

## Minnesota's natural shorelines are vanishing...

Since Minnesotans started developing around our lakes and rivers, our state has lost 40 – 50% of its natural shorelines. Every year, we lose more.

### and are being replaced with suburban landscapes.....

Our lakescapes are becoming more suburban in nature. Many property owners have chosen a “lawn down to the lake” suburban landscape over the diversity and functionality of a natural shoreline. Unfortunately, they likely didn't know that this aesthetic has large negative impacts on water quality and fish and wildlife habitat.



### Increasing algae growth and loss of wildlife

The loss of natural shorelines allows more naturally occurring phosphorus to flow directly into surface waters, increasing algae growth. An average suburban style lakeshore contributes seven to nine times more phosphorus per summer compared to a lot with a natural shoreline. This increase in phosphorus can result in the generation of 100 pounds of algae along the shore, compared to 15 pounds under natural shoreline conditions.

As algae dies and decomposes, it consumes a lot of oxygen, reducing that available for fish and other aquatic species. More algae increases the risk of fish kills and reduces the numbers of fish and wildlife species typically found in natural areas.



### and warming lake waters are accelerating the growth of algae

Rising air temperatures are causing Minnesota lakes to warm. Our lakes are about 3.06 – 3.78° Fahrenheit warmer, on average, than 50 years ago. While we can't stop our lake temperatures from increasing, we can reduce the amount of phosphorus entering our lakes, to slow the growth of algae by protecting and restoring natural shorelines.

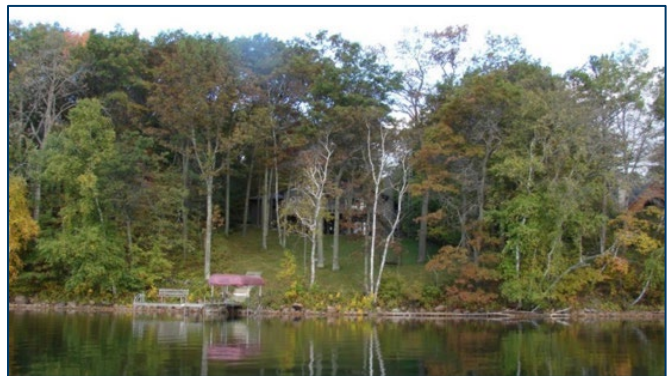
## Natural shorelines are our best defense against algae and loss of wildlife and property

Once something is lost, it is often hard or impossible to recover. Natural shorelines help to keep lakes clean for recreation and fishing. They stabilize shorelines, protecting property from wind and wave erosion, and they provide habitat for some of the state's most important species, including loons. Natural lakeshores also provide a place for relaxation and refuge and are central to Minnesota's identity as a good place to live.



## Today, more and more Minnesotans are protecting and restoring natural shorelines

Many property owners, organizations and local governments want to stop this loss and are working hard to rebuild values and expectations about how shorelines should look and function. These efforts include design policies and regulations to more strongly advance protection of natural vegetation and to require restoration where natural shores have been removed.



Depending on where you live, organizations are likely available to help assist with your shoreline restoration project. Consider contacting your local zoning office, Soil and Water Conservation District, or Lake Association for tips and guidance.

## Resources

[Minnesota's Vanishing Shorelines: A loss that Contributes to Degraded Lake Quality – June 2023, prepared by the Natural Shoreline Partnership.](#)

[Maintaining and Restoring Natural Shorelines - mndnr.gov/shorelines](https://mndnr.gov/shorelines)