

Friends of Bolton Lakes 2016 Aquatic Plant Surveys

The Friends of Bolton Lakes conducted their annual aquatic plant surveys of Lower and Middle Bolton Lakes on July 20 and 21. The surveys were performed from pontoon boats circumnavigating the lakes and following up on guidance from lake residents who indicated areas of potential concern.

Summary Findings

Lower Bolton Lake

- Lake water clarity was high with Secchi readings of 3.4 to 3.8 meters, which markedly exceeds 2015 readings and has been the norm for most of the summer
- The visible aquatic plant population of the lake was observed to be very low and far below that noted in 2015.

Middle Bolton Lake

- Lake water clarity was high with a Secchi reading of 3.4 meters. This is nearly 1.5X to 2X historical readings typical of Middle Bolton Lake in prior years.
- The aquatic plant population is markedly higher than in 2015.
- Variable-leaf water milfoil has repopulated northern and northwestern portions of the lake
- Two forms of pondweed are widely distributed in the lake with some dense forests nearing the surface even in depths of up to 10 feet of water.

The Survey Procedure Involved:

- Five volunteers participated in Lower Lake and 4 in Upper Lake surveys.
- Each lake was circumnavigated following a course similar to the one used in past years. While primarily within 50 feet of the shoreline, a portion of the center of Middle Lake was also traversed based on residents' guidance.
- At locations where significant populations of aquatic plants were visible we recorded the GPS position and the observation of plant type and abundance.
- We also noted the conditions at key 2015 Survey GPS locations that formerly had significant weed populations.

Following are the logs of observations, maps indicating the report locations and traveled courses, and two pictures of unidentified samples. The samples are bagged and refrigerated. Photographs taken during the surveys are indicated in the log and are available on request. GPS coordinates also available on request.

FBL Weed Survey- 2016
Lower Bolton Lake

July 20, 2016, 10-11:30AM, using a Pontoon Boat

Conditions: Air Temp 30 °C, Water Temp 27 °C, Sunny, Secchi Depth 3.4 – 3.8 m

Plants of Interest Designation:

Designation	Common Name	Scientific Name
Pw	Pondweed	
PwC	Curly leaf pondweed	Potamogeton Crispus
PwR	Ribbon Leaf Pondweed	Potamogeton Epihydrus
PwS	Snailseed Pondweed	Potamogeton Bicipulatus
WL	Water lilies	
Ct	Cattail	
Ph	Phragmites	
Ct/Ph	Both present/unsure	
VLWm	Variable-leaf watermilfoil	Myriophyllum heterophyllum

Location	Observation & Sampling	Photos
1	None visible	
2	1 sprig Pw	
3	Sparse Pw	
4	None visible	
5	Ct/Ph and sparse Pw	1-3
6	None visible	
7	Ct/Ph (left side of beach), no other visible	4,5
8	Ct/Ph, no other visible	6,7
9	Ct/Ph	8-10
10	None visible	
11	Ct/Ph	11-12
12	None visible	13-14
13	Shoreline plant clump	15-17
14	Dam and spillway	18
15	Clear bottom-non visible	
16	Clear bottom-non-visible	
17	2 sprigs of Pw	
18	Clear bottom	
19	None visible in water—plants on shore	19-20
20	Plants in water—no identification	21-22
21	Small cove—none visible in entrance to cove (Sample Taken)	23
22	Ph/Ct	24
23	Clear	



