosion of marsh edges.
- ◆ **Sea level rise** may drastically change or drown salt marshes.

**Phragmites** is a tall reed grass that has become an invasive species in the South Shore Estuary Reserve. It establishes itself in areas disturbed by human activity, outcompeting and displacing native vegetation, thereby reducing diversity and drying out the marshes in which it lives.



Salt marsh dominated by *Phragmites*, an invasive species.



Salt marsh dominated by *Spartina*, a native species.

### Help protect and restore salt marshes in the South Shore Estuary Reserve by:

**Preventing Pollution:** Limit your use of fertilizers and pesticides, clean up after your pets, keep cars well maintained so they don't leak fluids, and don't dump wastes into storm drains.

**Planting Native Species:** Native plants require little or no watering or fertilizers, and provide habitat for local wildlife. If you live next to a creek or bay, planting native shrubs can create a buffer to prevent erosion, keep sediments and pollutants from entering the water or marsh, and provide habitat for wildlife.



**Minimizing Boat Wakes:** Boaters should observe speed limits in or near salt marsh islands to avoid erosion of marsh edges.

**Participating in Restoration Projects:** Governments and environmental groups are working together to restore salt marshes on Long Island. You can volunteer to help with local restoration projects throughout the Reserve. Check the Stewardship Opportunities page on the Reserve Council website.

**Please contact the South Shore Estuary Reserve Office at (516) 470-BAYS or visit [www.estuary.cog.ny.us](http://www.estuary.cog.ny.us) for more information.**