

Aquatic Plant Community of Big & Mitchell Lakes

Point-Intercept Surveys & Curlyleaf Pondweed & Eurasian Watermilfoil Delineation June 2, 2017 & August 25, 2017

Big Lake, MN (Sherburne County)

Big Lake: DOW# 71008200 Mitchell Lake: DOW# 71008100



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Introduction

A point-intercept survey and delineation of invasive plants Curlyleaf Pondweed and Eurasian Watermilfoil were conducted on Big and Mitchell Lakes, which are connected via a channel, in Stearns County on June 2, 2017 and August 25, 2017, by AIS Consulting Services. The purpose of the survey was to characterize the aquatic plant community in the lake, and compare to historical plant community data that is available. Additionally, map out areas of Curlyleaf Pondweed and Eurasian Watermilfoil to inform future management.

Summary

Aquatic plants were abundant in both Big & Mitchell Lakes during each survey, with a good diversity of submerged aquatic plants, but a lack of emergent vegetation.

Big Lake: Both early and late summer surveys found abundant aquatic vegetation within the littoral area of the lake (≤ 15 ft.), averaging 96% of littoral sample points vegetated. 16 different plant species were observed by the August survey, all submerged species. Curlyleaf Pondweed was the most dominant plant in Big Lake during the June survey, occurring at 38% of littoral sites. Eurasian watermilfoil abundance was more moderate, occurring at 16% of sites in the June survey, but only 9.6% by late August. Other common plants observed in Big Lake during both surveys (*June & August*) included Coontail (38% & 50%), Muskgrass (31% & 18%), Southern Naiad (32% & 48%) and Northern Watermilfoil (13% & 34%). More information on individual species abundance during each survey can be found in *Table 1*.

Mitchell Lake: Aquatic vegetation was abundant during both surveys, however, a higher abundance was found during the August survey. In June, 89.5% of littoral sites was vegetated, and by August 96.6% were vegetated. That coincides with the number of species found during each survey, with 11 species found in June, and 18 different plant species observed during the August survey, also all submerged species. Species found in August but not found in June include: Water Celery, Nitella, Sago Pondweed, Variable Pondweed, Bushy Pondweed, Bladderwort, Water Stargrass, Watermoss and Water Marigold. Curlyleaf Pondweed was found during the June survey at 22% of littoral sites, and Eurasian Watermilfoil was found at 11.6% of littoral sites. By August, Eurasian Watermilfoil was found at 6.8% of sites, however, it appears several areas were chemically treated for Eurasian Watermilfoil sometime prior to our August survey. The most common aquatic plants observed in Mitchell Lake during both surveys (*June & August*) included Coontail (31% & 52%), Muskgrass (54% & 48%) and Northern Watermilfoil (26% & 38%). More information on individual species abundance during each survey can be found in *Table 3*.

Methods

Point-Intercept Survey

Survey sample points were provided by the MN DNR, who have previously conducted aquatic plant surveys on the lake. The sample points were spaced 65 meters apart across the whole lake. The sample points were then uploaded to a GPS unit and used to navigate to each point in the field.

At each point, the depth was taken with our sonar unit and recorded. The sample rake was tossed on a designated side of the boat approximately 1 meter, and dragged on the lake bottom back to the boat before retrieving. A density rating was given to each species on the rake, as well as an overall rating for the entire sample. Density ratings are based on the percent of rake head occupied by the plant sample. Plants that were not collected on the rake but were observed within the sample area were given a density of "0", and were not included in any statistics, but were marked at that location.

Rake Density Ratings - *estimated coverage of rake head by plant sample*

1 = Covering up to 1/3 of the rake head (*plants typically scattered*)

2 = Covering between 1/3 to 2/3 of rake head (*plants common*)

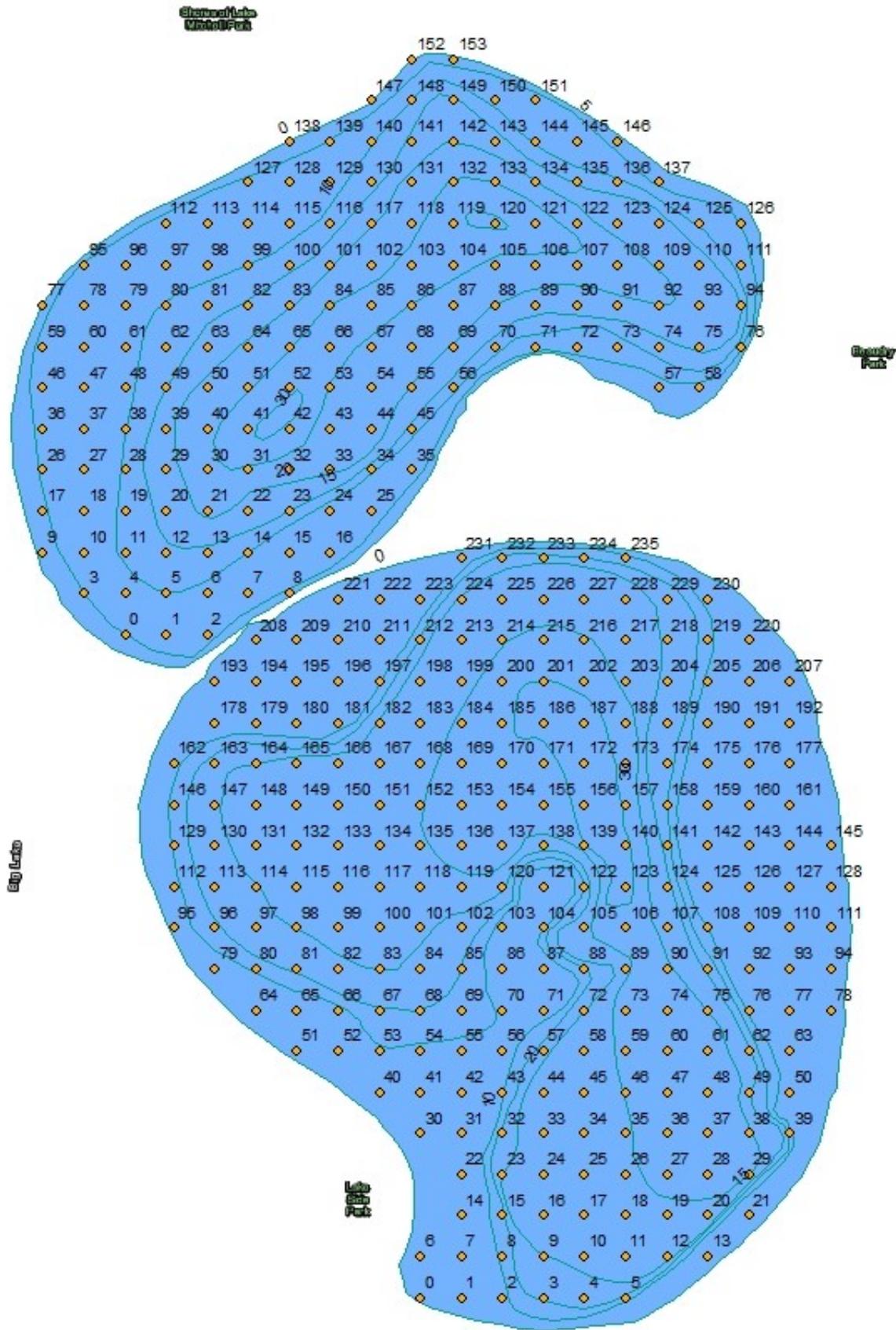
3 = Covered entire rake head (*dense stands of plants*)

Maps and statistics were created from the data and can be found in the “Results” section of this report.

Curlyleaf Pondweed & Eurasian Watermilfoil Delineation

During the point-intercept survey, a Curlyleaf Pondweed (CLP) and Eurasian Watermilfoil (EWM) delineation were completed. When CLP or EWM was found at a point-intercept survey sample point, a density was estimated for the plant, and the location was marked on the spreadsheet. Additional plants were then searched for in the immediate vicinity. In between survey points, CLP and EWM were searched for visually by the use of polarized sunglasses and sonar unit. When found, density was estimated, depth was recorded and a GPS waypoint was recorded. All beds of CLP and EWM were then delineated for size, estimated density and average depth. Density ratings followed the same ratings as the point-intercept survey. Maps of all areas are depicted in *Figures 2, 3 and 4*.

Figure 1. Big & Mitchell Lakes Point-Intercept Survey Grid, 65 meter spacing (Big: 236 points, Mitchell: 154 points)



Results: Big Lake

Table 1. Percent frequency of occurrence for plant species surveyed on Big Lake (Sherburne County). Calculated using all littoral points sampled (≤ 15 ft.)

		June 2, 2017 Survey	August 25, 2017 survey
Common Name	Scientific Name	% Occurrence	% Occurrence
Submersed Plants			
Curlyleaf Pondweed	<i>Potamogeton crispus</i>	38.3%	3.2%
Coontail	<i>Ceratophyllum demersum</i>	35.1%	50.0%
Southern Naiad	<i>Najas guadalupensis</i>	31.9%	47.9%
Muskgrass	<i>Chara sp.</i>	30.9%	18.1%
Flat Stem Pondweed	<i>Potamogeton zosteriformis</i>	28.7%	1.1%
Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>	16.0%	9.6%
White Stem Pondweed	<i>Potamogeton praelongus</i>	14.9%	8.5%
Northern Watermilfoil	<i>Myriophyllum sibiricum</i>	12.8%	34.0%
Canada Waterweed	<i>Elodea canadensis</i>	5.3%	4.3%
Variable Pondweed	<i>Potamogeton gramineus</i>	5.3%	14.9%
Clasping Leaf Pondweed	<i>Potamogeton richardsonii</i>	5.3%	9.6%
Illinois Pondweed	<i>Potamogeton illinoensis</i>	3.2%	19.2%
Narrow Leaf Pondweed	<i>Potamogeton spp.</i>	1.1%	4.3%
Wild Celery	<i>Vallisneria americana</i>		21.3%
Sago Pondweed	<i>Stuckenia pectinata</i>		11.7%
Water Stargrass	<i>Heteranthera dubia</i>		7.5%

Table 2. Metrics from point-intercept surveys on Big Lake, June 2, 2017 & August 25, 2017

	June 2, 2017 Survey	August 25, 2017 Survey
Surface Area	253.6	253.6
Maximum Depth	48	48
Max. Depth of Plant Growth	17	15
Points Sampled	234	236
% of Points Vegetated	39.7%	37.7%
Littoral Area (≤ 15 ft.)	110	110
Littoral Points Sampled (≤ 15 ft.)	94	94
% Littoral Points Vegetated	96.8%	94.7%
Species Richness (all species)	13	16
Species Richness (submerged plants)	13	16
Mean Number of Native Species/Littoral Point	0.85	2.52
Mean Number of Invasive Species/Littoral Point	0.41	0.13
Mean number of Species/Littoral Point	0.97	2.65

Results: Mitchell Lake

Table 3. Percent frequency of occurrence for plant species surveyed on Mitchell Lake (Sherburne County). Calculated using all littoral points sampled (≤ 15 ft.)

		June 2, 2017 Survey	August 25, 2017 survey
Common Name	Scientific Name	% Occurrence	% Occurrence
Submersed Plants			
Muskgrass	<i>Chara sp.</i>	53.5%	47.7%
Coontail	<i>Ceratophyllum demersum</i>	31.4%	52.3%
Northern Watermilfoil	<i>Myriophyllum sibiricum</i>	25.6%	37.5%
Curlyleaf Pondweed	<i>Potamogeton crispus</i>	22.1%	
Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>	11.6%	6.8%
Clasping Leaf Pondweed	<i>Potamogeton richardsonii</i>	8.1%	8.0%
Flat Stem Pondweed	<i>Potamogeton zosteriformis</i>	5.8%	
White Stem Pondweed	<i>Potamogeton praelongus</i>	4.7%	6.8%
Southern Naiad	<i>Najas guadalupensis</i>	3.5%	4.6%
Illinois Pondweed	<i>Potamogeton illinoensis</i>	2.3%	10.2%
Canada Waterweed	<i>Elodea Canadensis</i>	1.2%	3.4%
Water Celery	<i>Vallisneria americana</i>		8.0%
Nitella	<i>Nitella sp.</i>		6.8%
Sago Pondweed	<i>Stuckenia pectinata</i>		5.7%
Variable Pondweed	<i>Potamogeton gramineus</i>		2.3%
Bushy Pondweed	<i>Najas flexilis</i>		2.3%
Common Bladderwort	<i>Utricularia macrorhiza</i>		1.1%
Water Stargrass	<i>Heteranthera dubia</i>		1.1%
Watermoss	<i>Drepanocladus sp.</i>		1.1%
Water Marigold	<i>Bidens beckii</i>		1.1%

Table 4. Metrics from point-intercept surveys on Mitchell Lake, June 2, 2017 & August 25, 2017

	June 2, 2017 Survey	August 25, 2017 Survey
Surface Area	169.5	169.5
Maximum Depth	33	33
Max. Depth of Plant Growth	16	18
Points Sampled	153	154
% of Points Vegetated	50.3%	55.8%
Littoral Area (≤ 15 ft.)	107	107
Littoral Points Sampled (≤ 15 ft.)	86	88
% Littoral Points Vegetated	89.5%	96.6%
Species Richness (all species)	11	18
Species Richness (submerged plants)	11	18
Mean Number of Native Species/Littoral Point	0.80	2.00
Mean Number of Invasive Species/Littoral Point	0.29	0.07
Mean number of Species/Littoral Point	0.91	2.07

Historical aquatic plant survey data from Big & Mitchell Lakes

The MN DNR has conducted aquatic plant surveys on Big and Mitchell Lakes in the past, but little data was available from those surveys. Communications from the DNR indicated surveys have been conducted in 2004, 2009, 2010 and 2013, but the summaries from those surveys are in draft form and not available at this time (*Communications with MN DNR AIS Specialist*). A report from a June 8 and 10, 2004 aquatic plant survey on Big Lake is available, and data from that is summarized below. As past survey data becomes available from the MN DNR, more comparisons of data could be completed. Alternatively, results from this 2017 survey could be provided to the DNR for further historical analysis of data.

MN DNR Big Lake Aquatic Plant Survey, June 8 and 10, 2004

12 different submerged aquatic plant species were identified during the 2004 survey conducted by the MN DNR, with 1 of those being the invasive Curlyleaf Pondweed. Those results are similar to the June 2017 survey conducted by AIS Consulting Services, where 13 submerged species were found, 11 native and 2 invasive. Eurasian Watermilfoil was not found in Big Lake until 2007. The species observed were similar, however, in the 2017 survey Canada Waterweed was identified. A couple native species found in 2004 were also not found in the 2017 June survey, but were found during the 2017 August survey. Aquatic plants found at a low abundance can often be missed during surveys, so its very possible the same species were present during both surveys and just not sampled.

Curlyleaf Pondweed abundance was also similar between surveys. From the 2004 survey, it was found at 32% of sites. In 2017, it was found at 38% of sites. Comparing distribution maps between the two surveys, it seems to be occupying similar areas of the lake. There has been management conducted on Curlyleaf Pondweed in between the 2004 and 2017 surveys, so it would be interesting to examine Curlyleaf abundance from surveys completed in between this time period, when management may have been ongoing.

