



Aquatic Invasive Species Prevention Program

City of Burnsville Curlyleaf Pondweed Mechanical Harvest on Crystal Lake

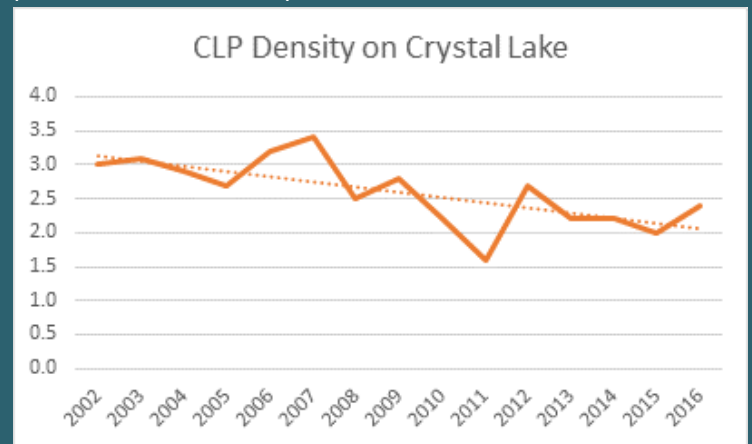


Curlyleaf pondweed's unique life cycle provides a competitive advantage over native species and can adversely impact recreation and water quality.

Mechanical Harvest of Invasive Curlyleaf Pondweed on Crystal Lake

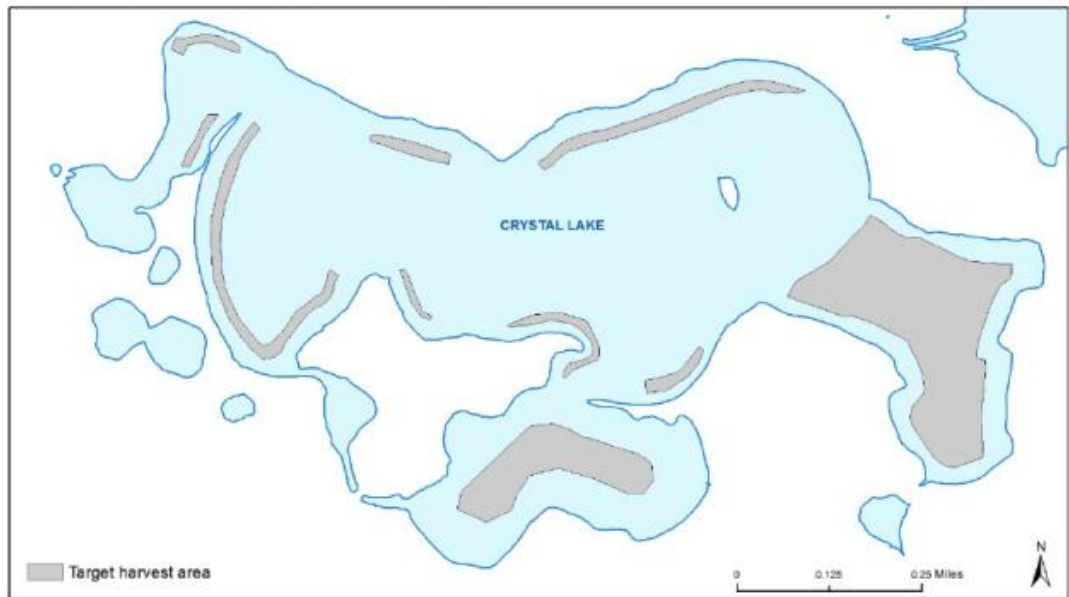
In 2017 and 2018, Dakota County awarded AIS grants to the City of Burnsville for mechanical harvest of invasive curlyleaf pondweed on Crystal Lake. Management of curlyleaf pondweed has occurred on Crystal Lake since 2003. Benefits of removing curlyleaf pondweed include improved recreational access, improved water quality, and increased native plant diversity. Curlyleaf pondweed's life cycle is unique because it begins growing while there is still ice cover early each spring, giving it a competitive head start over native plant species. Its unique life cycle also means that it senesces (dies off) in June, earlier than the rest of the native plant community, and as a result releases nutrients into the water column which can contribute to nuisance algal blooms and negatively affect water clarity. The City of Burnsville's efforts have

demonstrated a decline in the annual density of curlyleaf pondweed on Crystal Lake since 2003. Dakota County thanks the City of Burnsville and its partners (Crystal Lake Improvement Association, City of Lakeville) for its proactive management of curlyleaf pondweed on Crystal Lake.



Efforts to control curlyleaf pondweed (CLP) on Crystal Lake have resulted in an overall decline in CLP recurrence annually.

Figure 1. Target harvest areas for 2018.



Areas shaded in grey (62.6 acres) were harvested resulting in 66 harvester loads of CLP removed from the lake.



If left unchecked, curlyleaf pondweed forms dense mats on the water surface, affecting navigation, recreation, and water quality.



An example of equipment utilized for mechanical harvest of aquatic vegetation. Curlyleaf pondweed begins growing under the ice before other native plants, therefore native plants are not affected given the timing of CLP harvesting.

Dakota County receives Aquatic Invasive Species (AIS) Prevention Aid annually from the Minnesota Department of Revenue. Dakota County's AIS Plan includes the following guidelines for the use of AIS Prevention Aid:

- Prepare a comprehensive inventory of boat launches and waterbodies at risk
- Undertake awareness campaigns
- Develop early detection and rapid response procedures
- Manage existing populations of AIS
- Establish partnerships with local units of government and lake associations



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