



Blue Lake HWM Removal Report 2021

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Blue Lake HWM Manual Removal Summary 2021

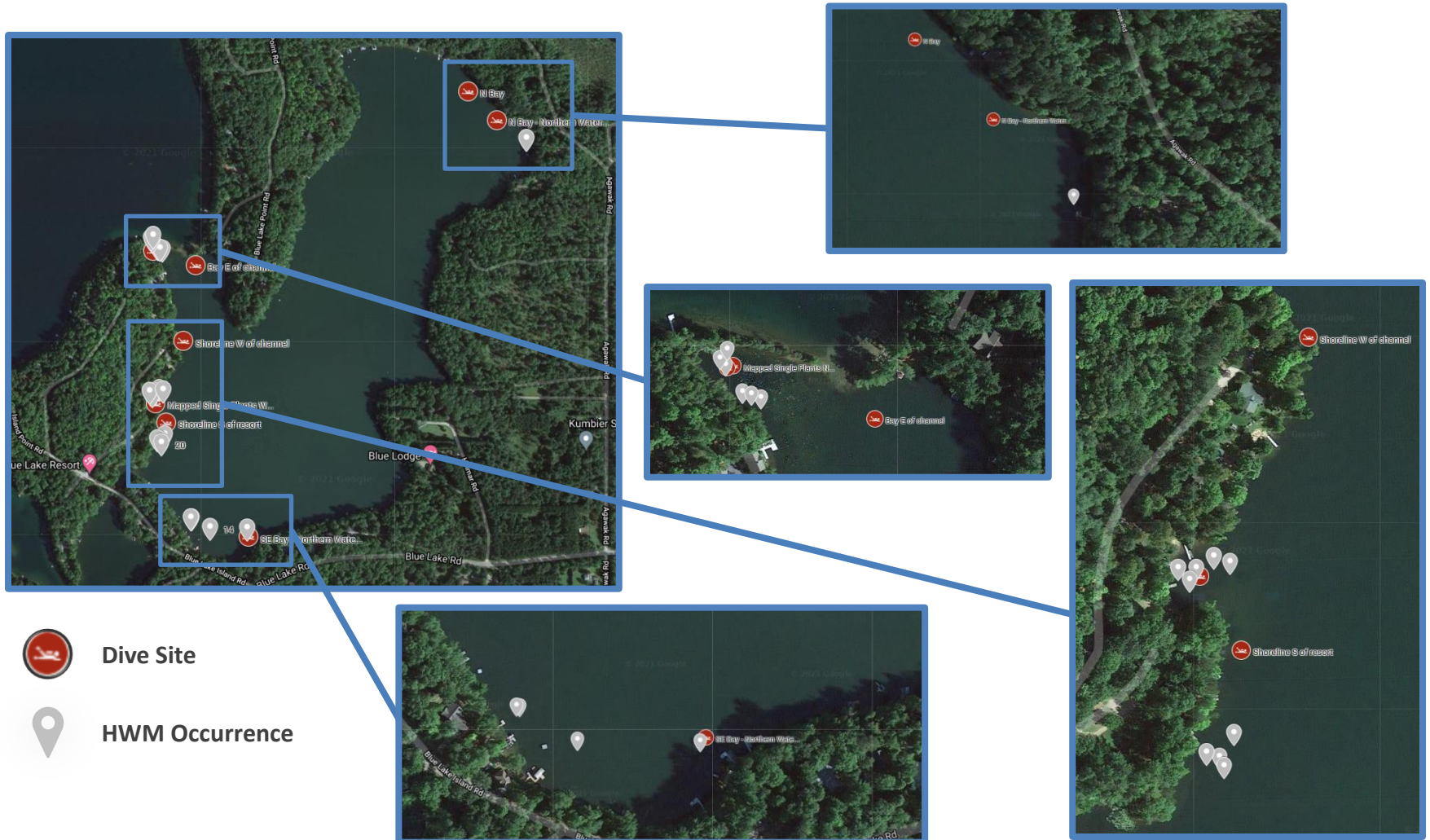
Overview: On June 30th, Aquatic Plant Management LLC (APM) conducted hand harvesting of Hybrid Watermilfoil (HWM) on Blue Lake in Oneida County, WI. The team, consisting of four divers, focused their efforts at two sites with mapped single or few HWM plants from a June 10th HWM survey conducted by Onterra LLC. In addition, APM divers dove along much of the lake's shoreline, finding and removing additional HWM plants at three additional locations that were not identified during the June 10th survey. All single or few HWM plant occurrences were documented with GPS coordinates. In total APM was able to remove **2.5 cubic feet of HWM** from Blue Lake.

