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## North Shore Forest Restoration—2015 Accomplishments

### By the North Shore Forest Collaborative and Member Organizations

#### What has been accomplished during 2015?

Restoring the coastal forest along Lake Superior in Northeast Minnesota is critical to supporting a healthy North Shore ecosystem that will sustain wildlife, residents, and visitors alike. 2015 was a busy year that brought significant progress towards restoring conifers and treating invasive species along Minnesota's North Shore forest.

The North Shore Forest Collaborative (NSFC) and its many members were hard at work last year planting trees, protecting them from deer browse, treating invasive plants, holding educational forums and field trips, and planning for future restoration activities. Some restoration activities are done by the Collaborative as a collective entity, but many are accomplished by the individual organizations, agencies and private landowners that make up the collaborative. The bottom line is that much more is being done to restore the north shore forests by working together towards common objectives than could be done individually.

Here is a brief summary of all restoration activities accomplished by NSFC and members in 2015:

- Invasive Species treated – 550 hours of volunteer time, with a total of more than 53 acres treated.
- Trees planted and/or protected – many thousands of trees (mostly white pine, white cedar, red oak, and red maple )planted across a total of approximately 1000 acres.
- Site preparation for planting - 78 acres treated for planting in 2016
- Strategic Management Plans – 2 completed, 2 underway
- Programs offered –field tours, landowner workshops, training sessions, public meetings and educational presentations.
- Assistance to private landowners – Additional foresters have been hired

See below for a detailed description of 2015 restoration activities performed by the collaborative and its many members.

#### What area is covered by the North Shore Forest Collaborative?

The collaborative area extends from the Lake Superior shoreline to approximately three miles inland and runs from near Knife River in Lake County up through Cook County to the Canadian border, a total of 271 thousand acres. Private owners are the largest landowner group owning 39 percent of the area. State and federal forests and parks are next, with approximately 18 percent each. The Grand Portage Band of Chippewa Indians and Lake County government each own about 11 percent. The remaining 3 percent is divided among municipal, Cook County lands, and miscellaneous owners. Map of the NSFC area [here](#).

#### What is our mission?

**To revitalize and maintain a healthy and functioning ecosystem along the North Shore of Lake Superior with emphasis on restoring and maintaining native trees and associated forest communities.** Restoring the coastal forest is critical to supporting a healthy North Shore ecosystem that will sustain wildlife, residents, and visitors alike.

#### What are our goals and objectives?

**Goal 1: RESTORATION: Reestablish and Maintain a Diverse and Thriving Forest Along the North Shore of Lake Superior.**

- **Objective A:** Restore lost components of Native Plant Communities
- **Objective B:** Identify focus areas for restoration across the landscape
- **Objective C:** Minimize the introduction and spread of invasive species.

**Goal 2: COLLABORATION: Promote cooperative restoration efforts on all ownerships**

- **Objective A:** Increase private landowner engagement in the NSFC and restoration activities.
- **Objective B:** Secure multi-year funding for core operations of the NSFC

**Goal 3: EDUCATION: Share expertise & knowledge about restoration.**

- **Objective A:** Increase support from private landowners, public agencies, the public and political spheres for ecosystem restoration of the North Shore
- **Objective B:** Offer ongoing internal and external education.

### Who are our members?

The North Shore Forest Collaborative is...anyone committed to restoring the North Shore coastal forest. It includes the following members: Private landowners, Minnesota DNR, Lake and Cook County Soil and Water Conservation Districts, The Nature Conservancy, Grand Portage Band of Lake Superior Chippewa, US Forest Service, Sugarloaf: The North Shore Stewardship Association, University of MN Extension, Lake and Cook County Invasive Species Teams, USDA Natural Resources Conservation Service, Wolf Ridge Environmental Learning Center, Lake and Cook County governments, Local governments, Encampment Forest Association, Minnesota Fire-wise Program, Minnesota Power, Consulting Foresters, and others.

### Restoration activities by organization:

#### North Shore Forest Collaborative (NSFC) as a collective entity

- **NSFC Strategic Plan developed** in February 2015 based on input from well-attended public meetings in Two Harbors and Grand Marais. Strategic plan identifies Mission, Goals, Objectives and projects and can be viewed or downloaded at NSFC website [here](#)
- **NSFC Website revamped** to provide updated information and links to where landowners can find assistance for restoring their lands. Link to website [here](#)
- **NSFC Coordinator funded** – Part-time coordinator for the collaborative was funded through agreements with the Forest Service, Sugarloaf, Minnesota Forest Resource Council and Weekes Family foundation.
- **Field tours and presentations** – The collaborative hosted three field tours where planting, deer exclusions and restoration efforts have been successfully implemented. These were well attended by the Minnesota Forest Resource Council, private landowners, and public agency staff. Several presentations on north shore ecology and restoration were done at venues such as Northhouse Northern Sustainability Conference and the Encampment Forest Association’s annual meeting. Presentations are available [here](#).
- **Grant received for deer exclosure fencing** – The NSFC applied for and was awarded funding from the Weekes Family Foundation and Minnesota Power Foundation to establish a program that provides low cost materials to private landowners so they can erect deer exclosures when they plant trees on their lands. This program will begin in spring of 2016.
- **Landowner Database** – Worked with UMN’s Humphrey School of Public Affairs to develop a landowner database to better locate and identify the thousands of landowners within the collaborative area

