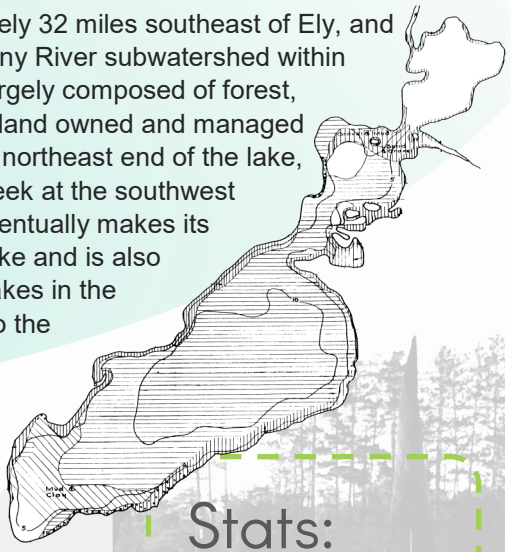
Get to Know: Sand Lake
Rainy River Headwaters

At a Glance:

Sand Lake is located approximately 32 miles southeast of Ely, and 40 miles north of Two Harbors, MN. It belongs to the Lower Stony River subwatershed within the larger Rainy River Headwaters Basin. The watershed is largely composed of forest, wetlands, and open water, with a large portion of surrounding land owned and managed by state and federal agencies. Inflow is from Wolf Creek at the northeast end of the lake, an unnamed creek at the southeast of the lake, and Andron Creek at the southwest end of the lake. Outflow is primarily through Sand River which eventually makes its way to Birch Lake by way of Stony River. Sand lake is a shallow lake and is also naturally productive, with phosphorus readings higher than other lakes in the Northern Lakes and Forests Ecoregion. Transparency is low due to the effect of algae and bog stain caused by wetlands in the watershed.

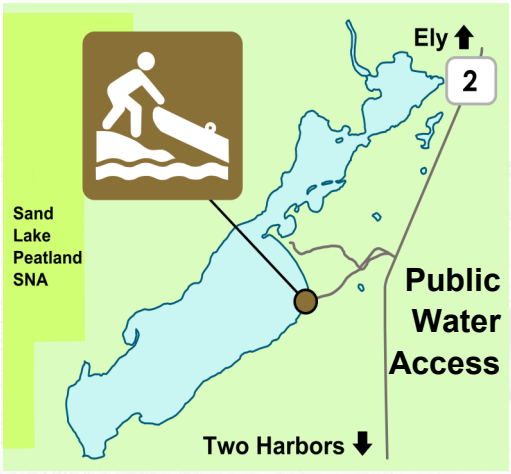


Good to Know:

Water quality monitoring of Sand Lake through Citizen Lake Monitoring Program Plus (CLMP+) began in 2016. A program of the Minnesota Pollution Control Agency (MPCA), CLMP+ enables volunteers to contribute valuable data for making important watershed decisions.

There is a small, two site, rustic campground adjacent to the public carry-in boat launch, and which is operated by the US Forest Service.

The Sand Lake Peatland Scientific and Natural Area (SNA) is located just west of Sand Lake. It encompasses 4,924 acres of peatland, providing habitat for a number of rare species in Minnesota.



Stats:

- Max depth: 10 ft
- Area: 486 acres
- % Littoral area: 40%
- Shoreline: 8.12 mi
- % Public shoreline ownership: 66%
- Avg transparency: 2.4 ft
- Trophic State: Eutrophic
- Fish species include: bluegill, burbot, hybrid sunfish, Lepomis sp., northern pike, pumpkinseed, walleye, yellow perch, spotted sucker, white sucker, blacknose shiner, common shiner, golden shiner, spottail shiner, tadpole madtom, trout-perch

Areas of Concern:

Sand Lake does not currently have any invasive species infestations, but threats exist nearby. For more information on invasive species, see reverse side.

As with many Minnesota lakes, fish in Sand Lake have elevated levels of mercury. Refer to the Minnesota Department of Health guidelines for advice on how much fish can safely be eaten.

Climate change may present multiple challenges, including warming waters. Sand Lake is a shallow lake which is well mixed throughout the year, leaving no refuge for fish looking to escape the heat. An analogous lake in the DNR and MPCA Sentinel Lakes project might be Echo Lake. For more information on the Sentinel Lakes project, visit: dnr.state.mn.us/fisheries/slice. The nearby Sand Lake Peatland will face challenges of its own. Research into the effects of climate change on peatlands is taking place in a bog near Brainerd. You can find information on that research here: mnspruce.ornl.gov

Minnesota Lake County

Lake County Soil & Water Conservation District

Care about Sand Lake?
Get Involved!

