



Restoring The North Shore Forest

Welcome!

The North Shore Forest Collaborative


A bit about this evening

- History and current condition of North Shore Vegetation
- Info on North Shore Forest Collaborative
- How you can help make a difference on your land and the entire North Shore
- Small group discussion on 1 or 2 key projects
- Wrap Up: How are you willing to help? How can Collaborative help you?
- We're available afterward to talk one-on-one



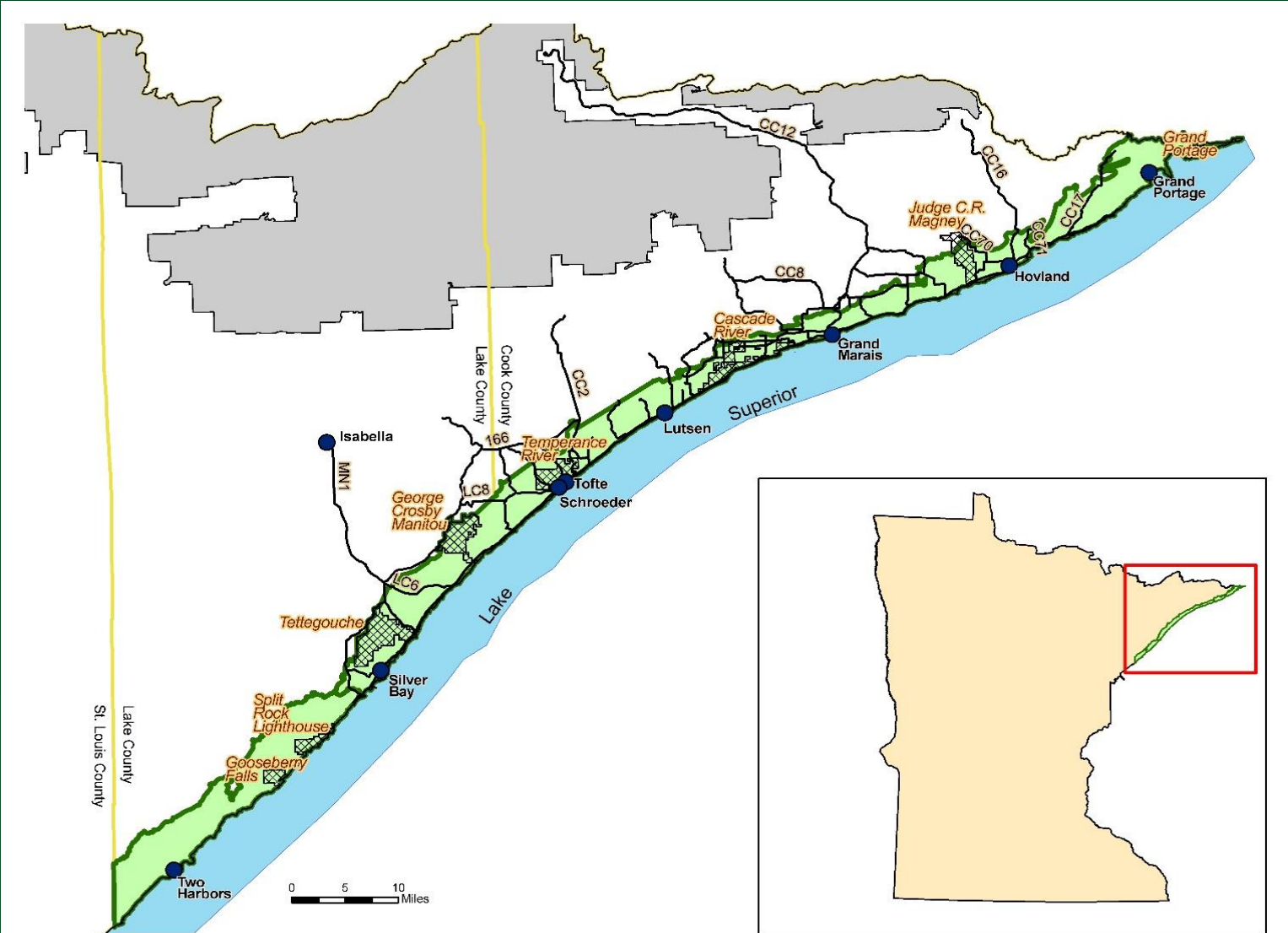
The North Shore Forest

A Community Working Together

The background of the bottom section features silhouettes of several trees of varying heights and a dark brown, wavy line representing hills or a ground level. The trees are dark brown, and the hills are a slightly lighter shade of brown.

The North Shore Forest Collaborative

North Shore Forest Collaborative Area



Back Then: What Was Here,
What should be here?
(and how do we know?)

Pre-European Settlement, Pre-logging



Mixed Conifer Forest

Conifer-dominated Forests

With some Hardwoods

Dominant trees across the landscape

- Northern White Cedar, White Pine, White Spruce

Mixed in across the landscape (some ecologically restricted to wet, dry, burned sites, etc.)

- yellow birch, tamarack, jack pine, basswood, elm, black and green ash, red oak, balsam fir
- Aspen and Birch in smaller quantities