Historical aquatic plant survey data from Big & Mitchell Lakes

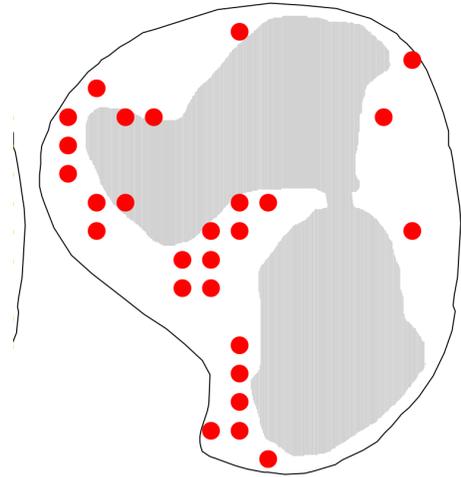
MN DNR 2004 Big Lake Survey

Curlyleaf Pondweed distribution from 2004 survey

**Table 2. Aquatic Plants of Big Lake, Sherburne County
(DOW 71-0082-00) June 8 and 10, 2004**
Frequency of occurrence calculated for vegetated zone (shore to 21 feet depth)
85 sample sites

Plant group	Common name	Scientific Name	Frequency
	Muskgrass spp	<i>Chara sp. (v)</i>	42
Non-native	Curly-leaf pondweed	<i>Potamogeton crispus</i>	32
	Coontail	<i>Ceratophyllum demersum</i>	29
	Bushy pondweed	<i>Najas sp. (v)</i>	29
	Northern water milfoil	<i>Myriophyllum sibiricum</i>	26
Broad-leaf pondweeds	Variable pondweed	<i>Potamogeton gramineus (v)</i>	15
	Illinois pondweed	<i>Potamogeton illinoensis</i>	11
	White-stem pondweed	<i>Potamogeton praelongus (v)</i>	2
Narrow-leaf pondweeds	Narrow-leaf pondweed	<i>Potamogeton sp. (v)</i>	14
	Flat-stem pondweed	<i>Potamogeton zosteriformis (v)</i>	12
	Sago pondweed	<i>Stuckenia pectinata (v)</i>	2
	Water stargrass	<i>Zosterella dubia (v)</i>	4

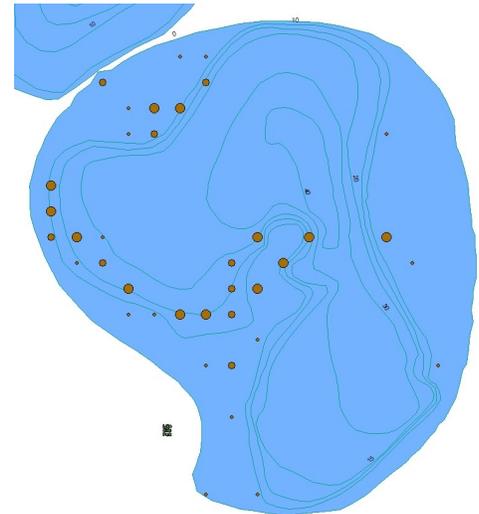
V = voucher specimen collected



Curlyleaf Pondweed distribution from 2017 survey

2017 survey conducted by AIS Consulting Services

		June 2, 2017 Survey
Common Name	Scientific Name	% Occurrence
Submersed Plants		
Curlyleaf Pondweed	<i>Potamogeton crispus</i>	38.3%
Coontail	<i>Ceratophyllum demersum</i>	35.1%
Southern Naiad	<i>Najas guadalupensis</i>	31.9%
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Flat Stem Pondweed	<i>Potamogeton zosteriformis</i>	28.7%
Eurasian Watermilfoil	<i>Myriophyllum spicatum</i>	16.0%
White Stem Pondweed	<i>Potamogeton praelongus</i>	14.9%
Northern Watermilfoil	<i>Myriophyllum sibiricum</i>	12.8%
Canada Waterweed	<i>Elodea canadensis</i>	5.3%
Variable Pondweed	<i>Potamogeton gramineus</i>	5.3%
Clasping Leaf Pondweed	<i>Potamogeton richardsonii</i>	5.3%
Illinois Pondweed	<i>Potamogeton illinoensis</i>	3.2%
Narrow Leaf Pondweed	<i>Potamogeton spp.</i>	1.1%



Results: Big Lake Curlyleaf Pondweed & Eurasian Watermilfoil Delineation

Figure 2. CLP Locations, June 2, 2017 Survey

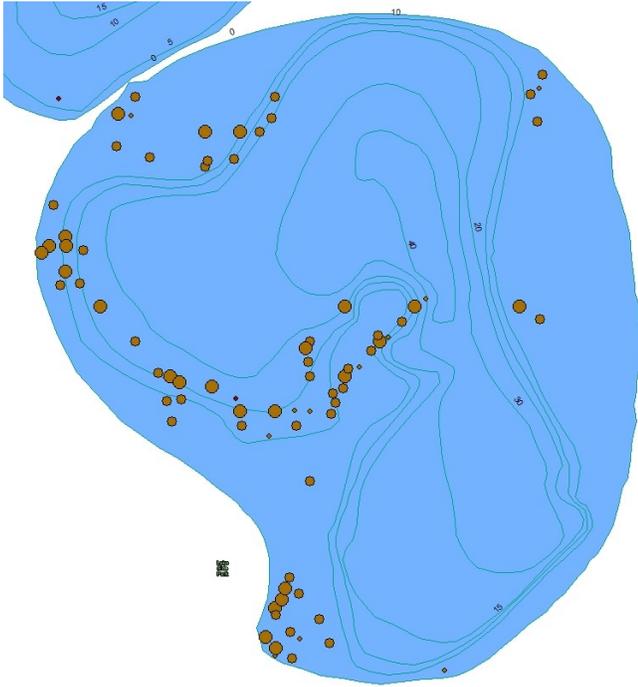


Figure 3. EWM Locations, June 2, 2017 Survey

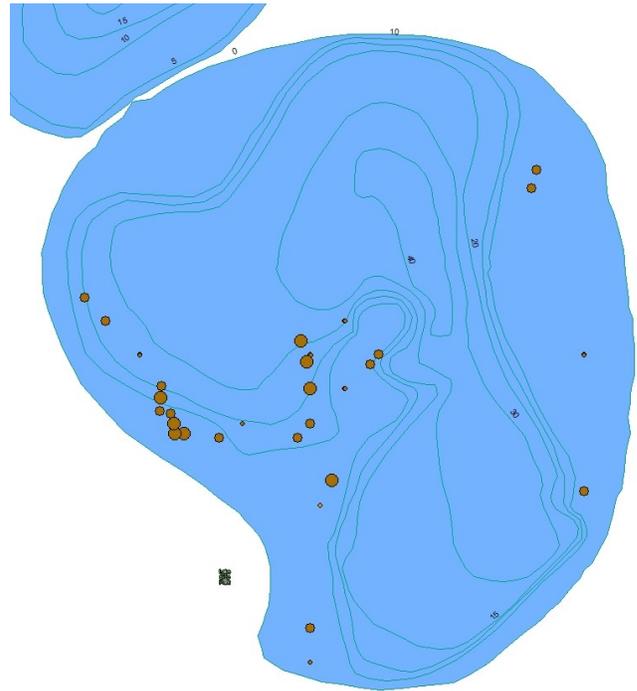
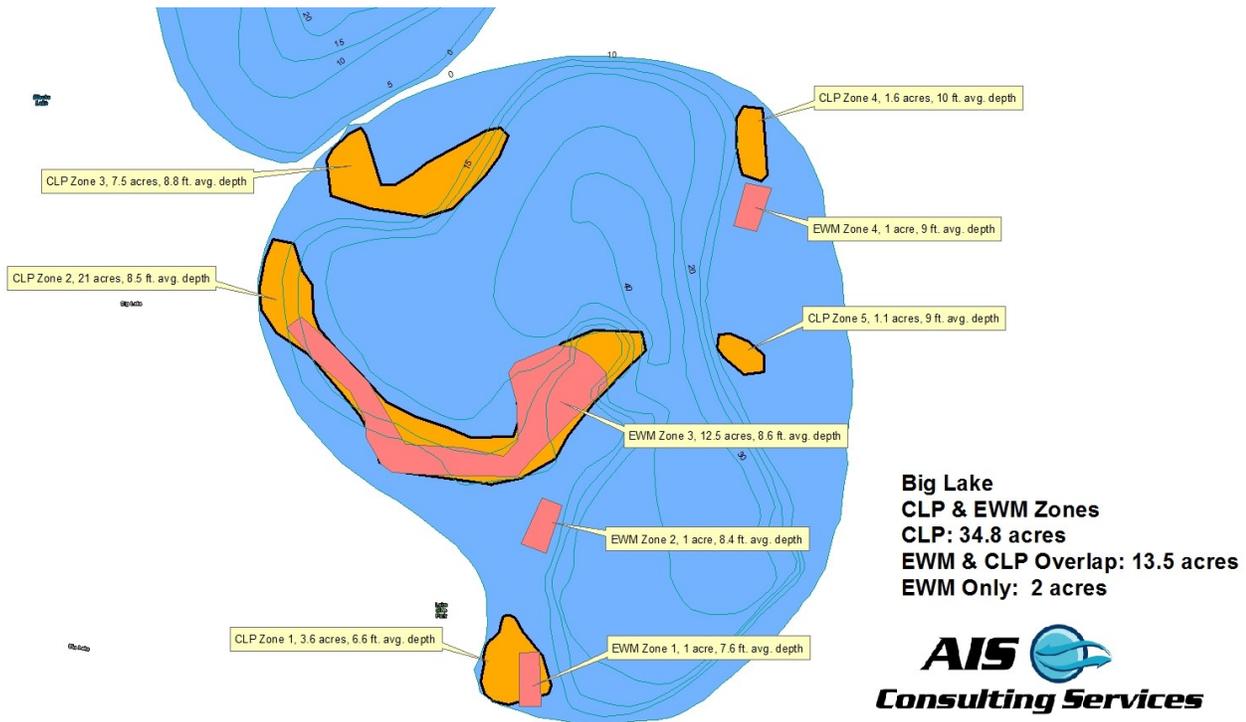


Figure 4. CLP & EWM Zones (Potential management areas)



Results: Mitchell Lake Curlyleaf Pondweed & Eurasian Watermilfoil Delineation

Figure 5. CLP Locations, June 2, 2017 Survey

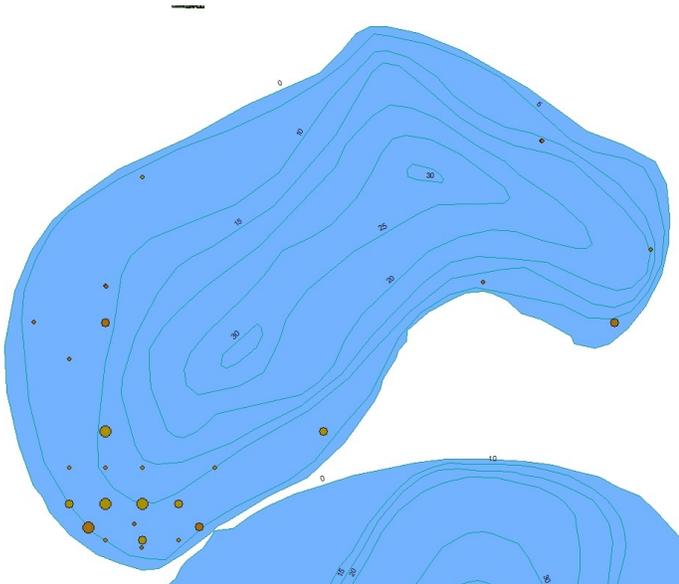


Figure 6. EWM Locations, June 2, 2017 Survey

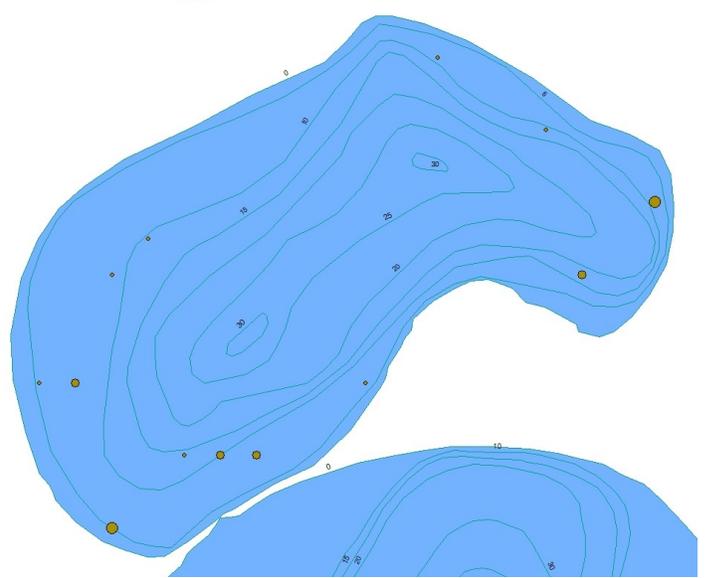
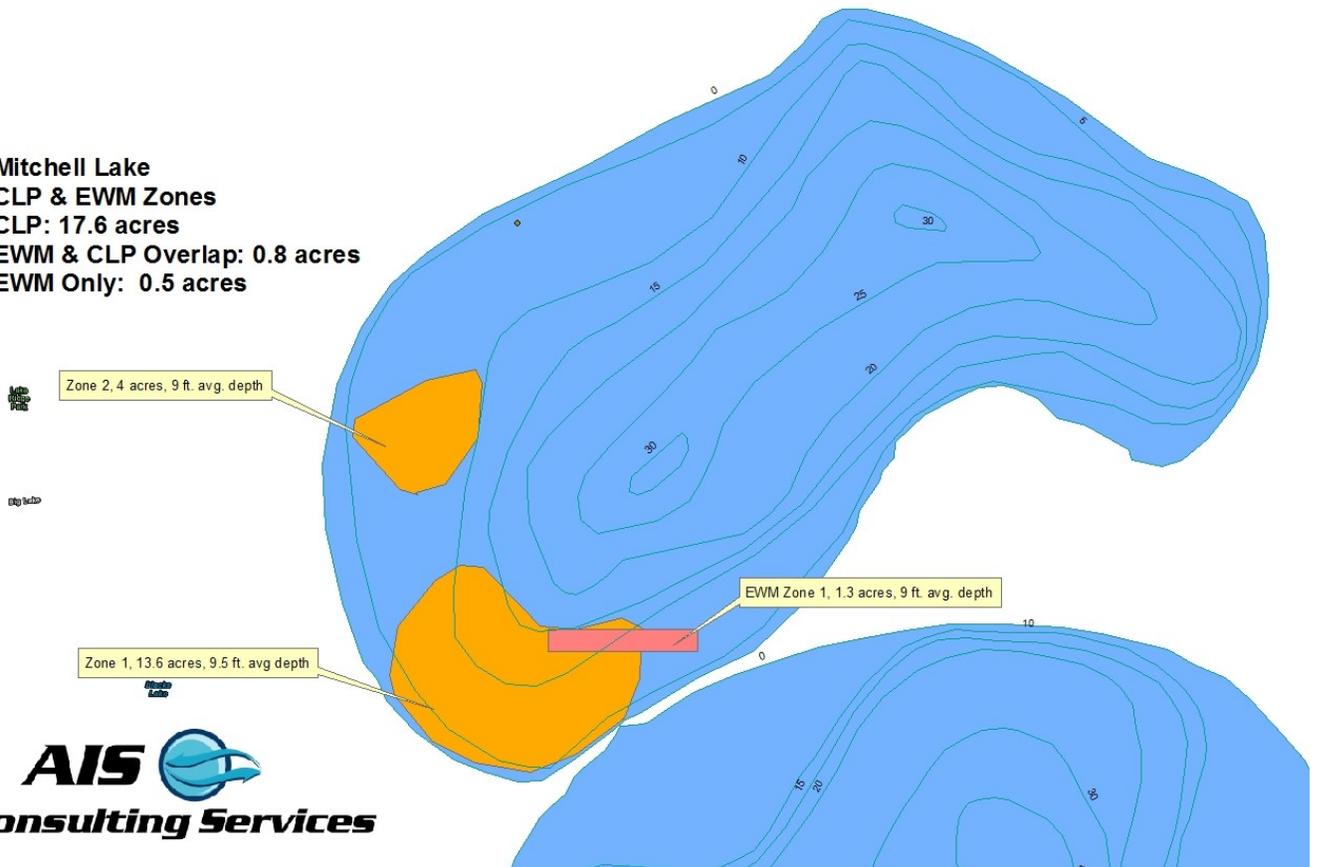


Figure 7. CLP & EWM Zones (Potential management areas)

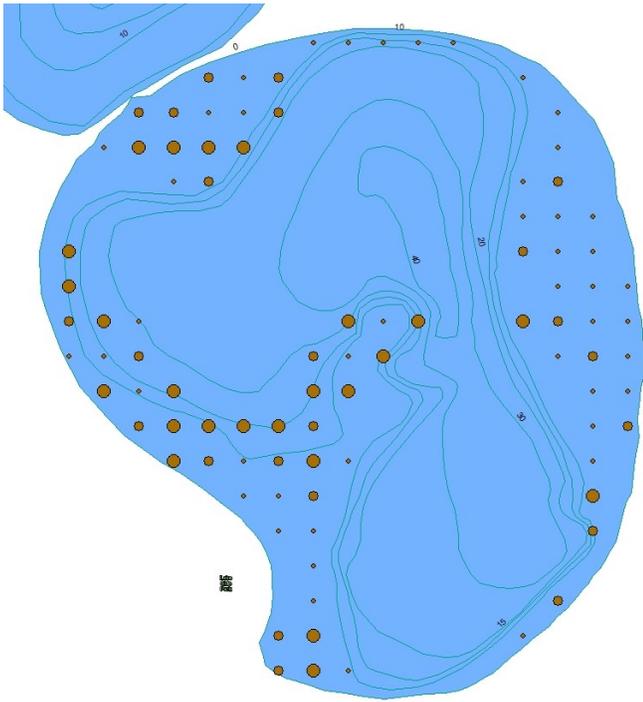
Mitchell Lake
CLP & EWM Zones
CLP: 17.6 acres
EWM & CLP Overlap: 0.8 acres
EWM Only: 0.5 acres



