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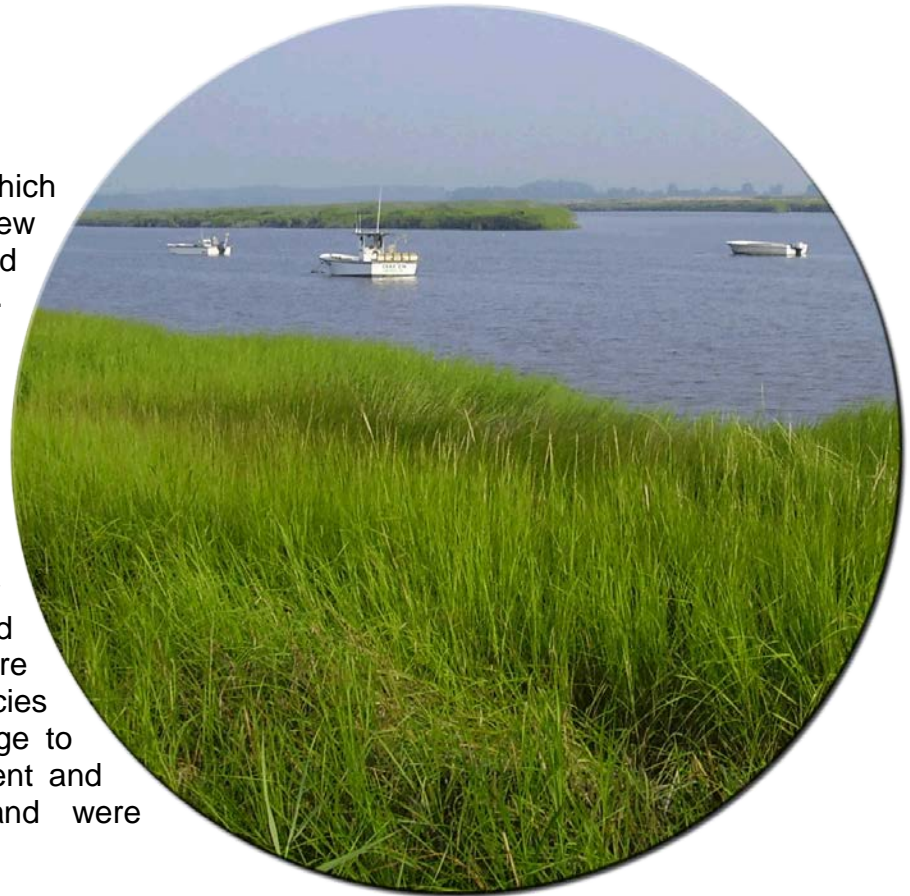
[Vegetative Cover Summary Chart](#)

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Overview

Cedar Swamp is a 1,870-acre site, which includes a 1,863-acre restoration area, in New Castle County, Delaware. The site is owned by DNREC and Delaware Wildlands. Historically, the site was used for hunting and included a coastal recreation resort. *Phragmites* covered approximately 72 percent of the vegetated marsh plain before initiation of restoration activities. In addition to public hunting and wildlife observation, the Cedar Swamp site is currently used as an anchorage for commercial and recreational crabbing and fishing boats. Restoration has added more than 1,180 acres of desirable plant species and has reduced the *Phragmites* coverage to less than 8 percent. Wetland enhancement and restoration efforts began in 1995, and were completed in 2000.



