

Shoreline tour illustrates solutions



Stearns County SWCD, Minnesota Erosion Control Association event gave conservation pros an unvarnished view of work, techniques behind successful stabilizations, restorations — plus suggestions for challenging sites



WINTER WORKSHOPS: Many SWCDs and watershed districts, including the Stearns County SWCD, host winter shoreline practices and restorations workshops.

A midsummer tour of shoreline stabilization and restoration projects showcased stunning displays of native wildflowers on Stearns County lawns and parks where banks once slumped into rivers or erosion once gnawed at shorelines.

The Stearns County Soil & Water Conservation District (SWCD) and Minnesota Erosion Control Association’s (MECA) July 18 Shoreline & Watershed Practices Tour drew conservation professionals from throughout the state. They heard firsthand about projects’ challenges, solutions and successes.

Landowners spoke candidly about the initial “dead tree look” of cedar revetments and the “non-trivial amounts of selective weeding” required to establish now-flourishing native plantings. One landowner responded to neighbors’ recurring remarks about a “weedy” lawn — which has since produced a profusion

of yellow and lavender blooms — with a hand-painted “Pollinators At Work” sign.

Stearns County SWCD Lakeshed Specialist Greg Berg was equally candid about lessons learned in his 20 years’ experience. He suggested species suited to hard-to-manage areas, discussed balancing water quality objectives with landowners’ water access requirements, and talked about projects that required revisions.

Among the stops on the daylong tour were sites on the Mississippi and Sauk rivers plus lakes within the Sauk River watershed.

Clean Water Funds from the Minnesota Board of Water and Soil Resources (BWSR), Minnesota Department of Natural Resources’ (DNR) Aquatic Habitat Restoration grants, and a Lessard-Sams Outdoor Heritage Fund grant were among the funding sources in play. Costs ranged from \$353,800 for a dam removal and

Conservation workers explored a residential streambank restoration July 18 on the Mississippi River north of St. Cloud, where the lawn once was mowed close to the river. Today, only 25 feet of the nearly 800-foot-long shoreline is mowed for dock access. The site, constructed in 2014, was part of the Stearns County SWCD and Minnesota Erosion Control Association’s Shoreline & Watershed Practices Tour.

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Ann Wessel, BWSR



Left: A streambank restoration on the Sauk River at Whitney Park was the first stop on the Shoreline & Watershed Practices Tour. Clean Water Funds from BWSR are in play. Project partners included Stearns County SWCD, the city of St. Cloud, the Sauk River Watershed District, the Minnesota DNR and the West Central Technical Service Agency. **Middle:** Wildflowers chosen for the residential Mississippi River site included those suited to each of the property's three distinct areas: floodplain, upland and shade. **Right:** Stearns County SWCD staff works with landowners to develop shoreline projects that manage erosion control and water quality benefits while allowing lake access.

streambank restoration on the Sauk River at Whitney Park in St. Cloud to just under \$4,000 for a rain garden and related work at a home on Big Fish Lake.

"It was pretty much a sheer cliff," Berg said of the Whitney Park site.

The slope was up to 30 feet tall in places along the 450-foot streambank restoration, which incorporated root wads and toe wood benches layered with brush mats, plus a coconut-and-jute blanket. Since construction in 2016 and 2017, torrential rains required repairs in three spots. The site has been seeded twice with a native mix.

The project keeps an estimated 388 tons of sediment out of the river annually.

The rain garden on Big Fish Lake was constructed in 2011. That project incorporated soil amendments, native plants and mulch plus a grated drain and gate valve.

"It kind of takes care of itself. I don't really do anything," said Dan Beckius, who bought the house after the project was installed.

The project keeps an estimated 12 tons of sediment out of the lake annually.

A lawn on the Mississippi

River north of St. Cloud served as an example of balancing water quality with landowners' wishes. Here, grass had been mowed to the water's edge.

Today only 25 feet of the nearly 800-foot-long shoreline is mowed, creating a path to the dock. The rest consists of native vegetation buffers suited to fit three distinct areas: floodplain, upland and shade. When some of the original plantings didn't fare well, the landowner received permission to take a more landscaped approach with native plants.

The 2014 project keeps an estimated half-ton of sediment out of the river annually.

Some of the advice Berg offered to conservation pros could apply to a project of any size.

SEEDS PLUS PLANTS: A combination of light seeding plus plugs (small plants) works best when establishing native plants in shoreline restorations, Berg learned. It's cost-prohibitive to plant only plugs, which provide a bit of color while the seeding takes hold.

PLANTS FOR ROCKY SITES: False indigo, a shrub with flowers that resemble those of lead plant, does well in rocky conditions. Another possibility is Virginia creeper. Plants can mask rocks and make the shoreline look more natural. This is an option where a

textile barrier isn't in play.

SEDGES FOR EDGES OR SHADE: Pennsylvania sedge and Sprengel's sedge do well in shady areas along shorelines, where the plants can create a low groundcover without out-competing woodland flowers.

The most common mistakes Berg sees in landowners' efforts to establish native plantings are failing to remove existing non-native vegetation, and choosing plants unsuitable for the conditions.

Stearns County SWCD staff offers site-specific technical advice. SWCD-funded projects must meet certain guidelines. For those who pursue independent projects, Berg recommends [BWSR's planting guides](#) and the [Native Plant Encyclopedia](#), on the DNR's Restore Your Shore page.

Over the winter, conservation workers complete site surveys and plan for next season. Before it freezes, they may install bioengineering practices such as brush mattresses or dogwood, alder and willow live-stakes.

For landowners pursuing projects independently, it's a good time to research, plan and order plants or seeds. Native plant nurseries are now collecting seeds and growing plants for next spring.



Some of the plant selection suggestions mentioned during the Shoreline & Watershed Practices Tour can apply to smaller projects.