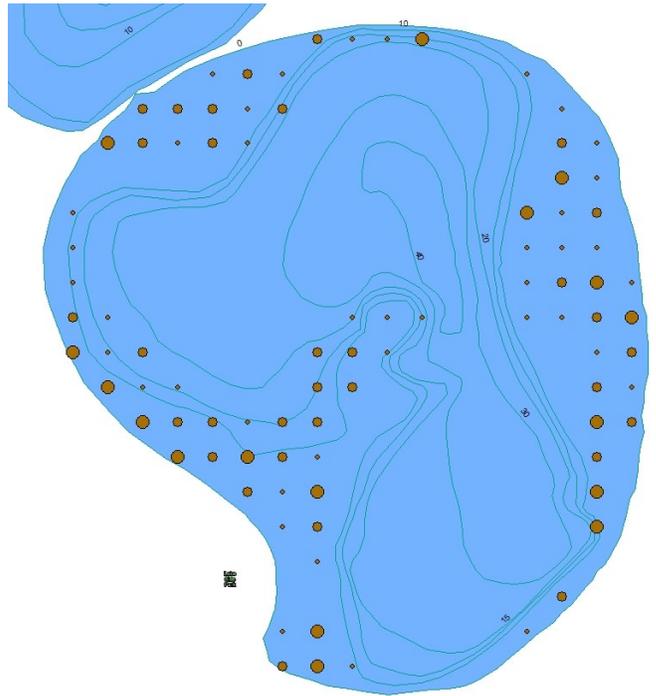
Big Lake

Overall Vegetation Abundance

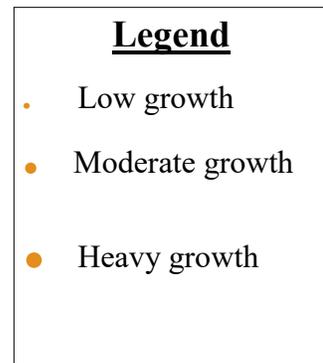
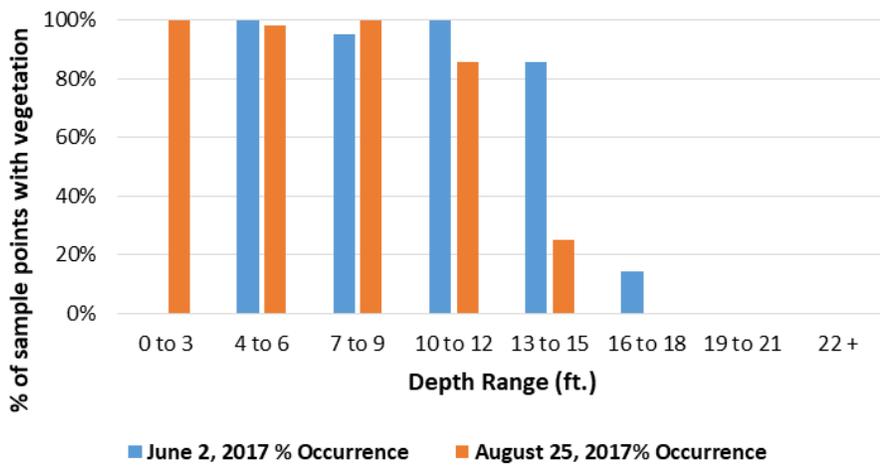
June 2, 2017



August 25, 2017



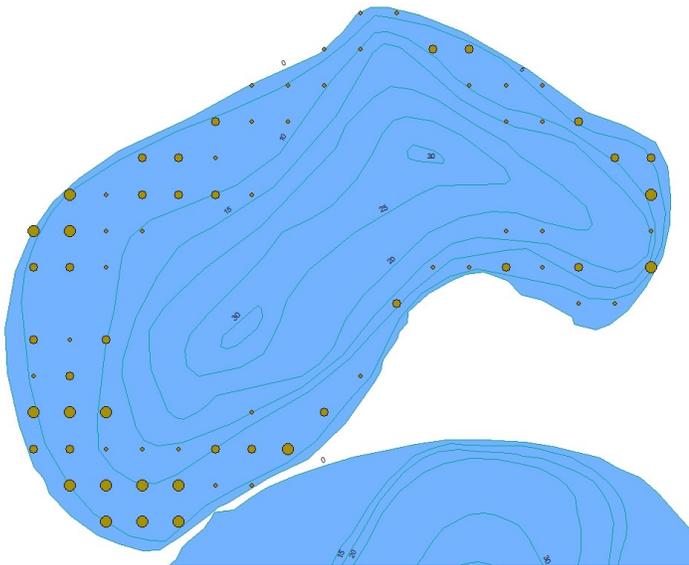
Big Lake - Percent of Vegetation by Depth



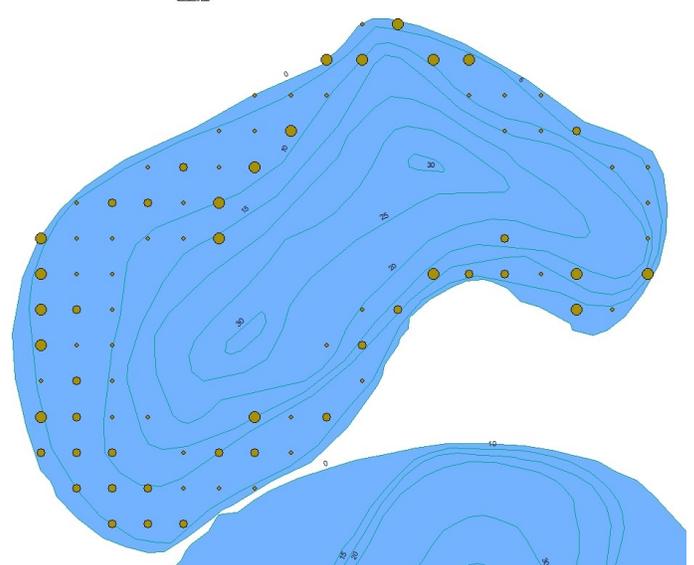
Mitchell Lake

Overall Vegetation Abundance

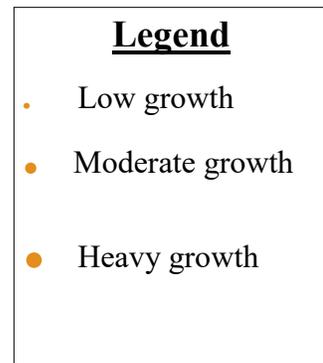
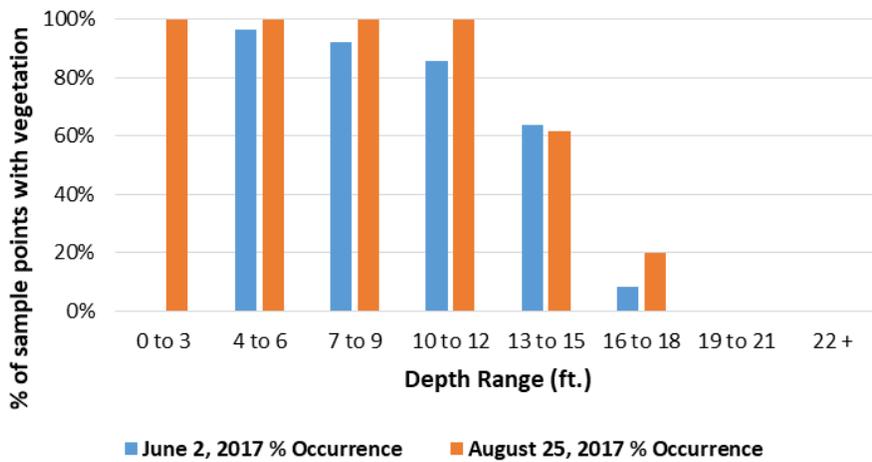
June 2, 2017



August 25, 2017



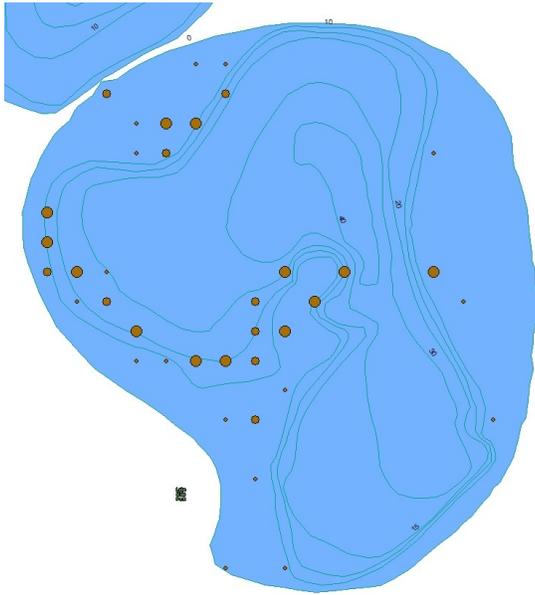
Mitchell Lake - Percent of Vegetation by Depth



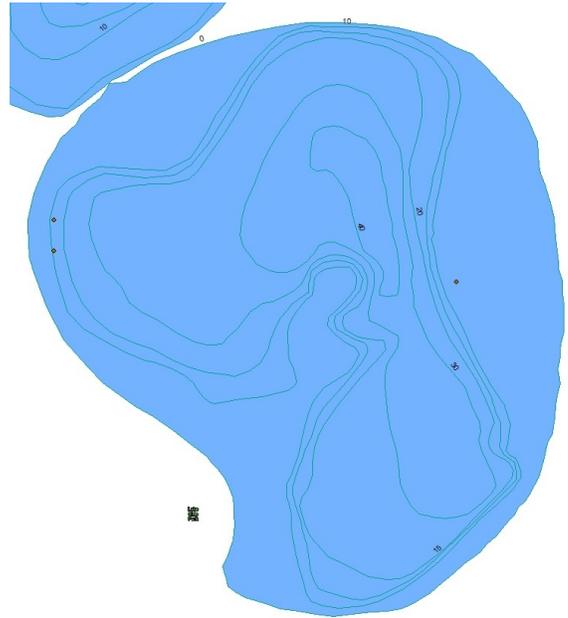
Big Lake

Curlyleaf Pondweed

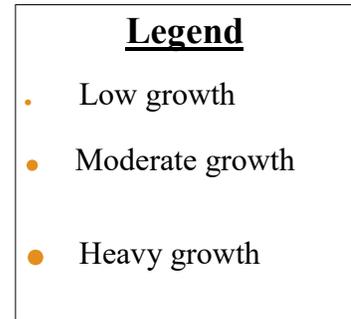
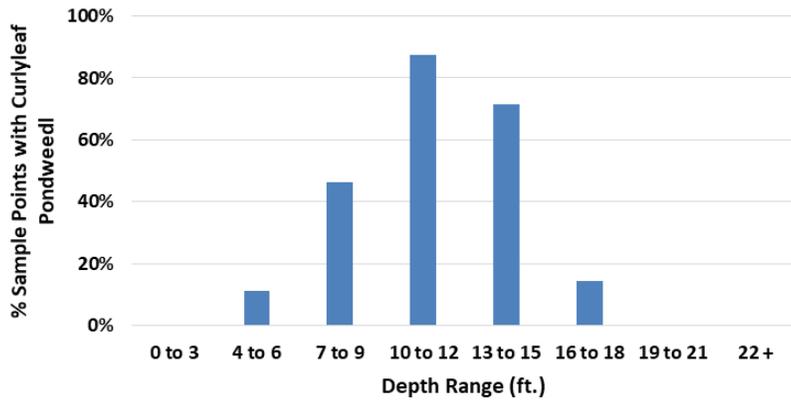
June 2, 2017



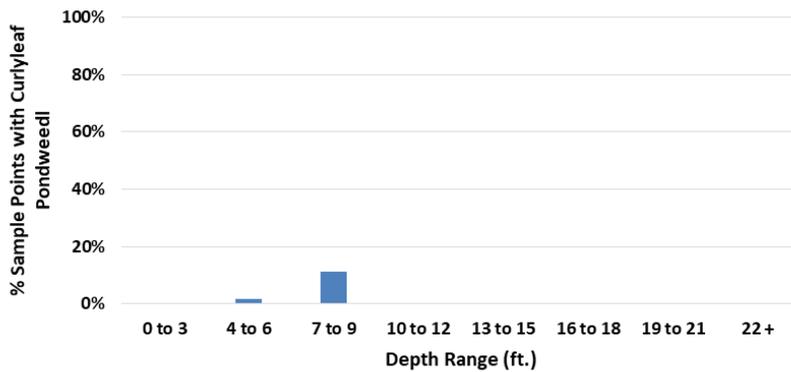
August 25, 2017



June 2, 2017 % Occurrence of Curlyleaf Pondweed



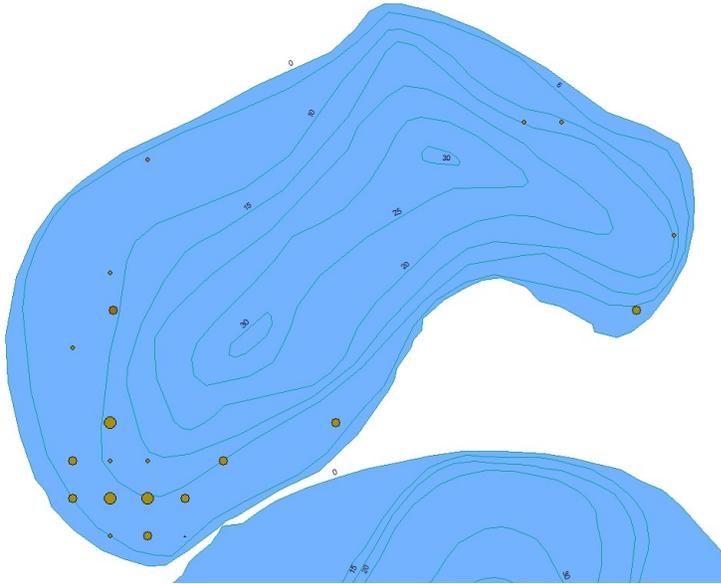
August 25, 2017 % Occurrence of Curlyleaf Pondweed