Lower Bolton Lake Survey

Survey Course: Green
Bathymetry: Red
Observation Points: Numbered Blue Flags



Lower Bolton Lake Sample

Taken near Point 21
Dense coverage at bottom

FBL Weed Survey-2016
Middle Bolton Lake

July 21, 2016, 11-12:30, using a Pontoon Boat

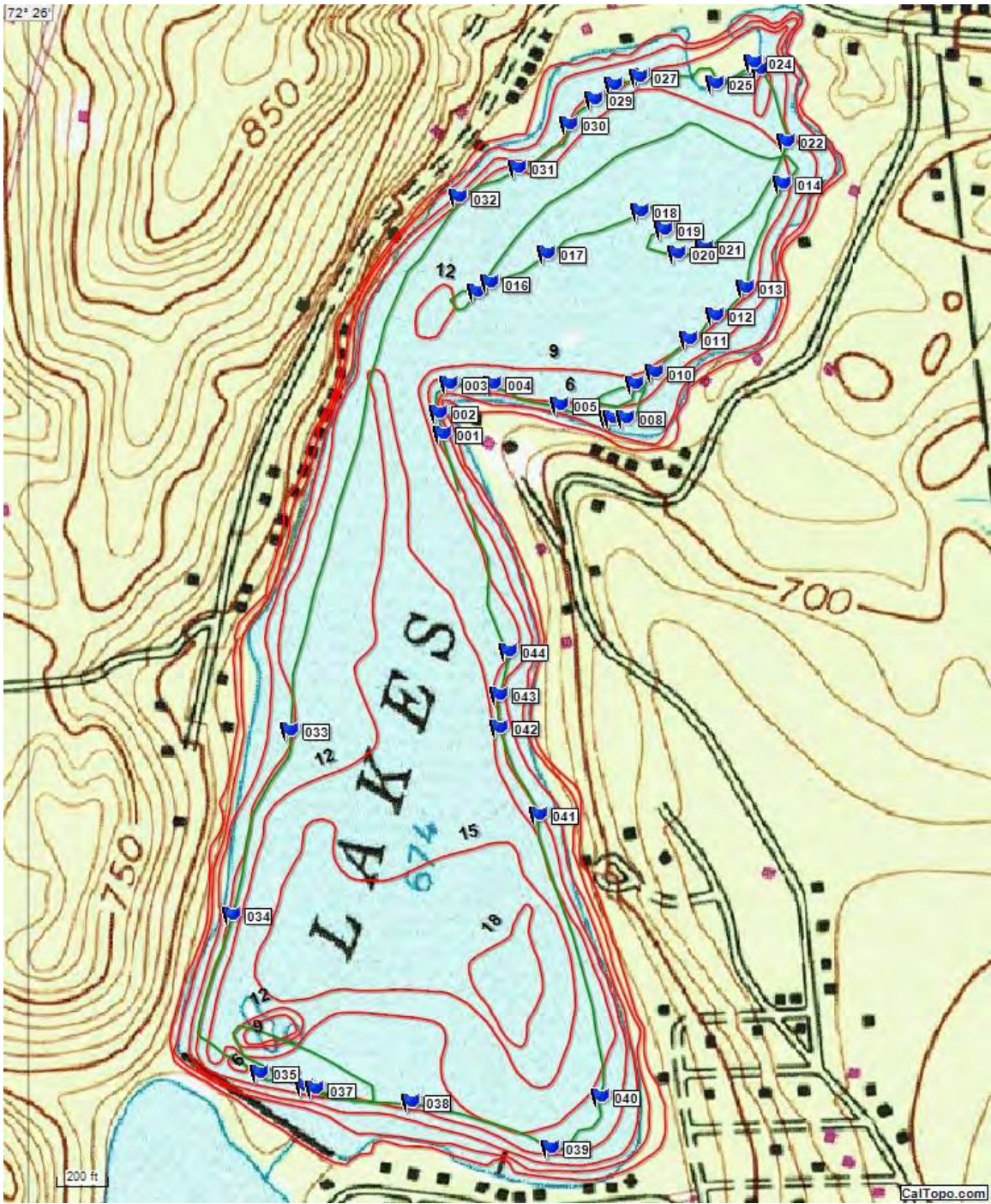
Conditions: Air Temp 30 °C, Water Temp 26 °C, Sunny, Secchi Depth 3.4 m

Plants of Interest Designation:

Designation	Common Name	Scientific Name
Pw	Pondweed	
PwC	Curly leaf pondweed	Potamogeton Crispus
PwR	Ribbon Leaf Pondweed	Potamogeton Epihydrus
PwS	Snailseed Pondweed	Potamogeton Bicupulatus
WL	Water lilies	
Ct	Cattail	
Ph	Phragmites	
Ct/Ph	Both present/unsure	
VLWm	Variable-leaf watermilfoil	Myriophyllum heterophyllum

Location	Observation & Sampling	Photos
1	PwS	
2	PwR	
3	VLWm, PwR, PwS	
4	Long bed of PwS (7 ft depth)	
5	End of PwS bed and WL	
6	VLWm and low growing plant under water (Sample Taken)	
7	Ct	1
8	VLWm, WL	2-4
9	Lots of PwS in 7ft depth	
10	Ct	5
11	WL	
12	PwR , PwS, WL	6-8
13	WL, CT/Ph, PwS	9-10
14	Large patch WL	
15	Large field of PwS in 10ft depth	
16	Same	
17	Same	
18	End of field	
19	PwS in 10 ft depth	
20	PwS	11
21	PwS	
22	WL	12

23	WL, Ph/Ct----below launch area	
24	VLWm	
25	VLWm	
26	VLWm, WL	
27/28	WL, --dense bed of Ct/Ph	13-17
29	WL, Ct	18
30	WL	19-20
31	VLWm, PwS	
32	End of VLWm patch, PwS	
33	None visible	
34	None Visible	
35	Some PwS	
36	Weeds on bottom—not tall	
37	Pw	
	Dam and spillway—dam overgrown	21-23
38	Isolated sprigs of PwS	
39	Ph/Ct	24-25
40	Ph/Ct	26-29
41	Ph close to shore	30-31
42	PwS	
43	Ph	32-33
44	Ct	34-35
	General observation of isolated sprigs and small clusters of PwS in many locations	



Middle Bolton Lake Survey Course

Survey Course: Green
Bathymetry: Red
Observation Points: Numbered Blue Flags



Middle Bolton Lake Sample

Taken at Point 6