



Haas Lake, Scott County, Minnesota, 2022

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# Aquatic Plant Point Intercept Survey for Haas Lake, Scott County, Minnesota

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[Plant Survey Conducted August 18, 2022]

Prepared for:  
Prior Lake-Spring Lake  
Watershed District



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**March 9, 2023**

# Aquatic Plant Point Intercept Survey for Haas Lake, Scott County, Minnesota

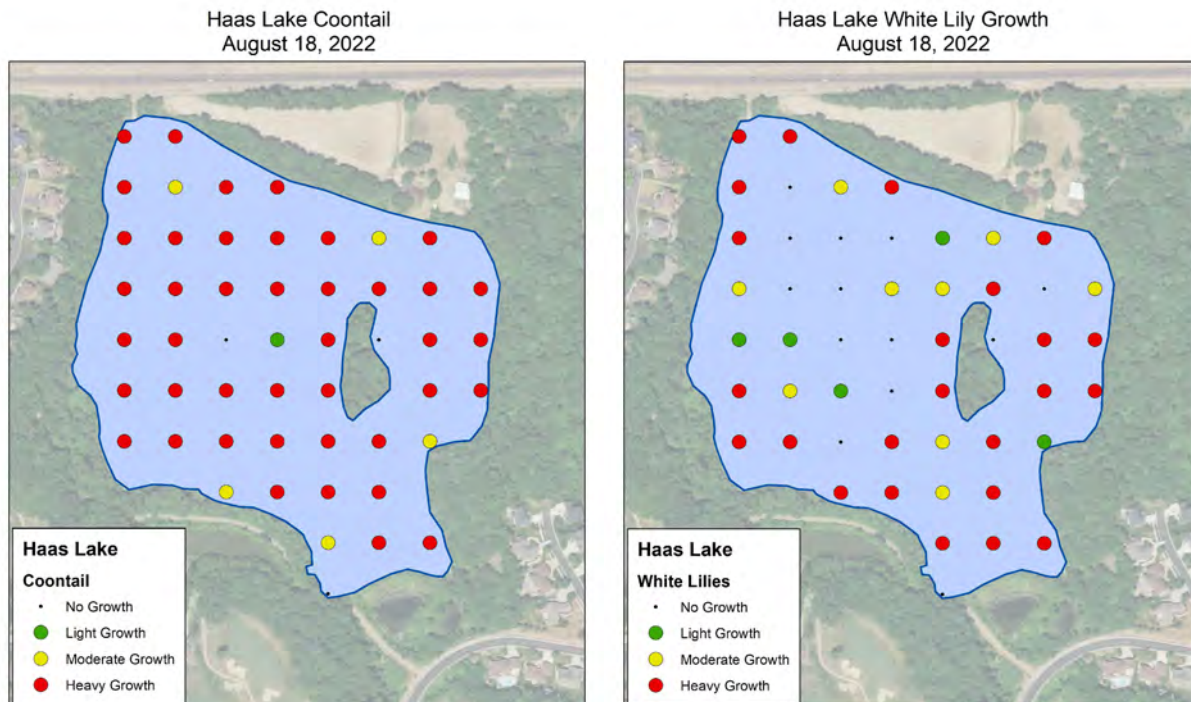
## Summary

Haas Lake (MnDNR ID 70-7800) is a 27 acre lake located in Scott County, Minnesota. An aquatic plant survey was conducted on August 18, 2022 by Blue Water Science to characterize conditions of native aquatic plants and to look for the non-native Eurasian watermilfoil.

Haas Lake has a low diversity of submerged aquatic plants, with one submerged species found in 2022. Coontail was the dominant plant. Aquatic plant coverage of the lake area was 98%. The entire shoreline was ringed with native wetland plant species.

**Table 1. The percent occurrence of summer aquatic plants for Haas Lake on August 18, 2022. Percent occurrence is calculated based on the number of times a plant species occurs at a sampling station divided into the total number of stations for the survey.**

	Haas Lake August 18, 2022 (49 sites)		
	% Occurrence	Occurrence	Density
White water lilies ( <i>Nymphaea</i> sp)	78	38	2.9
Coontail ( <i>Ceratophyllum demersum</i> )	98	48	2.5
Aquatic Plant Coverage (ac)	26		
Total submerged species	1		



**Figure 1. Coontail and white lily growth on August 18, 2022.**

# Aquatic Plant Point Intercept Survey for Haas Lake, Scott County, Minnesota

Haas Lake, Scott County (MnDNR ID: 70-7800)

Size: 27 acres (source: PLSLWD website)

Maximum observed depth: 6 feet

## Introduction

An aquatic plant survey was conducted on 27 acre Haas Lake (ID: 70007800), located in Scott County, on August 18, 2022. The objective of the survey was to characterize the aquatic plant community and to look for Eurasian watermilfoil.