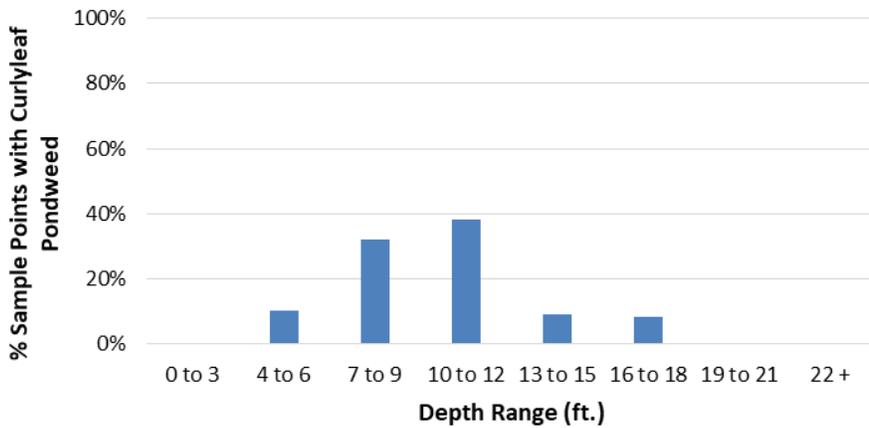
Mitchell Lake

Curlyleaf Pondweed

June 2, 2017



% Occurrence of Curlyleaf Pondweed



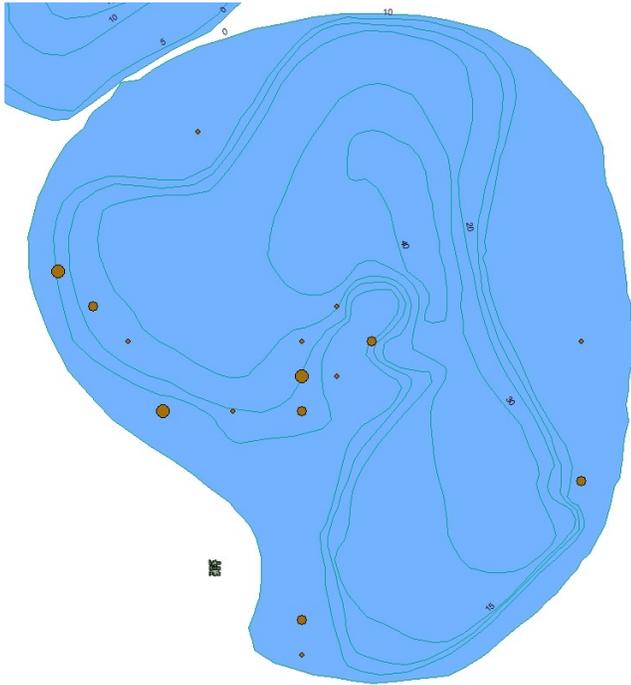
Legend

- Low growth
- Moderate growth
- Heavy growth

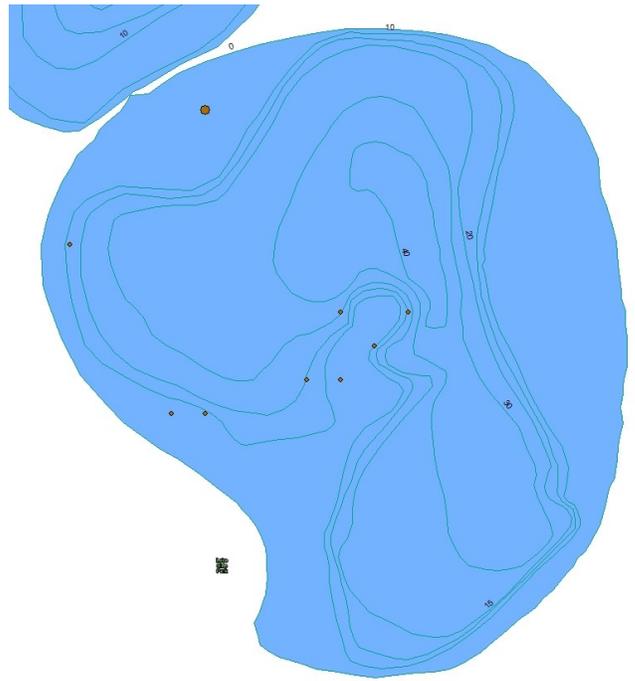
Big Lake

Eurasian Watermilfoil

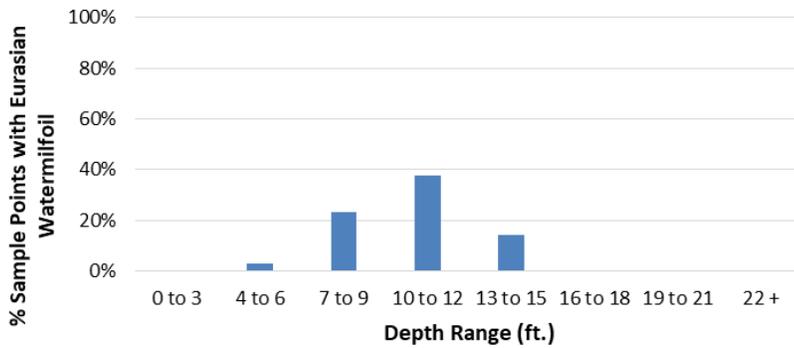
June 2, 2017



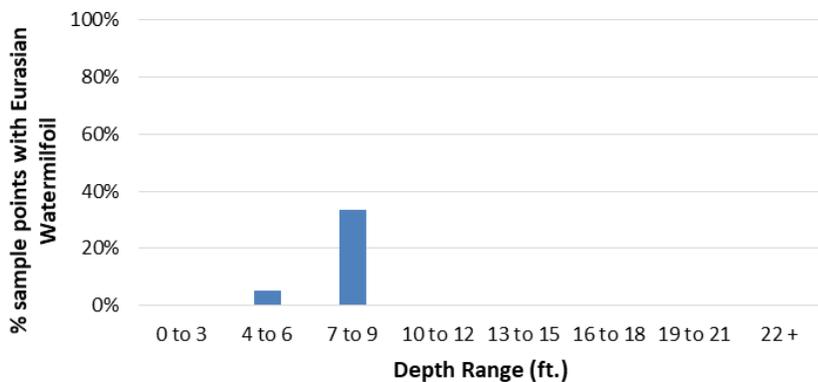
August 25, 2017



June 2, 2017 % Occurrence of Eurasian Watermilfoil



August 25, 2017 % Occurrence of Eurasian Watermilfoil



Legend

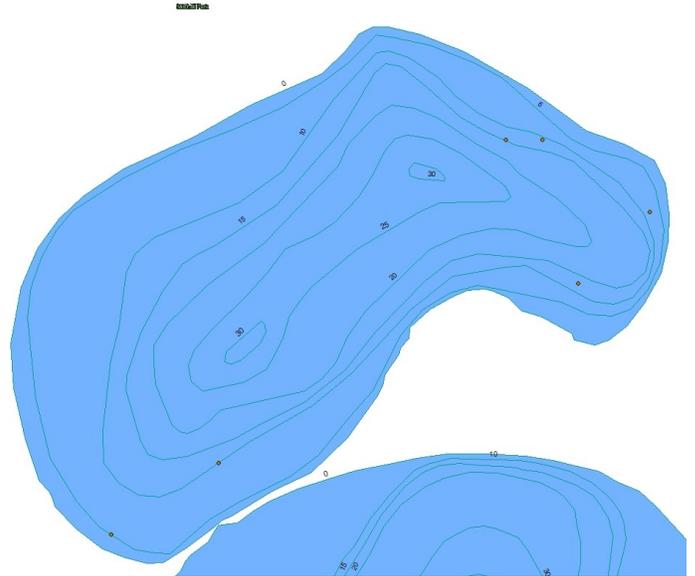
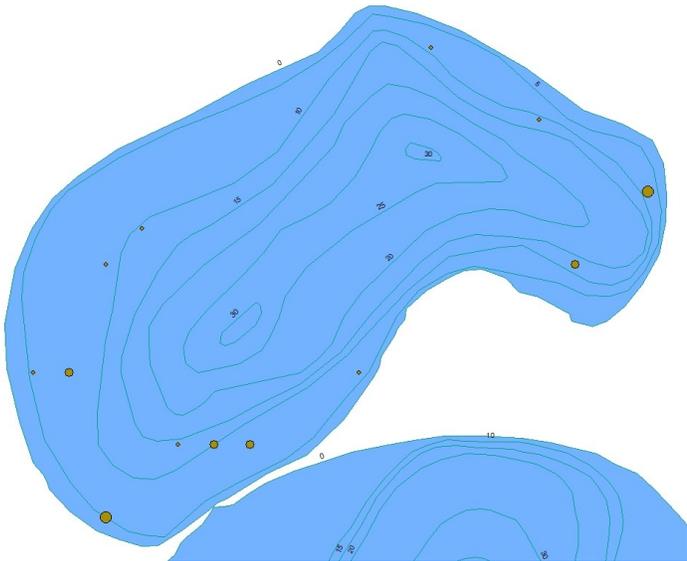
- Low growth
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- Heavy growth

Mitchell Lake

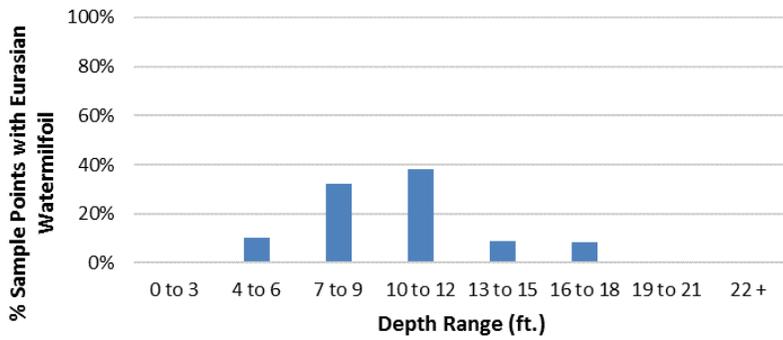
Eurasian Watermilfoil

June 2, 2017

August 25, 2017



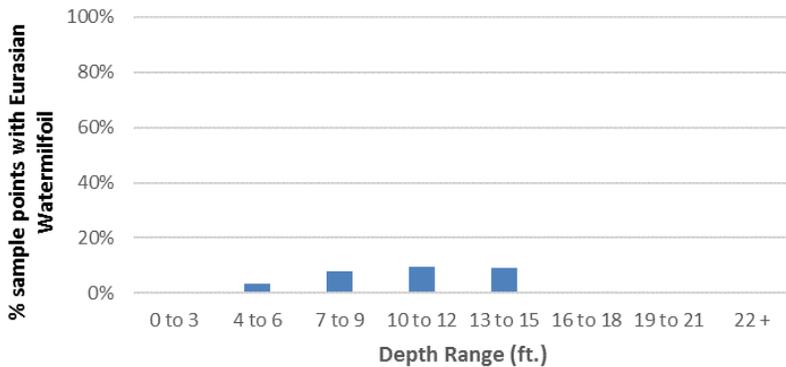
June 2, 2017 % Occurrence of Eurasian Watermilfoil



Legend

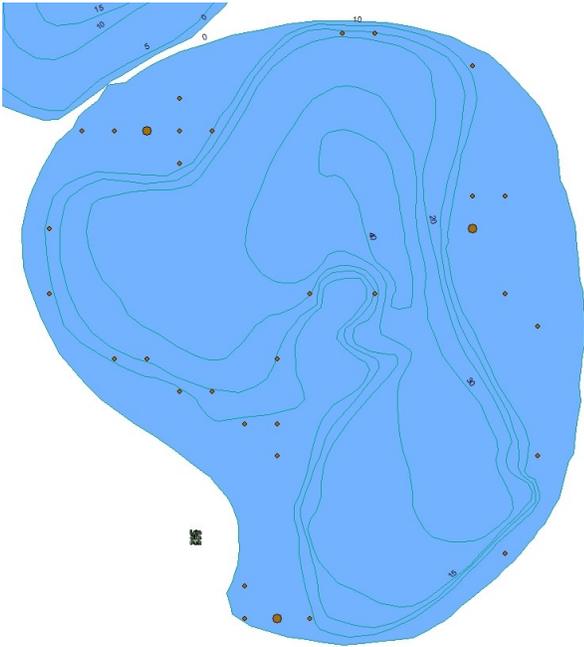
- Low growth
- Moderate growth
- Heavy growth

August 25, 2017 % Occurrence of Eurasian Watermilfoil



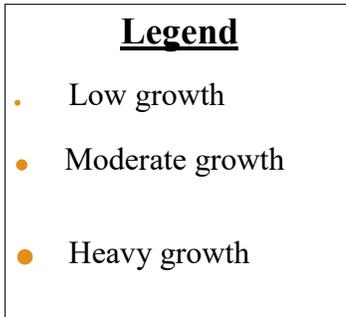
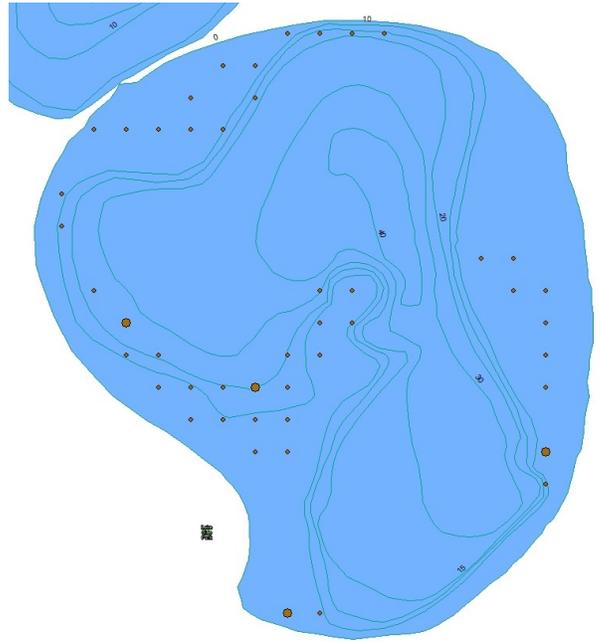
Coontail

June 2, 2017



Big Lake

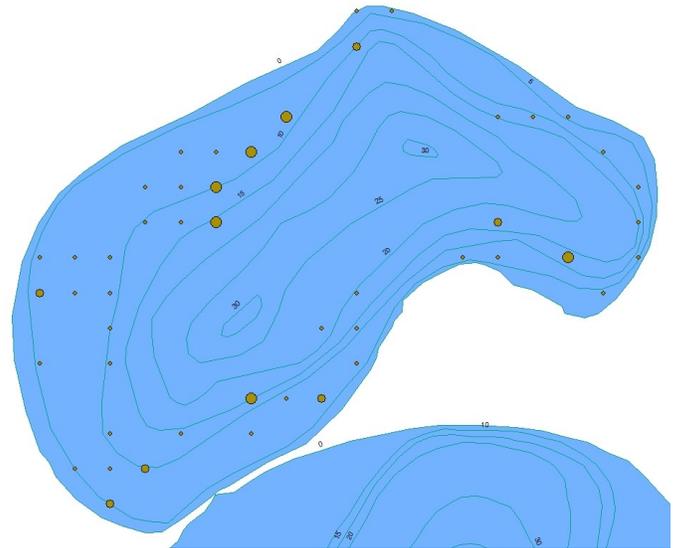
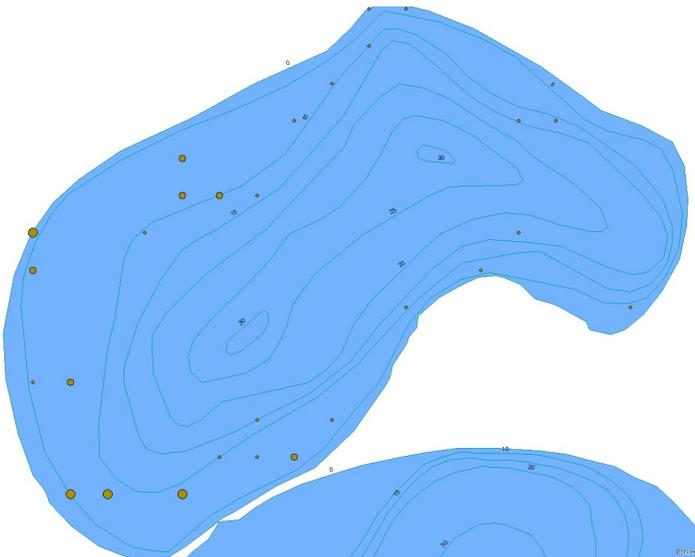
August 25, 2017



June 2, 2017

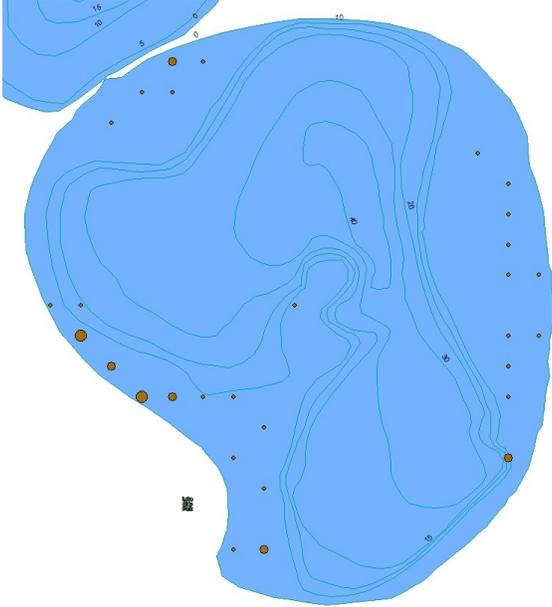
August 25, 2017

Mitchell Lake



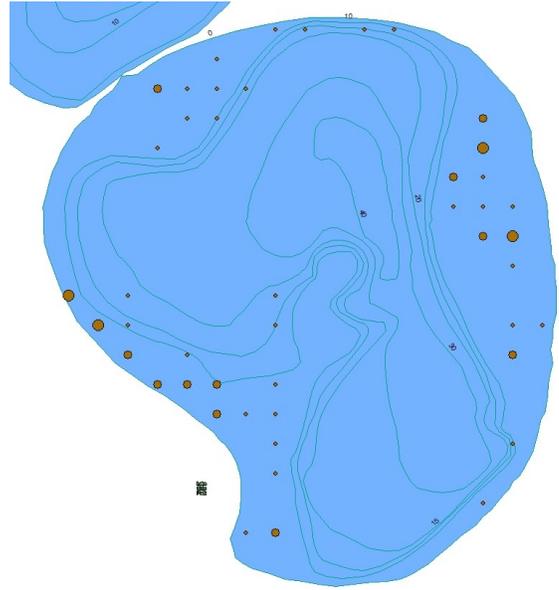
Southern Naiad

June 2, 2017



Big Lake

August 25, 2017

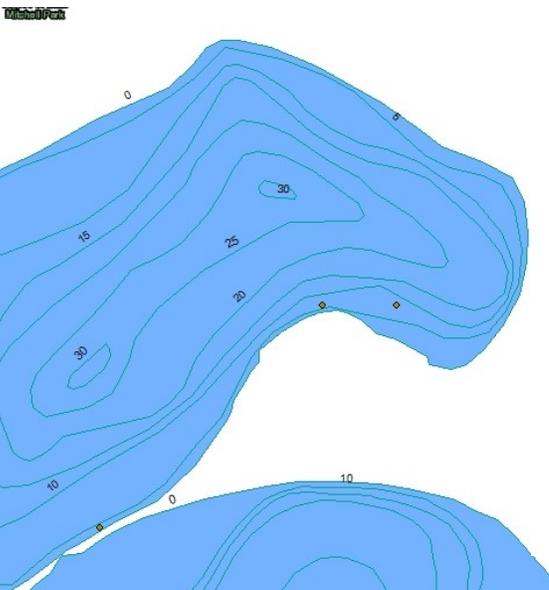


Legend

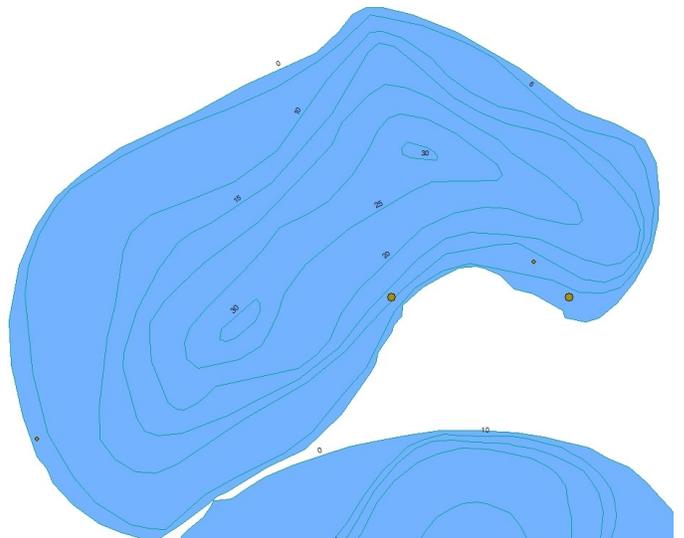
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017

