

# **FAQs**

Where can I learn more about curly-leaf pondweed and Eurasian watermilfoil?

https://maisrc.umn.edu/curlyleaf-pondweed

https://maisrc.umn.edu/watermilfoil

### How did curly-leaf pondweed and Eurasian watermilfoil get into District Lakes?

It is unknown how these aquatic invasive species got into each District lake but it is possible that they were introduced by recreational use of the lakes. Shallow productive lakes like those in the District are ideal habitat for aquatic invasive species to thrive and outcompete native species.

# Is it necessary to apply herbicides to District Lakes?

Yes, curly-leaf pondweed and Eurasian watermilfoil has overrun the ecosystem on several District lakes, reducing recreation and making it difficult for native plants and aquatic life to survive. Complete eradication of curly-leaf pondweed and Eurasian watermilfoil is unlikely. However, the goal is to keep their abundance in check and allow native aquatic plants to better compete.

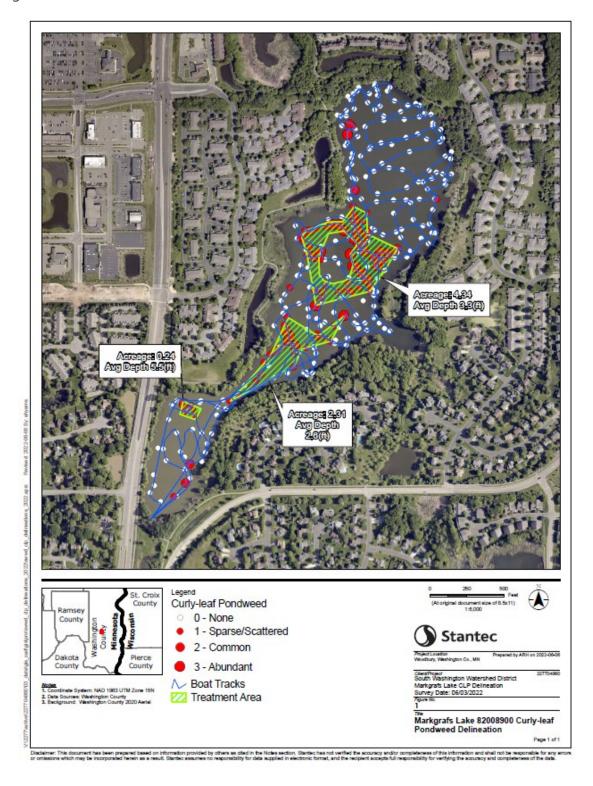
# Why herbicide treatment vs harvesting?

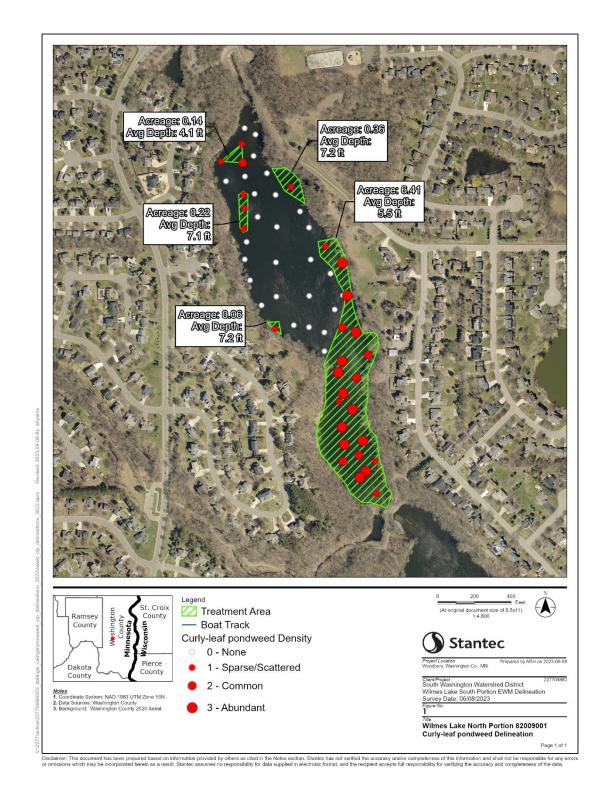
Harvesting of curly-leaf pondweed can unintentionally cause it to spread by breaking plants up into smaller fragments that can then take root elsewhere in the lake. Because of that concern and the abundance of curly-leaf pondweed, herbicide is the only feasible control method. Several studies have shown high effectiveness of herbicide for control of curly-leaf pondweed and the strategy has been successfully used on several lakes in the Twin Cities metro. Hand harvesting is a viable strategy for lakes with small, isolated pockets of watermilfoil and is used where feasible.

#### How is the herbicide applied?

The herbicide is applied by a licensed contractor to the lake at a low concentration. Fluridone, used for lake wide treatments, is applied to achieve a concentration of 4 parts per billion and maintained for 60 days. The herbicide is applied from a boat over the course of one day. An additional treatment may be needed in order to maintain desired concentration. Diquat, used for partial treatments, is applied at a rate of 2 gallons per treated acre. The Minnesota Department of Natural Resources reviewed, approved and issued a permit to proceed with the application of herbicide.

Colby, Ravine, and La Lakes are being treated lake wide due to full lake infestations. Markgrafs and Wilmes have only been treated where curly leaf pondweed is present, as shown in the figures below.





# When will the treatment happen?

Treatment began in 2022-2023 and will continue as needed as long as treatment is proving effective. Complete eradication is unlikely. However, effective treatment will decrease abundance of the aquatic invasive species and lead to more abundant native plant communities.

#### Are herbicides safe?

When applied at the correct dosage and time of year, the herbicides present no concern to humans or pets. The herbicide targets plants only and has not been shown to have adverse effects on fish, birds, or mammals in the lake, such as muskrats. Monitoring will occur throughout the treatment and the weeks following to maintain safe concentrations and to determine the effectiveness of the treatment. While safe for recreational contact, some herbicides do come with recommendations to limit consumption during treatment. Signage will be clearly placed at lake access points during treatment notifying lake users of those recommended contact restrictions.

#### Will further herbicide treatments be needed in the future?

It is likely that additional herbicide treatments will be needed to further reduce the curly-leaf pondweed population so native plants can thrive. Future spring treatment will also be necessary to more directly target Eurasian watermilfoil as well. SWWD has a seven-year variance with the Minnesota Department of Natural Resources to perform herbicide treatments for aquatic invasive species, though it will never fully be eradicated from the lakes. SWWD will continue monitoring the aquatic plant community in treated lakes to determine what measures are needed to manage invasive species and support the native plant communities.

### Does curly leaf pondweed contribute to phosphorus levels in District lakes?

Curly-leaf pondweed plays a significant role in the amount of phosphorus in District Lakes. While it is not the main source of phosphorus, it can accelerate the process of in-lake phosphorus cycling. It has a unique life-cycle that allows it to grow throughout the winter beneath the ice and then dies off late-June. Most native aquatic plants begin growing in early-June. As curly-leaf pondweed grows, it uses phosphorus as food to produce large amounts of plants. When the curly-leaf pondweed dies off in late-June, all of the phosphorus that was taken up by the plants is released back into the water as it decays, becoming available for algae to consume. In addition, the decaying plant matter lowers the oxygen in the water during the decomposition process.

# For more information contact:

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