## Methods

An aquatic plant point-intercept survey of Haas Lake was conducted by Blue Water Science on August 18, 2022 and 49 points were sampled (2 sites were on land). Sample points were placed 50 meters apart on a grid that covered the lake (Figure 2). 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 were from 1 to 3 with 1 being sparse and 3 being a nuisance. Based on these sample sites, a plant distribution map was constructed.

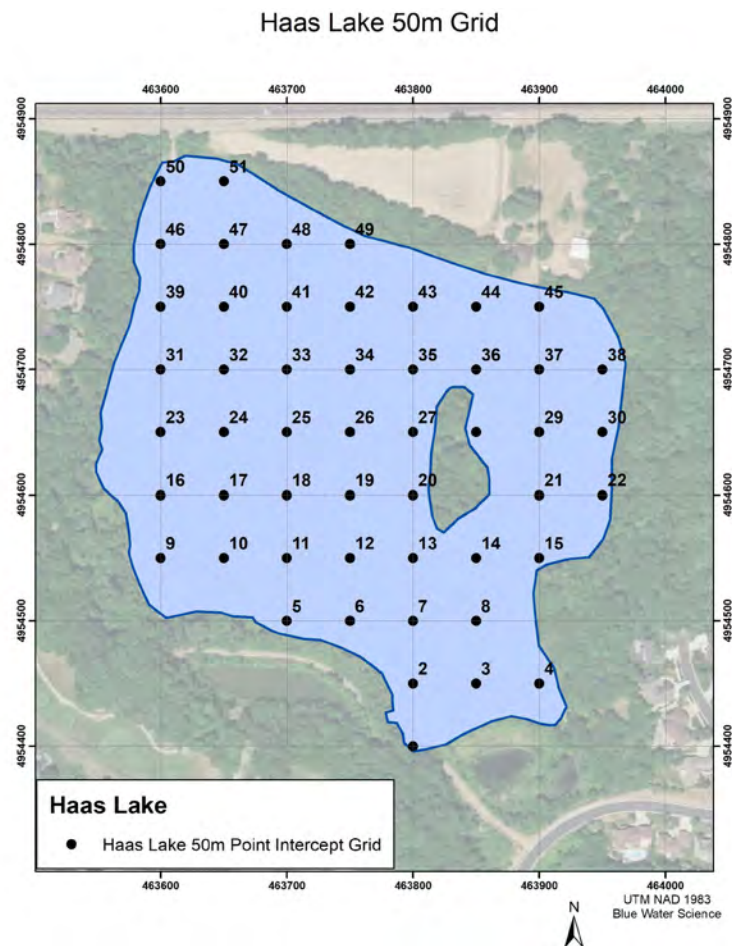


Figure 2. Sample location map for the aquatic plant survey conducted on Haas Lake.



## Results

Results of the summer aquatic plant survey conducted on August 18, 2022 found 1 submerged plant species (Table 2)(Figure 3). Coontail was growing throughout the lake at mostly moderate to heavy growth. Coontail coverage was approximately 98% (48 out of 49 sites) of the lake area. White lilies were abundant and also growing throughout most of the lake.

Maps of the distribution and abundance for each plant species are shown in Figure 4.

Eurasian watermilfoil was not observed in this survey.

