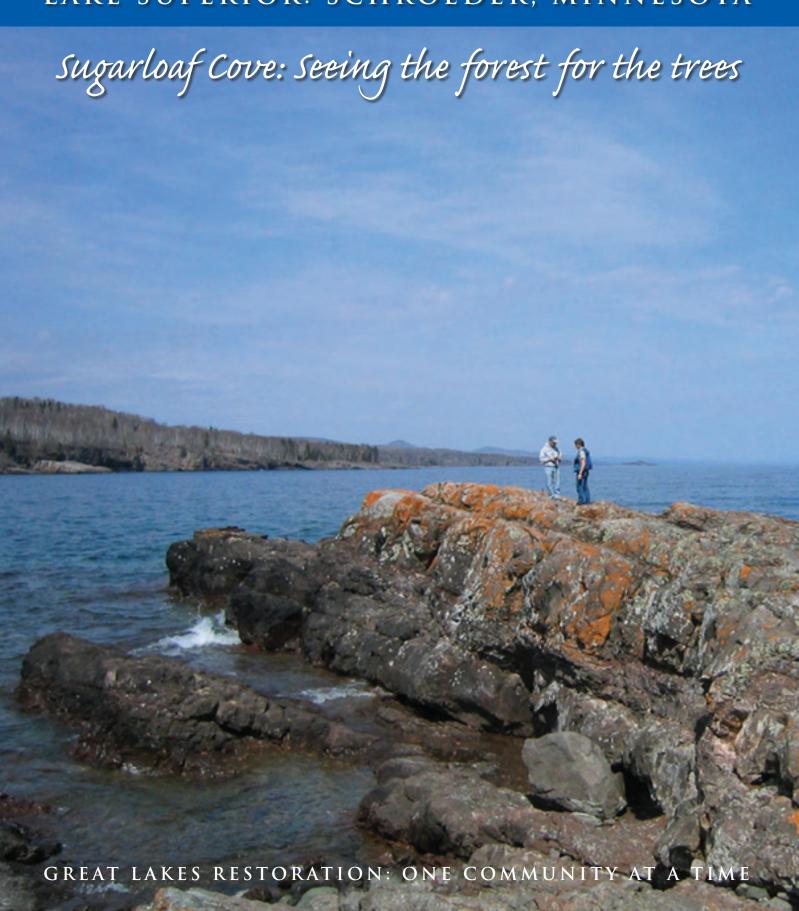
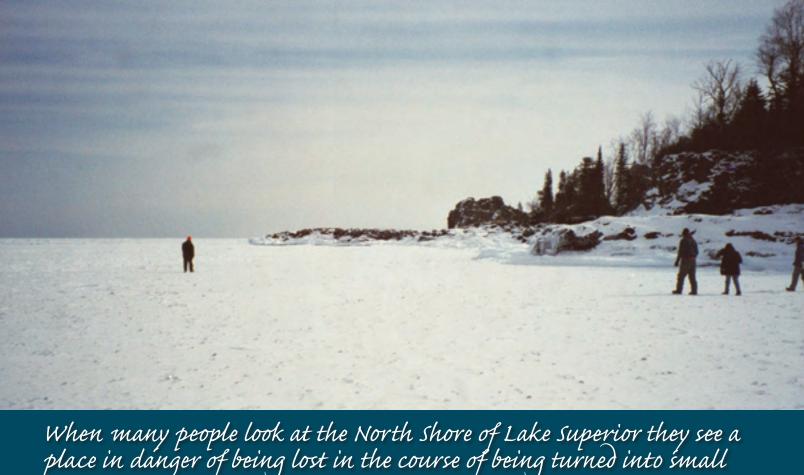
## LAKE SUPERIOR: SCHROEDER, MINNESOTA





When many people look at the North Shore of Lake Superior they see a place in danger of being lost in the course of being turned into small parcels of real estate.

WHEN ANDREW SLADE. EXECUTIVE DIRECTOR OF SUGARLOAF COVE INTERPRETIVE ASSOCIATION, LOOKS AT THE NORTH SHORE HE SEES HUNDREDS OF PEOPLE EAGER TO PLANT TREES AND WORK ON THEIR SMALL HOLDINGS IN WAYS THAT NO LARGE-SCALE PARK OR CONSERVATION AREA COULD POSSIBLY AFFORD. HE SEES THEM AS STEWARDS OF THE "LOST FOREST" OF COASTAL LAKE SUPERIOR.



"You know there's 150 miles of shoreline on Lake Superior. At Sugarloaf Cove it's about 2000 feet of shoreline. The need for restoration is much broader than that," Slade says. "Partially based on the success that we've had at the Cove, we're trying to do more and expand that restoration work out. We're trying to get more landowners involved."

