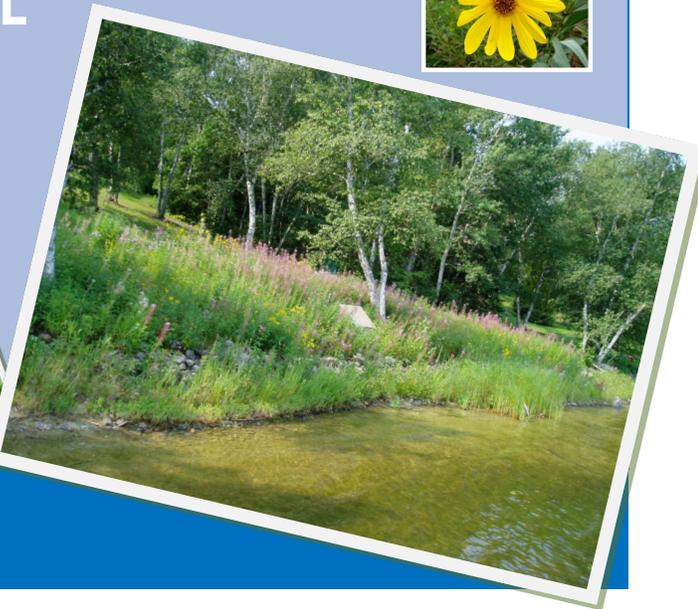


RESTORE YOUR SHORELINE

You don't have to lose your shoreline!



Why is my shoreline shrinking?

If you live on one of Carlton County's beautiful lakes or streams, you may worry about your shrinking shoreline, wave and ice action, or a steep, eroding slope next to the water. By taking extra steps, you can save and even restore these areas, stopping shoreline erosion while doing your part to keep the water clean for fishing, recreating and lake life.

Many who live on lakes and streams will remove natural vegetation and mow to the water's edge. While this look may be appealing, turf grass has a shallow root system which cannot protect the shoreline from the forces of wave and ice erosion. Plus, lawns require fertilizers, pesticides and watering to maintain their lush appearance. Over time, these have unintended consequences to the health of your lake.

Restoring your shoreline to a desirable pallet of native plants can reverse these negative effects. And the best part is you won't have to do it alone! Financial assistance and technical advice to help you offset shoreline restoration costs are available.

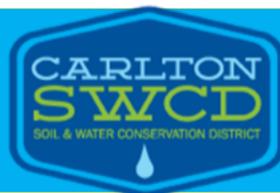
It's Valuable Real Estate!

Native Plants are key!

- **Native plants, with roots up to 15' deep**, hold soil in place and help your shore resist against wave and ice action
- Native Plants **require little watering and no fertilizer**. Tolerate drought & high water conditions
- **Diverse and colorful** landscape all season
- **Filter pollutants** before entering lake or stream
- **Native Plants** provide habitat and food fish, pollinators, birds, frogs, and many other species!



PARTNER
AGENCIES...



Restore Your Shoreline *Naturally*

Planning and Design

- Contact Carlton SWCD (218) 384-3891 to schedule a visit with a Conservationist.
 - Your Conservationist will assess your shoreline, identify soil conditions and help measure project area
 - If shoreline erosion is identified, the project may require additional methods to stabilize
- Your Conservationist will prepare a preliminary design and cost estimate and review with you.
- If requesting funding, you will need to sign a cost-share assistance application/agreement that will need to be approved by the District Board of Supervisors before construction can begin.
- Verify your grant application has been approved before starting project
- If there will be significant excavation, call **Gopher One** (800-252-1166) to locate utilities.
 - Gopher One Ticket Number: _____ Date: _____

Site Preparation - remove all existing vegetation

- Spray area with a broad-spectrum herbicide to kill all existing vegetation
- Wait at least 1 week, then use a rototill or sod cutter to remove vegetation and rake the area smooth
- Wait up to 2 weeks, then spray again to kill any surviving or new weeds
- Wait at least 1 week

OR

- Cover area with clear plastic secured with stakes for 8 weeks during the growing season to kill vegetation

For Native Seeding:

Dates: May - June OR after November 1 (if dormant seeding)

- Broadcast seed evenly over lightly tilled/raked soil
- Mix with sand or sawdust to more evenly distribute
- Lightly rake after seeding to ensure good seed-to-soil contact
- Apply erosion blanket immediately and secure with bio-degradable stakes
- Provide at least 1" of water to planting each week

For Native Plug Planting:

Dates: Planting—May through September 15

- Install erosion control blanket on the lightly tilled soil

OR

- Spread 2" of mulch over the entire area
- Following your planting guide, cut small holes in the blanket every 1-2 ft and use a small trough or planting auger to dig down 3-4 inches in each hole
- Place a plant into each hole and respreads mulch to cover any opening areas
- Mark each plant with popsicle stick or something similar to help in future identification
- Give plants at least 1" of water each week, and remove weeds by hand as they appear

Certification and Payment

- When the planting is complete, contact your conservationist to certify your project
- Submit copies of all paid receipts, invoices, seed tags
- Your conservationist will process your reimbursement payment within 2-3 weeks

Ongoing Shoreline Maintenance

After a final inspection, your Conservationist will provide you with suggested maintenance and will continue to follow up with you in the years following to ensure your planting is successful. Proper maintenance will primarily involve removing weeds, mowing/weed whacking, reseeding or replacing dead plants to help keep shoreline natural areas functioning and beautiful for years to come!