

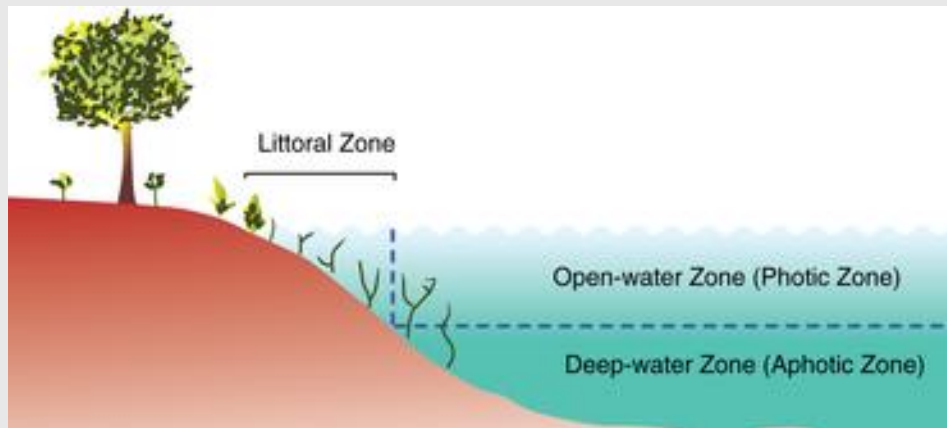


Lake Vegetation Management Plan (LVMP)

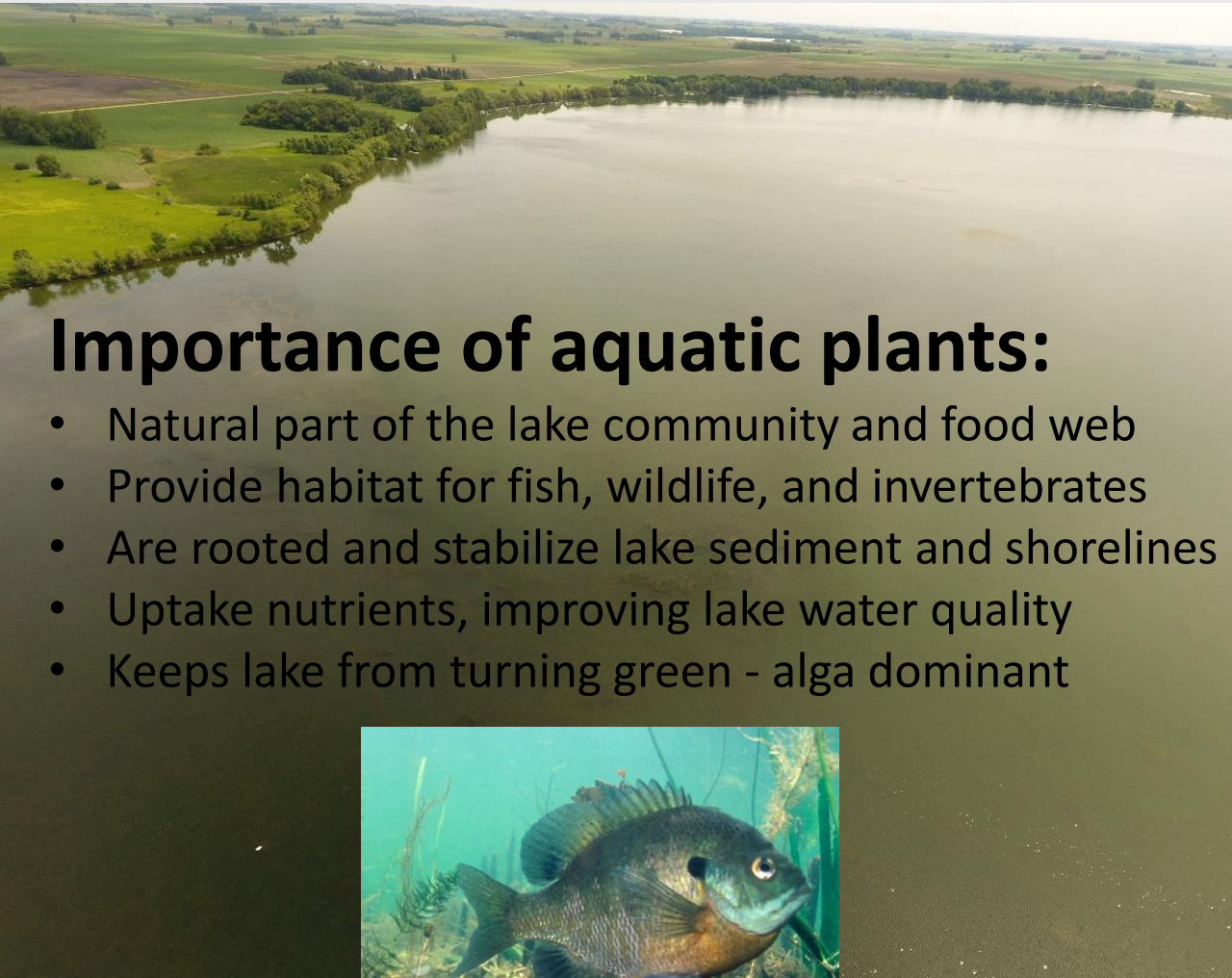
Jack Lauer | Southern Region Fisheries Manager