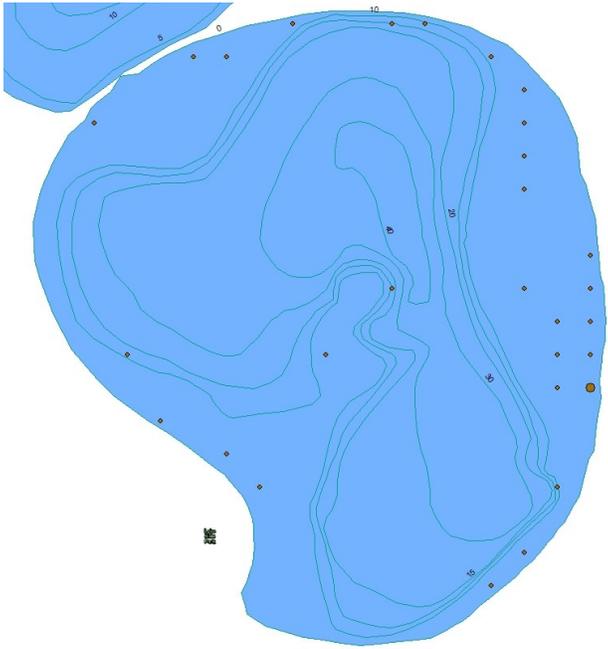


August 25, 2017



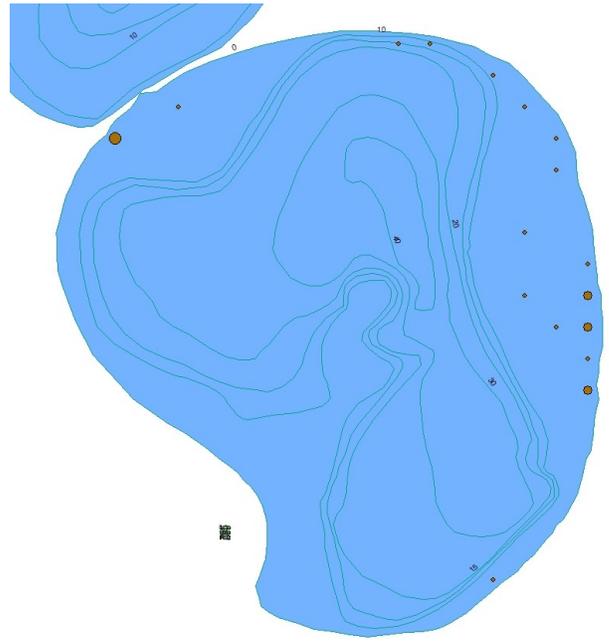
Muskgrass

June 2, 2017



Big Lake

August 25, 2017



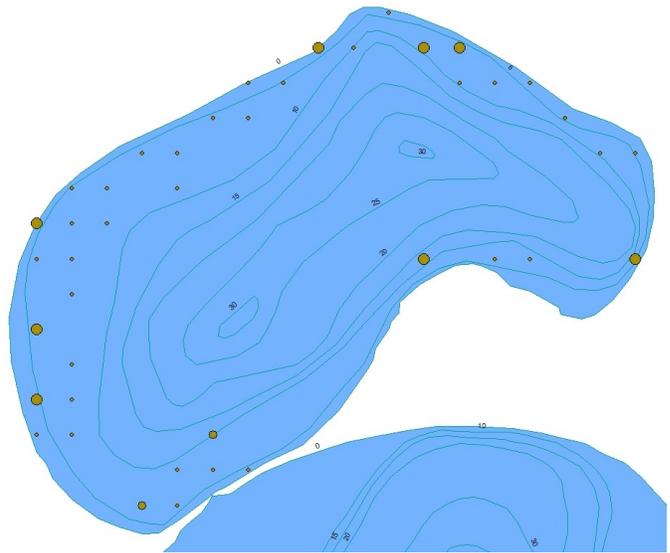
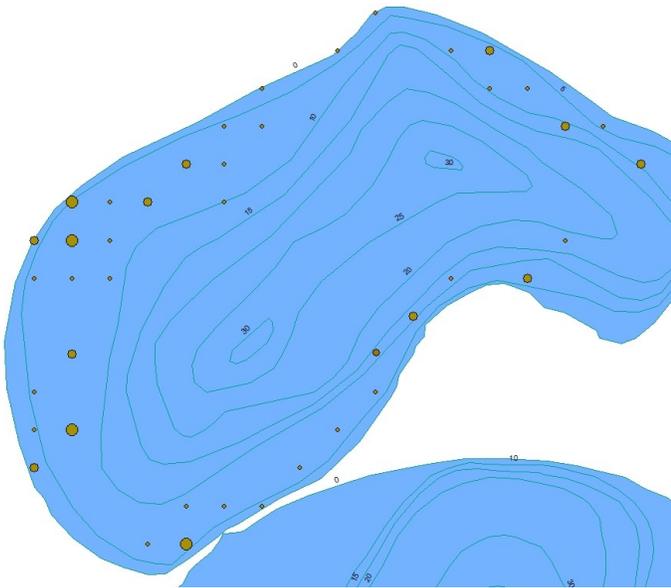
ESR, HEF

Legend

- Low growth
- Moderate growth
- Heavy growth

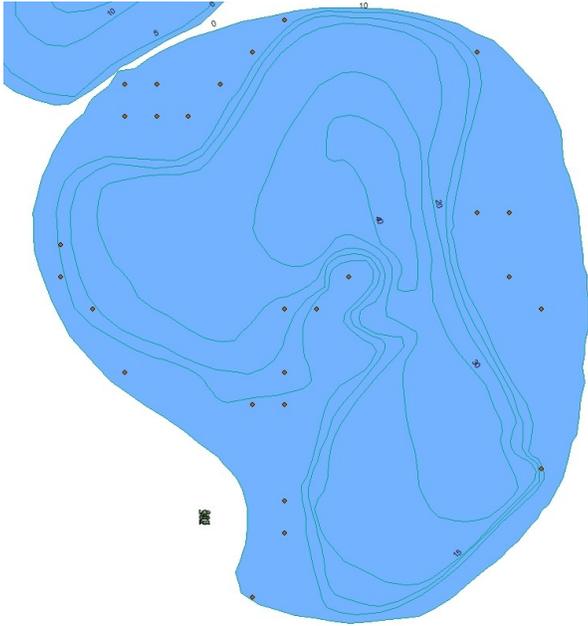
Mitchell

August 25, 2017



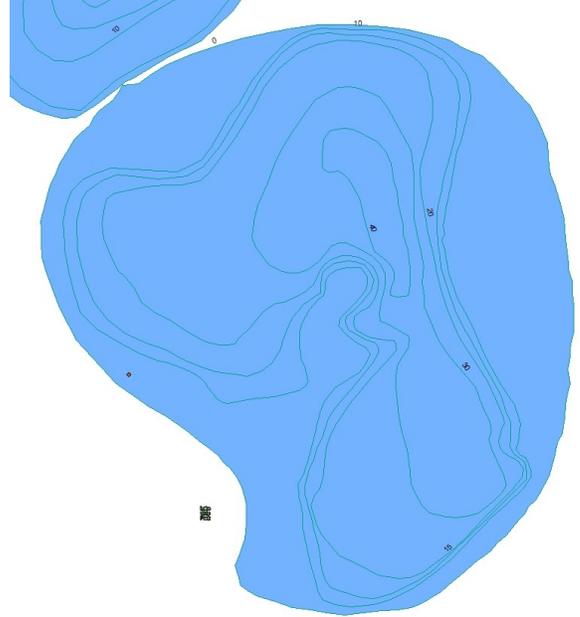
Flat Stem Pondweed

June 2, 2017



Big Lake

August 25, 2017

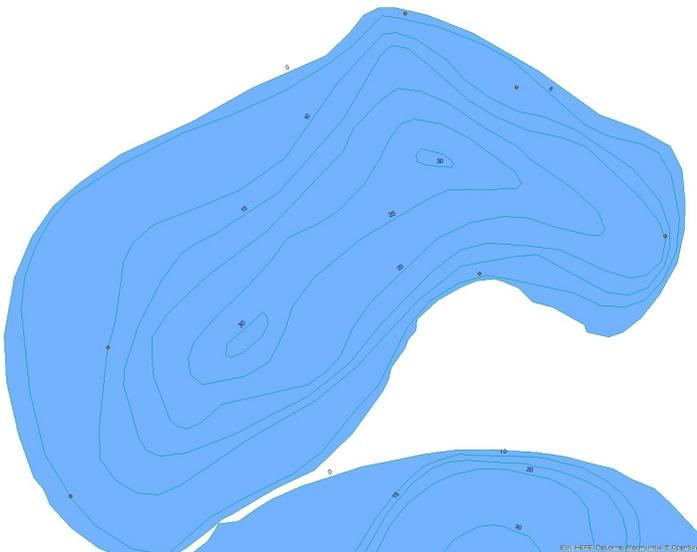


Legend

- Low growth
- Moderate growth
- Heavy growth

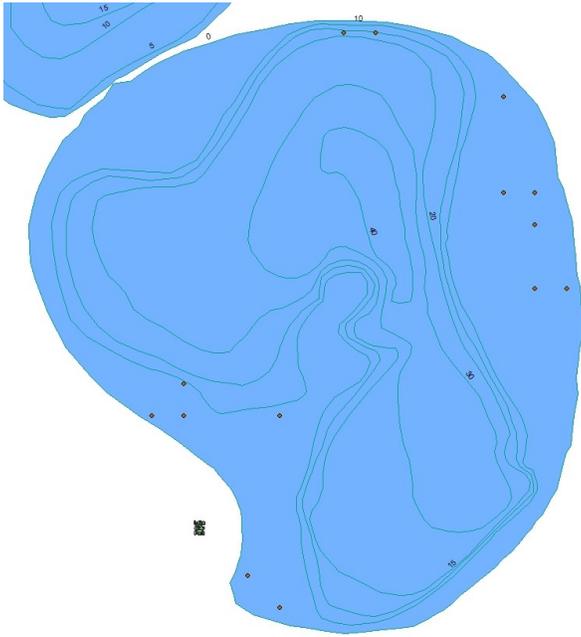
Mitchell Lake

June 2, 2017



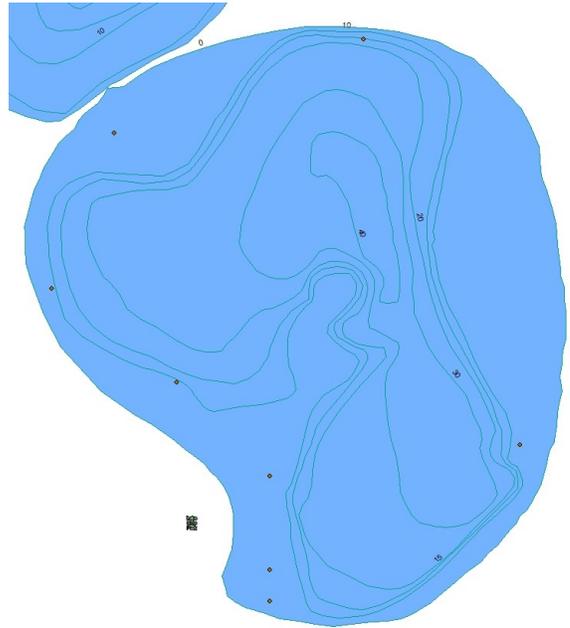
White Stem Pondweed

June 2, 2017



Big Lake

August 25, 2017

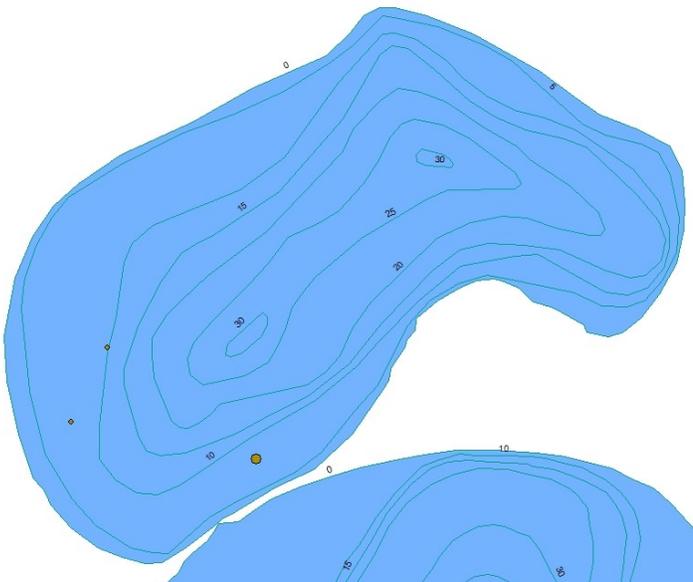


Legend

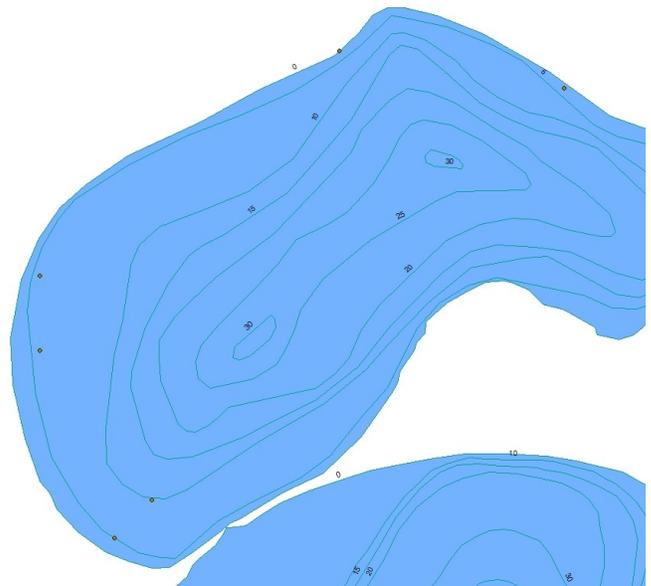
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017

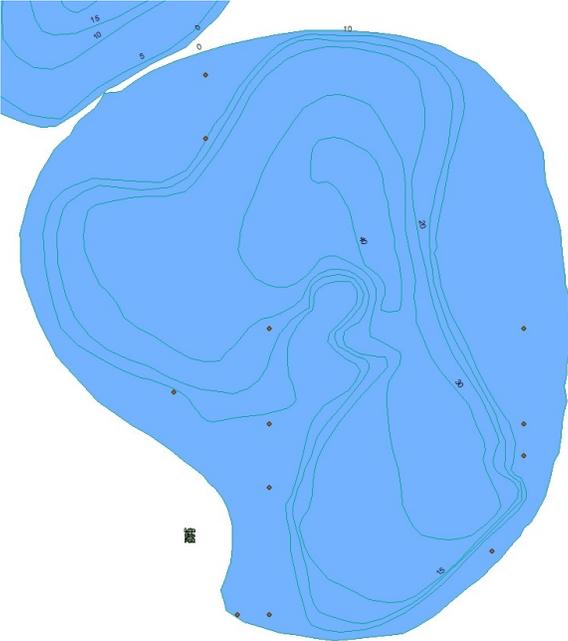


August 25, 2017



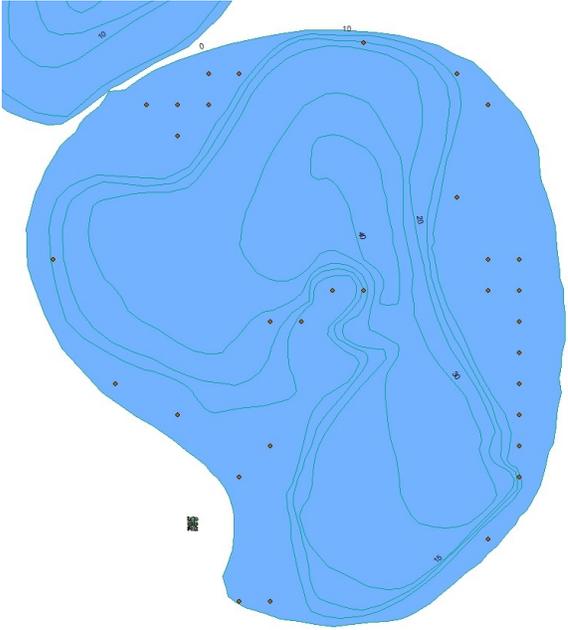
Northern Watermilfoil

June 2, 2017



Big Lake

August 25, 2017

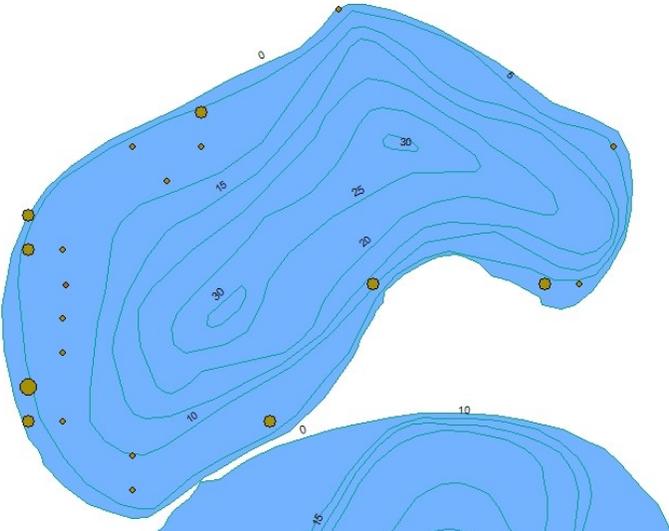


Legend

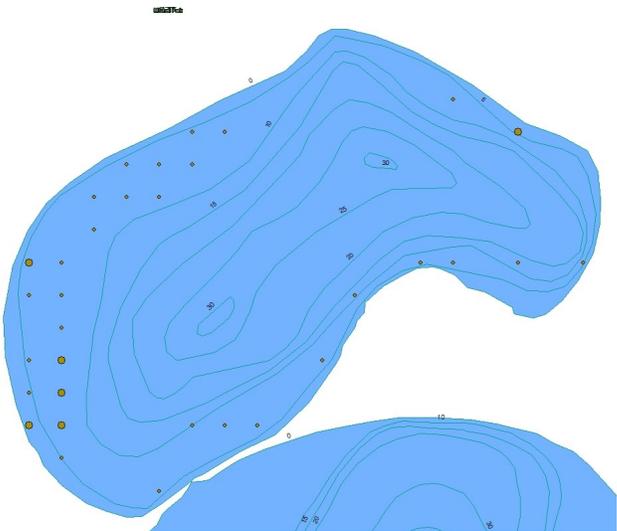
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017



