

Underwater Picture of Milfoil in Lower Prior Lake, June 8, 2022

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## Curlyleaf Pondweed Delineation and Assessment Surveys for Upper and Lower Prior Lake and Summer Point Intercept Survey for Lower Prior Lake, Scott County, 2022

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Curlyleaf Pondweed Delineation: April 26, 2022

**Herbicide Treatment: 10.12 acres in May 2022**

Curlyleaf Pondweed Assessment Date: June 8, 2022

Point Intercept Survey for Lower Prior: July 28, 2022

Prepared for:  
Prior Lake/Spring Lake  
Watershed District  
Prior Lake, Minnesota



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# Curlyleaf Pondweed Delineation and Assessment Surveys for Upper and Lower Prior Lake and Summer Point Intercept Survey for Lower Prior Lake, Scott County, 2022

## Summary

**Early Season Curlyleaf Pondweed Delineation:** Curlyleaf pondweed (CLP) distribution and abundance were delineated in Upper and Lower Prior Lakes on April 26, 2022. Based on the curlyleaf pondweed densities in both Upper and Lower Prior, several areas were delineated as having the potential for heavy curlyleaf growth by June (Figure S1).

Curlyleaf densities was mostly light in April but there was the potential for heavy curlyleaf growth in some areas and 10.12 acres were delineated for a herbicide treatment.

The curlyleaf pondweed treatment was conducted in May 2022 using diquat on a total of 10.12 acres in Upper and Lower Prior Lake.

**Post Treatment Assessment:** A follow-up curlyleaf assessment was conducted on June 8, 2022. The June 8 curlyleaf assessment found curlyleaf in the treatment areas was mostly well controlled. Outside of the treatment areas, there were a few sites where heavy curlyleaf pondweed growth was present, however most heavy growth was patchy.

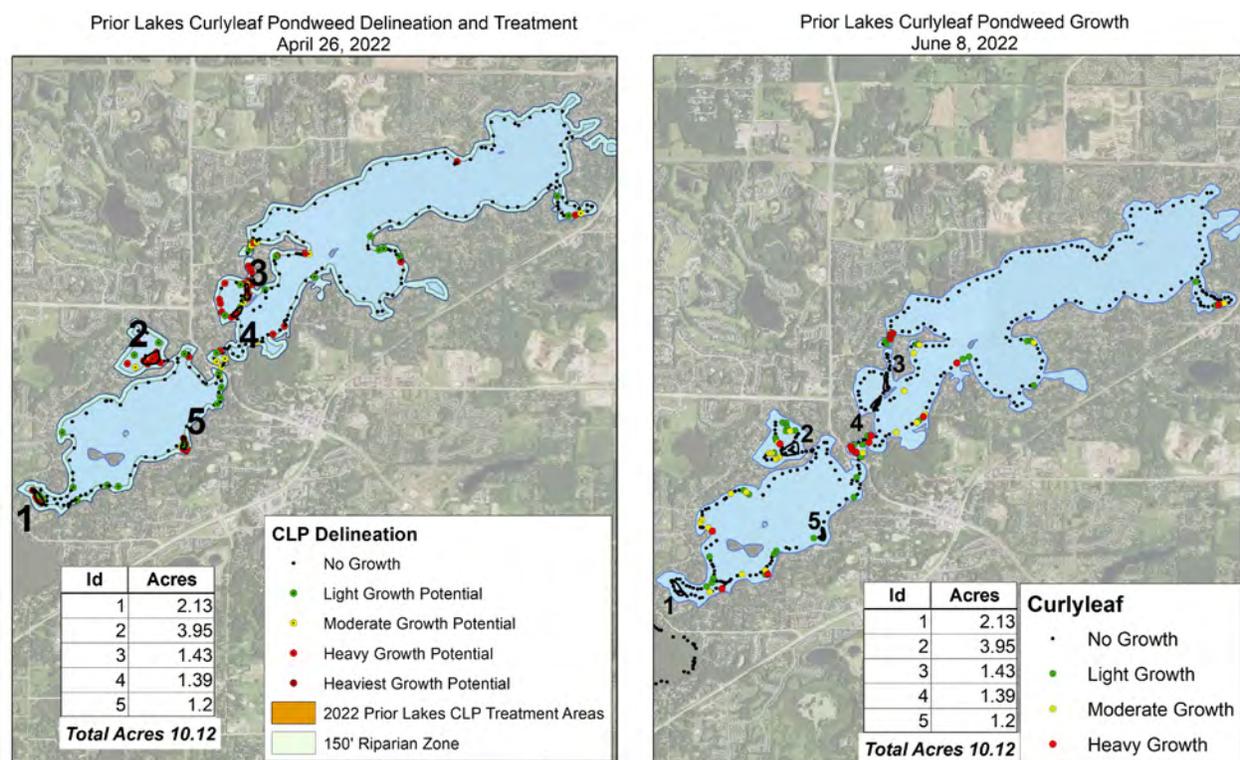
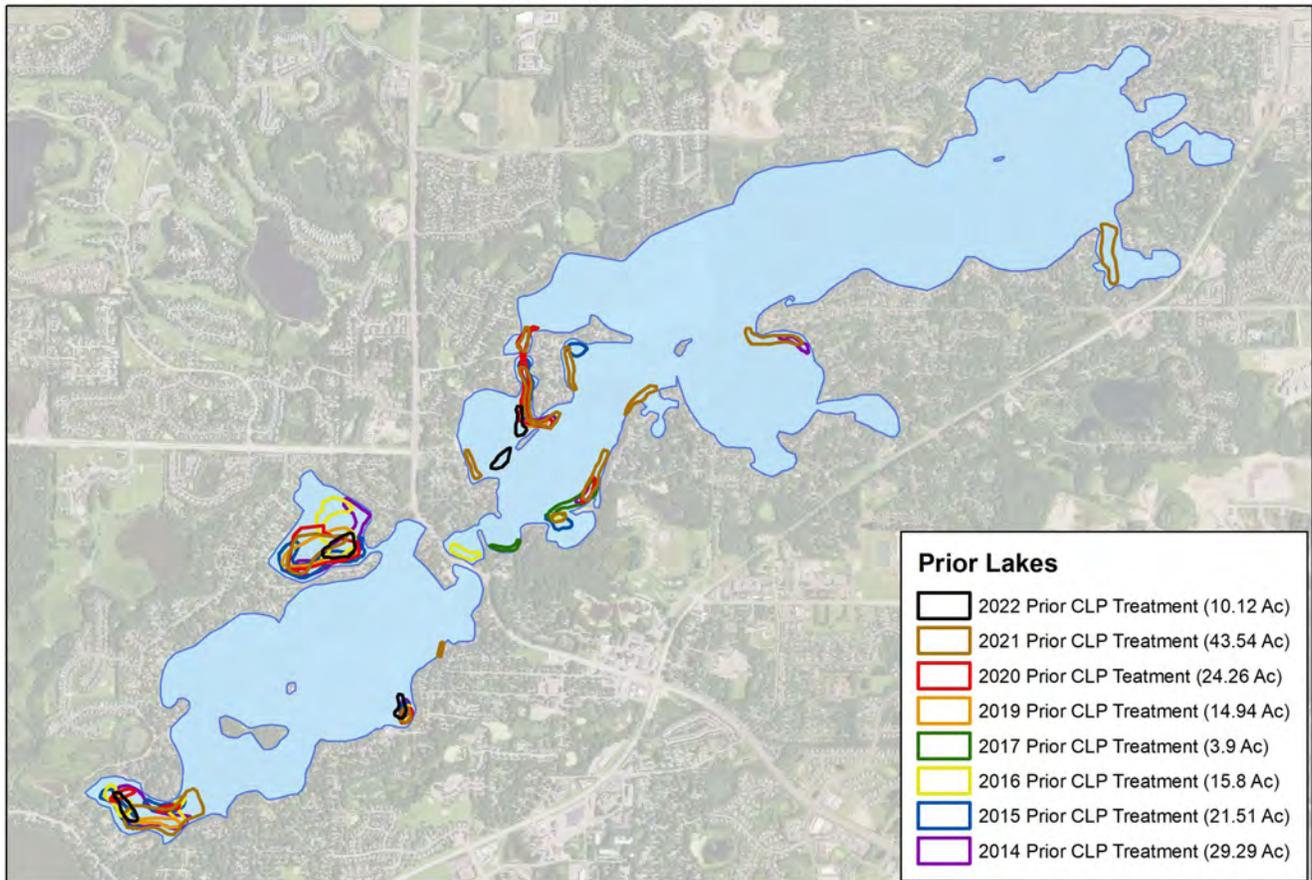


Figure S1. [left] Curlyleaf pondweed delineation survey conducted in Upper-Lower Prior Lake on April 26, 2022. [right] Curlyleaf pondweed assessment survey in Upper-Lower Prior Lake on June 8, 2022.