This focus on working with private landowners is essential, Slade thinks, to any prospects of restoring ecosystems along the North Shore.

"Part of the issue is that, especially if you're focused just on coastal forest systems, as we are, 80 percent of it's privately owned. So it's all very well and good to wave your banner, and say, 'We have to restore the forest.' But until you get the private land owners excited about it, and engaged, you won't be able to do it. There's not much you can do."

Restoration work at Sugarloaf Cove is intended as a demonstration to landowners that such work is something they can accomplish on their own parcels, both for their own benefit, and to benefit the overall ecosystem of the shoreline.

"Almost every landowner I've met would be eager to have somebody come visit their land and walk around to come up with suggestions for what to do [to restore it]," Slade says. "They have their three acres, their five acres, and they love that land. They want to do the right thing. Again and again I hear the refrain, 'I don't know what to do. I don't know how to do it."



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Sugarloaf Cove before the removal of Consolidated Papers buildings and other restoration efforts

The Cove's history provides an interesting case study in how to turn around a relatively small, but abused parcel of land. For many years Consolidated Papers owned the 35-acre site and used it as a landing site for pulpwood logs. The company stockpiled trees at the Cove until they were ready to create large rafts of chained-together logs to pull by tugboat across Lake Superior to the company mill in Ashland, Wisconsin. The company altered the natural terrain of the site by clearing trees and filling wetlands to build roads and holding areas for logs. When the company stopped using the Cove in the 1970s, some of the buildings were destroyed or moved away, and pine and spruce seedlings were planted to cover the bare spots. Many nonnative plants that were able to thrive on the disturbed ground, began to takeover.

In 1985 Consolidated Papers donated 61-acres of the Cove to the Nature Conservancy. The Conservancy then sold 35 acres (of the most disturbed areas) to the Minnesota Department of Natural Resources (DNR). That's when citizen activism began to be a force for change and restoration.

The first proposals for the Cove's use by the DNR included creating a safe harbor and boat marina. The citizens who owned land nearby resisted this idea, and organized resistance to marina plans.

"The initial idea was just to oppose the safe harbor," Slade says. "Some of the neighbors and some of their friends got together and said, 'Let's oppose this.' But they very quickly got to the point where they said, 'You know you can't just be against something. You have to be for something.' So the something they were for was to build an interpretive center on the site."

One neighbor, Emily Anderson, daughter of a former governor of Minnesota, made a promise when she bought the parcel of land neighboring the Cove. She promised to work to protect not only her own piece of shoreline, but also the adjacent property. Anderson, and her former governor father, brought political savvy, citizen energy and neighborhood organizing together to advocate for the protection and restoration of the Cove.

In 1992, through the efforts of the Andersons and other citizens, and with the support of government employees such as Pat Collins of the Minnesota DNR's Lake Superior Coastal Program, the plans for a safe harbor and marina were tossed out in favor of designating a small portion of Sugarloaf Cove (3.5 acres, later expanded to 10.6 acres) a State Natural Area. At the same time the Sugarloaf Interpretive Center Association (now called Sugarloaf: The

Restoration work began after DNR specialist Pat Collins suggested there mig Coastal wetlands of any kind are rare on the North Shore of Superior, and this



The new interpretive center offers numerous education programs. Students help plant native plants in an old road bed.

North Shore Stewardship Association) was created to preserve and protect the remaining land around the designated Natural Area, and to use the area as a base for educational interpretive programs.

Restoration work began after DNR specialist Pat Collins suggested there might once have been a wetland formation known as a tombolo at the Cove. Coastal wetlands of any kind are rare on the North Shore of Superior, and this particular type is even more so. A tombolo occurs when a near shore island becomes connected to the mainland by beaches that extend out to either end of the island. The area can become a slow-draining wetland that forms into a peatbog. Soil core samples by researchers showed that such a formation indeed existed at the Cove in the past. Restoration work, including the use of heavy equipment to remove 2,000 cubic yards of gravel, and the removal of the former Consolidated Paper buildings took place from the early 1990s through about the year 2001.

Slade calls this kind of activity, "hard restoration" as compared to "soft restoration" practices such as planting trees to accelerate forest succession patterns.

"There's a process of succession, ecological succession, forest succession," Slade says. "And soft restoration is just a matter of accelerating that. If

there isn't a bunch of white pine trees coming up right now, but there will be, well then let's go ahead and plant them now, just to accelerate the process. But if, for example, someone had built a building, that building is not really going to go away on its own. Especially if it's a cement block building like we had here. If they have filled in a wetland, that wetland's not going to unfill itself. So, that's the hard restoration, where things are so changed in the system that if you don't actually intervene and do something now, nothing's going to come back. So you have to get in there and remove those buildings. You have to get in there, like we did at Sugarloaf, and dig out the filled in wetlands down to the peat layers. The wetland that they filled wasn't going to naturally dig up again. And that building would have taken a couple hundred years to decay."