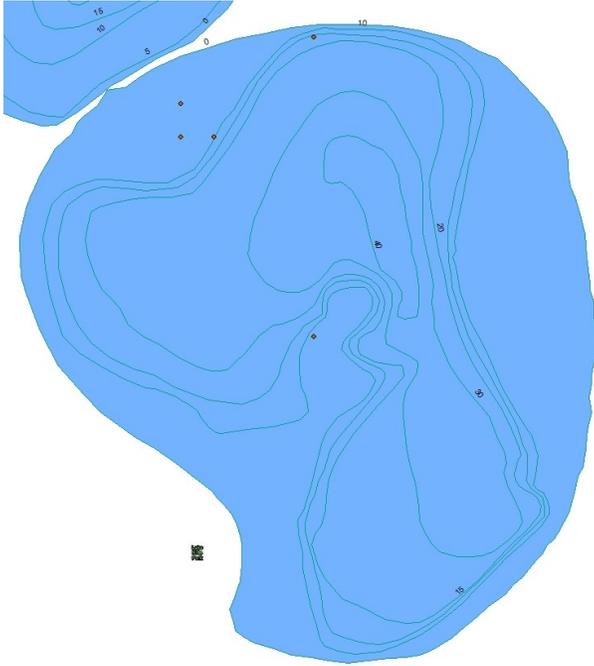
August 25, 2017



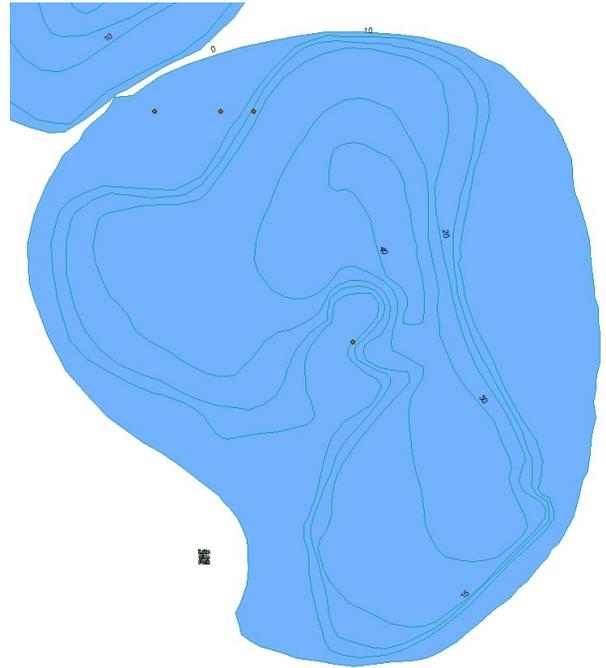
Canada Waterweed

Big Lake

June 2, 2017



August 25, 2017

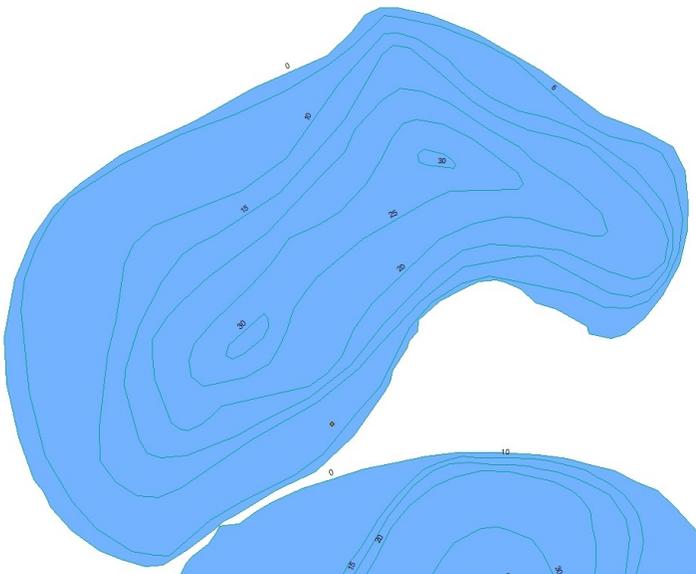


Legend

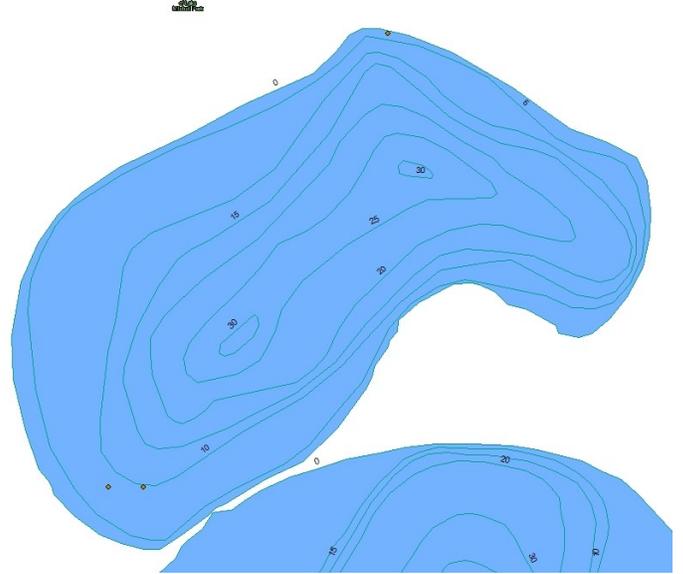
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017



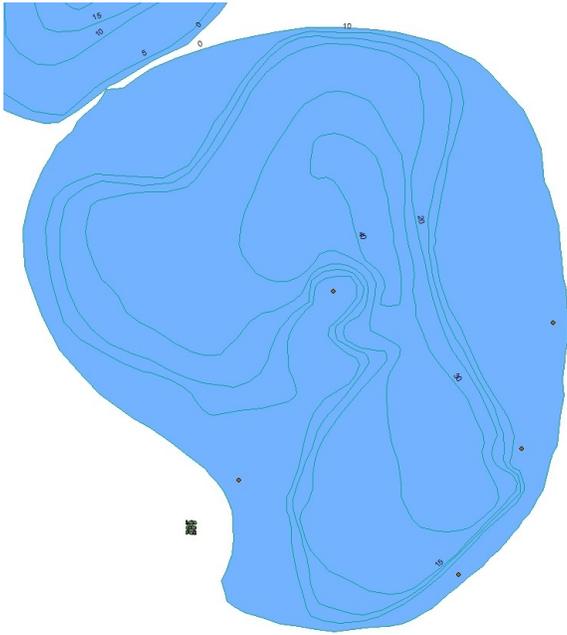
August 25, 2017



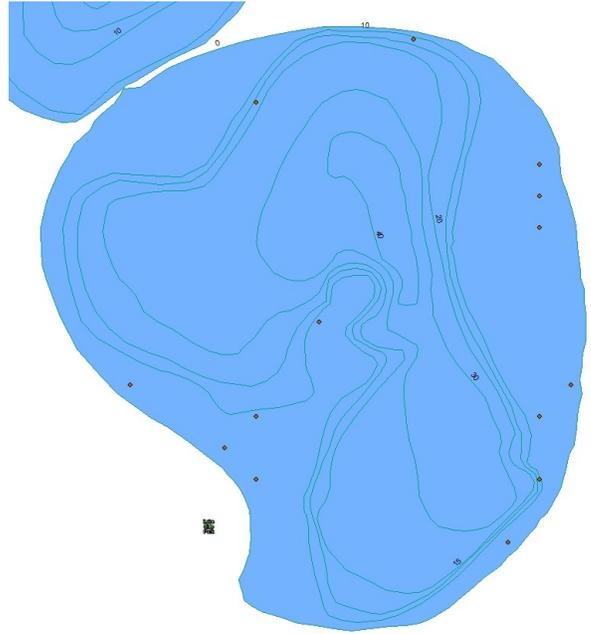
Variable Pondweed

Big Lake

June 2, 2017



August 25, 2017

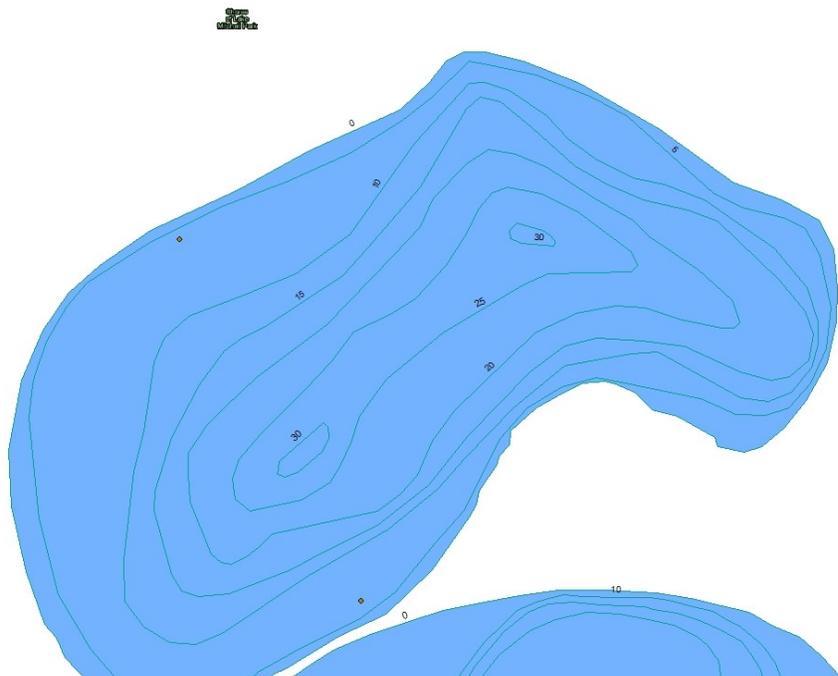


Legend

- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

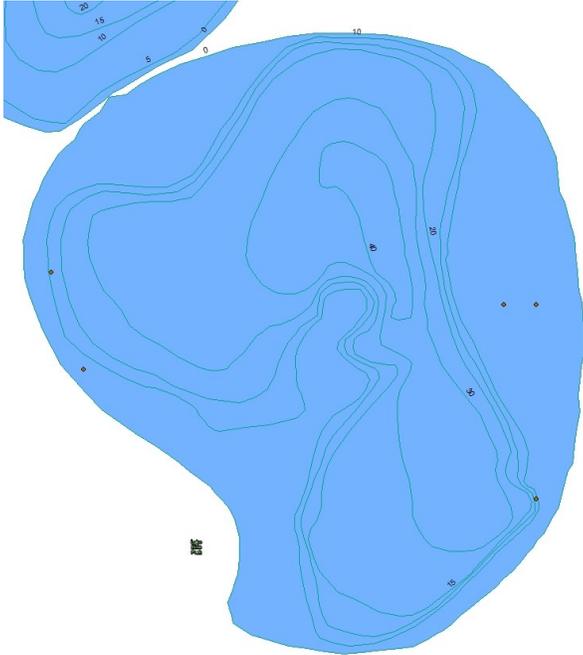
August 25, 2017



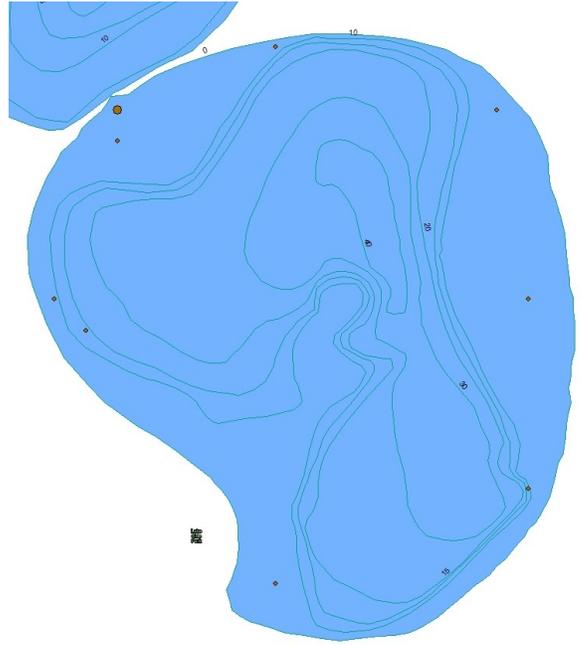
Clasping Leaf Pondweed

Big Lake

June 2, 2017



August 25, 2017

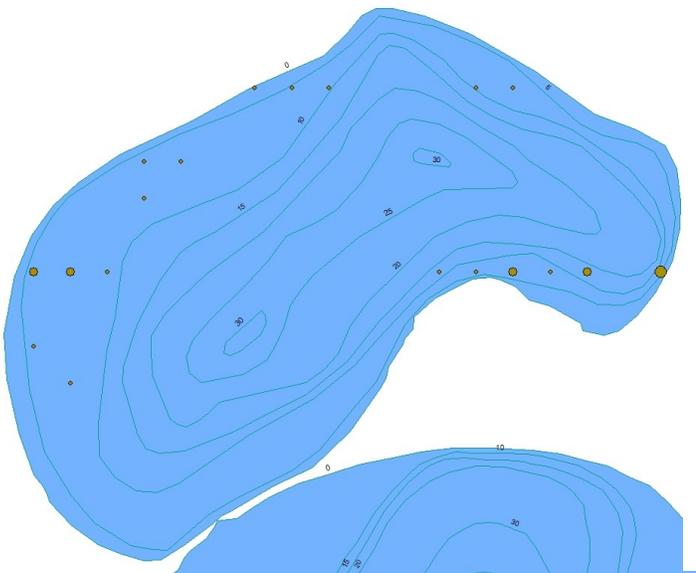


Legend

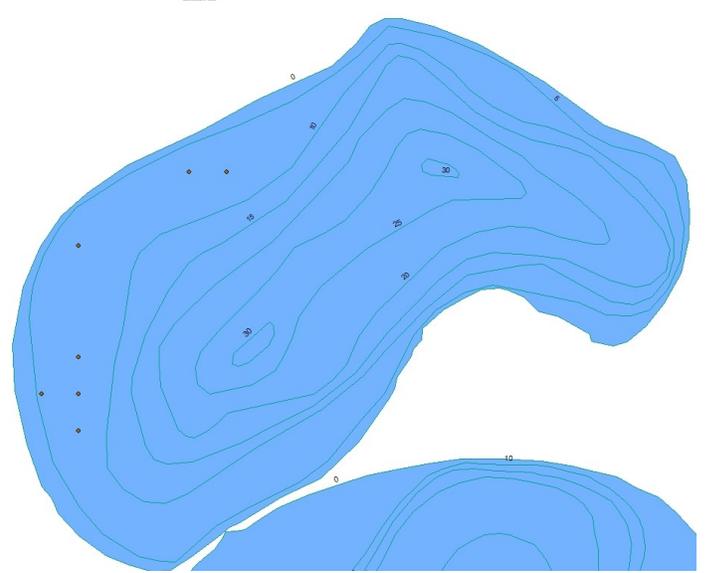
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017