### Cook and Lake County Invasives Team

- **Invasive Species Treatment** - over 50 acres of invasive plant species treated using herbicide and hand-pulling. The work took place on public land, including the Superior National Forest, as well as on private land. Invasive Team info [here](#).

### Minnesota DNR State Parks

- **Cascade River State Park** - 32 acres of DNR lands planted with 750 white pine and protected with individual tree fencing (as part of the Conservation Partners Legacy Program)
- **Tettegouche State Park** – approximately 3000 white pine trees planted.
- **Gooseberry State Park** – approximately 400 trees planted; 100 each of red maple, red oak, red-osier dogwood and white pine. Deer exclosures were installed on many of these plantings.

### Minnesota DNR Forestry Division

- **Revising State Forest Resource management plan** for state forestlands in the Northern Superior Uplands ecological section, which includes the North Shore Forest Collaborative area. Held public input on aspects of forest management via webinars and surveys. Plan likely to be completed in 2016. State Forest Plan info [here](#).
- **Preparation of Woodland Owner Handbook** – The MN DNR began work a Woodland Handbook for the Northern Superior Uplands (NSU) to help landowners understand the issues facing their woods and how to manage them. When completed and available in 2016, the handbook will contain information on the past and present conditions of land, insight into the challenges local woodland owners face, tips for making, and accomplishing woodland goals, and a workbook to help landowners envision what their legacy will be. Information available [here](#) (note: handbook for NSU not available until later in 2016)
- **Private Forest Management Program** – analysis to identify those landowners with Stewardship plans that need updating, with intent to work with geographic clusters of landowners in 2016.

### The Nature Conservancy (TNC)

- **Restoration activities** performed on 718 acres of TNC and Lake County lands, including tree planting and deer browse protection. Planted and protected species included white pine, white cedar and red oak.
- **TNC's Adaptation Forestry project** is testing new forest management strategies to respond to climate change and includes planting a greater variety of tree species with diverse traits (e.g., tolerance of shade, drought and fire). TNC continues to monitor the survival and growth of these species which may provide the opportunity for the best suited species to thrive under new climate conditions. Adaptation Forestry info [here](#).

### USDA Forest Service, Sugarloaf, and MN DNR

**Conservation Partners Legacy (CPL) Project.** In partnership with Sugarloaf: The North Shore Stewardship Association, The Nature Conservancy, Cook County Invasive Team, the Conservation Corps of Minnesota and Iowa, and MN DNR.

- **USFS planting** - 150 acres of national forest lands planted with 3150 white pine and northern red oak seedlings, and protected with individual tree fencing.
- **DNR plantings** - 32 acres of DNR lands planted with 750 white pine and protected with individual tree fencing.
- **Planning for 2016** - 247 acres of national forest and 95 acres of DNR lands were identified for restoration projects in 2016

### USDA Forest Service and Natural Resources Conservation Service

**Joint Chief's Restoration Projects on national forest lands**

- **Site preparation for planting** - 78 acres of site prep with mechanical equipment for area to be planted in 2016.
- **Planting** - 50 acres planted to white pine and white spruce. White pine was bud capped to protect from browse.
- **Seedling protection** – 25 acres planted with white pine and red oak and protected with individual tree fencing.
- **Planning for 2016** – 383 acres of national forest land were identified for restoration projects for 2016.

**Joint Chief's Restoration Projects with Natural Resources Conservation Service (NRCS)**

- **Hired a full-time position** that will work for both the Forest Service (on public lands) and NRCS (on private lands) with the objective of better coordinating activities and projects on public and private lands.
- **NRCS evaluation** 176 acres of private lands and completed 6 contracts for restoration activities.
- **Planning for 2016** – 150 acres of early successional habitat management, 20 acres of forest stand improvement, and 5 acres of tree and shrub establishment were planned for 2016. Summary of USFS North Shore Forest Restoration project [here](#).

**Grand Portage Band of Lake Superior Chippewa**

- **Harvest and planting** – 77 acres of timber harvest with follow-up planting to occur in 2016
- **Invasive Species** – set out 5 emerald ash borer traps and 10 gypsy moth traps for detection monitoring.