Northern White Cedar forest



White Spruce/Balsam Fir forest



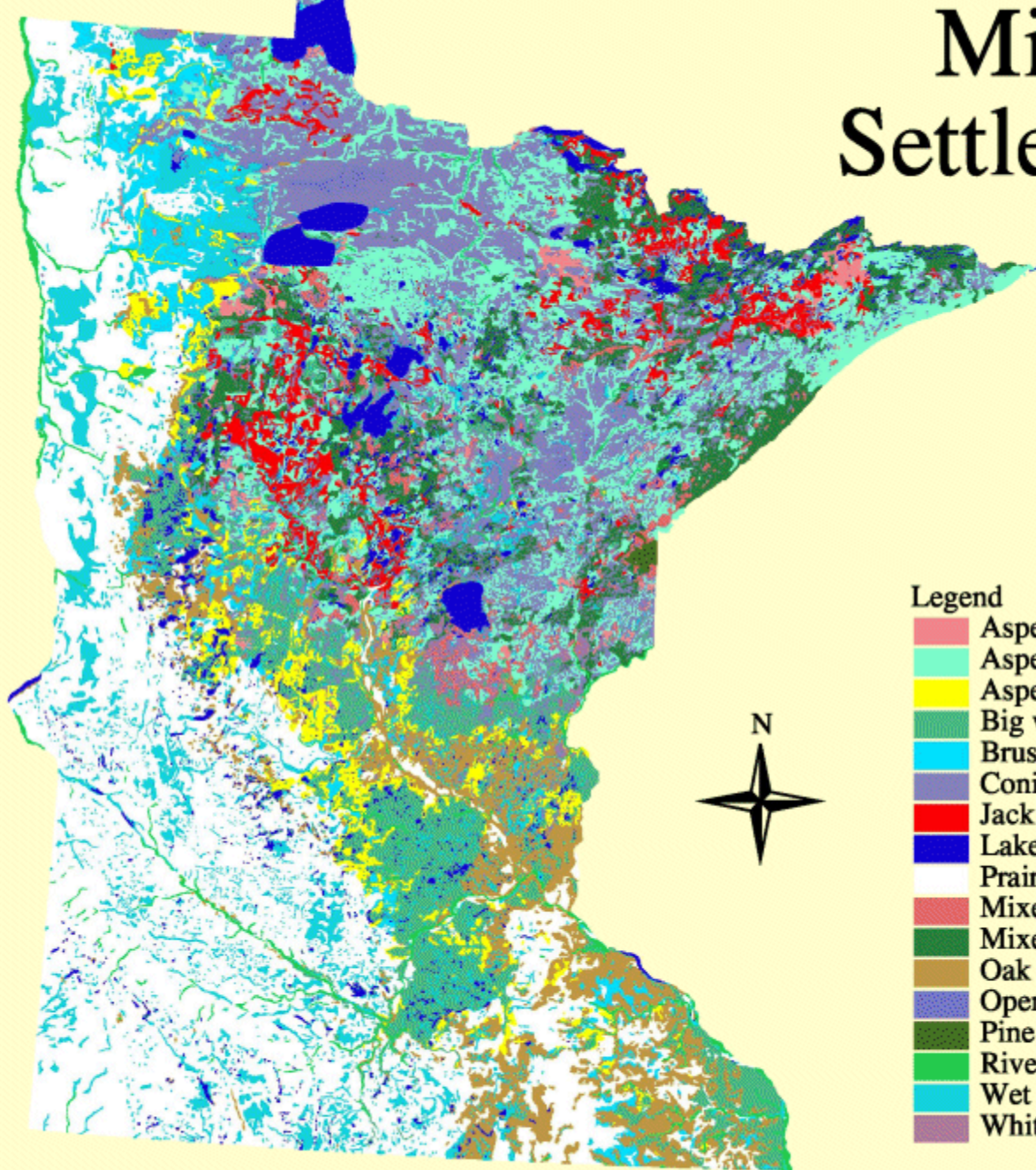
White Pine/Red Pine forest



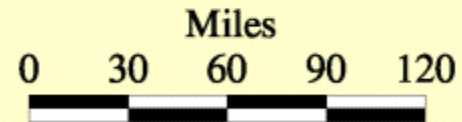
How do we know?

- Our information isn't perfect, but:
- Government Land Office Records, surveyor's notes, bearing trees
- Core samples from lake bottom deposits
- Logging operation records from initial operations
- Soils inventory
- Fire History research
- Native Plant Community research

Minnesota Early Settlement Vegetation



Scale
1:4000000



Legend

- Aspen-birch (eventually succeed to hardwoods)
- Aspen-birch (eventually succeed to conifers)
- Aspen-oak land
- Big woods - oaks, elm, basswood, ash, maple, etc.
- Brush prairie
- Conifer and bog swamps
- Jack pine barrens
- Lakes
- Prairie
- Mixed hardwood and pine
- Mixed white pine and Norway pine
- Oak opening and barrens
- Open muskeg
- Pine flats (hemlock, spruce, fir, cedar, & white pine)
- River bottom forest
- Wet prairie
- White pine



Vegetative cover map was derived from notes and maps from General Land Office surveys conducted in Minnesota (1847-1907). Map was digitized by the Minnesota DNR



FDn43

Northern Mesic Mixed Forest

Mesic pine, aspen, white cedar, or birch forests

Native Plant Community Types in Class

FDn43a White Pine - Red Pine Forest

Canopy is dominated by white pine and red pine with occasional paper birch, balsam fir, white spruce, quaking aspen, or white cedar. Balsam fir is also common in the subcanopy and shrub layer.

FDn43b Aspen-Birch Forest

Canopy is dominated by quaking aspen, paper birch, balsam fir, or white spruce.

FDn43c Upland White Cedar Forest

Canopy is usually dominated by white cedar. Includes sites dominated by quaking aspen, paper birch, and balsam fir that have (or had) white cedar as component. White cedar and balsam fir are common in the understory.



*Field Guide
to the*

NATIVE PLANT
COMMUNITIES
of MINNESOTA

 The Laurentian
Mixed Forest Province

Right Now – And how did we get here?

Dominated by aspen and (dying) birch



Old age, shallow soils, environmental stressors (drought, ice storms, insects)

Where did the Conifers Go?