There are many ways you can make a difference.
Find resources for learning more and getting started here:
www.LakeCountySWCD.org/Volunteer.php

See reverse side
For water quality and invasive species data

Sand Lake Photo: Dan Donnelly

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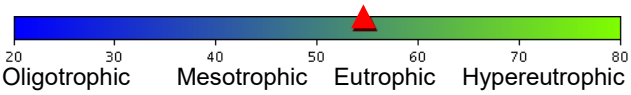
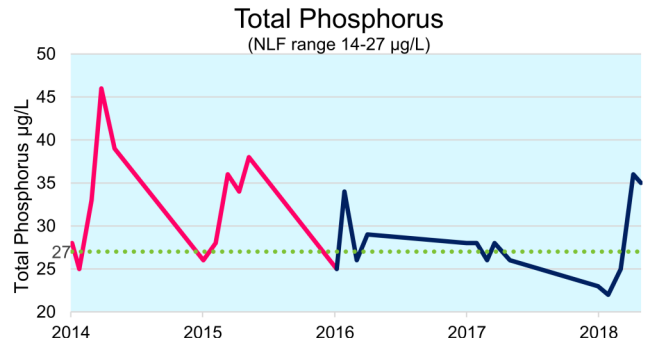
Water Quality

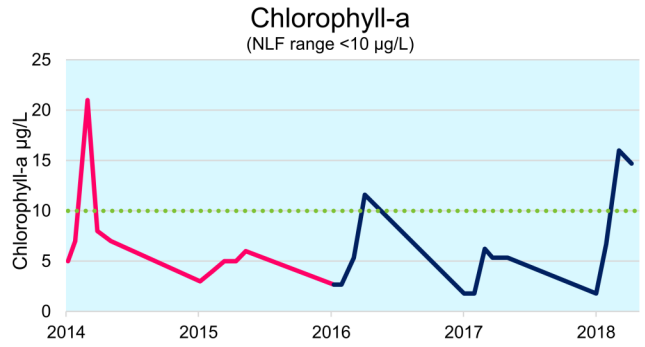
Updated November 7, 2018

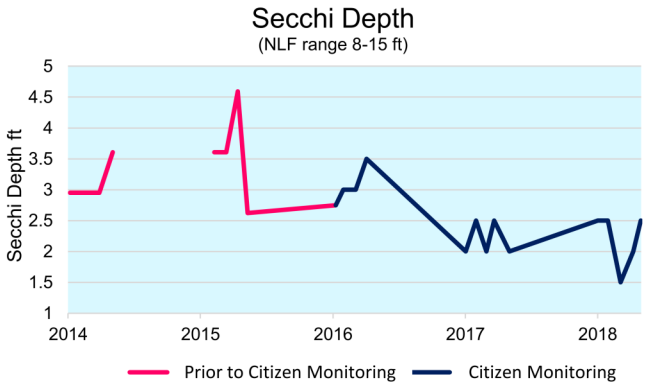
Citizen lake monitoring on Sand Lake began in 2016, but Lake County SWCD also monitored Sand Lake for the two years prior. Lake County SWCD and volunteer measurements for Total Phosphorus, Chlorophyll-a, and Secchi Depth are shown to the right. Chlorophyll-a means are within expected ranges for lakes of the Northern Lakes and Forests (NLF) ecoregion, but Total Phosphorus and Secchi Depth are not. Sand Lake is naturally productive which accounts for the higher Total Phosphorus. Occasional algae blooms and the bog stained water account for the Secchi Depth readings. Total Phosphorus, Chlorophyll-a, and Secchi depth measurements are used to generate a Trophic State Index (TSI) number - a way of characterizing a lake's productivity. Sand Lake's mean TSI is **55**, which is eutrophic.



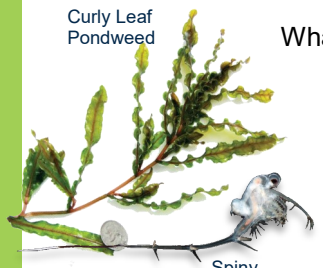
Find water quality data from Citizen Lake Monitoring here: www.rmbel.info/data/







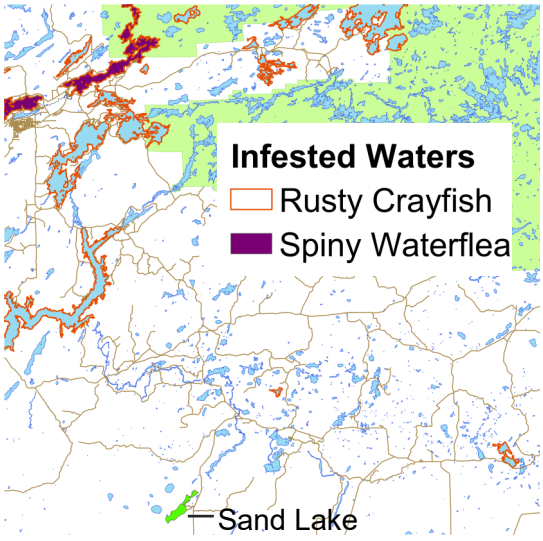
Invasive Species



What is an aquatic invasive species (AIS)?

- Non-native: a species not normally found in an area
- Invasive: a non-native species which causes harm -environmental, economic, or to human health; generally threatens natural resources

Currently, no AIS have been observed in Sand Lake, although some threats exist nearby. Zebra Mussels and much more are found in Lake Superior. Spiny Waterflea are found in Lake Superior and a handful of lakes in the Ely area. The map on the right illustrates the AIS infestations nearest to Sand Lake. Some AIS to watch out for are shown on the left.



Because of the potential for harm, prevention and early detection are essential to keep new invasive species from becoming established. Lake County SWCD is training citizen "sentries" to perform monthly surveys of lakes they frequent, and report on the plants and animals they observe. We are seeking sentries for Sand Lake to provide timely knowledge of new invasions.

Do you want to be trained as a citizen sentry? Visit **www.LakeCountySWCD.org,** find us on Facebook, or follow @LakeCounty_SWCD onTwitter for the latest events and information on how you can get involved!

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