At a Glimpse

- Lake management: aesthetics, fishing, hunting, water recreation
- Aquatic plant ecology and value
- Aquatic plant management (APM) program, and AIS Program
- Littoral zone area = nearshore 0 to 15 feet deep
- Lake vegetation management plan (LVMP) goals
- Impaired waters vs restoration and healthy lakes

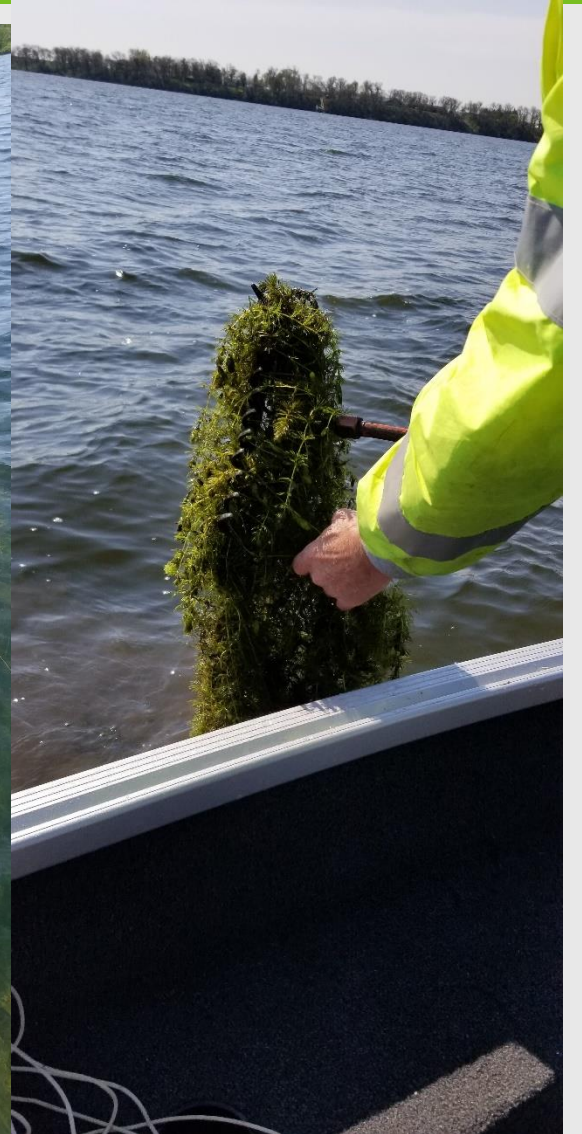


Aquatic plants



Importance of aquatic plants:

- Natural part of the lake community and food web
- Provide habitat for fish, wildlife, and invertebrates
- Are rooted and stabilize lake sediment and shorelines
- Uptake nutrients, improving lake water quality
- Keeps lake from turning green - alga dominant



Aquatic Plant Control - MR 6280.0350

Subp. 1a. Submersed aquatic plant control restrictions for riparian property owners.

