



Haas Lake, Scott County, Minnesota, 2017

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

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[Plant Survey Conducted August 29, 2017]

Prepared for:  
Prior Lake-Spring Lake  
Watershed District



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# 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 29, 2017 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 3 species of rooted submerged plants found. Coontail was the dominant plant. Aquatic plant coverage of the lake area was about 98%. The entire shoreline was ringed with native wetland plant species.

**Table S1. The percent occurrence of summer aquatic plants for Haas Lake on August 31, 2017. 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 29, 2016 (51 sites)		
	% Occurrence	Occurrence	Density
White water lilies ( <i>Nymphaea</i> sp)	81	43	3.1
Coontail ( <i>Ceratophyllum demersum</i> )	96	51	3.0
Elodea ( <i>Elodea canadensis</i> )	34	18	1.2
Flatstem pondweed ( <i>P. zosteriformis</i> )	26	14	1.0
Star Duckweed	28	15	1.0
Aquatic Plant Coverage (ac)	26		
Total submerged species	3		



**Figure S1. White lilies were widespread in Haas lake.**

# 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, located in Scott County, on August 29, 2017. 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 29, 2017 and 51 points were sampled. Sample points were placed 50 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 were from 1 to 4 with 1 being sparse and 4 being a nuisance. Based on these sample sites, a plant distribution map was constructed.



Figure 1. Sample location map for the aquatic plant survey conducted on Haas Lake.

## Results

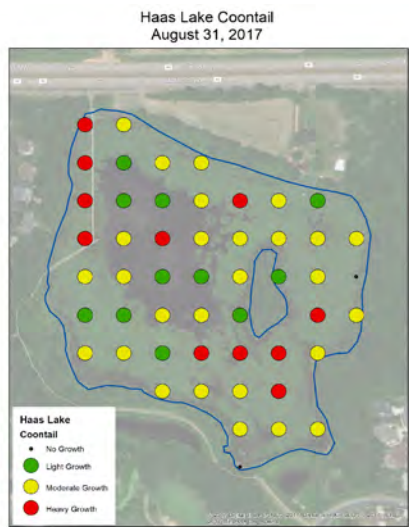
Results of the summer aquatic plant survey conducted on August 29, 2017 found there were 3 submerged plant species (Table 1)(Figure 2). Coontail was the dominant plant. Aquatic plant coverage was about 98% of the lake area.

Maps of the distribution and abundance for each plant species are shown in Figure 2.

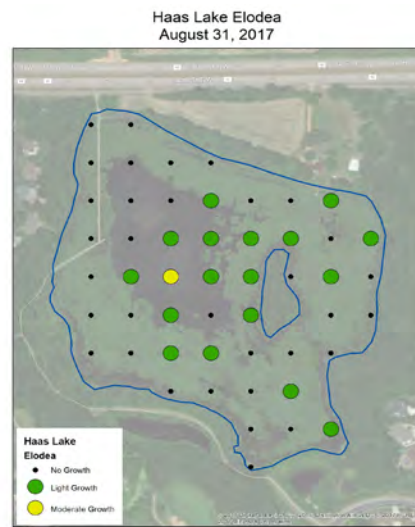
Eurasian watermilfoil was not observed in this survey.

**Table 1. The percent occurrence of summer aquatic plants for Haas Lake on August 29, 2017. 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 29, 2017 (51 sites)		
	% Occurrence	Occurrence	Density
White water lilies ( <i>Nymphaea sp</i> )	43	23	1.9
Coontail ( <i>Ceratophyllum demersum</i> )	96	51	3.0
Elodea ( <i>Elodea canadensis</i> )	34	18	1.2
Flatstem pondweed ( <i>P. zosteriformis</i> )	26	14	1.0
Star Duckweed ( <i>Lemna trisulca</i> )	28	15	1.0
Aquatic Plant Coverage (ac)	26		
Total submerged species	3		



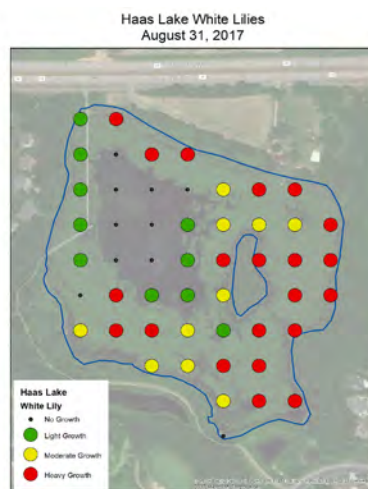
UTM NAD 1983  
Blue Water Science



UTM NAD 1983  
Blue Water Science



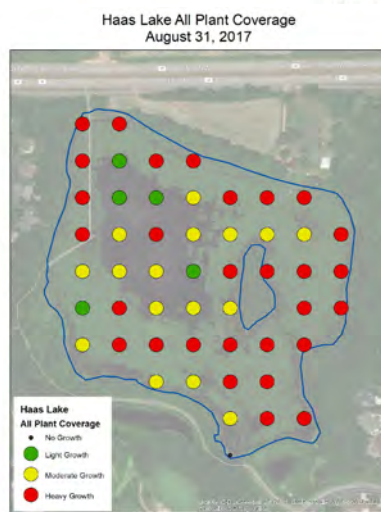
UTM NAD 1983  
Blue Water Science



UTM NAD 1983  
Blue Water Science



UTM NAD 1983  
Blue Water Science



UTM NAD 1983  
Blue Water Science

Figure 2. Haas Lake aquatic plant coverage maps. For individual species maps: green = light growth, yellow = moderate growth, and red = heavy growth.

**Table 2. Haas Lake, individual site data collected on August 29, 2017.**

Site	Depth (ft)	White lily	Coontail	Elodea	Flatstem	Star duckweed	No Plants
1	land						1
2	3	3	3				
3	3	4	3				
4	2	4	3	1	1		
5	2	3	3			1	
6	2	3	3			2	
7	4	4	3				
8	3	4	4	1	1		
9	2	3	3				
10	3	4	3		1		
11	3	4	2	1			
12	4	3	4	1			
13	4	2	4			1	
14	4	4	4		1	2	
15	3	4	3			1	
16	4		2				
17	4	4	2				
18	4	1	3	1			
19	5	1	3				
20	3	3	2	1			
21	3	4	4			2	
22	2	4	3			1	
23	4	2	3			1	
24	5		3	2			
25	5		2	3	1		
26	5	1	2	1			
27	4	4	3	1	1		
28	2	4	2			1	
29	3	4	3	1			
30	2	4					
31	4	2	4		1	1	
32	5		3				
33	5		4	1			
34	5	1	3	1			
35	3	3	3	1			
36	2	3	3	1	1		
37	4	3	3			1	
38	2	4	3	1		1	
38	3	4	3			1	
39	4	1	4		1		
41	6		2				
42	5		3	1			
43	4	3	4		1		
44	3	4	3				
45	2	4	2	1			
46	3	1	4		1	2	
47	5		2		1		
48	3	4	3				
49	3	4	3				
50	3	2	4			1	
50	5		3				
51	3	3	3		1		
51	3	4	2		1		
Average		3.1	3.0	1.2	1.0	1.3	
Occurrence (53 sites)		43	51	18	14	15	1
% occurrence		81	96	34	26	28	

## General Findings of This Study

- Native shoreline conditions offer good wildlife habitat.
- Submerged plants were abundant covering about 98% of the 27 acres.
- Species diversity was low, three submerged plant species were observed.
- No non-native plant species were found in Haas lake.



Figure 3. Looking at Haas Lake from the shoreline on August 29, 2017.