**Curlyleaf Planning for 2023:** Treating heavy growth of curlyleaf pondweed based on early season curlyleaf distribution is a challenge. Curlyleaf in April and May has just started to go into a rapid growth phase. However, not all early season curlyleaf growth will result in heavy curlyleaf growth in late May and June. It appears there are factors that limit curlyleaf growth and significant variables are associated with sediment conditions. The question is how to best delineate areas to treat what could be heavy growth in June but not overtreat areas where growth wouldn't be a nuisance for the season.

Currently, for Upper and Lower Prior Lake, the method has been to use past CLP growth history (Figure S2) combined with early season scouting. Then if curlyleaf growth has indications of producing potential heavy growth, those areas are delineated and treatment is considered. That is the approach to be considered for 2023.

Prior Lakes Curlyleaf Pondweed Hotspot Map  
CLP Treatment Areas for 2014-2022



N UTM NAD 1983  
Blue Water Science

**Table S1. Treatment summary from 2009-2022.**

Year	Treatment
2009	No treatment
2010	No treatment
2011	No treatment
2012	No treatment
2013	23 acres
2014	29.3 acres
2015	21.5 acres
2016	15.8 acres
2017	2.55 acres
2018	No treatment
2019	14.9 acres
2020	24.3 acres
2021	24.15 acres
2022	10.12 acres

**Figure S2. Prior Lake hot spot map for curlyleaf pondweed treatment areas from 2014-2022.**

**Point Intercept Survey for Lower Prior Lake:** A grid with points spaced 100 meters apart were sampled throughout the growing zone on July 28, 2022 in Lower Prior Lake. A total of 214 sites were sampled, plants were observed growing to a depth of 20 feet. Results of the summer aquatic plant point intercept survey found 19 submerged aquatic plant species in Lower Prior (Figure S3).

Native aquatic plants were estimated to cover 41% of the lake bottom (388 acres). Coontail was the dominant aquatic plant and Eurasian watermilfoil was second most common. The 19 aquatic plant species found in this survey represent a good diversity for Lower Prior Lake in summer.

Lower Prior Lake Species Richness  
July 28, 2022

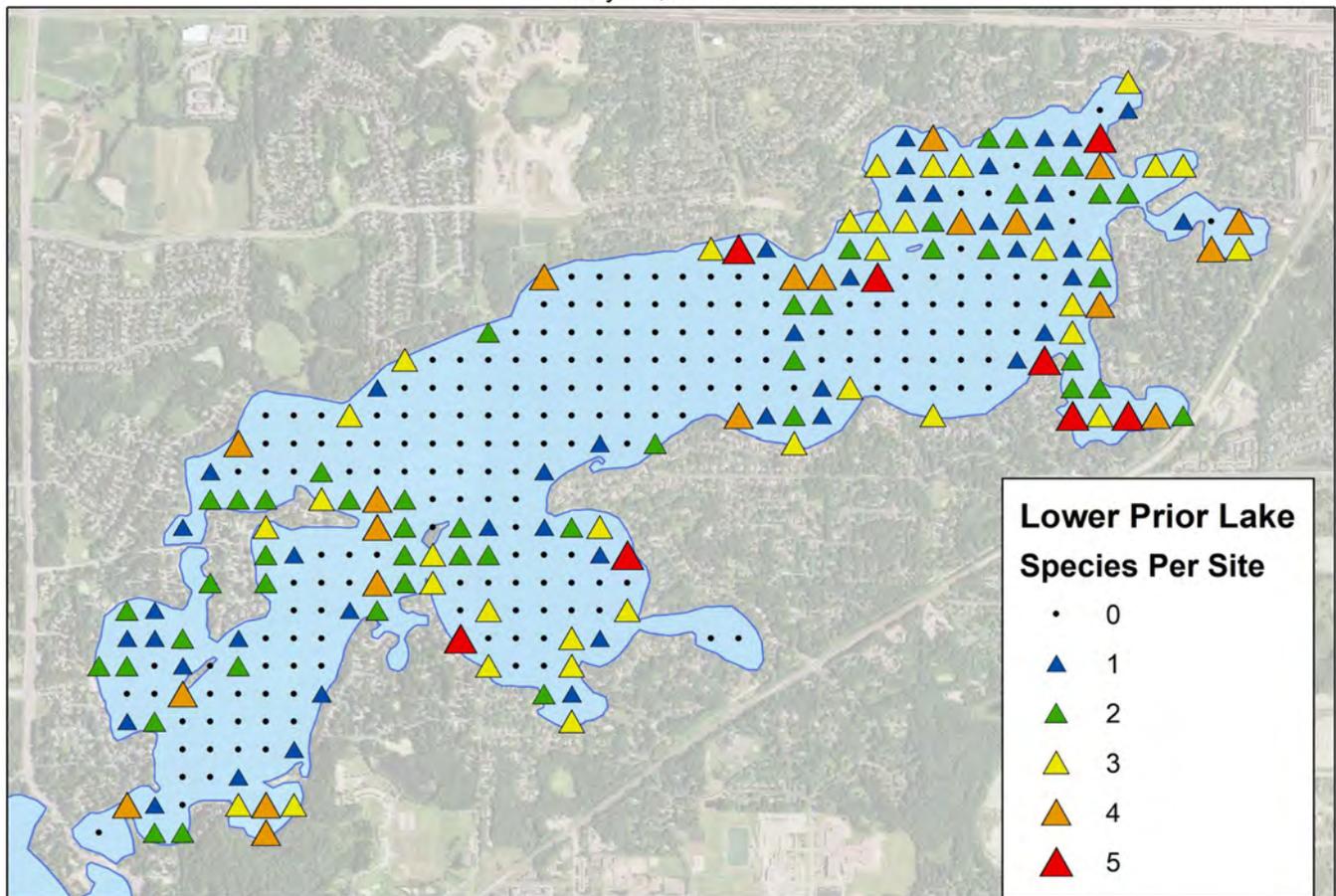


Figure S3. Point intercept survey results for species richness(number of species per site).

## Summary of Aquatic Plant Point Intercept Surveys

Three previous point intercept surveys have been recently conducted in Lower Prior and 4 point intercept surveys have been conducted in Upper Prior Lake (Table S2).

In both Lower and Upper Prior the number of aquatic plant species and the coverage have increased since 2015 (Table S2). Eurasian watermilfoil increased in Lower Prior in 2022 compared to 2020.