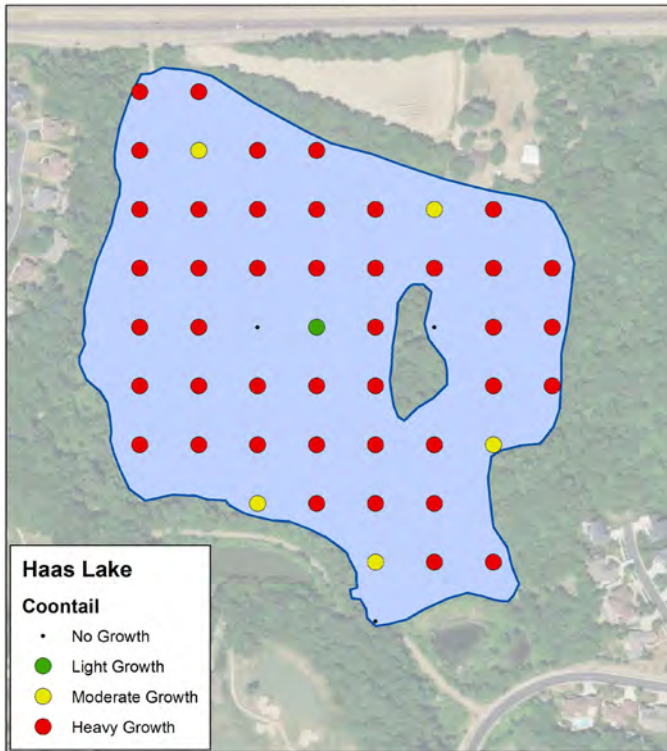
**Table 2. The percent occurrence of summer aquatic plants for Haas Lake on August 18, 2022. Percent occurrence is calculated based on the number of times a plant species occurs at a sampling station divided into the total number of stations for the survey.**

	Haas Lake August 18, 2022 (49 sites)		
	% Occurrence	Occurrence	Density
White water lilies ( <i>Nymphaea sp</i> )	78	38	2.9
Coontail ( <i>Ceratophyllum demersum</i> )	98	48	2.5
Aquatic Plant Coverage (ac)	25		
Total submerged species	1		



**Figure 3. Coontail was common and abundant around Haas Lake.**

Haas Lake Coontail  
August 18, 2022



Haas Lake White Lily Growth  
August 18, 2022

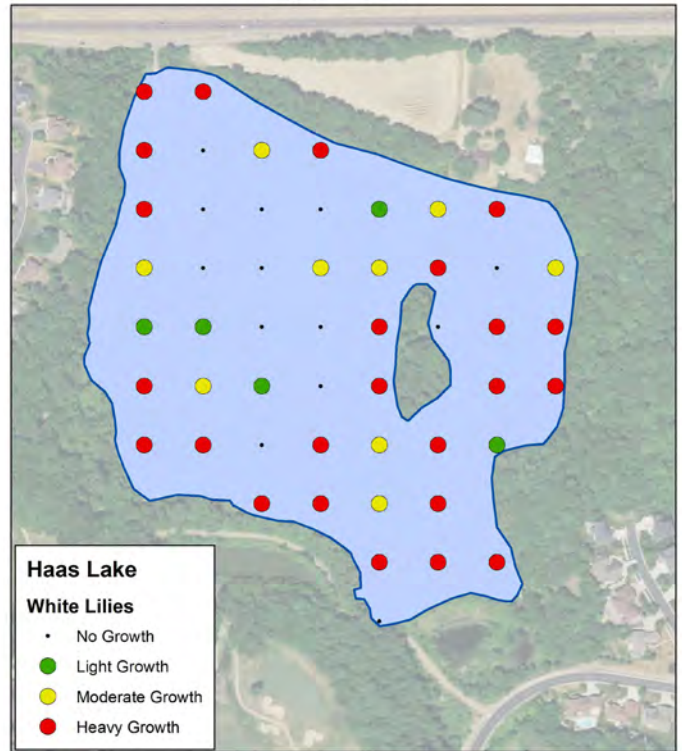


Figure 4. Haas Lake aquatic plant coverage maps for white water lilies and coontail.

**Table 3. Haas Lake, individual site data collected on August 18, 2022.**

Site	Depth (ft)	Arrowhead	White lily	Coontail
1	(land)			
2	2		3	2
3	3		3	3
4	2		3	3
5	1		3	2
6	3		3	3
7	3		2	3
8	3		3	3
9	2		3	3
10	2		3	3
11	3			3
12			3	3
13	3		2	3
14	3		3	3
15	1	2	1	2
16	3		3	3
17	3		2	3
18	4		1	3
19	5			3
20	2		3	3
21	2		3	3
22	2		3	3
23	3		1	3
24	4.5		1	3
25	6			
26	5			1
27	3		3	3
28	(land)			
29	3		3	3
30	2		3	3
31	5		2	3
32	4.5			3
33	5			3
34	5		2	3
35	4		2	3
36	2		3	3
37	5			3
38	3		2	3
39	4		3	3
40	4.5			3
41	5			3
42	5			3
43	4		1	3
44	5		2	2
45	3		3	3
46	3		3	3
47	4			2
48	3		2	3
49	3		3	3
50	3		3	3
51	2		3	3
Average		2.0	2.5	2.9
Occurrence (49 sites)		1	38	48
% occurrence		2	78	98