Date	Weather Conditions	Water Temp (F)	Underwater Dive Time (hrs)	AIS Removed (cubic ft)
6/30/2021	Sunny	77	6.5	2.5
Grand Total			6.5	2.5

Dive Location	Avg. Water Depth	# of Dives	Underwater Dive Time	AIS Removed (cubic feet)
Bay E of channel	5.5	1	0.3	0.0
Mapped Single Plants NW Corner	3.5	2	1.8	0.5
Mapped Single Plants W Shoreline	4.5	1	1.0	0.5
N Bay	6.5	1	0.8	0.0
N Bay - Northern Watermilfoil	5.5	1	0.8	0.5
SE Bay - Northern Watermilfoil	6.5	1	1.2	0.5
Shoreline S of Resort	6.5	1	0.4	0.5
Shoreline W of Channel	5.5	1	0.3	0.0
Grand Total	5.3	9	6.5	2.5

Recommendations: With the new HWM population on Blue Lake, hand harvesting was a good approach to target the single and few plant occurrences. Since HWM was found at 150% more sites in late June compared to what was mapped in early June, it is possible that there could be more HWM occurrences outside of where APM dove. All HWM plants found were located within dense native plant populations. Continued vigilant monitoring and appropriate management efforts are important to prevent the spread of HWM throughout Blue Lake.

Map of Blue Lake Dive Sites



Detailed Diving Activities

Date	Dive Location	Latitude	Longitude	Underwater Dive Time (hrs)	AIS Removed (cubic ft)	AIS Density	Avg Water Depth (ft)	Native By-Catch Species	Native By-Catch	Substrate Type
6/30/21	Mapped Single Plants NW Corner	45.83825	-89.75416	1.25	0.5	Single or Few	3.5	None	0.0	Organic
6/30/21	Mapped Single Plants W Shoreline	45.83522	-89.75414	1.00	0.5	Single or Few	4.5	None	0.0	Organic
6/30/21	N Bay - Northern Watermilfoil	45.84082	-89.74444	0.75	0.5	Single or Few	5.5	None	0.0	Organic/Sand
6/30/21	SE Bay - Northern Watermilfoil	45.83258	-89.75150	1.17	0.5	Single or Few	6.5	None	0.0	Organic
6/30/21	Mapped Single Plants NW Corner	45.83824	-89.75421	0.50	0.0	Single or Few	3.5	None	0.0	Organic
6/30/21	Bay E of channel	45.83795	-89.75300	0.33	0.0	n/a	5.5	None	0.0	Organic
6/30/21	Shoreline W of channel	45.83645	-89.75334	0.33	0.0	n/a	5.5	None	0.0	Organic
6/30/21	Shoreline S of resort	45.83484	-89.75383	0.42	0.5	Single or Few	6.5	None	0.0	Organic
6/30/21	N Bay	45.84139	-89.74525	0.75	0.0	n/a	6.5	None	0.0	Organic

Single or Few HWM Occurrence GPS Coordinates

HWM Occurrence ID	Dive Location	Latitude	Longitude
1	Mapped Single Plants NW Corner	45.838040	-89.754083
2	Mapped Single Plants NW Corner	45.838004	-89.753936
3	Mapped Single Plants NW Corner	45.838027	-89.754008
4	Mapped Single Plants NW Corner	45.838191	-89.754220
5	Mapped Single Plants NW Corner	45.838231	-89.754268
6	Mapped Single Plants NW Corner	45.838281	-89.754207
7	Mapped Single Plants W Shoreline	45.835258	-89.754037
8	Mapped Single Plants W Shoreline	45.835199	-89.754167
9	Mapped Single Plants W Shoreline	45.835138	-89.754214
10	Mapped Single Plants W Shoreline	45.835198	-89.754300
11	Mapped Single Plants W Shoreline	45.835228	-89.753918
12	N Bay - Northern Watermilfoil	45.840208	-89.743612
13	SE Bay - Northern Watermilfoil	45.832492	-89.751547
14	SE Bay - Northern Watermilfoil	45.832500	-89.752603
15	SE Bay - Northern Watermilfoil	45.832701	-89.753103
16	SE Bay - Northern Watermilfoil	45.832707	-89.753127
17	Shoreline S of Resort	45.834348	-89.753888
18	Shoreline S of Resort	45.834226	-89.753994
19	Shoreline S of Resort	45.834249	-89.754091
20	Shoreline S of Resort	45.834179	-89.753960

HWM Pictures (1 of 2)



HWM Pictures (2 of 2)