**Table S2. Prior Lake aquatic plant number of sites where a species was sampled for 2015, 2018, 2020, 2021, and 2022 point intercept surveys.**

Lower Prior	Occurrence of Plants			
	2015	2018	2020	2022
Duckweed ( <i>Lemna sp</i> )		1		
Coontail ( <i>Ceratophyllum demersum</i> )	62	129	63	102
Chara ( <i>Chara sp</i> )	9		8	17
Elodea ( <i>Elodea canadensis</i> )	5	2	1	1
Water stargrass ( <i>Heteranthera dubia</i> )	3	22	7	17
Star duckweed ( <i>Lemna trisulca</i> )		4	3	12
Northern watermilfoil ( <i>Myriophyllum sibiricum</i> )	10	52	4	1
hybrid watermilfoil ( <i>M. sp</i> )		2		
Eurasian watermilfoil ( <i>M. spicatum</i> )	38	16	32	101
Naiads ( <i>Najas flexilis</i> )		4	2	
Nitella ( <i>Nitella sp</i> )		2	1	5
Cabbage ( <i>Potamogeton amplifolius</i> )	4	2	4	2
Curlyleaf pondweed ( <i>P. crispus</i> )		10	7	5
Illinois Pondweed ( <i>P. illinoensis</i> )	6	11		6
Whitestem pondweed ( <i>P. praelongus</i> )	7	4		3
Claspingleaf ( <i>P. Richardsonii</i> )	6	10	9	4
Stringy pondweed ( <i>P. sp</i> )		1	3	10
Flatstem pondweed ( <i>P. zosteriformis</i> )	10	26	32	22
Sago ( <i>Stuckenia pectinata</i> )		1	1	
Water celery ( <i>Vallisneria americana</i> )	37	46	46	47
Number of submerged species	12	18	16	19
Estimated aquatic plant coverage (ac)	220 ac	375 ac	262 ac	388 ac
Max depth of vegetation (ft)	15 ft	20 ft	19 ft	20 ft
Percent coverage of plants (%)	23%	39%	27%	41%

Upper Prior	Occurrence of Plants			
	2015	2018	2020	2021
Coontail ( <i>Ceratophyllum demersum</i> )	5	29	33	25
Elodea ( <i>Elodea canadensis</i> )	2	17	3	2
Bearded stonewort ( <i>Lychnothamnus barbatus</i> )				1
Northern Watermilfoil ( <i>Myriophyllum sibiricum</i> )			6	1
Eurasian watermilfoil ( <i>M. spicatum</i> )	11	17	5	25
Naiads ( <i>Najas flexilis</i> )		4		2
Curlyleaf pondweed ( <i>Potamogeton crispus</i> )			3	3
Stringy pondweed ( <i>P. filiformis</i> )				9
Stringy pondweed ( <i>P. sp</i> )		2	2	
Sago pondweed ( <i>Stuckenia pectinata</i> )	2	1		2
Number of submerged species	4	6	6	9
Estimated aquatic plant coverage (ac)	33 ac	74 ac	82 ac	116 ac
Max depth of vegetation (ft)	6 ft	8 ft	10 ft	11 ft
Percent coverage of plants (%)	9%	19%	21%	30%

# Curlyleaf Pondweed Delineation and Assessment Surveys for Upper and Lower Prior Lake And Summer Point Intercept Survey for Lower Prior Lake, Scott County, 2022

## Introduction

Upper and Lower Prior Lakes combined have an area of 1,343 acres with a total littoral area of 732 acres (MnDNR). An initial curlyleaf pondweed delineation was conducted on April 26, 2022 including both Upper and Lower Prior. Curlyleaf was then treated in May 2022 and a follow-up curlyleaf pondweed assessment was conducted on June 8, 2022 to characterize the status of curlyleaf pondweed at it's peak growing period. Sample sites were selected based on areas where curlyleaf had been found over the years.

A summer point intercept aquatic plant survey was conducted in August to evaluate the entire plant community in Lower Prior Lake (Figure 1).

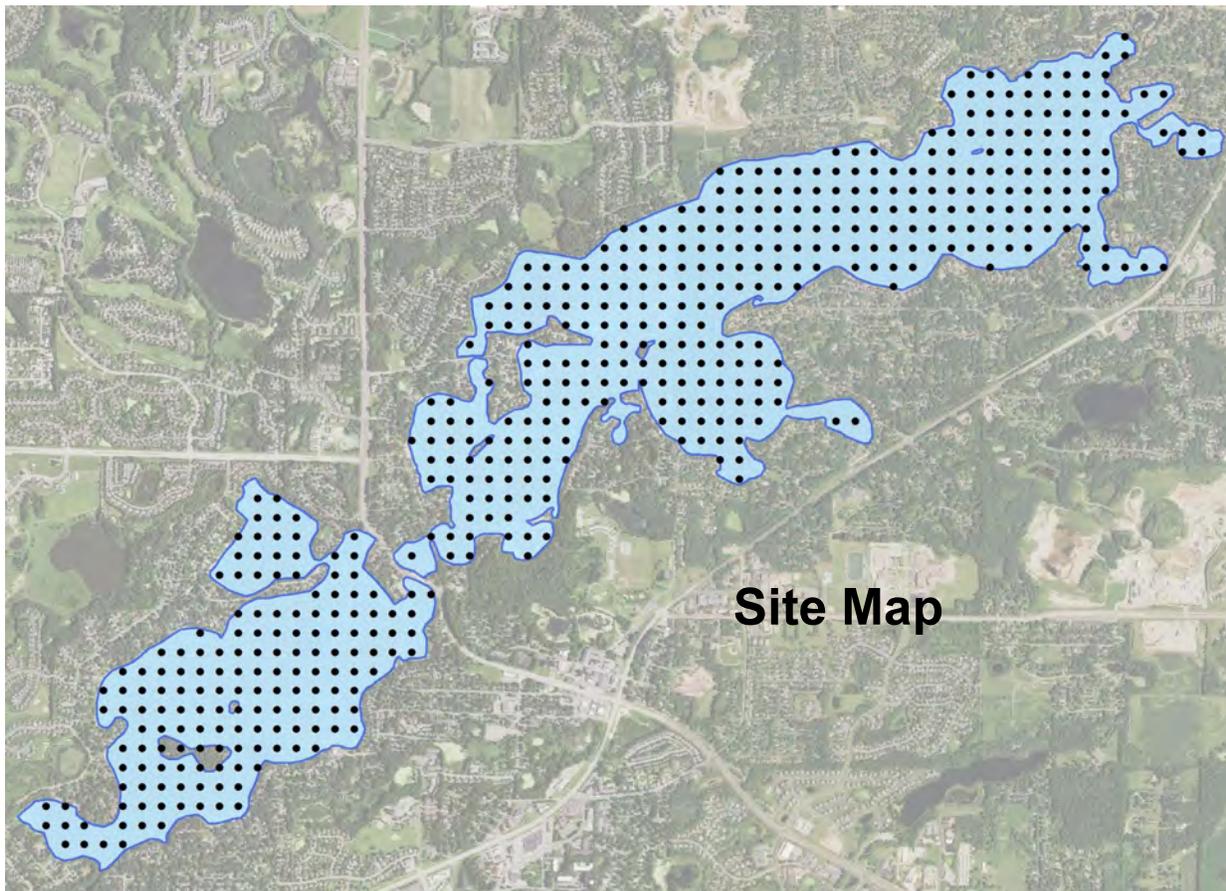


Figure 1. Point intercept 100 meter grid on Upper and Lower Prior Lake.

## Methods

**Curlyleaf Pondweed Delineation:** At the time of the spring CLP delineations, only a fraction of the peak curlyleaf biomass is present. For spot treatments, the areas to be treated should be delineated prior to curlyleaf developing peak biomass. Curlyleaf stem counts on a rake sampler were used to identify areas that had a potential to produce dense curlyleaf. After a short sweep of about 1-foot (30 cm), 4 curlyleaf stems or more per rake sample generally indicated some CLP plants had developed runners and would likely produce heavy growth in the next few weeks. Alternatively, sites where 3 stems or less were collected per rake sample were not predicted to produce dense growth at the peak growing period. These areas were not targeted for treatment. This delineation method was used for spot lake treatments in Gleason Lake and has worked for other lakes as well (McComas et al, 2015\*).