The commissioner may issue an APM permit to a lakeshore owner to control submersed aquatic plants on up to 100 feet or one-half of the length of the person's shoreline, whichever is less, with the following exceptions:

A. for properties with less than 70 shoreline feet, up to 35 feet of shoreline may be controlled;

Subp. 2a. Aquatic plant control in offshore areas.

The commissioner may issue an APM permit for offshore control subject to the provisions in subparts 3, item B, and 4.

Subp. 3. Mechanical control restrictions.

Mechanical control of aquatic plants is subject to the following conditions:

A. a person who mechanically controls aquatic plants in a public water must immediately and permanently remove the vegetation from the water and dispose of it above the ordinary high-water level;

B. permitted mechanical control may not exceed 50 percent of the total littoral area as determined by the commissioner, nor can the sum of permitted mechanical and pesticide control exceed 50 percent of the littoral area;

Subpart 4. Pesticide control restrictions.

A. Pesticide control of aquatic plants in public waters may not exceed 15 percent of the littoral area, except that on waters that are 20 acres or less, pesticide control may be permitted on up to five acres or one-half the surface area of the pond, whichever is less.

6280.1000 VARIANCE AND LAKE VEGETATION MANAGEMENT PLAN.

Subpart 1. Variance.

A. The commissioner may issue APM permits with a variance from one or more of the provisions of parts [6280.0250](#), subpart 4, and [6280.0350](#), except that no variance may be issued for part [6280.0250](#), subpart 4, items B and C. Variances may be issued to control invasive aquatic plants, protect or improve aquatic resources, provide riparian access, or enhance recreational use on public waters.

Subpart 2. Lake vegetation management plan (LVMP).

A. A lake vegetation management plan (LVMP) approved by the commissioner may authorize a variance from the provisions of this chapter, if permitted under subpart 1, item A, to control invasive species, protect or improve aquatic resources, provide riparian access, and enhance recreational use on public waters.

