



Before photo

Cascade Brook Salt Marsh Restoration Project

Fact Sheet

Overview

Owned and managed by Maine Dept. of Inland Fisheries and Wildlife, the 3,100-acre Scarborough Marsh Wildlife Management Area includes nearly all 2,700 acres of Scarborough Marsh, Maine's largest and best known salt marsh. Recognized for its tremendous biological productivity, Scarborough Marsh supports seven state or federally listed threatened or endangered species and holds the distinction as the salt marsh with the greatest diversity of water-dependent birds statewide. However, barriers to tidal flow, undersized culverts, invasive plants, fill material and ditching compromise the Marsh's biological vitality.

Cascade Brook, one of five major tributaries in the Scarborough Marsh system, includes 100 acres of salt marsh and has been subject to most of these serious threats. An unused water control structure severely limited tidal flushing, and two underwater berms in the channel behind the water control structure also served as tidal constrictions. In a 1996 500-year flood, a culvert on the Old Blue Point Road blew out, and large quantities of spoil material smothered two acres of the marsh surface and filled a tidal creek. In addition, 45 large piles of peat (ranging in size from 1 cu. yd. to 100 cu. yds.) were ripped out of the marsh during the flood, floated downstream, and came to rest on the surface of the marsh. Non-native *Phragmites* aggressively invaded the newly disturbed areas.

At the time of the 1996 flood, the partnerships for salt marsh restoration were not in place, and the Maine Dept. of Inland Fisheries and Wildlife had nowhere to turn for help in restoring the marsh. The impact in Cascade Brook was growing more severe as *Phragmites* continued to spread. But by the late 1990s, federal, state, non-government and business partners in Maine had become more actively engaged in salt marsh restoration projects. The problems at Cascade Brook were obvious and became a clear priority for restoration.

It took several years of work, but thanks to the enthusiastic and focused support of many partners, the Cascade Brook restoration project was started in 2003 and completed in early 2004. Restoration work included:

- lowering the water control structure to increase tidal flow,
- partial removal of the underwater berm,
- removal of 5,000 cubic yards of spoil material on the surface of the marsh and in the tidal creek,
- removal of peat piles, and
- *Phragmites* control.

The restoration project also includes pre-restoration monitoring and five years of post-restoration monitoring. Community outreach focusing on importance of the restoration work and the biological threat posed by *Phragmites* continue to be emphasized.

The Cascade Brook salt marsh restoration project cost **\$208,000** to implement and monitor. In addition, many partners contributed uncounted hours of technical support needed to design the restoration work, plan the monitoring protocols, obtain permits, fundraise, conduct community outreach and coordinate partner activities. It took the active participation of all of the following key partners to complete this important restoration project:

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Contributing Partners

Maine Department of Inland Fisheries and Wildlife
Friends of Scarborough Marsh
USDA Natural Resources Conservation Service
U.S. Fish and Wildlife Service Gulf of Maine Program
Maine Corporate Wetlands Restoration Partnership
National Fish and Wildlife Foundation
Ducks Unlimited, Inc.
Conservation Law Foundation
NOAA Restoration Center
Cumberland County SWCD
Restore America's Estuaries

Donating Contractors

Reed and Reed, Inc.
Diver Down Underwater Services
Normandeau, Inc.
Katahdin Analytical Services, Inc.

Paid Contractors

Northern Ecological Associates, Inc.
SWAMP, Inc.
Great Meadows Farm