**Curlyleaf Pondweed Assessment:** A CLP assessment was conducted by Blue Water Science on June 8, 2022. The assessment is a post-treatment evaluation, it involved surveying the entire lake nearshore area, observing CLP growth, and sampling aquatic plants with rakes. The plant species were recorded and the density of each species was assigned. Densities were based on the coverage on the teeth of the rake. Density ratings were from 1 to 3 with 1 being sparse and 3 being a nuisance. Plant density chart is shown below.

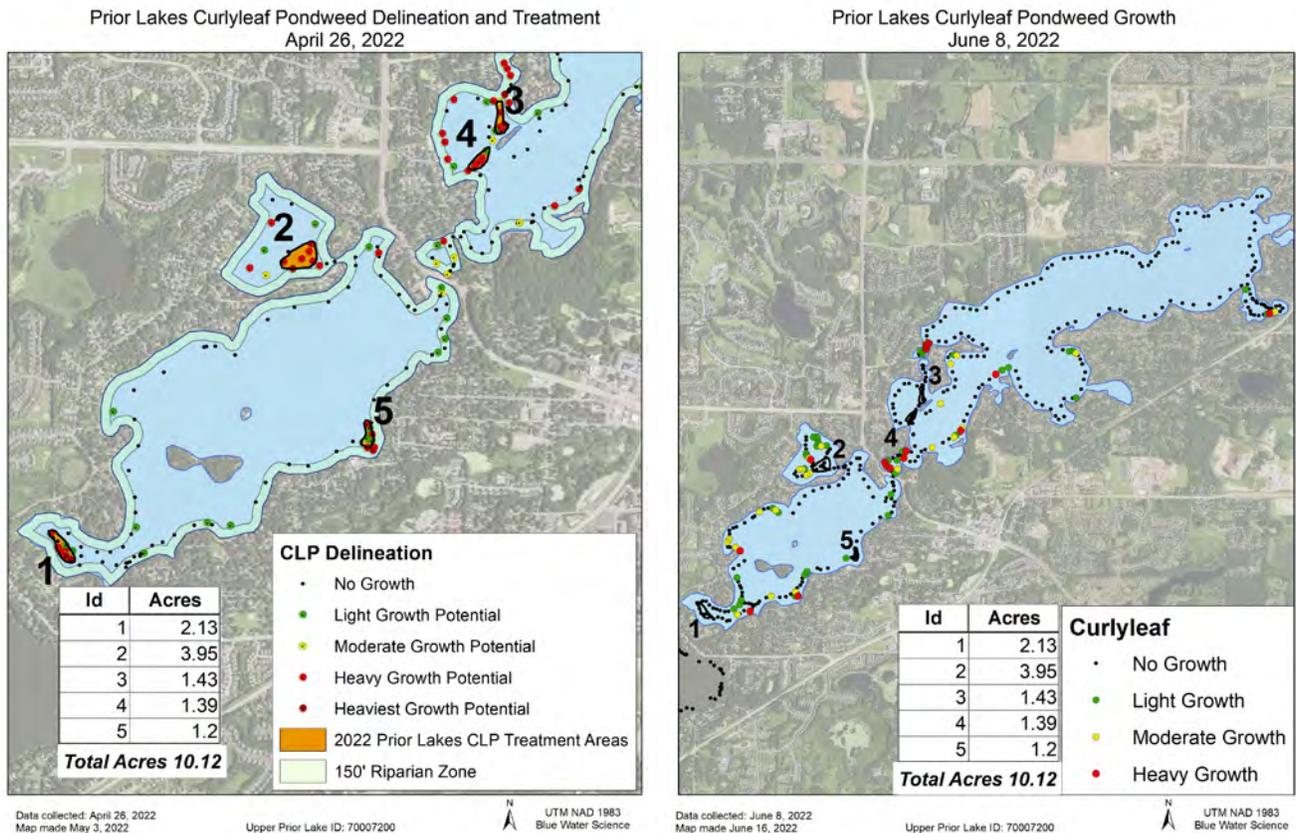
**Survey Methods for the Point Intercept Survey** An aquatic plant point intercept survey of Lower Prior Lake was conducted by Blue Water Science on July 28, 2022. Sample points were spaced 100 meters apart on a grid that covered the lake (Figure 1). At each sample point, a sampling rake was lowered into the water and a plant sample was taken. The plant species were recorded and the density of each species was assigned. Densities were based on the coverage on the teeth of the rake. Density ratings ranged from 1 to 3 with 1 being sparse and 3 being heavy growth. Based on these sample sites, a plant distribution map was constructed.



\*McComas, S.R., Y.E. Christianson, and U. Singh. 2015. Effects of curlyleaf pondweed control on water quality and coontail abundance in Gleason Lake, Minnesota. *Lake and Reservoir Management*. 31:109-114.

## Curlyleaf Pondweed Delineation on April 26, 2022 and Assessment on June 8, 2022 in Upper and Lower Prior Lake

**Results:** A delineation survey on April 26, 2022, sampled a total of 318 sites around Upper and Lower Prior Lake with rake sampling. Curlyleaf was found at 97 out of 318 sample sites including 51 sites with curlyleaf growth projected to be abundant in June. A total of 10.12 acres in Upper and Lower Prior Lake areas were delineated as having the potential to develop moderate to heavy growth conditions by June (Figure 2). A total area of 10.12 acres of CLP in Prior Lake was permitted for treatment based on criteria where treatment was either 150 feet or more from shore or treatment was in front of public property. On June 8, 2022, a curlyleaf assessment was conducted. A total of 417 sites were sampled (Figure 2). Control was good in the treated areas. A few spots of moderate to heavy growth were observed in untreated areas (Figure 2). CLP conditions on June 8, 2022 are shown in Figure 2.



**Figure 2.** Map of curlyleaf pondweed delineation is shown on the left (April 26, 2022) and the curlyleaf assessment is shown on the right (June 8, 2022).

## Status of Eurasian watermilfoil on April 26, 2022 and on June 8, 2022 in Upper and Lower Prior Lake

At the time of the curlyleaf pondweed delineation and assessment surveys, data was also collected on the status of Eurasian watermilfoil(EWM) in Upper and Lower Prior Lakes. In April EWM growth was mostly light to moderate with an average density of 1.3 out of 3. EWM was found at 45 out of 318 sites on April 26, 2022.

On June 8, 2022 Eurasian was found at 100 sites out of 417 sample sites. EWM has increased in occurrence and abundance since April. Also, Upper prior had several areas of heavy EWM growth, the average density of EWM in June was 2.3 out of 3.