Lake Shaokotan LVMP (13 pages) - 2022

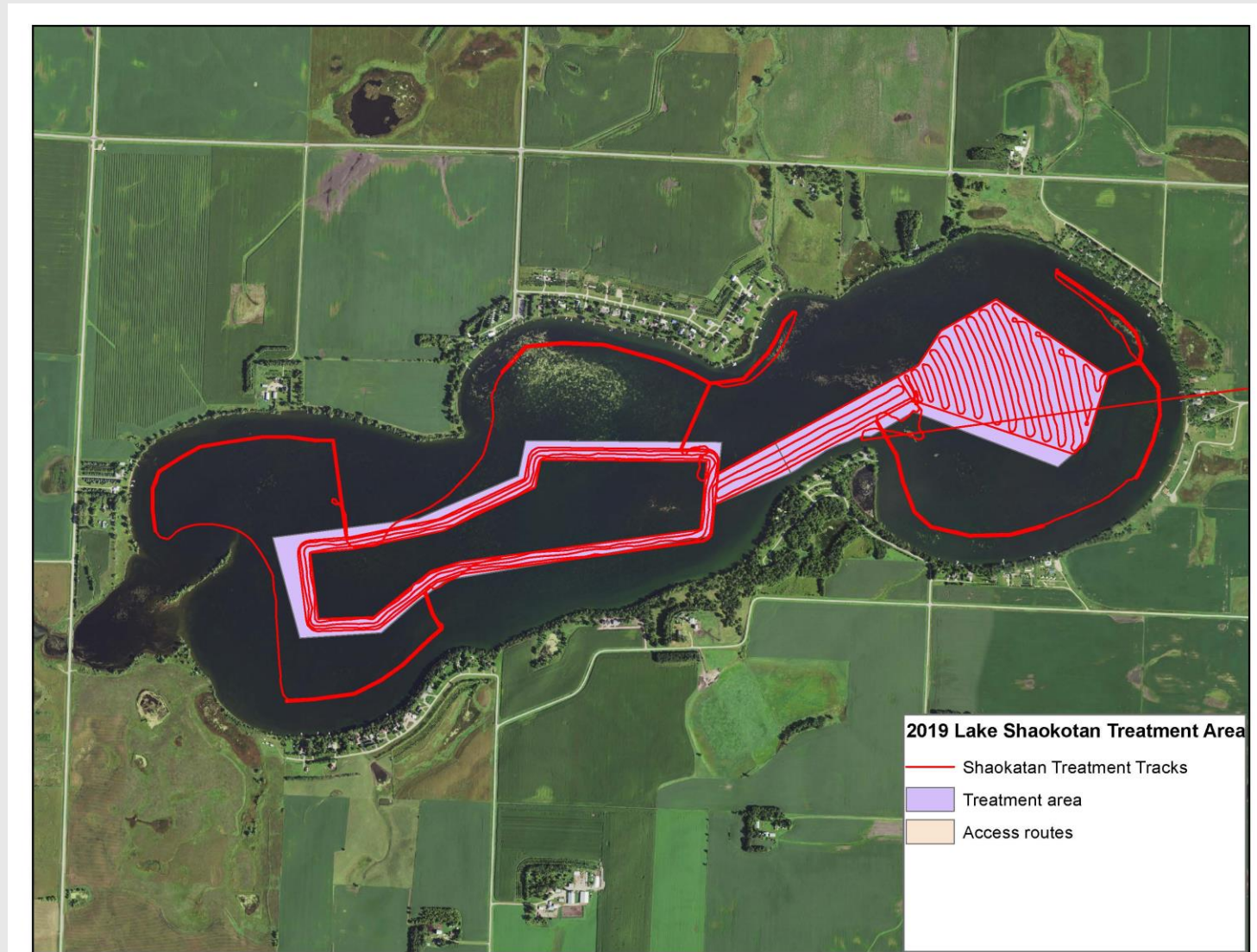
The purpose of a LVMP is to provide:

- a. A context to listen and include citizen feedback
- b. A process for continuity and setting reasonable expectations
- c. An explicit set of measurable goals and objectives
- d. A means to document issues and evaluate management efforts