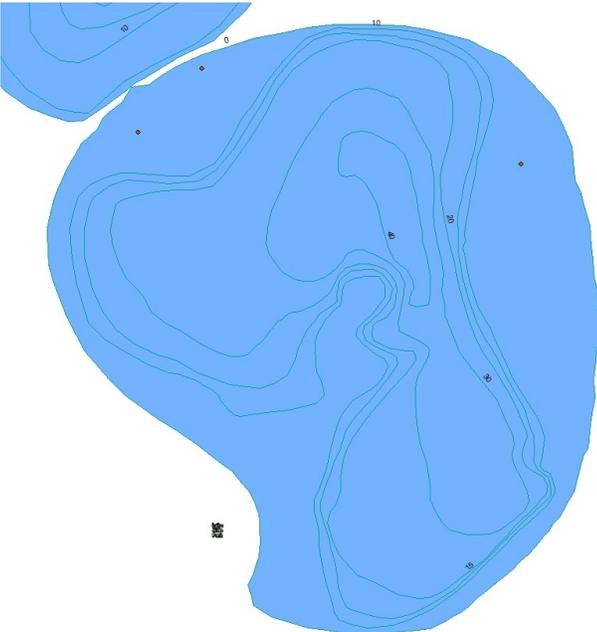


August 25, 2017



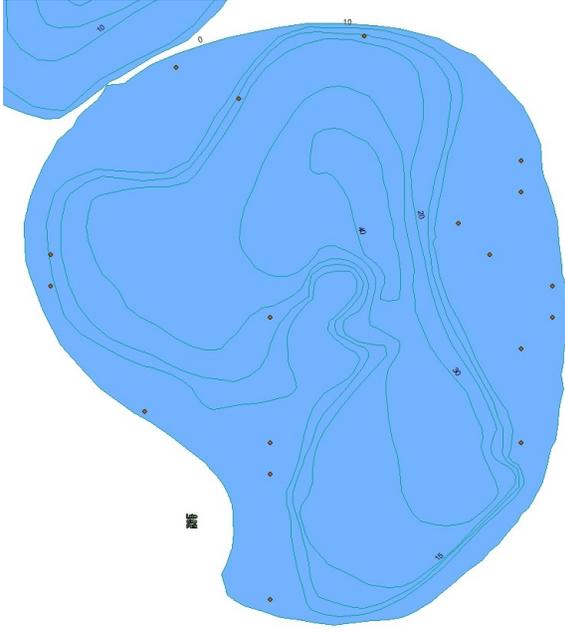
Illinois Pondweed

June 2, 2017



Big Lake

August 25, 2017

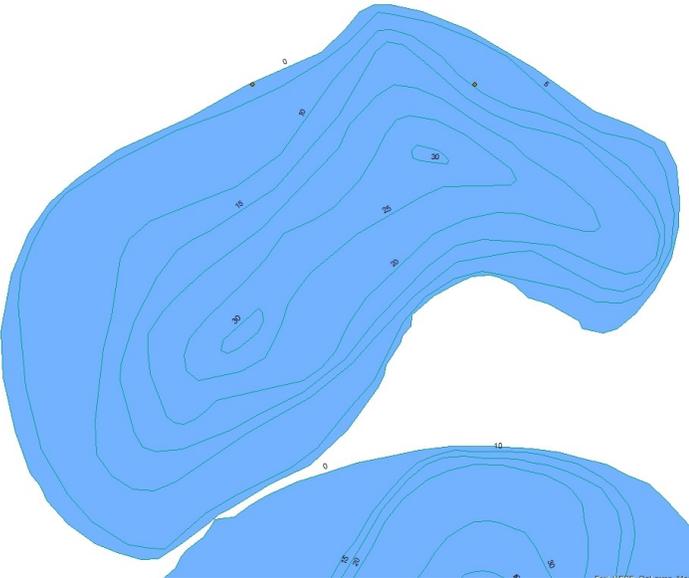


Legend

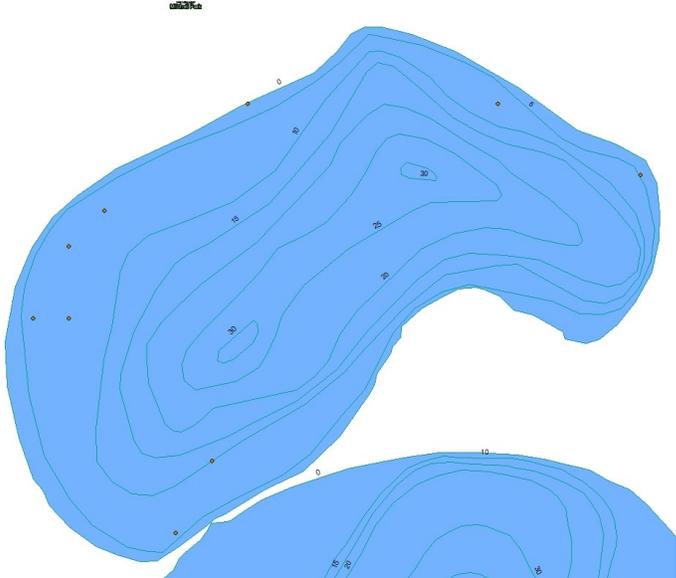
- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

June 2, 2017



August 25, 2017

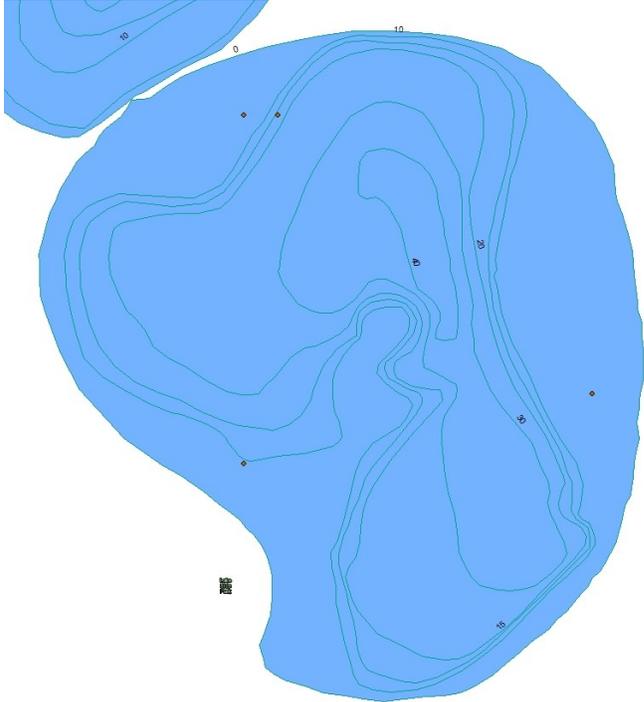
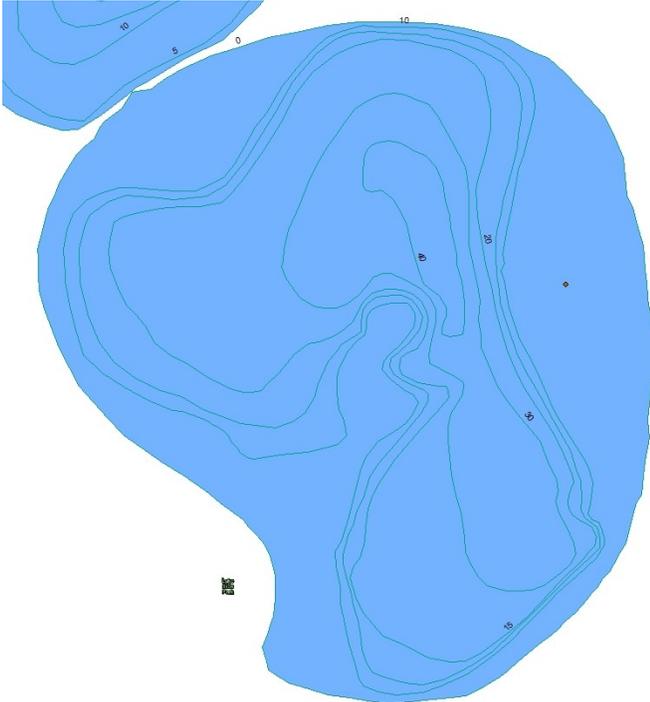