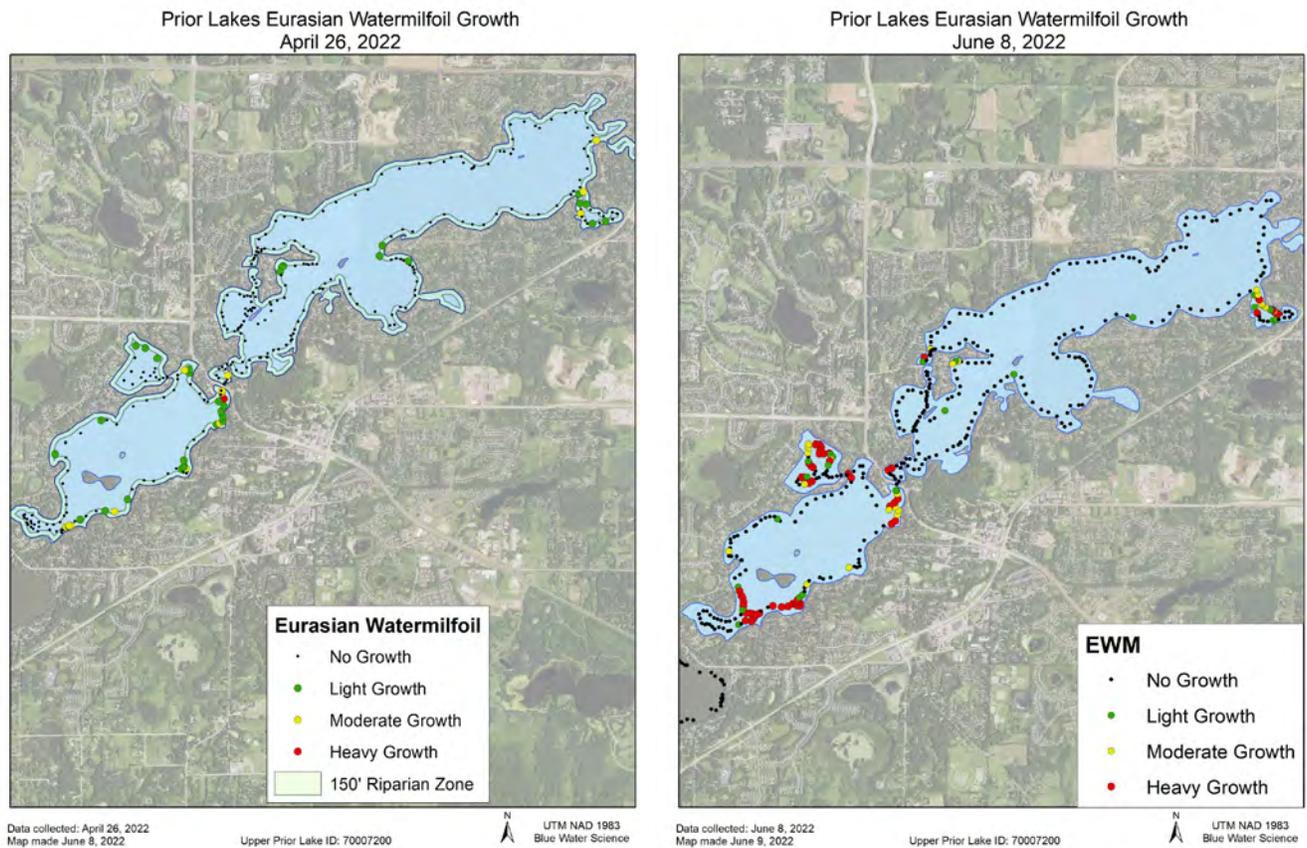


Figure 3. Map of Eurasian watermilfoil growth on April 26, 2022(left) and the Eurasian watermilfoil growth on June 8, 2022 (right).

## Point Intercept Aquatic Plant Survey for Lower Prior Lake

**Results:** A point intercept aquatic plant survey was conducted on Lower Prior Lake on July 28, 2022. The dominant plants were coontail and Eurasian watermilfoil. Aquatic plants grew to a water depth of 20 feet in Lower Prior. A summary of the occurrence of aquatic plants is shown in Table 1. Aquatic plants covered approximately 388 acres in Lower Prior in 2022 (Figure 4) compared to approximately 262 acres in 2020, 375 acres in 2018, and 220 acres in 2015.

Species richness defined as number of species per sample site ranged from 1 to 5 species. The east end of Lower Prior had better diversity than the west end (Figure 5). Maps of individual species distribution are shown in Figure 6.

Lower Prior Lake Native Plant Coverage  
July 28, 2022

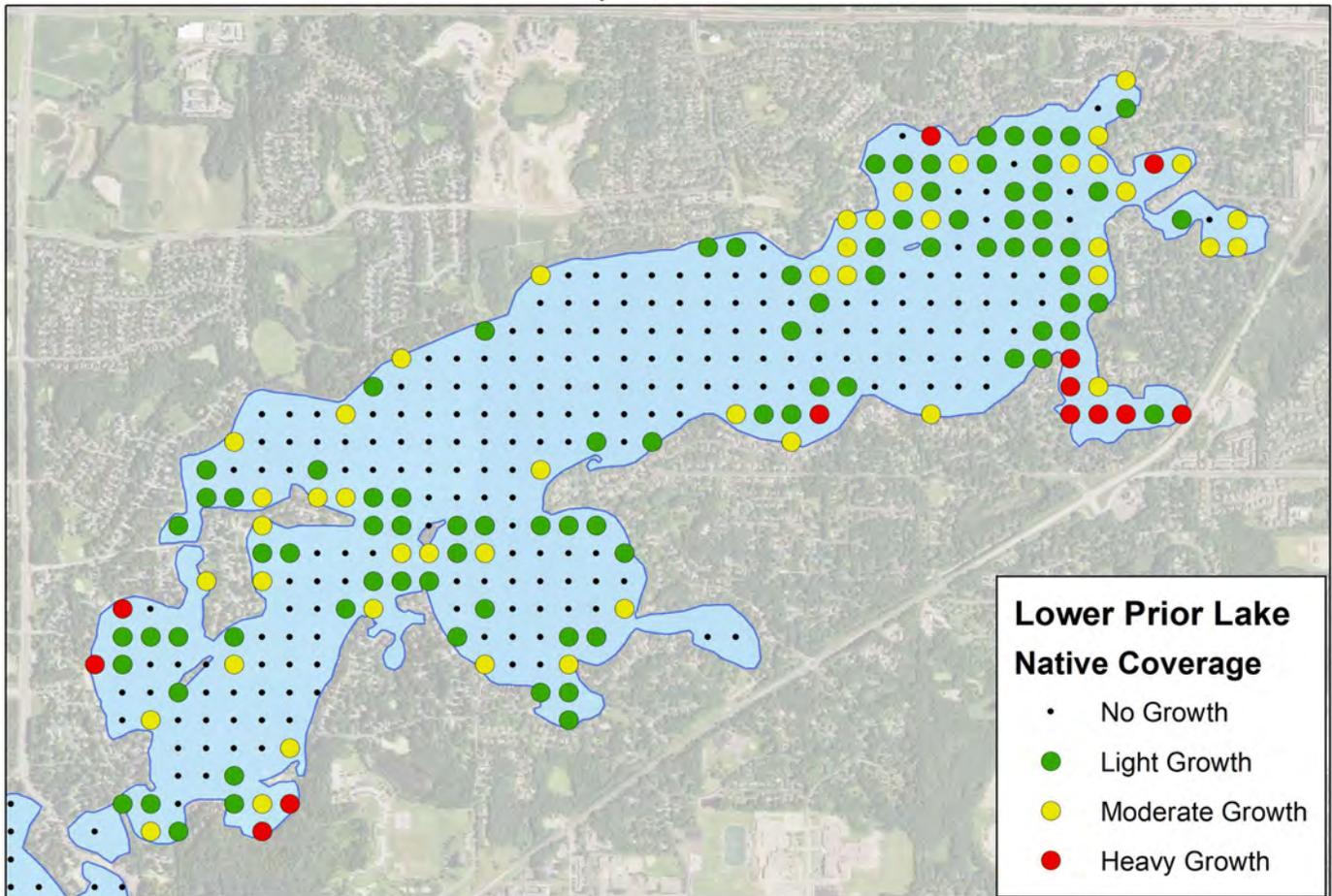
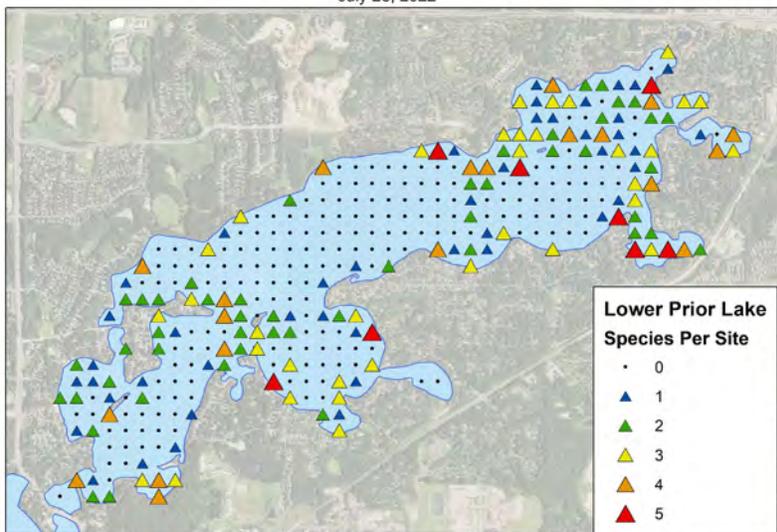


Figure 4. Native Plant Coverage in Lower Prior Lake in summer 2022.

