



Overview

This site represents the historical location of a rare wetland on the north shore of Lake Superior. From the 1940s to the 1970s, Sugarloaf Cove was used as a landing site for a pulpwood operation. The site was leveled and low-lying areas were filled with gravel in order to build roads and buildings. Even though the buildings were removed after the industrial use was completed, the wetlands at Sugarloaf Cove could not return because the topography onsite had been altered so radically. In 1998, a restoration project began to excavate gravel and plant native plants onsite. By the completion of this project in 2000, the topography and flora onsite had been returned to a more natural state. Educational opportunities are provided by the nearby Sugarloaf Cove Interpretive Center.

Project Details

Lead Entity:

Minnesota Department of Natural Resources

Lead entity types:

Subnational Government

Adaptive management

Describe adaptive management processes and mid-course corrections taken to address unforeseen challenges and improve outcomes in each of the following categories:

Other:

This restoration has successfully remedied the original cause of degradation. As long as the planted vegetation continues to survive, this site is likely to be successful in transforming this site into a functioning ecosystem.

State of Progress:

Closed/completed, no further follow-up

Project Start:

1998-01-01

Project End:

2000-12-31

Total budgeted expenses:

USD 100,000-250,000

Global Regions:

Northern America

Americas

World

Countries:

United States of America

Ecosystem Functional Groups / Biomes:

Palustrine wetlands biome

Ecosystems:

Permanent marshes

Extent of project:

Other

Extent of restoration:

- Other

Degradations:

- Extractive industry development

Description:

From the 1940s to the 1970s, Sugarloaf Cove was used by Consolidated Papers, Inc. as a pulpwood landing. They collected the logs here before they rafted them across Lake Superior. The site was modified from its original state by the paper company removing vegetation and filling in many of the low areas in with gravel to build roads and buildings. Even after the site was not longer used as a landing for Consolidated Papers and they removed the buildings, no wetland plants could return due to the fact that the tightly packed gravel would not allow water to collect or wetland plants to grow. Non-native plants colonized the disturbed areas.

Planning and Review**Goals and Objectives****Was a baseline assessment conducted:**

UNSURE

Was a reference model used:

UNSURE

were_goals_identified:

YES

Goals and objectives:

- Other

Goals Description::

Since wetlands are rare along the North Shore of Lake Superior, the Minnesota Department of Natural Resources decided to restore Sugarloaf Cove to the wetland community that existed prior to the disturbance brought on by industrial use.

Stakeholder Engagement**Were Stakeholders engaged?:**

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Description of Stakeholder Involvement:

- Minnesota Department of Natural Resources - Sugarloaf Cove Interpretive Center - Great Lakes National Program Office of the Environmental Protection Agency

Ecosystem Activities and Approaches

General Activities: - 18 geotechnical borings were made to determine what plants had been originally part of the wetland community - Another study was conducted to determine that best areas within the tombolo that had a high potential for restoration - In September of 1999, gravel fill was removed down to the buried peat layer, resulting in low-lying areas where water could collect - An old road from where the Consolidated Papers office building were located was eliminated - Silt fences, brush, and logs were placed throughout the areas to minimize erosion - Native seeds were collected within a 25 mile radius of Sugarloaf Cove - native plants that do well in disturbed areas were emphasized - Some seeds were spread immediately on the restored site and others were grown to be planted the following spring - In late May 2000, volunteers planted the wetland area - Enclosures were created around plants in some areas to make sure they had time to grow before then animals could eat them - With landowner permission, plants from nearby were transplanted - The plants were watered as needed

Categories of ecosystem restoration activities and approaches utilized:

- Ecological restoration

Specific type of rehabilitation and/or restoration approach implemented:

- Reconstruction or heavily assisted recovery (e.g. introduction of nearly all biota, major landform modification, major hydrological modification)

Project Outcomes



Eliminate existing threats to the ecosystem: The topography and hydrology has been altered to mimic a more natural situation. Native plants have been planted. Factors limiting recovery of the ecosystem: Seedling survival depends on natural conditions such as competition from invasive weeds, browsing by animals, and weather conditions. Economic vitality and local livelihoods: This restored site provides better ecosystem function as well as educational opportunities through the Sugarloaf Cove Interpretive Center.

Monitoring and Data Sharing



Does the project have a defined monitoring plan?:

NO

Open Access URL:

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Long Term Management



STAPER



(<https://www.facebook.com/SocietyforEcologicalRestoration/>)