



Shoreline Habitat Restoration Project
Report - Foster Site

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By

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Sponsors and Supporters

The Stockbridg-Munsee Community (SMC) and the Fox-Wolf Watershed Alliance (FWWA) funded this Shoreline Habitat Restoration (SHR) project.

Purpose and Objective

The purpose of this SHR project is to restore shoreline habitat in the Great Lakes basin, specifically the Fox and Wolf River Watershed in the Shawano lakes area with the objective of improving physical, chemical, and biological processes and ecosystem functions and maintain or improve the conditions of native fish and wildlife while providing an educational tool for area lake residents, associations and tribal members. These lakes are all part of the Fox and Wolf River watershed and the quality of these lakes greatly affect the water quality of the Fox and Wolf Rivers and, ultimately, Lake Michigan. This project will benefit the loon population and other waterfowl as well as the entire fish population by providing nesting, spawning, and foraging habitat.

This report is specific to the SHR project located on Big Lake at N9273 Big Lake Road, Gresham, WI. This property has 6-12% slopes down to the lake with some erosion issues and no aquatic vegetation (see photos on Attachment A). Many years ago, the owner had previously built a fieldstone seawall and placed gravel in areas of the lakebed near the shore. The goal of this restoration is to stabilize the slopes with native plant species and provide fish habitat with native emergent aquatic plant species.

Methods

In fall of 2009, a survey of area lake owners indicated that there was an interest in restoring shoreline habitat. As a result of that survey, three of the twelve interested lake residents agreed to meet with FWWA and discuss shoreline restoration. The FWWA Project Coordinator met with two of the lake residents at their residence to review the potential SHR site and discussed the applicability of doing a SHR project at their property.

Conditions of the SHR project included a 5-year agreement (example on Attachment B) between FWWA and the property owner requiring that the property owner keep and maintain the SHR area for a minimum of 5 years and allow FWWA access to the area for assessment and educational purposes. Residents of Big Lake, Ted and Dorothy Foster, signed the agreement and we began the planning process.

The shoreline at the Foster residence can be described as sloping down from a level lawn area to the lake. The slopes are steep with sandy, gravelly soils and eroded over 60% of the area. The area immediately along the lake, approximately one (1) foot in width, is vegetated with primarily opportunistic native species. A fieldstone seawall lines the length of the shoreline. The area is shaded approximately 50% of the time. With this information in mind, the area was measured and the type and quantity of native plant species was determined. The following table (Table 1) provides a list of the plant species, quantities, and location.

Table 1.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Quantity</u>	<u>Planting location</u>
Anemone canadensis	Canada anemone	20	Toe of slope
Carex brevior	Fescue sedge	20	Hillslope
Penstemon digitalis	Foxglove beardtongue	20	Hillslope
Pycnanthemum virginianum	Mountain mint	20	Toe of slope
Liatris aspera	Blazingstar	20	Hillslope
Rudbeckia hirta	Black-eyed Susan	20	Top of slope
Agastache foeniculum	Blue giant hyssop	20	Hillslope
Aster lateriflorus	Calico aster	20	Hillslope
Aquilegia canadensis	Columbine	20	Toe of slope
Polemonium reptans	Jacobs ladder	20	Hillslope
Helenium autumnale	Sneezeweed	20	Toe of slope
Mimulus ringens	Monkeyflower	20	Toe of slope
Iris versicolor	Blue flag iris	10	3-6" of water
Sparganium americanum	Bur-reed	10	6-12" of water
Scirpus americanus	3-square bulrush	10	6-12" of water
Sagittaria latifolia	Arrowhead	10	12-15" of water
Plantago subcordatum	Water plantain	10	6-12" of water
Pontederia cordata	Pickereelplant	10	12-15" of water

Several native plant nurseries were contacted and pricing requested with consideration for the non-profit status of FWWA and the nature of the project. The emergent aquatic plant species were obtained from Kesters Wild Game Food Nurseries, Inc and the shore native species were obtained from Ion Exchange Native Plant Nursery.

Planting was done on Monday, August 30, 2010. Ted Foster dug the holes for the shoreland plugs with a battery drill powered auger. Dorothy Foster, JaNelle Merry (FWWA), Luke Hennigan (SMC) and Corey Wallschlaeger (SMC) did the shoreland planting. JaNelle, Luke, and Corey planted the aquatics. After planting, Ted watered the shoreland plants. A total of 310 plants were installed in the SHR area.

Results

The goal of the SHR project is to provide native habitat area for fish and wildlife and to prevent erosion and run-off from entering the lake. The planting on the hill slope will help to prevent erosion and run-off as well as provide wildlife habitat and aesthetic value. The emergent aquatics planted in the lake will provide fish habitat and aesthetic value. FWWA will begin monitoring the SHR area at the end of September and will continue through the end of the agreement period.

Result: Fish habitat

Result: Erosion control

Result: Wildlife habitat on shore

Result: Happy lake residents, Ted and Dorothy Foster

Result: Educational tool for other residents and tribal members