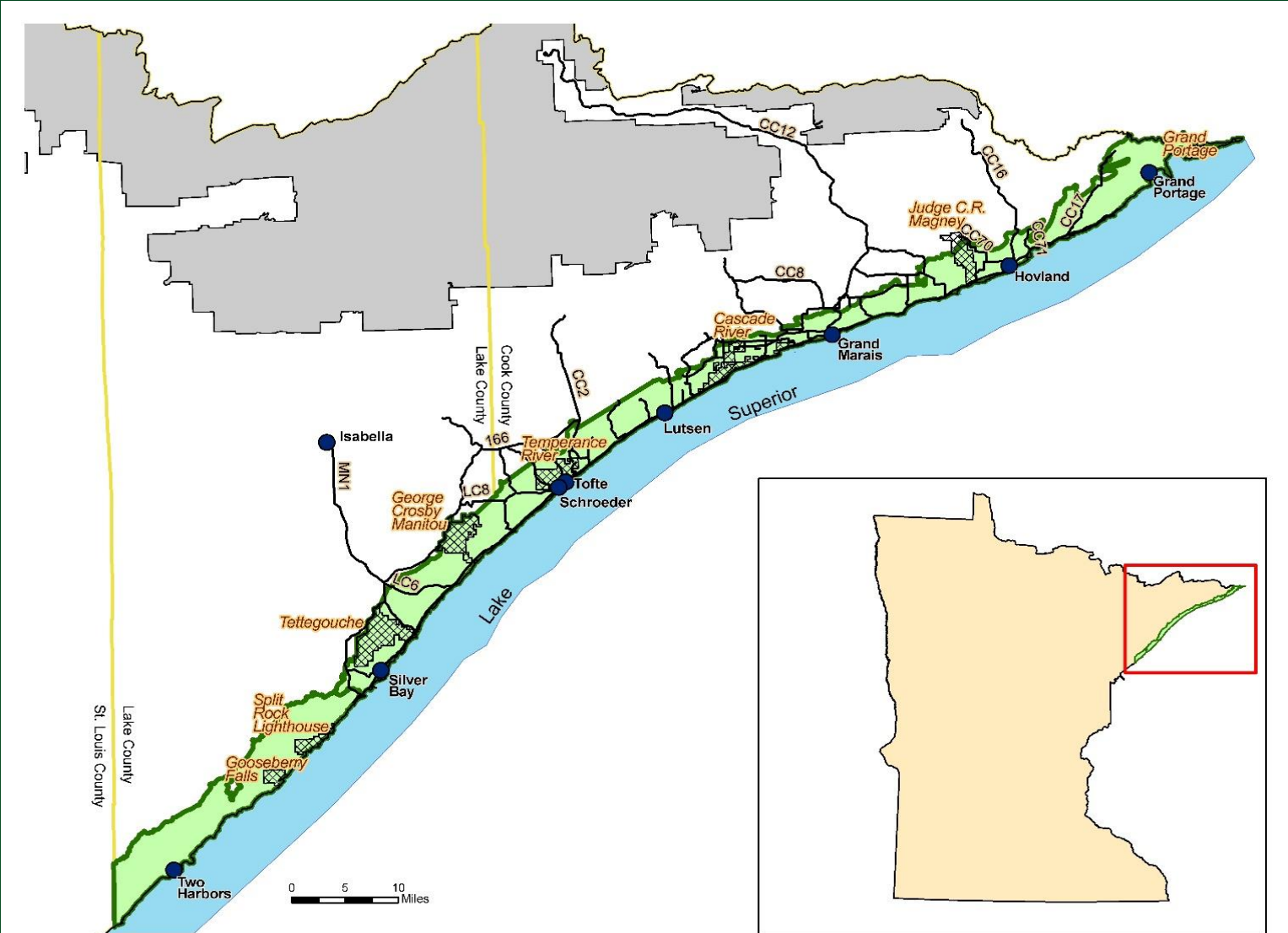


Creating the Future



**Working together
Collaboratively**

North Shore Forest Collaborative Area



Within the Collaborative Area

- Cook and Lake Counties (shoreline to about 3.5 miles inland)
- 271,000 acres; 422 square miles
- North Shore Highlands Ecological Subsection
- Within the area
 - 8 State Parks
 - Superior National Forest
 - Grand Portage Reservation
 - Grand Portage and Finland State Forests
 - North Shore Scenic Drive National Scenic Byway
 - **But, privately owned forest is the largest landowner**

