



MEMORANDUM

Comfort Lake-Forest Lake Watershed District

Date: February 6, 2023
To: CLFLWD Board of Managers
From: Mike Kinney, District Administrator
Subject: Staff's Eurasian Watermilfoil Management Recommendation



District Wide

Background/Discussion

Below are staff recommendations for the District's involvement with Eurasian watermilfoil (EWM) management, which most closely resembles option #2 "CLFLWD Manages EWM for Ecological Integrity" presented at the January 26th regular board meeting. This recommendation has been selected with the following considerations: The District's current Watershed Management Plan (WMP) language, input from technical experts, and managing aquatic invasive species (AIS) for ecological and water quality benefits.

- 1. Delineation and Assessment Surveys** - The District would pay for and coordinate professional survey delineations and assessments.
- 2. District's management of EWM** - The District would manage areas of EWM that pose an ecological threat to the native plant or fish community and so delineated by a professional qualified to make the assessment. An ecological threat will be defined as a bed or area of continuous EWM growth with a stem density of 180 stems per sq. meter or greater. District coordinated treatments would only occur in areas that are 150 ft or more from shore. By default, these would also be areas of heavy growth that would diminish recreational use.
- 3. Lake Association's Management of EWM** - Local Lake associations are able to coordinate and perform their own EWM treatments, regardless of the District's management activities. If the District's ecological treatment does not also address the recreational concerns of the lake association, they are able to perform additional treatments as allowed by the MDNR, both within and outside of 150 ft from shore. Areas of proposed treatments within the 150 ft zone from shore must also be coordinated with property owners.
- 4. Expenses** - The District will be responsible for all delineations, assessments, and point intercept surveys (PI surveys rotate on a 5-year schedule). Any ecological treatment recommended to the District will be coordinated by and funded by the CLFLWD using ad valorem revenue, grants, donations, etc. as appropriate.



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5. **District's Support to Lake Associations** – District staff will remain available to the lake associations to assist with treatment recommendations and general technical support. For lake association and lake resident DNR treatment permits, each will have to obtain their own separate from the District. However, many contracted applicators can handle the permitting process on behalf of lakeshore owners and the hiring organization. Regardless, if needed, the District would be available to coach and assist individuals through the DNR's permitting process. Lastly, the District can assist lake associations with grant applications to secure funding from other state, county, city, etc. organizations when eligible.

Board Directive: Review Legal Counsel Correspondence

The Board directed staff to look into past email correspondence and find guidance from District legal counsel regarding the “non-amendment” process to revise the Watershed Management Plan (WMP) (i.e., making changes to the WMP in underlined text and simply distributing those changes to review agencies, rather than going through a formal amendment process with public hearings and such). In May 2021, legal counsel shared with Manager Anderson [Minnesota Rules 8410.0140 Subp. 1a](#) which describes the types of revisions falling under this category.

Given the discussion and decisions that took place between May 2021 and now, legal counsel offers the following recommendation:

Staff advises that the WMP AIS program text doesn't say that the District may manage aquatic invasive species (AIS) purely for recreational benefit. The District tax levy, per Minnesota Statutes §103B.241, may be expended “for projects identified in an approved and adopted [WMP].” The bottom line of the BWSR position, with which staff and legal counsel agree, is that if the board wishes to fund AIS management specifically for recreational benefit (and assuming there's a realm of EWM management that is only for recreational benefit and doesn't have any ecological benefit that can be articulated), there should be a plan amendment articulating recreational benefit as a District purpose and describing in at least general terms how the District may manage AIS for such benefit. Again, the amendment process principally provides for notice to stakeholder agencies and the public, and an opportunity for those interested parties to give input. **As spending on AIS management purely for recreational benefit would be a qualitatively new program step and would implicate precedent, budget and program boundaries, the managers may find, in any event, that they would benefit from stakeholder and public input before they make their decision.**



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If the recommendation above is followed, and treatments are aligned with ecological benefits, the WMP amendment may not be as necessary.

Recommended Motion

Manager_____ moves to accept the proposal for the District's EWM management plan detailed above. Seconded by Manager_____.

Attached

Per the board's directive at the January 26th, regular board meeting, Mr. McComas prepared two documents to aid the board in their discussion:

1. Considerations of EWM and Native Aquatic Plant Impacts in Lakes
2. Eurasian Watermilfoil Growth Characteristics

Considerations of EWM and Native Aquatic Plant Impacts in Lakes

Prepared by Steve McComas, Blue Water Science, February 7, 2023

A chart to evaluate impacts of Eurasian watermilfoil (EWM) and native plants on several categories is shown in Table 1. The rating system used in Table 1 is subjective but is based on previous lake research results and personal observations.