Narrow Leaf Pondweed

Big Lake

June 2, 2017

August 25, 2017



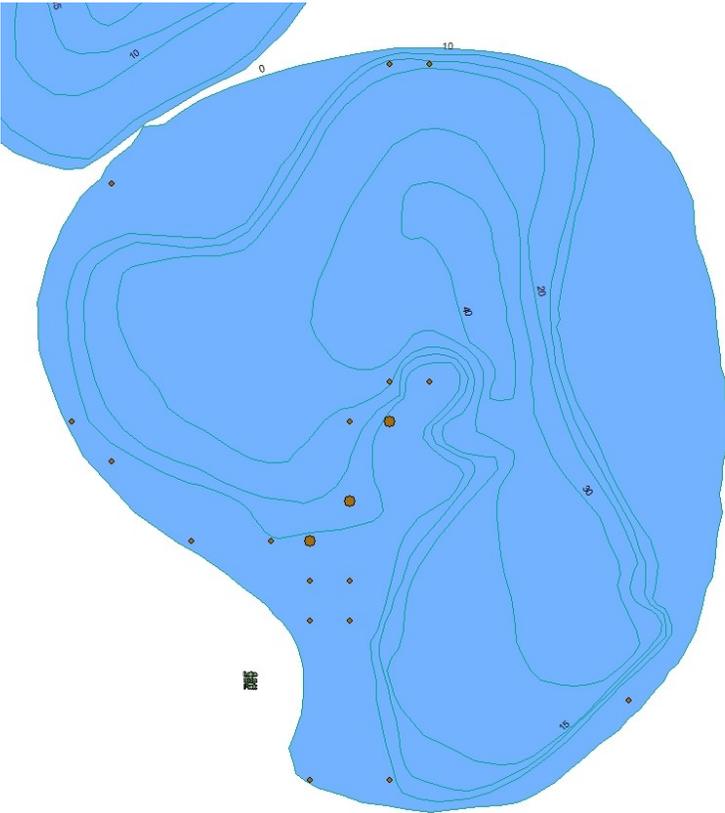
Legend

- Low growth
- Moderate growth
- Heavy growth

Wild Celery

Big Lake

August 25, 2017

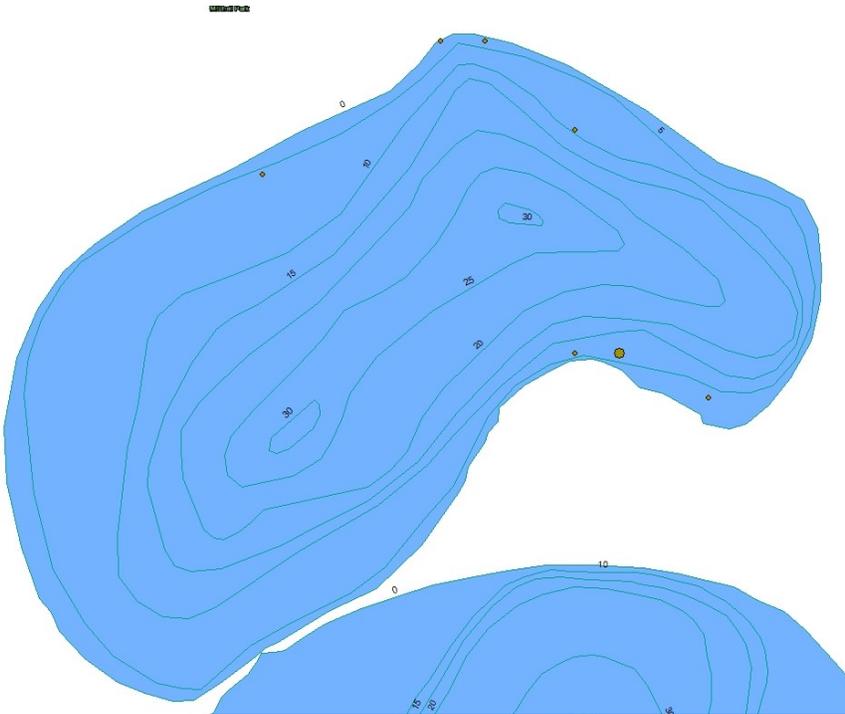


Legend

- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

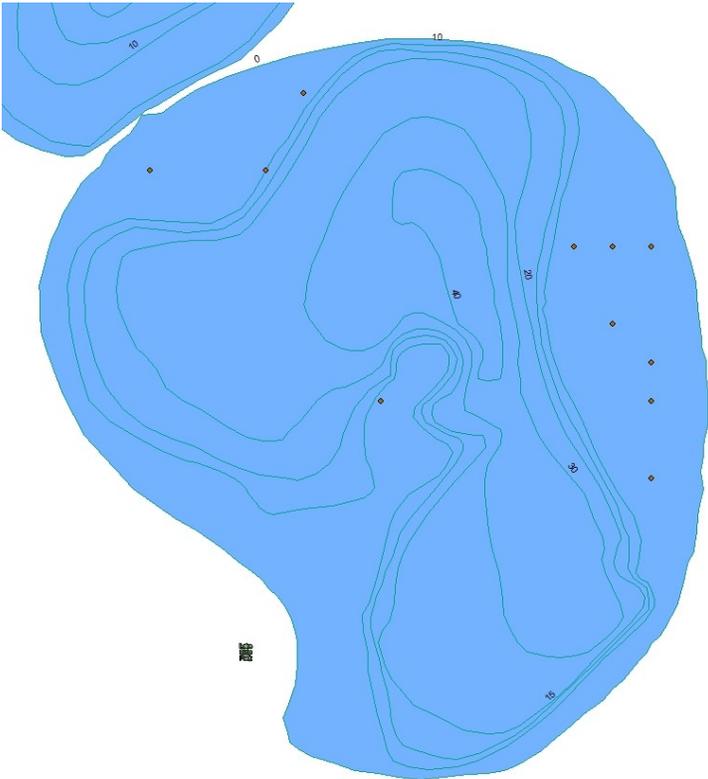
August 25, 2017



Sago Pondweed

Big Lake

August 25, 2017

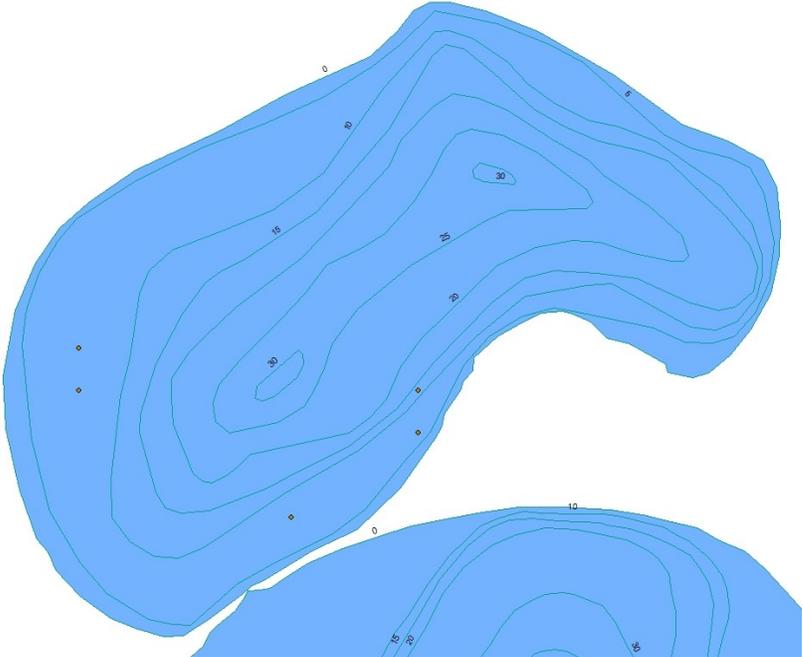


Legend

- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

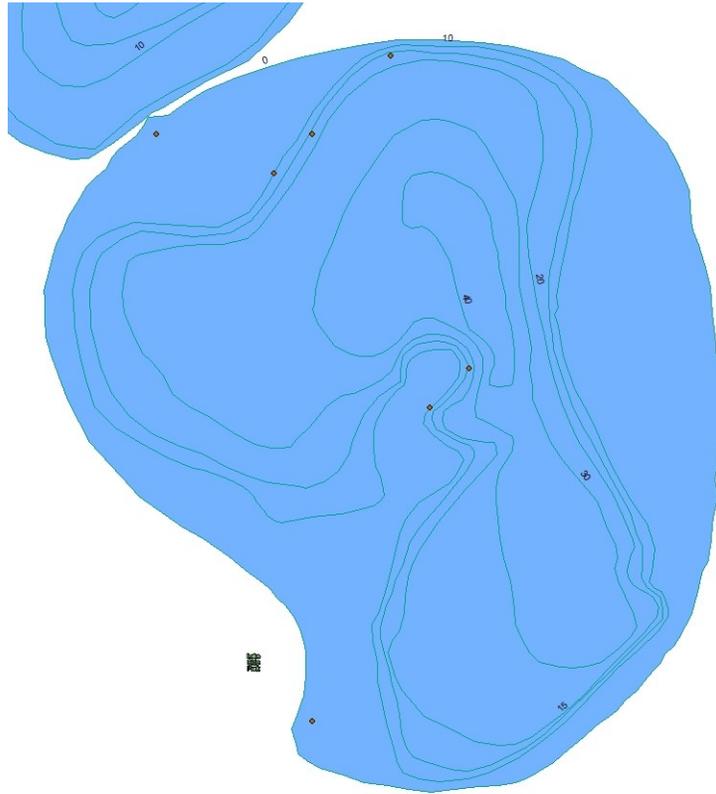
August 25, 2017



Water Stargrass

Big Lake

August 25, 2017

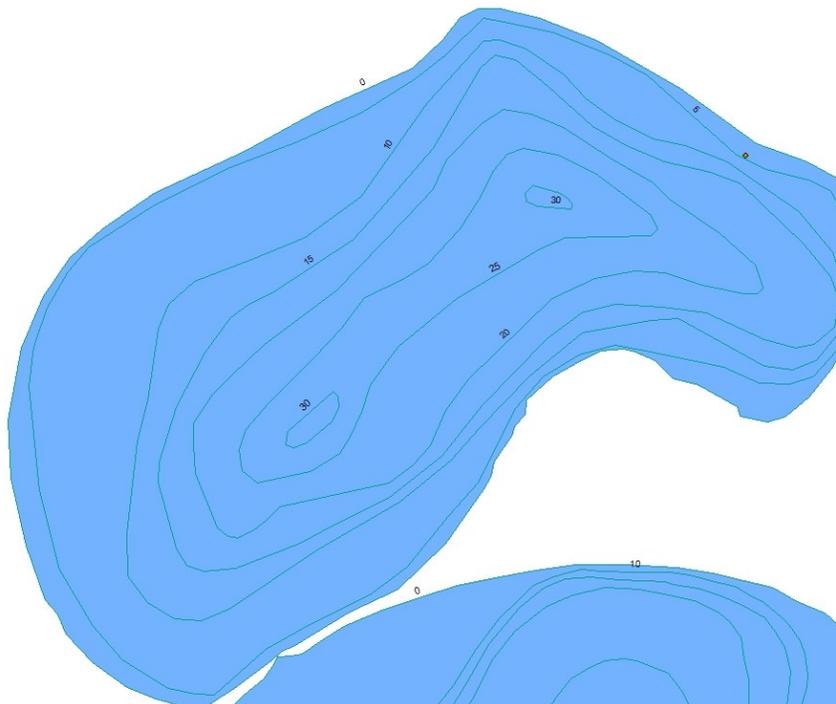


Legend

- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

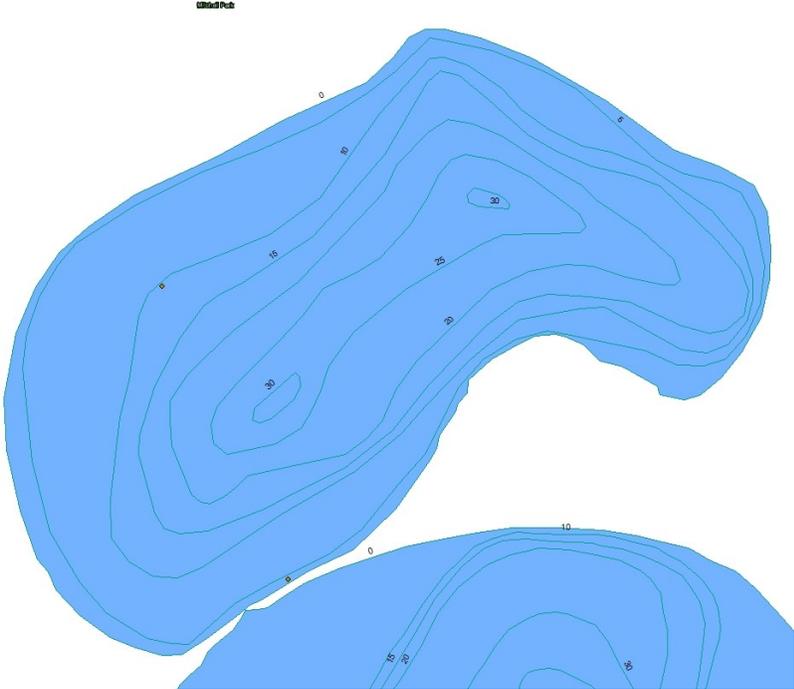
August 25, 2017



Bushy Pondweed

Mitchell Lake

August 25, 2017



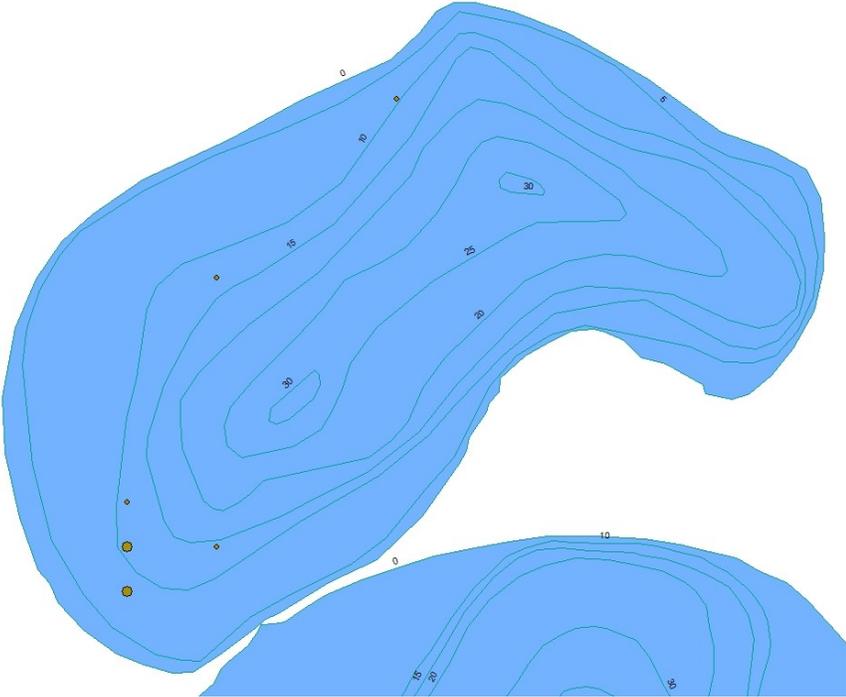
Legend

- Low growth
- Moderate growth
- Heavy growth

Nitella

Mitchell Lake

August 25, 2017



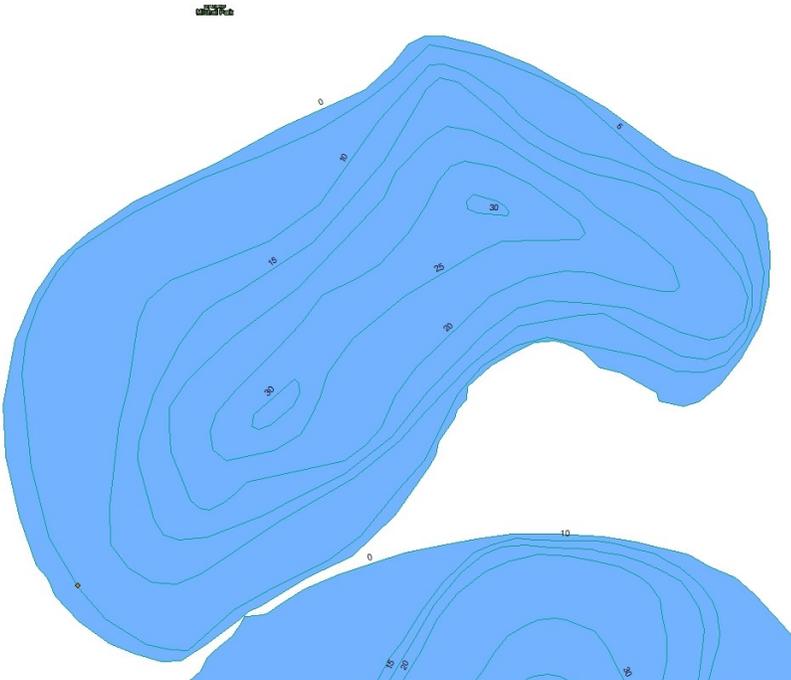
Legend

- Low growth
- Moderate growth
- Heavy growth

Common Bladderwort

Mitchell Lake

August 25, 2017

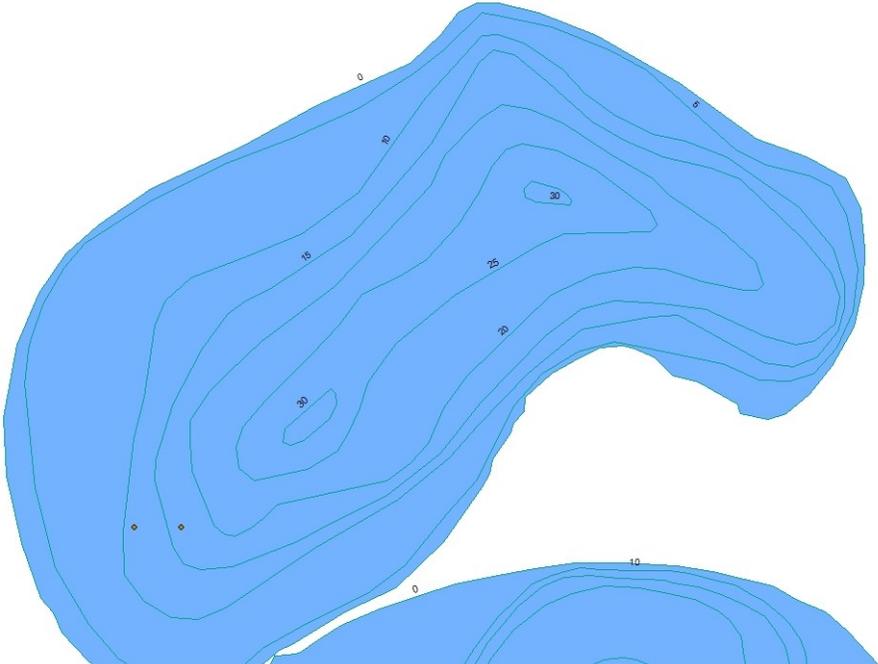


Legend

- Low growth
- Moderate growth
- Heavy growth

Mitchell Lake

August 25, 2017



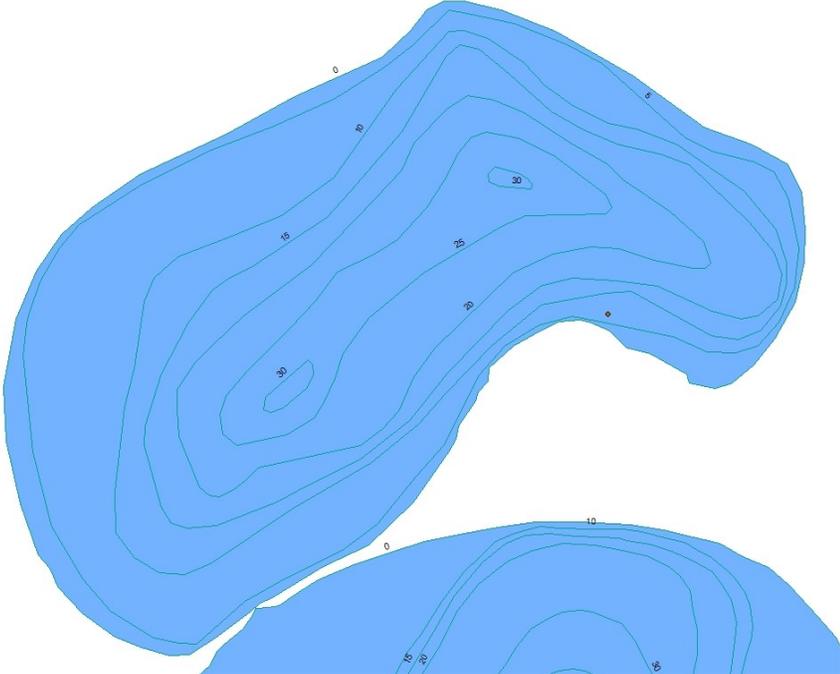
Legend

- Low growth
- Moderate growth
- Heavy growth

Water Marigold

Mitchell Lake

August 25, 2017



Legend

- Low growth
- Moderate growth
- Heavy growth

Photo Guide to Aquatic Plant Community of Big & Mitchell Lakes

Curlyleaf Pondweed (*Potamogeton crispus*) *invasive*

Status: Present in both Big & Mitchell Lakes in the spring. Dies off by mid-summer.

Abundance: Moderate to high



Eurasian Watermilfoil (*Myriophyllum spicatum*) *invasive*

Status: Present in both Big & Mitchell Lakes.

Abundance: Low to moderate



Coontail (*Ceratophyllum demersum*)

Status: Present in both Big and Mitchell Lakes

Abundance: High abundance



Southern Naiad (*Najas guadalupensis*)

Status: Present in both Big and Mitchell Lakes

Abundance: High abundance in Big Lake, low abundance in Mitchell



Muskgrass (*Chara sp*)

Status: Present in both Big and Mitchell Lakes

Abundance: Moderate to high abundance



Flat Stem Pondweed (*Potamogeton zosteriformis*)

Status: Present in both Big and Mitchell Lakes

Abundance: Moderate abundance in early summer in Big Lake, low abundance by late summer. Low abundance in Mitchell.



White Stem Pondweed (*Potamogeton praelongus*)

Status: Present in both Big and Mitchell Lakes

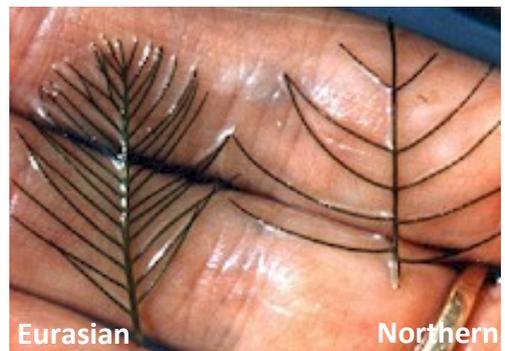
Abundance: Low to moderate abundance



Northern Watermilfoil (*Myriophyllum sibiricum*)

Status: Present in both Big and Mitchell Lakes

Abundance: Moderate to high abundance



Canada Waterweed (*Elodea canadensis*)

Status: Present in both Big and Mitchell Lakes

Abundance: Low abundance



Variable Pondweed (*Potamogeton gramineus*)

Status: Present in both Big and Mitchell Lakes

Abundance: Low abundance



Clasping Leaf Pondweed (*Potamogeton richardsonii*)

Status: Present in both Big and Mitchell Lakes

Abundance: Low abundance



Illinois Pondweed (*Potamogeton illinoensis*)

Status: Present in both Big and Mitchell Lakes

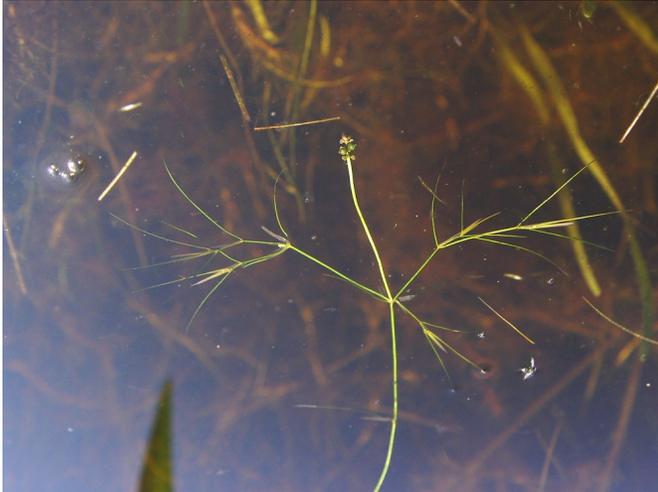
Abundance: Low to moderate abundance



Narrow Leaf Pondweed (*Potamogeton spp*)

Status: Present in Big Lake

Abundance: Low abundance



Wild Celery (*Vallisneria americana*)

Status: Present in both Big and Mitchell Lakes

Abundance: Moderate abundance in Big Lake by late summer. Low abundance in Mitchell.



Sago Pondweed (*Stuckenia pectinata*)

Status: Present in both Big and Mitchell Lakes

Abundance: Low abundance by late summer



Water Stargrass (*Heteranthera dubia*)

Status: Present in both Big and Mitchell Lakes

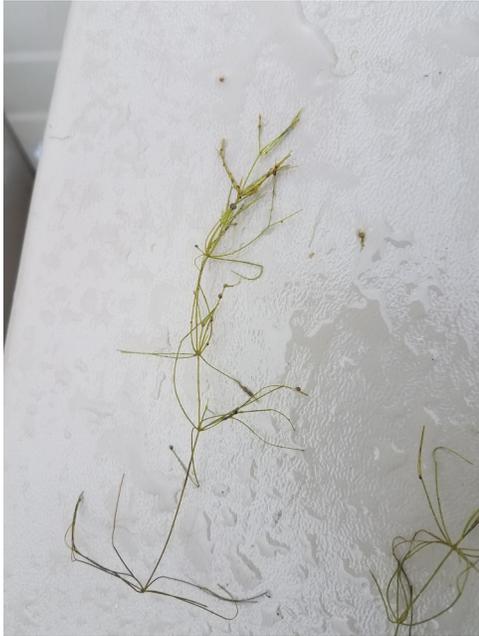
Abundance: Low abundance



Nitella (*Nitella sp*)

Status: Present in Mitchell Lake

Abundance: Low abundance



Bushy Pondweed (*Najas flexilis*)

Status: Present in Mitchell Lake

Abundance: Low abundance



Common Bladderwort (*Utricularia macrorhiza*)

Status: Present in Mitchell Lake

Abundance: Low abundance



Watermoss (*Drepanocladus sp*)

Status: Present in Mitchell Lake

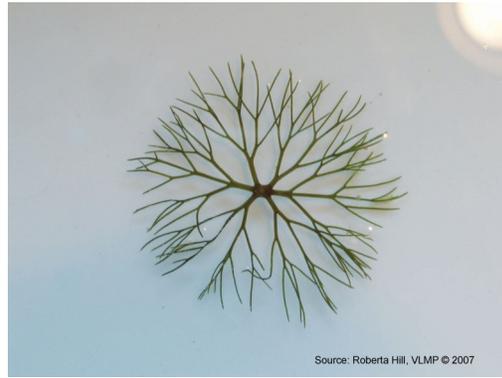
Abundance: Low abundance



Water Marigold (*Bidens beckii*)

Status: Present in Mitchell Lake

Abundance: Low abundance



Source: Roberta Hill, VLMP © 2007



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