Landownership

OWNER	ACRES	%
Private	105,588	39
USA	48,175	18
State	48,358	18
Tribal	30,369	11
Lake County	30,294	11
Municipal	3,456	1
Cook County	1,220	>0.5
Unknown	2,971	1



About the North Shore Forest Collaborative

The North Shore Forest Collaborative

What is the NSFC?

A Collaborative Effort formed in 2011.

- Forest management professionals
- Local units of governments and agencies
- Non-profit organizations and
- Private land owners.

Who is a member?

- Cook County Commissioners
- C. Co. Soil & Water Conservation District
- C. Co. Invasives Team
- Flute Reed Watershed
- Grand Portage Reservation
- Lake County Lands Dept.
- L. Co. Soil & Water Conservation District
- L. Co. Firewise Coordinator
- Wolf Ridge ELC
- USDA Forest Service
- Volunteers
- Private landowners
- MN Environ. Partnership
- MN Land Trust
- MN Forest Resource Council
- MN DNR
- MN DOT
- Nat. Res. Conservation Service
- N. Bedrock Conservation Corps
- Private Non-Industrial Forest
- Sugarloaf: The North Shore Stewardship Association
- The Nature Conservancy

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.

Goals

- **Restoration** - Re-establish & maintain a diverse, thriving forest along the North Shore of Lake Superior
- **Collaboration** – Promote cooperative restoration efforts on all ownerships
- **Education** - Share expertise and knowledge about restoration

Goal 1: Restoration

Re-establish and maintain a diverse, thriving forest
along the North Shore of Lake Superior

Objectives

- A. Restore lost components of Native Plant Communities on 1,000 acres per year
- B. Identify focus areas for restoration
- C. Establish a network of implementers to work across all property owners (foresters, contractors for harvest, site prep & planting, etc.)
- D. Minimize introduction and spread of invasive species
- E. Minimize forest fragmentation
- F. Monitor projects to measure progress

Goal 2: Collaboration

Promote cooperative restoration efforts on all
ownerships

Objectives:

A. Increase private landowner engagement in the NSFC and restoration activities.

B. Secure multi-year funding for core operations of the NSFC

Goal 3: Education

Share expertise and knowledge about restoration

Objectives:

A. Increase support for ecosystem restoration of the North Shore from:

- private landowners,
- public agencies,
- general public and
- political spheres

B. Offer ongoing internal and external education

Projects

The actual activity done to work toward achieving the Goals and Objectives.

Currently have a list of 30+ proposed and ongoing projects developed by the Collaborative.

Also developing a list of projects that private landowners are undertaking on their lands.

Your ideas and your participation in these projects is needed

A Few Key Projects

- 1. Prioritize Areas for Treatment** – Identify areas of high ecological integrity and areas with most impacted ecosystems.
- 2. Neighbors helping Neighbors Program** – Develop peer-to-peer relationships and facilitate a communications and help network among landowners.

Key Projects (Continued)

3. Develop Contact Materials for Landowners – Develop materials that will inform and engage private landowners in the restoration effort.

4. Host Workshops – Plan and host hands-on and educational workshops.

5. Develop Opportunities for Youth – Enable youth to be involved in planning and implementing restoration activities.

So What Does All of This Mean?

- We are dedicated to restoring the North Shore Forest
- Private Landowners are key to success
- We have some strengths, so do you. How can we help each other?
- We are ready to move forward in 2015
- **We need you to Join the Effort to Restore the North Shore**



Thank You

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The North Shore Forest Collaborative