Table 1. Evaluation of light and heavy growth of EWM and native aquatic plants on lake recreation, economics, and ecology using a rating system of 0 to 3. Rating scores are tabulated in the TOTAL row.

Parameters	Recreation				Economics				Ecology			
	EWM		Native Plants		EWM		Native Plants		EWM		Native Plants	
	Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy
Food for fish	2	2	2	2	0	0	0	0	3	2	3	2
Fish shelter	2	-1	3	-1	0	0	0	0	2	-1	3	-1
Improve clarity	1	1	1	1	1	1	1	1	1	3	2	3
Protect shorelines	0	2	0	3	0	1	1	2	0	2	1	3
Nutrient uptake	1	2	2	3	0	0	0	0	1	2	1	3
Aesthetics	0	-3	0	-2	0	-2	0	-1	0	0	0	0
Property values	0	0	0	0	0	-1	0	-1	0	0	0	0
Swimming	0	-2	0	-2	0	0	0	0	0	0	0	0
Fishing	2	-1	2	-1	0	-1	0	-1	1	0	1	0
Boating	0	-2	0	-2	0	-1	0	-1	0	0	0	0
Sailing	0	-2	0	-2	0	-1	0	-1	0	0	0	0
Long term loss of native plants	0	-1	0	-1	0	-1	0	-1	0	-1	0	-1
Cost of treatments	-1	-3	-1	-2	0	-3	0	-2	0	0	0	0
TOTAL	7	-8	9	-4	1	-8	2	-5	8	7	11	9

Rating System:

0 = Neutral

1 = Slightly important or significant

2 = Important or significant

3 = Very important or significant

Negative rating numbers indicate a detrimental condition

Preliminary conclusions based on tabulation of the parameter ratings

§ Light growth of EWM is similar in impact to light growth of native plants.

§ Heavy growth of EWM has a slightly greater detrimental impact on lake conditions than heavy growth of native plants.

§ Both the heavy growth of EWM and the native plants have a greater detrimental impact on recreational conditions compared to light growth of EWM and native plants. Impacts of EWM and native plant growth are similar for economics and lake ecology categories.

Eurasian Watermilfoil Growth Characteristics

(source: Steve McComas, Blue Water Science)

Light Growth Conditions

Plants rarely reach the surface.

Plants are in scattered patches*.

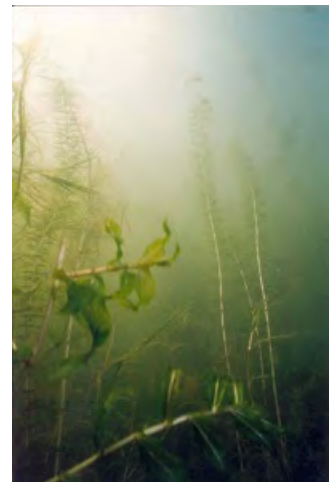
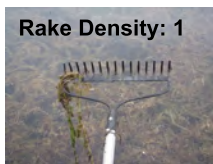
Navigation and recreational activities generally are not hindered.

Stem density: 1 - 90 stems/m²

Biomass: 0 - 70 g-dry wt/m²

MnDNR rake sample density equivalent for light growth conditions: 1.

**patch = EWM stems arising from a single root crown. Generally 5 to 10+ stems sprout from a root crown.*



Moderate Growth Conditions

Broken surface canopy conditions. However, stems are usually unbranched.

Plants are in beds* with some patches.

Navigation and recreational activities may be hindered.

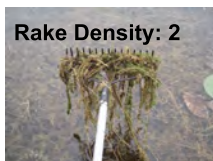
Lake users may opt for control.

Stem density: 90 - 180 stems/m²

Biomass: 70 - 200 g-dry wt/m²

MnDNR rake sample density equivalent for moderate growth conditions: 2.

**beds = EWM patches close together forming an area of dominant EWM growth.*



Heavy Growth Conditions

Solid or near solid surface canopy conditions. Stems typically are branched near the surface.

Plants grow in continuous beds.

Navigation and recreational activities are limited.

Control is necessary for navigation and/or recreation.

Stem density: 180+ stems/m²

Biomass: >200 g-dry wt/m²

MnDNR rake sample density equivalent for heavy growth conditions: 3.

