

Lake Maxinkuckee

2022 Vegetation Management Summary

Date	Management Activity
June 20, 2022	Visual GPS Survey to map Hybrid Eurasian watermilfoil- no significant EWM found
July 2022	Periodic checking of historical EWM areas – no significant EWM found
August 16, 2022	Tier II quantitative vegetation survey - 13.85 acres of EWM mapped
August 25, 2022	13.85 total acres of EWM treated on Maxinkuckee Lake with Procellacor –100 % association funding

2023 Treatment Recommendations

Eurasian watermilfoil

All areas of significant Eurasian watermilfoil growth in Lake Maxinkuckee should be treated aggressively. We recommend ProcellaCOR herbicide for spot treatments in Maxinkuckee Lake. It is more expensive than 2, 4-D but should provide more complete control for milfoils. We recommend setting aside funding to treat up to 30 acres of EWM with ProcellaCOR on Maxinkuckee Lake in 2023. This should be enough acreage to encompass all EWM growth in 2023.

Starry Stonewort

Starry stonewort is present in Lake Maxinkuckee. SSW is not problematic in most areas of the lake right now but could become more of a problem as it spreads. Costs to treat starry stonewort are approximately \$575 per acre and each area of SSW must be treated 2-3 times per year to maintain good control. We recommend setting aside the LARE maximum of \$5,000 for potential SSW control in 2023. Cutrine Ultra and Hydrothol herbicides would likely be used to control SSW.

2023 Survey and Planning Recommendations

It is very important to note that the EWM in Lake Maxinkuckee comes out of deep water and comes in very late when compared to most lakes. In 2023, we recommend a late spring or summer visual GPS survey to map invasive watermilfoil on Lake Maxinkuckee. We also recommend a summer Tier II aquatic vegetation survey to monitor the native plant community. We also recommend an AVMP update to help track management practices and changes in the plant community.

