Curly Leaf Pondweed (CLP) Management in Lake Independence

Curly Leaf Pondweed (CLP), an invasive aquatic plant, has reached critical levels in Lake Independence. In response, a coalition of local watershed partners has developed a long-term treatment strategy to address the issue.

Why Action is Needed:

- The % frequency of occurrence within the littoral zone has exceeded 60%.
- CLP is a source of internal loading that will need to be controlled for future alum treatment consideration.
- The plant's unique life cycle has water quality impacts where the plant dies off end of June releasing phosphorus that contributes to algal blooms.
- The high density of CLP can displace and impact the native plant community.

Coordinated Approach:

A **Lake Vegetation Management Plan**, approved by the MN DNR, has been created specifically for Lake Independence. The plan has received broad support from key partners including:

- Pioneer-Sarah Creek Watershed Commission (PSCWSC)
- Three Rivers Park District
- Cities of Medina and Independence
- Minnesota DNR
- Lake Independence Citizens Association (LICA)

Several lakes—such as Lake Sarah, Medicine Lake, Lake Rebecca, Cleary Lake, and Hyland Lake have successfully implemented similar large-scale CLP treatment plans.

Treatment Strategy Highlights:

- Treat approximately 25% (105 acres) of the littoral zone (areas ≤ 15-feet in depth supporting aquatic vegetation growth) in areas that have high density of curly leaf pondweed.
- **Timing is critical**: Early-season treatment when CLP is fast growing and outcompetes native plants
    - Early-season treatment is recommended prior to CLP turion development; consecutive years of treatment will ultimately reduce the turion seed bank.
    - Early-season treatment is before native plant germination and there is minimal risk the herbicide will have impacts on the native plant community.
    - Chemicals used for control of CLP have optimal temperature range of effectiveness at 45° to 55° F.

Commitment of 5 to 7 years of early season treatments will be necessary to reduce the turion seedbank since turions can remain viable for several years

Expected Benefits:

- Decreased CLP growth
- Increased open water for navigation and recreation
- Reduce internal loading attributed to CLP senescence (die-off).
- Reduced phosphorus spikes, lower risk of algae blooms
- Improved water quality and habitat for native species

Next Steps:

With general agreement among partners and a collaborative funding framework, **we have the opportunity to begin treatment this spring**.

The CLP treatment plan requires funding. While LICA's partners are making commitments to cost-share on the project , there will be a need for increased **LICA Member and lakeshore owner donations**.

Please stay tuned for specific information on how you can help with the financial commitment that is necessary for this water quality improvement strategy.