**Table 1. Lower Prior Lake aquatic plant data for July 28, 2022 point intercept survey.**

	Stations Out to 20 ft (Growing Zone) (n=190)		
	Occurrence	% Occur	Average Density
Bearded stonewort ( <i>Lychnothamnus barbatus</i> )	5	3	1.8
Cabbage ( <i>Potamogeton amplifolius</i> )	2	1	1.0
Chara ( <i>Chara sp</i> )	17	9	1.3
Claspingleaf ( <i>P. Richardsonii</i> )	4	2	1.5
Coontail ( <i>Ceratophyllum demersum</i> )	102	54	1.4
Curlyleaf pondweed ( <i>P. crispus</i> )	5	3	1.2
Elodea ( <i>Elodea canadensis</i> )	1	1	1.0
Eurasian watermilfoil ( <i>M. spicatum</i> )	101	53	1.5
Flatstem pondweed ( <i>P. zosteriformis</i> )	22	12	1.0
Friess ( <i>P. friesii</i> )	4	2	1.0
Illinois Pondweed ( <i>P. illinoensis</i> )	6	3	1.2
Nitella ( <i>Nitella sp</i> )	5	3	1.0
Northern watermilfoil ( <i>Myriophyllum sibiricum</i> )	1	1	1.0
Stringy pondweed ( <i>P. sp</i> )	10	5	1.0
Stringy pondweed ( <i>P. filiformis</i> )	2	1	1.0
Star duckweed ( <i>Lemna trisulca</i> )	12	6	1.6
Water celery ( <i>Vallisneria americana</i> )	47	25	1.4
Water stargrass ( <i>Heteranthera dubia</i> )	17	9	1.3
Whitestem pondweed ( <i>P. praelongus</i> )	3	2	1.0

Lower Prior Lake Species Richness  
July 28, 2022



**Figure 5. Map of the species richness at each site in Lower Prior Lake on July 28, 2022.**

# Point Intercept Survey Individual Species Distribution and Abundance

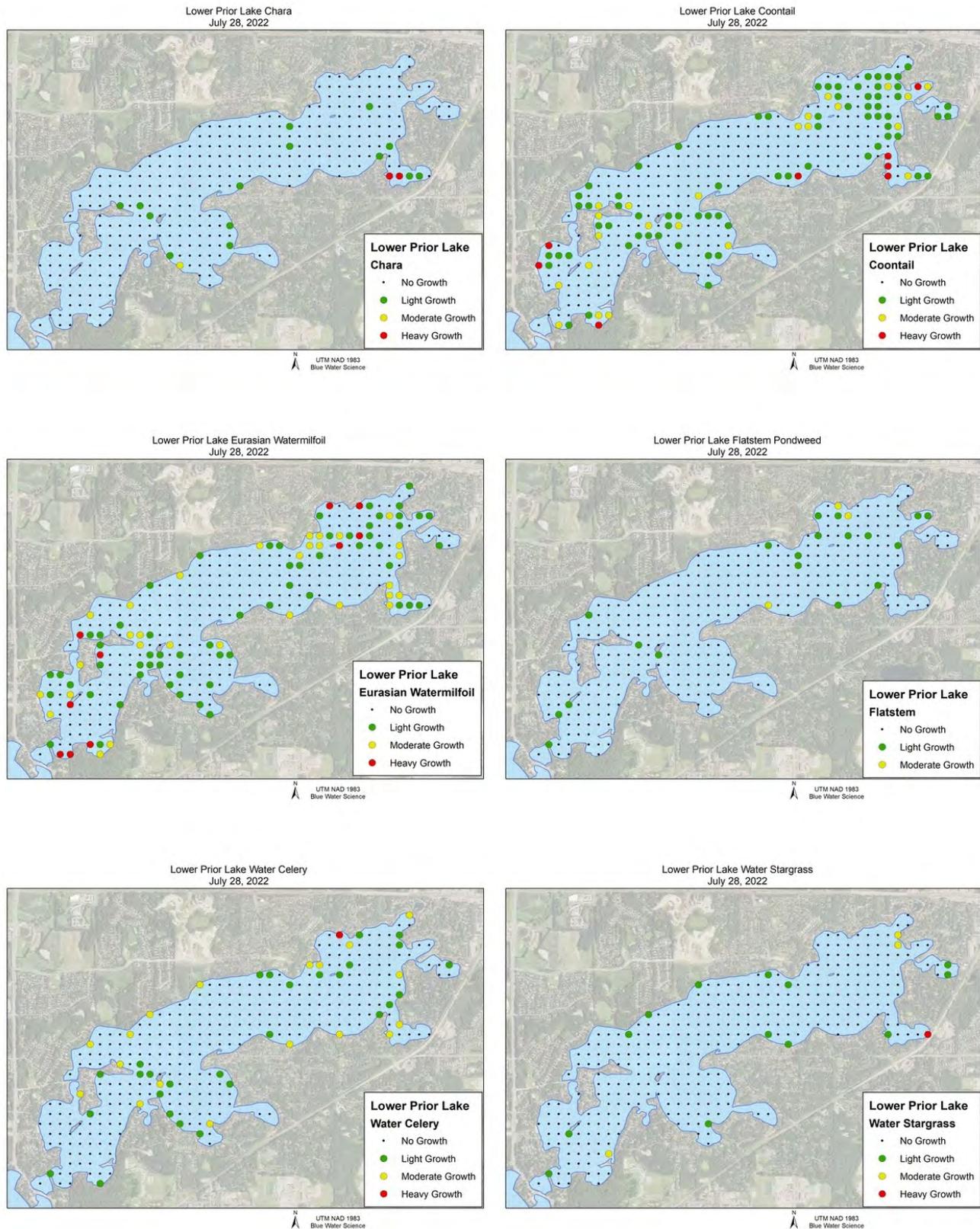


Figure 6. Maps of individual plant species on July 28, 2022.

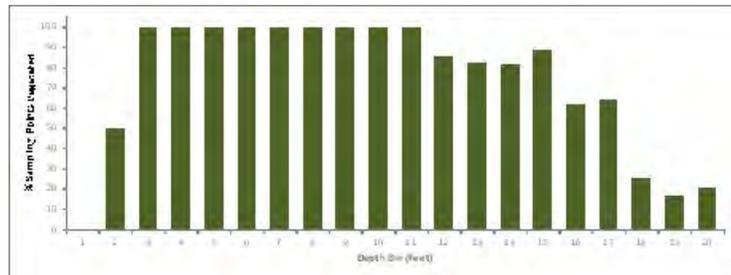
**Lower Prior Lake Point Intercept Survey Statistics:** A summary of plant statistics from the point intercept survey is shown in Tables 2 and 3 and Figure 5. A total of 214 points were sampled and plants were found out to 20 feet of water which included 190 sample points out to 20 feet. Plant occurrence and abundance for individual sites are shown in the appendix.