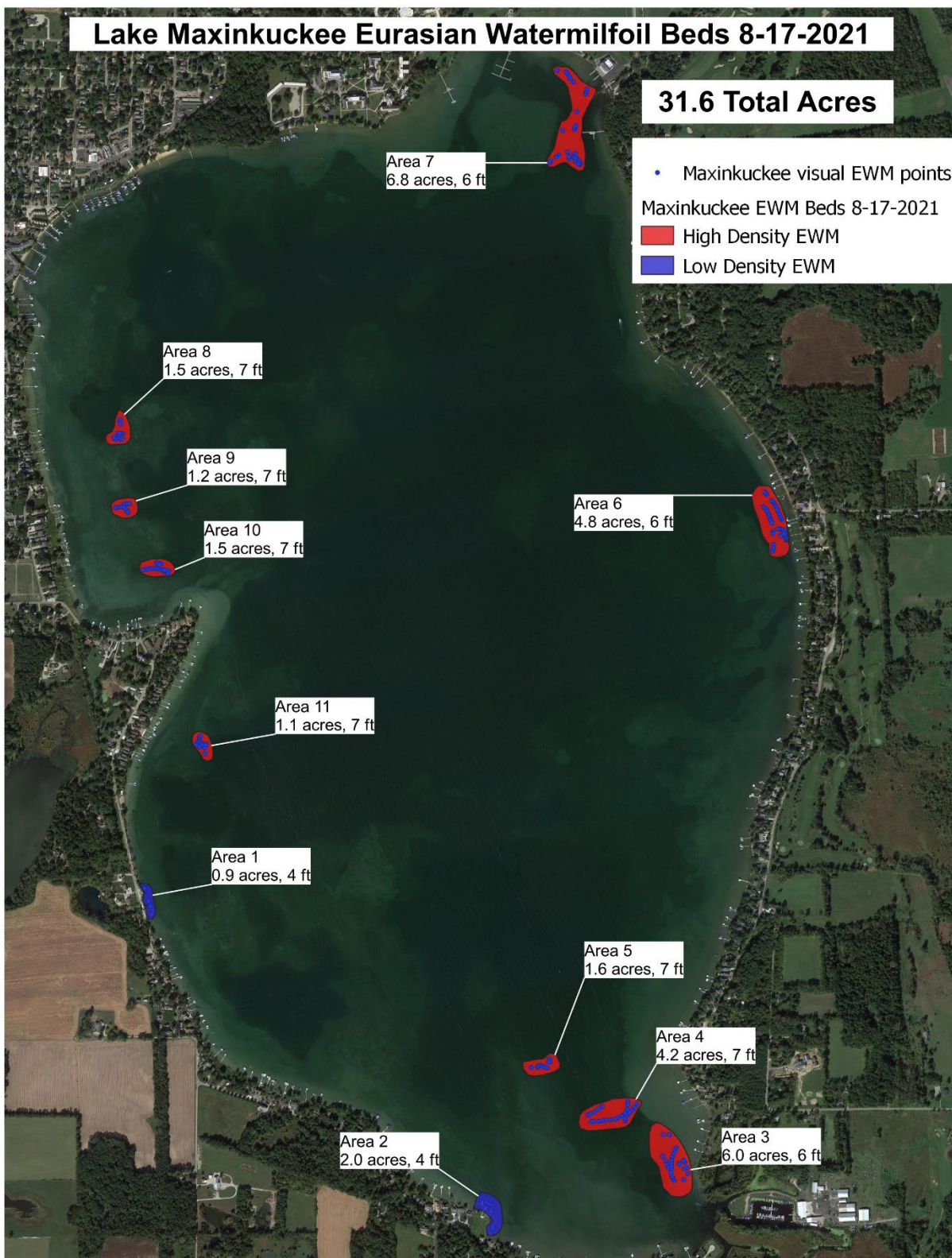
2023 Budget Estimates

Treat up to 30 acres of EWM on Lake Maxinkuckee with ProcellaCor herbicide at a rate of 2 to 4 PDU/acre foot (up to 6-foot avg. depth)	\$ 24,000
Treat up to 6 acres of SSW up to 3 times	\$ 10,350
Spring Visual Surveys, Summer Tier II Surveys, and AVMP Update	\$ 6,000
Total Cost Estimate	up to \$ 40,350
LARE share (80% of EWM treatment and surveys/AVMP, \$5000 for SSW)	up to \$ 29,000
Associations share (20% of EWM/ surveys/AVMP, balance of SSW over \$5000)	up to \$ 11,350

Lake Maxinkuckee 2022 EWM Locations



Lake Maxinkuckee 2021 EWM Beds



Lake Maxinkuckee Historical Tier II Data

Lake Maxinkuckee Multi-Year Data Presentation		
Date:	8/20/2021	8/16/2022
Total Sites:	100	100
Secchi (ft):	13.0	12.0
Number of Species:	14	14
Number of Native Species:	11	11
Sites with Plants	75	75
Sites with Native Plants	70	65
Maximum Plant Depth (ft)	23.5	23.5
Species Diversity:	0.85	0.85
Native Species Diversity:	0.81	0.81
Mean Native Species/Site:	1.37	1.39
Surveying Organization	AWC	AWC
Species Frequency of Occurrence - All Depths		
Coontail	3.0	3.0
Chara	45.0	41.0
Eurasian watermilfoil	3.0	4.0
Slender naiad	23.0	29.0
Southern naiad	1.0	0.0
Spiny naiad	4.0	2.0
Nitella	8.0	4.0
Richardson's pondweed	1.0	0.0
Illinois pondweed	21.0	23.0
Long-leaf pondweed	0.0	1.0
Small pondweed	0.0	1.0
Flat-stemmed pondweed	1.0	1.0
Sago pondweed	15.0	17.0
Common bladderwort	3.0	2.0
Eel grass	16.0	17.0
Starry stonewort	12.0	17.0
Filamentous algae	2.0	1.0
Species Frequency of Occurrence - 0 to 5 ft		
Coontail	0.0	4.0
Chara	68.0	76.0
Slender naiad	28.0	32.0
Illinois pondweed	32.0	36.0
Sago pondweed	0.0	12.0
Common bladderwort	4.0	8.0
Eel grass	8.0	0.0
Starry stonewort	0.0	4.0
Filamentous algae	4.0	0.0

Lake Maxinkuckee Historical Tier II Data

Species Frequency of Occurrence - 5 to 10 ft		
Chara	69.9	60.9
Eurasian watermilfoil	0.0	8.7
Slender naiad	43.5	52.2
Spiny naiad	4.3	4.3
Illinois pondweed	43.5	52.2
Flat-stemmed pondweed	4.3	4.3
Sago pondweed	13.0	21.7
Common bladderwort	8.7	0.0
Eel grass	4.3	26.1
Starry stonewort	0.0	8.7
Species Frequency of Occurrence - 10 to 15 ft		
Chara	40.9	22.7
Eurasian watermilfoil	9.1	9.1
Slender naiad	22.7	31.8
Spiny naiad	9.1	4.5
Southern naiad	4.5	0.0
Nitella	0.0	4.5
Richardson's pondweed	4.5	
Long-leaf pondweed	0.0	4.5
Illinois pondweed	13.6	4.5
Sago pondweed	54.5	40.9
Eel grass	50.0	40.9
Starry stonewort	18.2	31.8
Species Frequency of Occurrence - 15 to 20 ft		
Coontail	10.0	5.0
Chara	15.0	10.0
Eurasian watermilfoil	5.0	0.0
Slender naiad	5.0	5.0
Spiny naiad	5.0	0.0
Nitella	35.0	15.0
Small pondweed	0.0	5.0
Eel grass	10.0	5.0
Starry stonewort	30.0	25.0
Filamentous algae	5.0	5.0
Species Frequency of Occurrence - 20 to 25 ft		
Coontail	10.0	10.0
Chara	0.0	10.0
Illinois pondweed	0.0	10.0
Slender naiad	0.0	10.0
Nitella	10.0	0.0
Starry stonewort	20.0	20.0
Eel grass	0.0	10.0