## General Findings of This Study

- Native shoreline conditions offer good wildlife habitat as well as wildlife viewing.
- Submerged plants were abundant covering 98% of the 27 acres in Haas Lake.
- Species diversity was low, coontail was the only submerged plant species was observed in 2022 compared to four observed species in 2017.
- White lilies were abundant and were observed growing in depths of 2-4 feet. Spatterdock lilies were not observed in Haas Lake.
- No non-native plant species were found in Haas lake.
- Coontail was matting at the surface with heavy growth over much of the lake and coontail average density was 2.5 out of 3.



**Figure 5. The west side of Haas Lake was dominated by coontail while the east side was mostly dominated by white lilies.**



## Comparison of PI Surveys for 2017 and 2022

Table 4. Coontail dominated the plant community in both point intercept surveys. White lilies increased in 2022 compared to 2017.

	Haas Lake August 29, 2017 (51 sites)		Haas Lake August 18, 2022 (49 sites)	
	% Occurrence	Occurrence	% Occurrence	Occurrence
White water lilies ( <i>Nymphaea sp</i> )	43	23	78	38
Coontail ( <i>Ceratophyllum demersum</i> )	96	51	98	48
Elodea ( <i>Elodea canadensis</i> )	34	18		
Flatstem pondweed ( <i>P. zosteriformis</i> )	26	14		
Star Duckweed ( <i>Lemna trisulca</i> )	28	15		
Aquatic Plant Coverage (ac)	26		26	
Total submerged species	4		1	