**Table 2. MnDNR Template Statistics**

Total # Points Sampled	214
Depth Range of Rooted Veg	2-20 feet
Maximum Depth of Growth (95%) in feet	17
# Points in Max Depth Range	171
# Points in Littoral Zone (0-15 feet)	147
% Points w/ Submersed Native Taxa	86
Mean Submersed Native Taxa/Point	1.6
Mean Density of Submersed Native Taxa	1.2
# Submersed Native Taxa	17

**Table 3. Aquatic plants sampled by depth.**

Depth Bin (Feet)	# points sampled (0-20 ft)	% Sampling points with submersed species observed
0	1	0
1	0	0
2	2	50
3	3	100
4	14	100
5	10	100
6	14	100
7	14	100
8	8	100
9	7	100
10	18	100
11	5	100
12	14	86
13	17	82
14	11	82
15	9	89
16	13	62
17	11	64
18	8	25
19	6	17
20	5	20
	190	



**Figure 7. Graph of plant presence at each depth for sampled points**

# Point Intercept Aquatic Plant Survey Comparisons for 2015, 2018, 2020, 2021, and 2022

Table 4. Prior Lake aquatic plant number of sites where a species was sampled for 2015, 2018, 2020, 2021, and 2022 point intercept surveys.

Lower Prior	Occurrence of Plants			
	2015	2018	2020	2022
Duckweed ( <i>Lemna sp</i> )		1		
Bearded stonewort ( <i>Lychnothamnus barbatus</i> )				5
Coontail ( <i>Ceratophyllum demersum</i> )	62	129	63	102
Chara ( <i>Chara sp</i> )	9		8	17
Elodea ( <i>Elodea canadensis</i> )	5	2	1	1
Water stargrass ( <i>Heteranthera dubia</i> )	3	22	7	17
Star duckweed ( <i>Lemna trisulca</i> )		4	3	12
Northern watermilfoil ( <i>Myriophyllum sibiricum</i> )	10	52	4	1
hybrid watermilfoil ( <i>M. sp</i> )		2		
Fries pondweed ( <i>P. friesii</i> )				4
Eurasian watermilfoil ( <i>M. spicatum</i> )	38	16	32	101
Naiads ( <i>Najas flexilis</i> )		4	2	
Nitella ( <i>Nitella sp</i> )		2	1	5
Cabbage ( <i>Potamogeton amplifolius</i> )	4	2	4	2
Curlyleaf pondweed ( <i>P. crispus</i> )		10	7	5
Illinois Pondweed ( <i>P. illinoensis</i> )	6	11		6
Whitestem pondweed ( <i>P. praelongus</i> )	7	4		3
Claspingleaf ( <i>P. Richardsonii</i> )	6	10	9	4
Stringy pondweed ( <i>P. sp</i> )		1	3	10
Stringy pondweed ( <i>P. filiformis</i> )				2
Flatstem pondweed ( <i>P. zosteriformis</i> )	10	26	32	22
Sago ( <i>Stuckenia pectinata</i> )		1	1	
Water celery ( <i>Vallisneria americana</i> )	37	46	46	47
Number of submerged species	12	18	16	19
Estimated aquatic plant coverage (ac)	220 ac	375 ac	262 ac	388 ac
Max depth of vegetation (ft)	15 ft	20 ft	19 ft	20ft
Percent coverage of plants (%)	23%	39%	27%	41%

Upper Prior	Occurrence of Plants			
	2015	2018	2020	2021
Coontail ( <i>Ceratophyllum demersum</i> )	5	29	33	25
Elodea ( <i>Elodea canadensis</i> )	2	17	3	2
Bearded stonewort ( <i>Lychnothamnus barbatus</i> )				1
Northern Watermilfoil ( <i>Myriophyllum sibiricum</i> )			6	1
Eurasian watermilfoil ( <i>M. spicatum</i> )	11	17	5	25
Naiads ( <i>Najas flexilis</i> )		4		2
Curlyleaf pondweed ( <i>Potamogeton crispus</i> )			3	3
Stringy pondweed ( <i>P. filiformis</i> )				9
Stringy pondweed ( <i>P. sp</i> )		2	2	
Sago pondweed ( <i>Stuckenia pectinata</i> )	2	1		2
Number of submerged species	4	6	6	9
Estimated aquatic plant coverage (ac)	33 ac	74 ac	82 ac	116 ac
Max depth of vegetation (ft)	6 ft	8 ft	10 ft	11 ft
Percent coverage of plants (%)	9%	19%	21%	30%

# Aquatic Plant Distribution and Abundance for 2015, 2018, 2020, 2021, and 2022

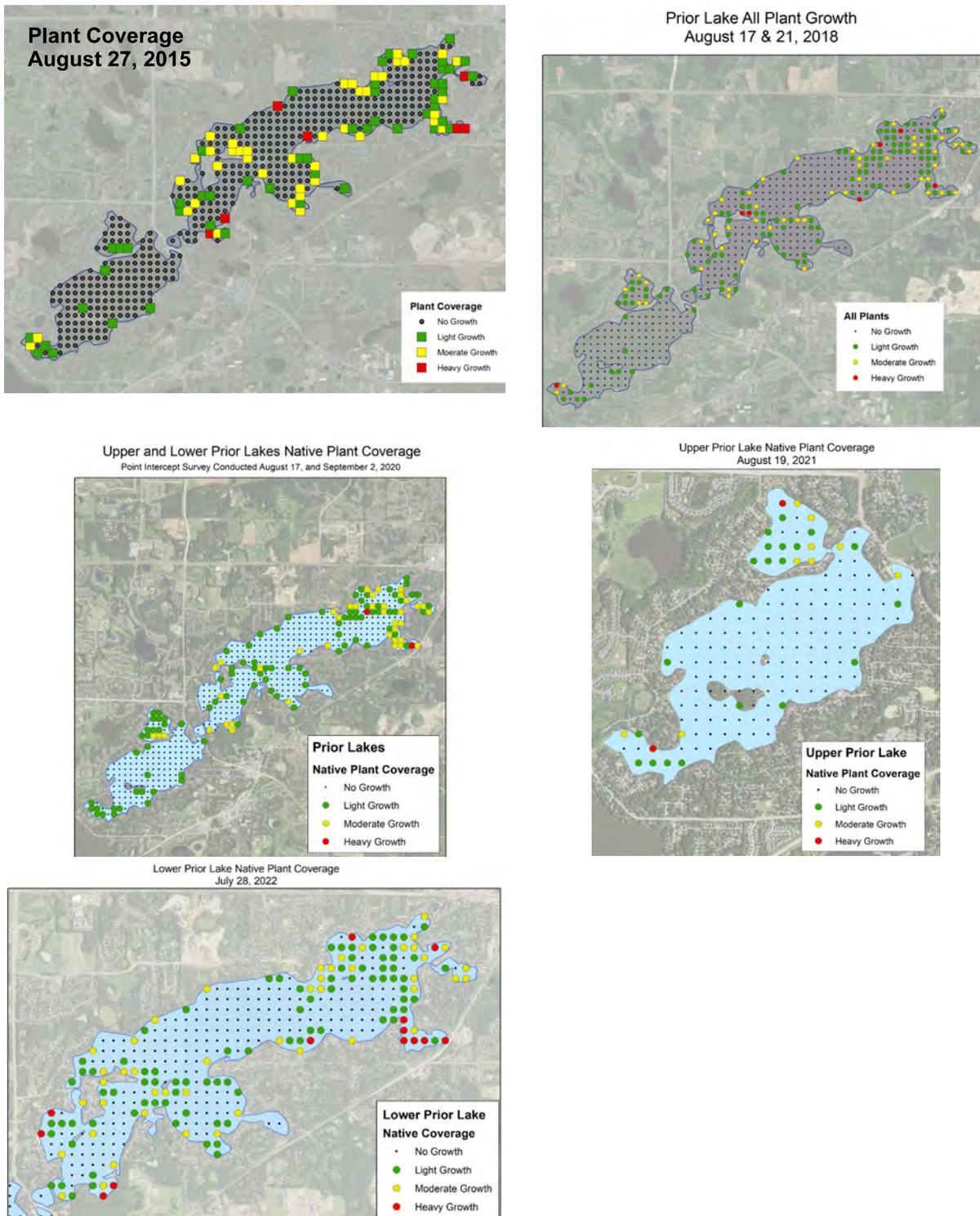


Figure 8. Maps of plant coverage for 2015, 2018, 2020, 2021, and 2022.