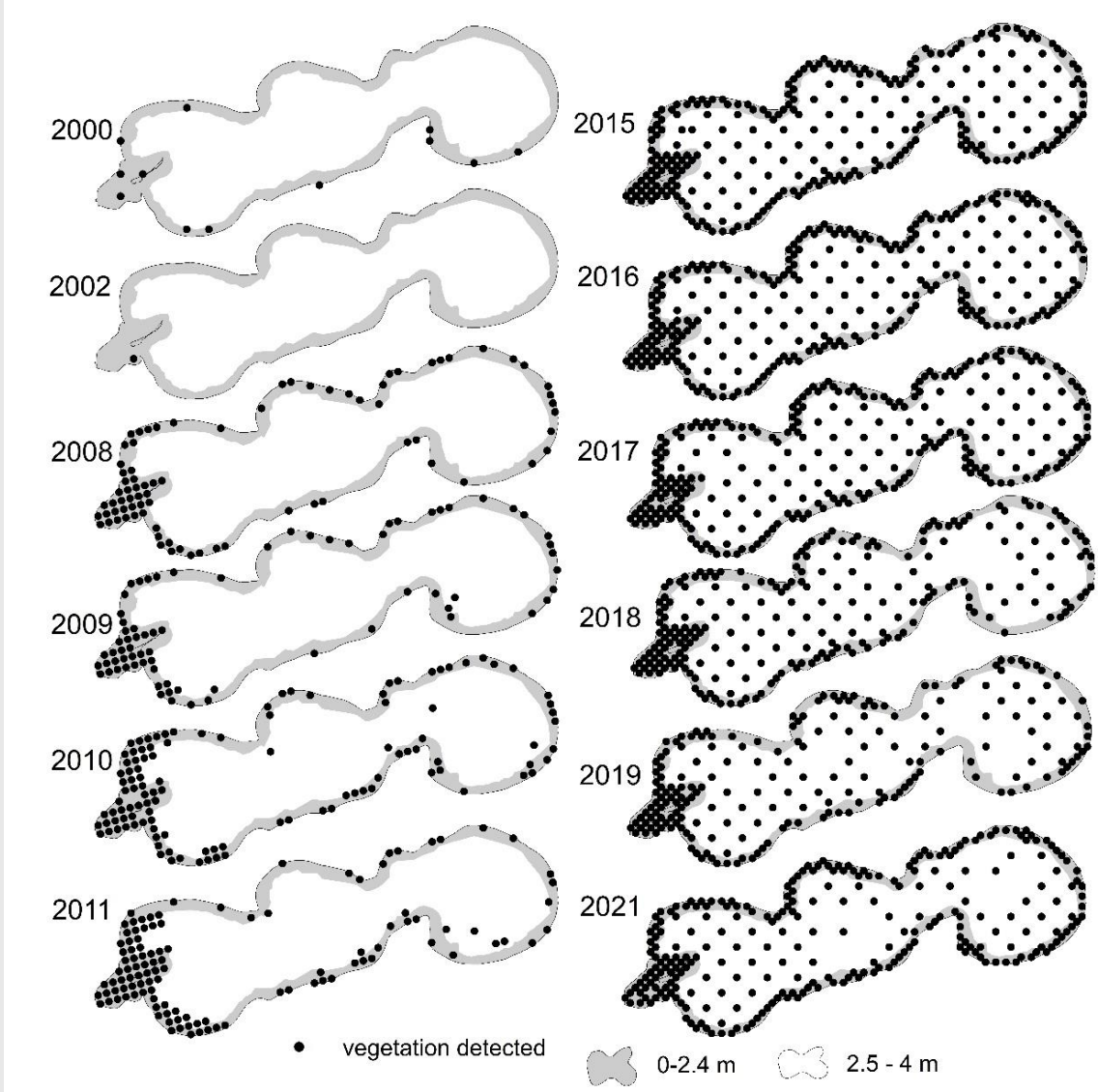
The use of LVMP generates better management outcomes; whereas, ad hoc lake management often leads to changing goals, unmet expectations, and higher conflict.

This LVMP herbicidal control of native aquatic vegetation for up to 14% of a "commons area" for: a) a mid-lake treatment zone, and b) pre-determined access routes (>150' from shore) delineated on maps.

2019 Lake Shaokotan Treatment Area, 150 acres



Lake Shaokotan - Aquatic Plant Detection



Summary of Lake Shaokotan and LVMP Use

1. Lake Shaokotan has a long history of monitoring and collaboration among State of MN, County, Watershed District, Sportman's Club, Lake Improvement District & volunteers.
2. Numerous projects conducted for decades; e.g., 1991 PCA initiated CWP Study.
3. Lake Shaokotan LID (citizens) participated in and agreed to develop the LVMP.
4. It is one of eight Sentinel Lakes in MN for long-term monitoring.
5. Projects have reduced nutrient loading to the lake; feedlots and septic systems.
6. No longer on the impaired waters list!
7. Shallow groundwater has low P & increases flushing of lake (dilution).
8. Results in lower in-lake P & reductions in the amount & composition of algae, shift away from blue-greens.
9. As a result, there has been an expansion of native rooted plants across the lake – which is a predictable response given the shallowness of the lake.
10. Stability of this “state” is dependent on continued low nutrient loading, maintaining the health of native plant community & related factors.

Thank You!