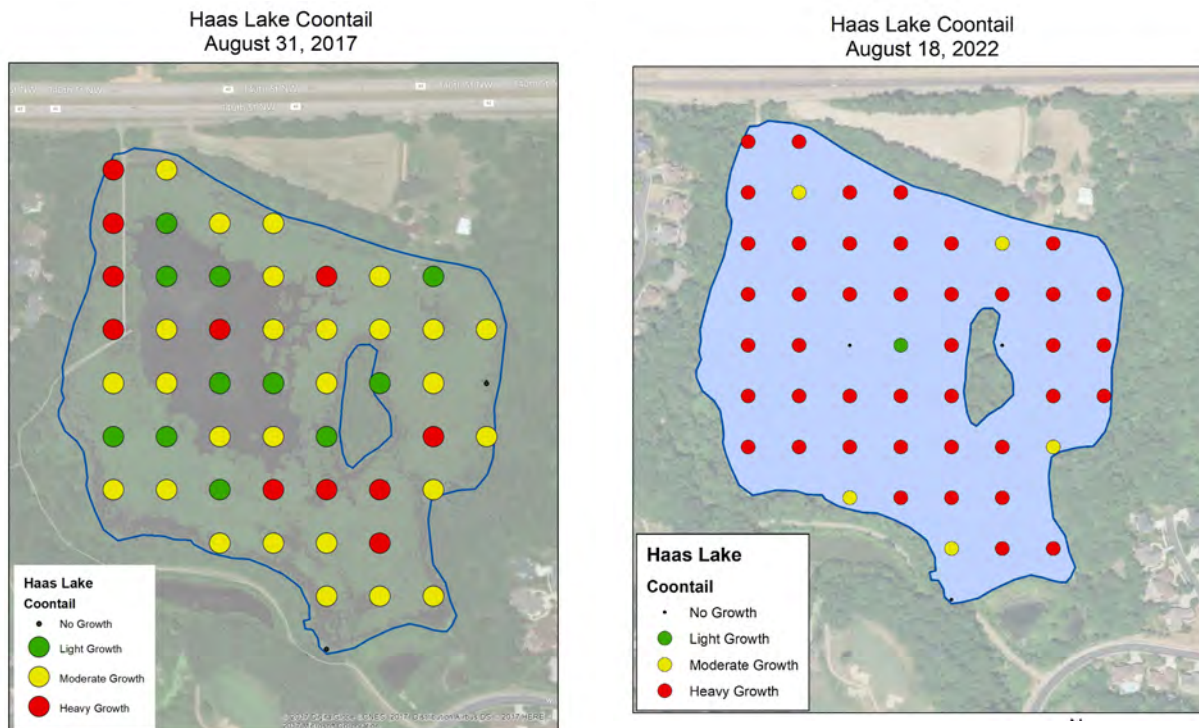
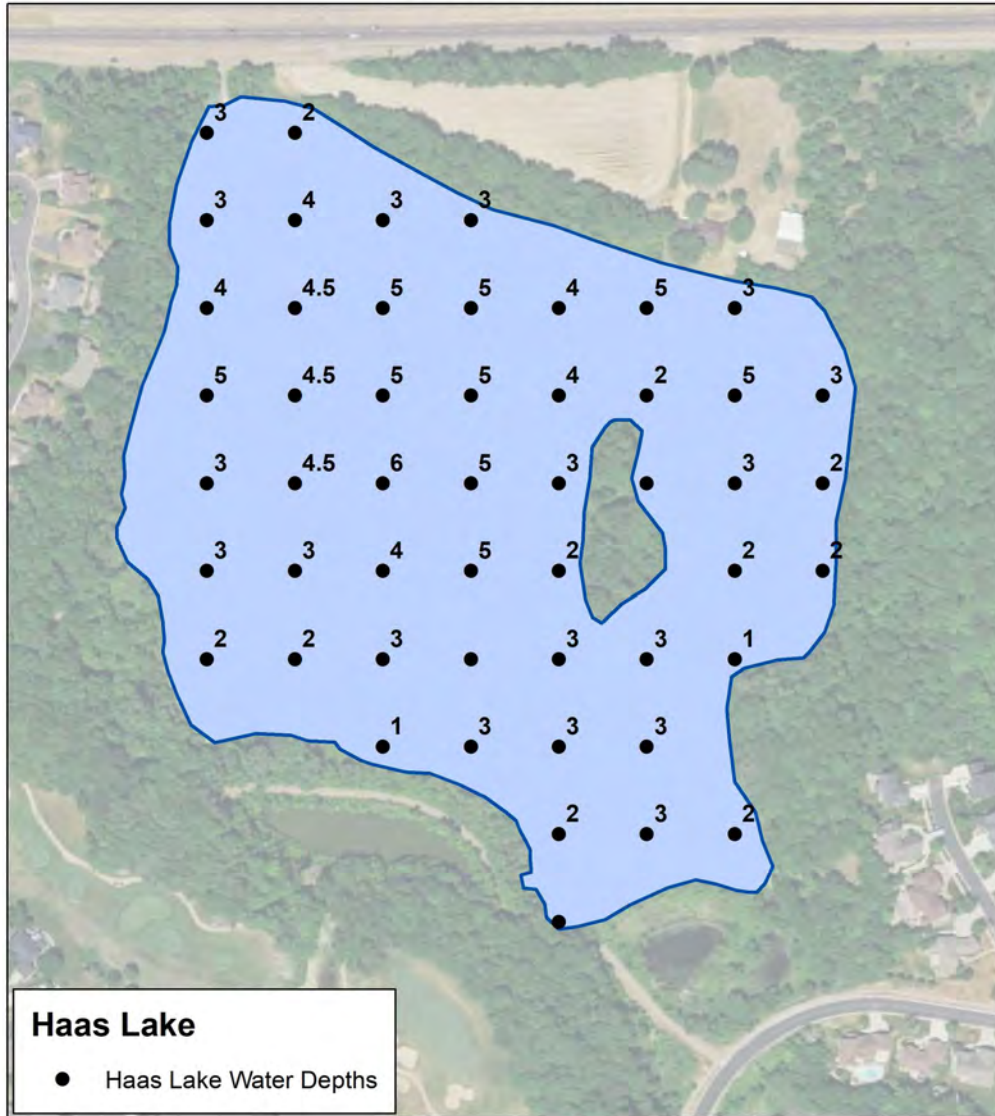


Figure 6. Coontail growth was more abundant in 2022 compared to 2017.



# Haas Lake Observed Water Depths August 18, 2022



UTM NAD 1983  
Blue Water Science