Hard restoration, costing tens of thousands of dollars, was largely funded by the U.S. Environmental Protection Agency's, Great Lakes National Program Office, and was finished by 2001.

The Sugarloaf Interpretive Center Association did not stop there, however, and has gone on to restore the upland forest land that surrounds the Cove. This kind of work was "soft restoration," involving hundreds of citizen volunteers from all

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Photos left to right: Phil Monson transplants locally-genetic stock of balsam firs at the Cove. Jesse Schomberg and his two children show off white cedar seedlings that were grown from seeds collected at Sugarloaf Cove. Lost Forest Initiative participants learn basic forestry techniques.

over the state planting native trees and other plants to encourage quick regeneration of native coastal forest. The successful work on this part of the restoration revolved around citizen participation as hundreds of volunteers, including school groups and individuals, worked on putting in native trees and other plants.

In restoring the upland forest portions of the Cove, the Association found a new direction and a new, ambitious mission: to educate citizens and landowners about the need for restoration work along the entire 150 mile stretch of the North Shore of Lake Superior.

"When I first started [as Sugarloaf's executive director] in 2002 they'd gotten over that hard restoration work and protection," Slade says. "So the question was, 'Well, what next for the organization?' Are we going to lay back in our chairs and say, 'Oh

good. We've done that. Or is there a bigger need for what we've done.' And I came on board and said, 'Yes, there's a bigger need and we'll find a way to do that'."

Slade has led the organization towards becoming a model educator on forest restoration for the private landowner. The "Lost Forest Initiative" advocates the idea that the North Shore harbors a unique forest ecosystem. The program focuses on helping landowners develop tools for restoring the mix of trees and other native plants that would naturally exist in the foggy, cool-in-summer/warmer-in-winter micro-climate near the lake.

Slade found as he talked with people about restoring the Lost Forest that landowners wanted to do restoration on their properties. So the program was designed to help landowners with the key components: the training, the planning, and implementation."

The "Lost Forest Initiative" advocates the idea that the North Shore harbors a unique forest ecosystem.



Lost Forest Initiative participant, Greg Plumb surveys his land.

With funding from the National Fish and Wildlife Foundation and the EPA Great Lakes Grant Program, selected landowners were invited to participate in a three part program that began with woodland advisory training, that included the creation of individual forest stewardship plans for their property. For part two, the Interpretive Center hired a professional forest planner to create plans for each of the participant citizens. Finally the Interpretive Center would provide assistance to each land owner in carrying out the plan.

With very little publicity—only a few press releases to regional papers—they received such an overwhelming response that they were able to select ten landowners from throughout North Shore to participate in the program, making demonstration sites available along the entire 150-miles of the coastal region. Landowners were chosen based

on several criteria, including location, extent of need for restoration work, and what Slade calls, "replicability."

"Are these people in situations where they're likely to engage their neighbors and their communities to make a difference?" Slade says. This was an effort to have participants become citizen catalysts for encouraging more restoration work.

The results of the program have been impressive. While success varied among the ten land owners, 300 acres of coastal forest received restoration work, including the planting of 2,000 native conifers, the protection from browsing of at least 1,500 of these, and the application of a number of other restoration practices including mulching, prescribed burns and others. Two participants in the program report they expanded the planning component to include other tracts of land they own, but which were not

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Slade and his staff also intend to apply and adapt this model to another coastal habitat in critical need of attention on the North Shore: splash pools of the rocky coastline.

part of their original participation. Others report that they have helped neighbors with planning and implementing restoration plantings and protections, and one larger, institutional participant, Wolf Ridge Environmental Learning Center, plans now to commercially harvest 200 acres of its property to remove large areas of dying birch trees to create plantings of native conifers and help bring back the Lost Coastal Forest.

Sugarloaf Cove Interpretive Center's model of restoration that involves and reaches out to landowners has fostered a stewardship ethic and the restoration of the Lost Coastal Forest ecosystem—that continues to grow. Slade and his staff also intend to apply and adapt this model to another coastal habitat in critical need of attention on the North Shore: splash pools of the rocky coastline.

Restoring the Great Lakes happens—one community at a time. Every community that undertakes a project to restore the health of the lakes, rivers, wetlands, and shorelines brings great benefits. The benefits of restoration include—economic stimulation, healthier ecosystems, more livable communities, and involved and engaged citizens. In turn, these community by community restorations help improve the overall health of our Great Lakes system as a whole by healing the thousand small cuts that have been inflicted on this global treasure one by one by one.

Additional materials and stories are available at www.freshwaterfuture.org and additional copies of this packet are available by calling (231) 348-8200 or emailing info@freshwaterfuture.org.



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