# APPENDIX

Lower Prior Lake aquatic plant occurrence for the point intercept survey conducted on July 28, 2022.

Site	Depth (ft)	Cab-bage	Chara	Clasp-ingleaf	Coon-tail	CLP	Elodea	EWM	Flat-stem	Fries	Illinois	Nitella	NWM	Bearded stonewort	Star duck-weed	Stringy-blunt	Stringy-filiform	Water celery	Water star-grass	White-stem	FA-benthic	No plants	
154	12																					1	
155	11				2			3															
156	10				1			3															
157	2				3			2							2			1					
163	8							1	1									1	1				
165	13																						1
166	4				1			3							1								
167	4				2			1							2		1						
168	4				2			2							3								
169	13														1								
172	17																						1
173	16																						1
174	11			1																			
177	18																						1
180	17																						1
181	7																		2				
182	10							2															
183	7				2				1														
184	18																						1
188	16																						1
189	10				1			1												1			
190	13																						1
191	12																						1
192	4							3	1						1				1				
193	14																						1
197	9							1													1		
198	6							1										1					
199	16											1											
200	8				3			2															
201	12				1			1															
202	14																						1
203	9							2															
204	0																						1
205	11				2			1															
208	21																						1
209	10		2					1										1					
210	27																						1
211	22																						1
212	4					1												2	1				
213	13				1																		
214	13				1																		
215	10				1			1															
216	10																	1					
217	18																						1
220	10		1			1		1										1		1			
221	21																						1
224	14				1			1									1						
225	15				1																		
228	10				3			1															
229	10							1															
230	16																						1
232	17				1																		
233	7							1										2					
234	21																						1
235	13				1			1									1						
240	11		1		2											1							
241	4							2										2					
242	10				2			1															

Lower Prior Lake aquatic plant occurrence for the point intercept survey conducted on July 28, 2022.

Site	Depth (ft)	Cabbage	Chara	Claspingleaf	Coontail	CLP	Elodea	EWM	Flatstem	Fries	Illinois	Nitella	NWM	Bearded stonewort	Star duckweed	Stringy-blunt	Stringy-filiform	Water celery	Water star-grass	White-stem	FA-benthic	No plants
243	16																					1
245	22																					1
246	12				1	1		1									1					
247	13				1			1														
248	7				1			1										1				
249	21																					1
256	5				1			3														
257	15				1																	
260	15																					1
261	14				2			1														
262	6							1	1									2				
263	16				1													1				
264	12				2			1														
265	27																					1
267	29																					1
268	6							1														
269	9		1		1			1								1		1				
270	6												1									
271	6				2			1										1				
272	5				1			2	1									1				
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275	7				1			2														
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291	19																					1
292	17				1																	
295	20																					1
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305	6				1			2	1									2				
317	20																					1
318	15				1																	
319	19																					1
320	12		1					1														
321	6							2										2	1			
322	28																					1
323	30																					1
324	17																					1
325	7							2										2	1			
337	19																					1
338	5							1	2									1	1			
339	14				1																	
340	16				1							1										
341	13				3																	
342	10							2	1									2				
343	4		3		3			2										2	1			
344	6		3					1						3								
345	5		1		2		1	1						3								
346	5		1		1			1						1								

Lower Prior Lake aquatic plant occurrence for the point intercept survey conducted on July 28, 2022.

Site	Depth (ft)	Cabbage	Chara	Claspingleaf	Coontail	CLP	Elodea	EWM	Flatstem	Fries	Illinois	Nitella	NWM	Bearded stonewort	Star duckweed	Stringy-blunt	Stringy-filiform	Water celery	Water star-grass	White-stem	FA-benthic	No plants
347	4				1														3			
348	19				1																	
349	31																					1
364	17											1										
365	14				1			1				1										
366	19																					1
370	20																					1
371	7				3			2														
372	4							2										2				
373	9							1										2	1			
374	23																					1
375	25																					1
387	10					2		1														
395	18				1																	
396	6		1						1	1						1		1				
397	8				3			2														
398	8				1			2														
399	25																					1
409	7		1																			
410	22																					1
418	14				1																	
419	5		1							1								1				
420	27																					1
429	9					1		1														
430	10							1	1													
438	17																				1	1
439	8				1			1							1							
440	4				1						1							1		1		
441	6			1				1										2	1			
442	22																					1
443	24																					1
444	24																					1
445	23																					1
446	22																					1
449	18																					
450	5		1								1							1	1			
451	12				2			2	1								1					
452	12				2																	
453	15				1			1						1	1	1						
460	14				1																	
461	10				2			2														
462	10				1			2										1				
463	13				1			1	1									1	1			
464	7							1														
465	12				2			2														
466	6				1			2										1				
467	7							3										1				
468	16																					1
469	14	1						1														
470	11				1																	
471	12				1			1									1					
472	13				1																	
473	56							2	1									2				
474	6				1			1			1				2							
475	4				1										2					1		
476	7							2		1								2				
477	6							2	1									2				
478	16							1				1					1					
479	12				2			2														
480	12				1			1	1									1				
481	8							3														

Lower Prior Lake aquatic plant occurrence for the point intercept survey conducted on July 28, 2022.

Site	Depth (ft)	Cabbage	Chara	Claspingleaf	Coontail	CLP	Elodea	EWM	Flatstem	Fries	Illinois	Nitella	NWM	Bearded stonewort	Star duckweed	Stringy-blunt	Stringy-filiform	Water celery	Water star-grass	White-stem	FA-benthic	No plants
482	8		1		1			1	1													
483	17				1																	
485	3														1							
486	2																					1
487	3				1										2			1	1			
488	13				2																	
489	16				1																	
490	22																					1
491	18																					1
492	13				1			1														
493	16				1																	
494	20																					1
495	15				1			1														
496	8				2					1												
497	14				1			1	1													
498	4				1																	
499	13				1				1							1						
500	6			2					2									2				
501	20				1																	
502	21																					1
503	13				1			1														
504	9				2			2														
505	7				1			1										1	2			
506	13				3			1	1													
507	12				2			1	1													
508	10							3														
509	4			2					2		2							3				
510	7							3										1				
511	17				1			1														
512	18				1																	
513	17				1																	
514	5				1			1			1							1	2			
516	17				1																	
517	3	1						1										2				

## Common Aquatic Plants in Prior Lake

Chara (*Chara sp*)



Claspingleaf pondweed (*Potamogeton richardsonii*)



Coontail (*Ceratophyllum demersum*)



Curlyleaf Pondweed (non-native)(*Potamogeton crispus*)



Eurasian watermilfoil (non-native)(*Myriophyllum spicatum*)



Flatstem pondweed (*Potamogeton zosteriformis*)



Naiad (*Najas sp*)



Northern watermilfoil (*Myriophyllum sibiricum*)



Sago pondweed (*Stuckenia pectinata*)



Stringy pondweed (*Potamogeton pusillus*)



Water celery (*Vallisneria americana*)



Water stargrass (*Heteranthera dubia*)

