Lake Idlewild and other local lakes are facing an increased threat of salt. Each winter, people apply nearly 365,000 tons of road salt in the Twin Cities Metro Area. When this sodium chloride washes into local streams and lakes, it pollutes waterways and harms native fish and plants. Salt also affects the groundwater we rely on for drinking. Water with high salinity can create health concerns for vulnerable groups.

Did you know that it takes only one teaspoon of salt to permanently pollute five gallons of water?

What can you do?

Shovel: removing snow manually is effective and does not pollute waterways

Select: Sodium chloride (rock salt) doesn’t work below 15 degrees F. When it is colder than that select a different de-icer or use sand for traction.

Scatter: Spread out your salt so it can be most effective. More salt does not always mean better melting.

Sweep: Collect excess salt for future use.

Sand: Most salts do not work below 15 degrees F. Use sand for traction.

Aquatic plants


Wenck Associates Inc. 2015. Lake Lucy Aquatic Plant Management Plan.

Waterfall study

Carp management
Bajer P.G., Headrick, M., Miller B. D. and Sorensen P. W. 2014. Development and implementation of a sustainable strategy to control common carp in Riley Creek Chain of Lakes, U of M.

Stormwater ponds
RPBCWD. 2013. Stormwater pond project.

Lake Lucy is the headwaters to Riley Creek. Water flows out of Lucy to Lake Ann and then Riley Creek. On its way south to the Minnesota River, Riley Creek passes through Lakes Susan, Rice Marsh, and Riley.

Watershed study

Watershed boundary
Water that falls anywhere within the white border drains to Lake Lucy.

Characteristics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>88 acres</td>
</tr>
<tr>
<td>Volume</td>
<td>558 acre-ft</td>
</tr>
<tr>
<td>Average depth</td>
<td>6.5 ft</td>
</tr>
<tr>
<td>Max depth</td>
<td>20 ft</td>
</tr>
<tr>
<td>Watershed size</td>
<td>997 acres</td>
</tr>
<tr>
<td>Land draining directly into</td>
<td>111 acres</td>
</tr>
<tr>
<td>MPCA lake classification</td>
<td>Shallow</td>
</tr>
<tr>
<td>Impairment listing</td>
<td>Mercury</td>
</tr>
<tr>
<td>Trophic status</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>Common fish</td>
<td>Bluegill, Northern Pike, Yellow Bullhead</td>
</tr>
<tr>
<td>Invasive species</td>
<td>Curlyleaf Pondweed, Eurasian Watermilfoil, Common Carp</td>
</tr>
</tbody>
</table>

Interested in learning more? Explore the following reports on our website.

Contact us and find out how you can get involved

District Office
18681 Lake Drive East
Chanhassen, MN 55317

Contact info
952.607.6512
info@rpbcwd.org
rpbcwd.org

Find us on
instagram
facebook
twitter

Find us on

Riley Purgatory Bluff Creek Watershed District

2% Commercial
45% Residential
39% Open Space

2% Commercial
45% Residential
39% Open Space

Land use in the Lake Lucy Watershed

Lake Lucy

Lake Lucy

Lake Ann
How healthy is Lake Lucy?

Water quality in Lake Lucy improved slightly from 2018 to 2019. The lake meets two of the three clean water standards set by the Minnesota Pollution Control Agency (MPCA). The graphs on the next page show the trends over time. The red line on each graph marks the MPCA standard. The goal is for the average values (the dots) to be below the red line.

During the growing season (June - September), district staff visit Lake Lucy every other week to collect water samples and take measurements. The samples are sent to a lab and tested for several compounds including total phosphorous (TP) and chlorophyll a (Chl-a). Staff also measure how clear the water is using a disk that is lowered into the water until it can no longer be seen. These parameters help indicate whether the water is clean.

Lucy is classified as a “Shallow Lake”, which means that it is generally less than 15 feet deep and light can reach the bottom in most of the lake. This ample light means that shallow lakes often have a lot of aquatic plants, and are habitat to many types of fish and birds. To be considered healthy by the MPCA, shallow lakes need to be clear enough to see one meter down, and have low TP and Chl-a levels.

Rainwater runoff, the water that flows across yards, parking lots, and streets into stormdrains, is one of the main causes of pollution in urban areas. You can take simple actions to help protect Lake Lucy.

<table>
<thead>
<tr>
<th>Keep the curb clean</th>
<th>Water with care</th>
<th>Salt smart</th>
<th>Reuse the rain</th>
<th>Build a raingarden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweep up leaves, grass clippings, and fertilizer from driveways and streets.</td>
<td>Grass requires 1-inch of water per week; about one hour of sprinkling per week if it has not rained.</td>
<td>The salt we use to melt ice can pollute our lakes and creeks. Use salt sparingly and always shovel first.</td>
<td>Collect and reuse rainwater with a rain barrel.</td>
<td>Rain gardens soak up water and filter out pollution. Visit our website for help.</td>
</tr>
</tbody>
</table>

Water quality graphs 1972 - 2019

Points are growing season (Jun-Sep) averages. Thin lines are the min and max values for each year.

Summary table

<table>
<thead>
<tr>
<th>MPCA standard</th>
<th>1972 - 2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>max</td>
<td>min</td>
</tr>
<tr>
<td>TP</td>
<td>&lt;0.06 mg/l</td>
<td>0.131</td>
</tr>
<tr>
<td>Chl-a</td>
<td>&lt;20 ug/l</td>
<td>89</td>
</tr>
<tr>
<td>Secchi</td>
<td>&gt;1 m</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Phosphorus is a nutrient that plants and algae need for growth. It is often measured as total phosphorous (TP). Too much phosphorous can cause algae blooms.

Chlorophyll a is the main pigment in algae, so measuring chl-a can tell us how much algae there is. Too much chl-a means that there are too many nutrients in the water.

Water clarity is measured using a Secchi Disk, a black and white disk the size of a dinner plate. It is lowered into the water, and the depth at which it is no longer visible is recorded.