Goals

The goal of enhancement and restoration efforts for the site were to:

- Expand spawning and nursery habitat for aquatic species
- Control / eliminate the invasive plant, *Phragmites*
- Allow *Spartina* spp. and other desirable marsh plants to re-vegetate
- Preserve wetlands and upland buffer

Actions Taken

The EEP took the following actions to achieve the enhancement and restoration goals for the site:

- Utilized targeted aerial, ground and boat glyphosate-based herbicide treatments to control *Phragmites* and allow for *Spartina* spp. re-vegetation
- Studied 7 test areas to determine relative effectiveness of various treatments for *Phragmites* control / elimination

Accomplishments

As a result of actions taken by the EEP, the following has been accomplished:

- 1,863 acres of aquatic habitat has been restored in the Delaware Estuary
- More than 1,180 acres of *Phragmites*-dominated wetland has been replaced with desirable native vegetation

Other Enhancements

A number of additional enhancements to improve and enhance environmental education, public access and long-term use of the site exist, including:

- Parking area
- Boat ramp



Continuing Activities

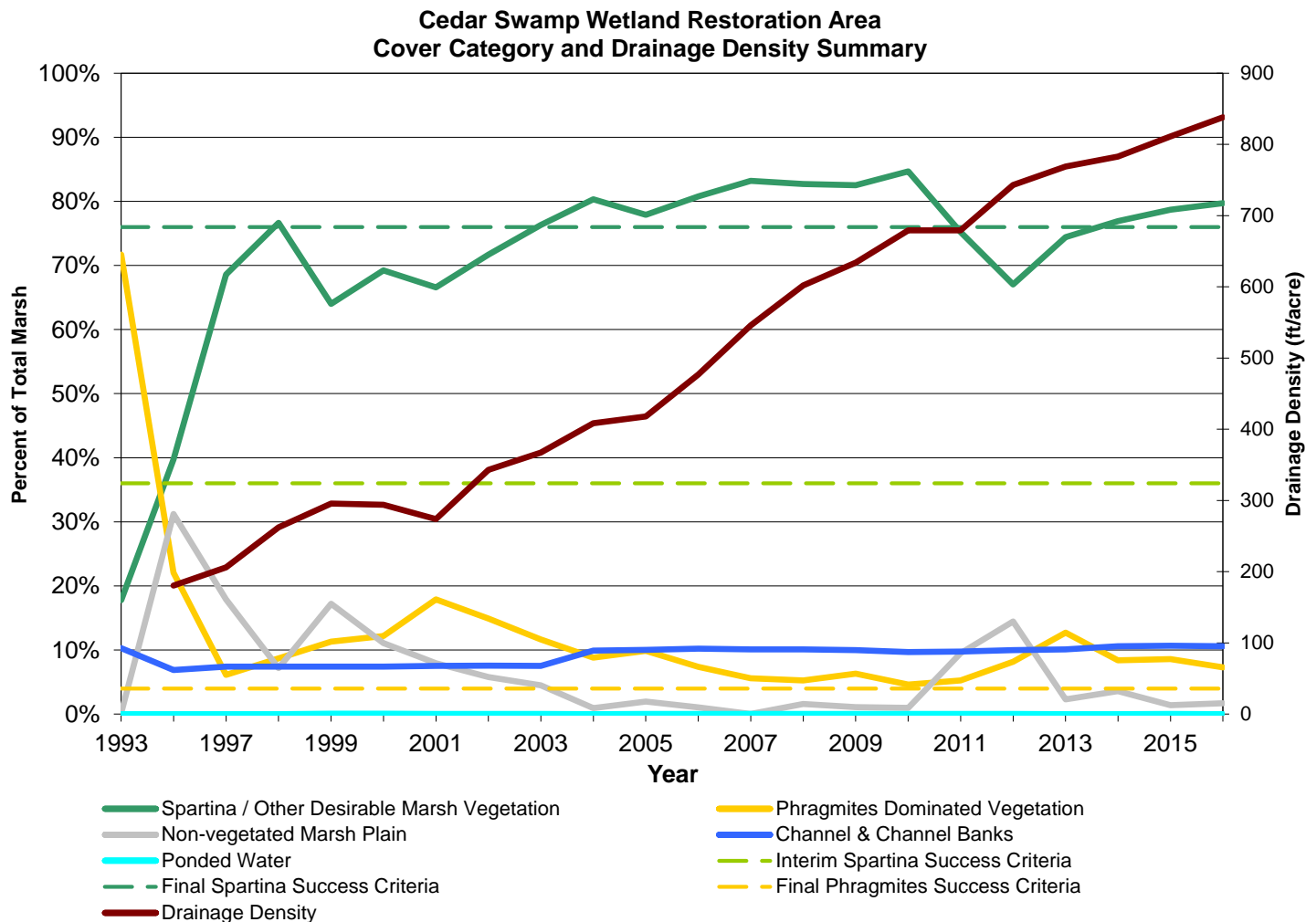
As part of the long-term commitment to the restoration of this site, the EEP continues to:

- Monitor biological communities
- Monitor vegetation
- Control *Phragmites*



Cedar Swamp Wetland Restoration Site Vegetative Cover Summary Chart

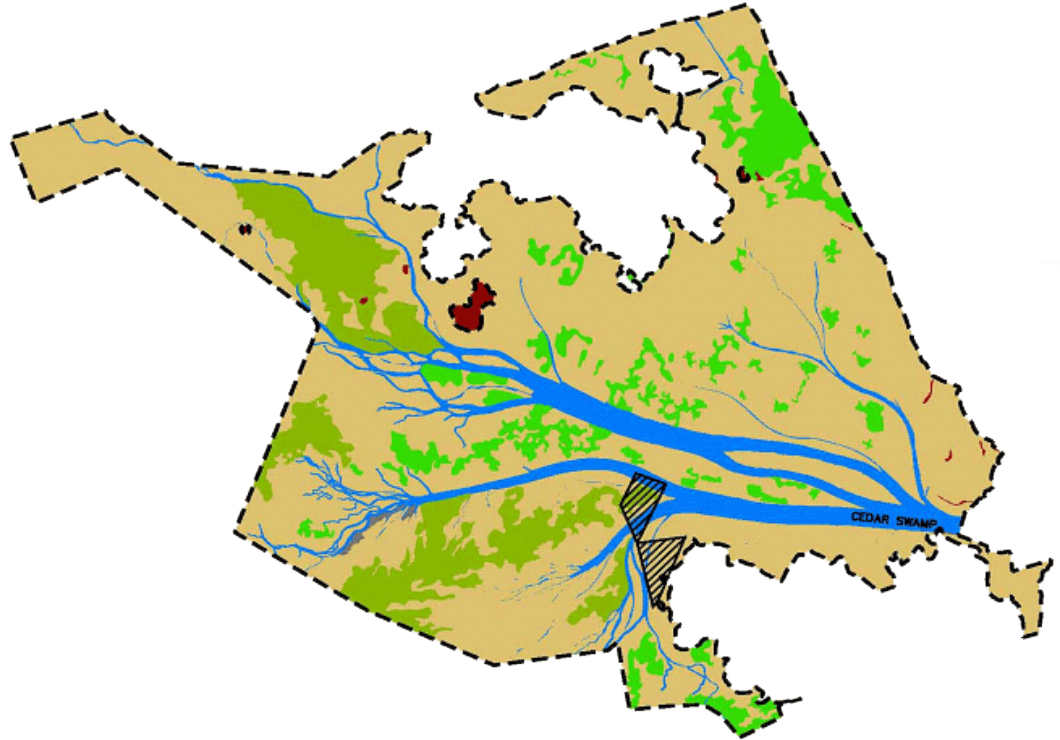
Phragmites (yellow line) dominated the wetland site prior to restoration activities; however, a rapid decline in the population followed herbicide treatments. As the *Phragmites* declined, *Spartina* (green line) was able to re-vegetate the area. The red line (linear feet of channel per acre) indicates the increased aquatic habitat at this site.





Cedar Swamp Site – 1993

As shown by the tan shaded area, the Cedar Swamp *Phragmites*-dominated Wetland Restoration Site was dominated by *Phragmites* prior to restoration activities. Only scattered areas of *Spartina* and other desirable marsh vegetation (green shaded areas) were initially present.



Cedar Swamp Site – 2016

After control activities were implemented, the *Phragmites* (tan shaded areas) population declined and the site is now dominated by *Spartina* (green shaded areas).