**Sugarloaf: The North Shore Stewardship Association**

- **Lost Forest Landowner Education** – In cooperation with UMN Extension, 18 families and private landowners received one-on-one assistance, training and materials to restore their North Shore forest parcels. 51 hours of classes were delivered and developed by UMN Extension, resulting in over 800 acres directly affected. These landowners are now undertaking restoration efforts or expanding on their previous efforts. Lost Forest info [here](#)
- **Community Toolshed** - Fifteen people were trained on invasive plant identification and control as well safe and effective application of herbicides. Upon completion of training, participants are able to borrow equipment and use herbicides from the shed, located at Sugarloaf Cove. Trainees treated common tansy, Canada thistle and spotted knapweed in Lake and Cook counties. Community Toolshed info [here](#)
- **Restoration at Sugarloaf Cove** – A one acre site in front of the Sugarloaf visitor center had invasives removed, was burned and then planted to native species. This area was previously overgrown with raspberry shrubs and non-native grasses

**University of Minnesota Extension**

- **Lost Forest Landowner Education:** Designed and delivered the curriculum for the Lost Forest Project. See details under Sugarloaf: The North Shore Stewardship Association.
- **Forest Invasive Species Education:** Designed and delivered a class on emerald ash borer and forest management in Grand Marais and Two Harbors. Eight landowners attended.
- **Coordination with the NSFC:** Increase private engagement in restoration activities. Facilitated a process that helped NSFC focus on specific options for engaging landowners.
- **Educational and evaluative design:** Reviewed and advised the Cook and Lake County Invasive Species Team on training landowners to apply herbicides and how to evaluate the training.

### Lake County Forests

- **Restoration activities** performed on approximately 500 acres Lake County lands in partnership with The Nature Conservancy. This included tree planting and deer browse protection. Planted and protected species included white pine, white cedar and red oak.

### Wolf Ridge Environmental Learning Center

- **Forest Management Plan for Wolf Ridge completed** using funds provided by the NRCS, Wolf Ridge hired local forester Matt Tyler to inventory Wolf Ridge's 2000 acres and prepare the plan. Implementing the first project of the plan to begin in 2016.
- **Invasives Treatment** – Wolf Ridge annually provides approximately 550 hours of volunteer hours in eradication projects. Summer Camp students are educated in the scope and effect of invasive plants on the natural landscape and given tools to pull and dispose of tansy and thistle around the Wolf Ridge campus area.
- **Planted and Protected Climate Change Adapted Tree Species** – Continued experimental plantings using the gravel bed nursery funded by UMN Forest Extension. Planted and fenced 10 basswood, 10 red oak and 10 tamarack and 10 white pine in openings around Wolf Ridge. Students bud-capped hundreds of pines this fall.

### Minnesota Power

- **Rajala Woods Initiative** – In May of 2015, MP held a dedication of its Rajala Woods initiative in Schroeder, MN. Through this initiative, MP expects to plan up to three million white pine, red pine, jack pine and spruce tree seedlings over the next 10 years across approximately 3,000 acres of company-owned lands throughout Northern Minnesota. Some of that planting will occur in 2016 on MP owned lands within the North Shore area. MP will also use the “Rajala Woods” initiative as a catalyst with other collaborators to restore and enhance forest management across the Northern Minnesota landscape. Info on Rajala Woods Initiative [here](#)

### Lake County Soil and Water Conservation District

- **Planting** - 2,000 white spruce (3 acres) planted on property adjacent to Gooseberry State Park
- **Invasive Treatment** - Buckthorn and Japanese Barberry treatments in Larsmont and Two Harbors
- **River Restoration** - 6 acres of revegetation/reforestation work adjacent to Knife and Stewart rivers
- **Citizen group formed** - Friends of Two Harbors Trees and Trails group forms to plant white pine in Two Harbors shoreline area

### Cook County Soil and Water Conservation District

- **Stream Restoration** – stream bank stabilization and erosion control project completed on the Cascade River
- **Rain Garden** – constructed to collect and slow runoff from roads

### Grand Portage National Monument

- **Cultural Landscape Restoration** – performed thinning of plantation to maintain/restore some semblance of the historic landscape where the original Grand Portage Ojibwe/Anishinabe Village was located.

- **Planning for further cultural landscape rehabilitation** – Preparing final stages of an environmental assessment designed to look further into cultural landscape rehab including planting and maintaining populations of culturally important plants and continuing to bring back some semblance of the original GP Village landscape as it appeared in the historic record and photos from the early 20th century.

**City of Two Harbors**

- **Citizen group formed** - Friends of Two Harbors Trees and Trails group forms to plant white pine in Two Harbors shoreline area.
- **Trees Planted** – 25 trees planted and protected in Lakeview Park, with plans to plant an additional 150 trees in 2016.

**Private Landowner Projects**

- Many private landowners planted trees, erected enclosures, and treated invasive species on their properties in 2015.
- The NSFC hopes to encourage more private landowners in 2016 and coming years by providing information and resources, such as low cost enclosure materials to help landowners restore their lands.