

St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management

### Special Note

*The partners of the SLELO PRISM have identified 24 Priority Conservation Areas on which we conduct early detection surveillance on a two year rotation. This report is to be considered as an addendum to the field reports from 2013 and 2015. The previous reports are attached to the end of this report.*

## 2017 Field Survey Addendum to Upper and Lower Lakes Wildlife Management Area



**Figure 1:** Panoramic view of Upper and Lower Lakes WMA. Photo taken by Alicia Wood.

### SLELO-PRISM Early Detection Surveillance June 27, 29, 30 & July 7th, 2017

Report prepared by Bryna Daykin and Alicia Wood, 7/10/2017

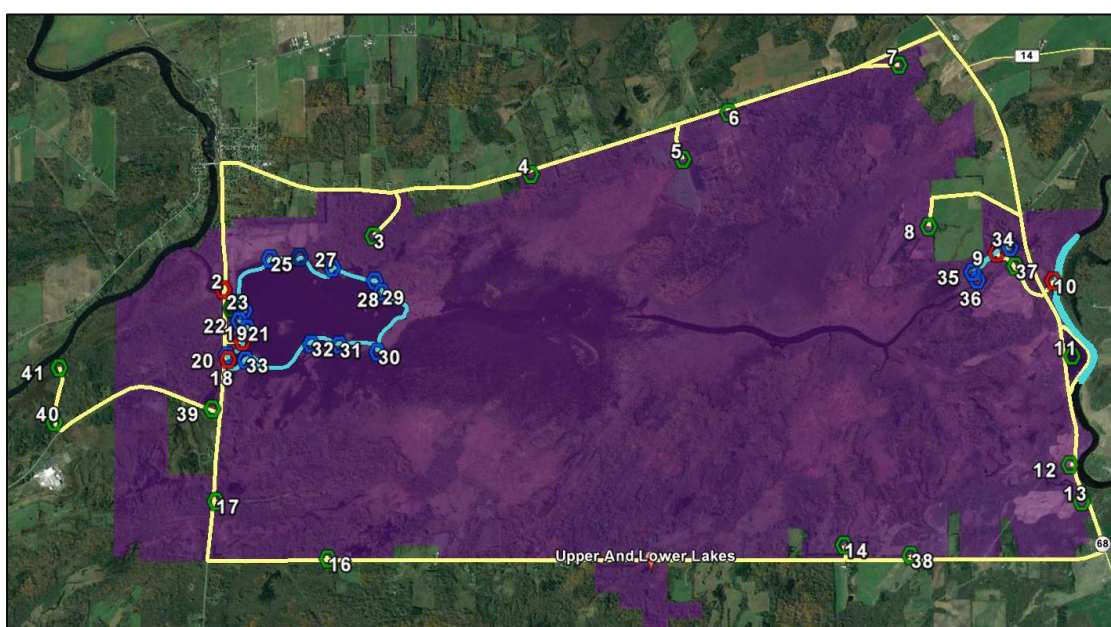
### Survey Methods and Observations

The Upper and Lower Lakes Wildlife Management Area was surveyed in June and July of 2017 by the SLELO Early Detection Team (**Figure 1**). The survey involved examining highly probable areas (HPAs) for both invasive terrestrial and aquatic species. To determine which aquatic species were present at HPAs, the rake toss method was used. For this, a double sided rake was tossed off both ends of the canoe to collect aquatic vegetation. The vegetation attached to the rake was identified and determined to be invasive or native. Visual observations were used for both aquatic and terrestrial surveying to find and identify invasive species at the HPAs. The location of each HPA was marked using a handheld Garmin GPSmap 60CSx.

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**No ‘Prevention “Watch-list” Species’ were found in the 2017 survey.**

Eighteen of the terrestrial HPAs examined in 2013 and 2015 were resurveyed, along with five new sites which were deemed to be HPAs (**Table 1; Figure 2; Figure 4**). HPA 15 from the previous surveys was removed as it was no longer deemed to be a highly probable area. Previously only HPAs 2, 9 and 18 were aquatically surveyed (based on their proximity to water). These three HPAs were aquatically resurveyed in 2017, along with 10 and 19. Additional rake tosses were conducted in Upper and Lower Lakes as well for the 2017 survey, at points which were deemed HPAs (**Table 2; Figure 2; Figure 5**). Note that higher waters were observed in 2017 compared to previous years. This change in water depth may have affected our visual observations during the aquatic survey.



**Figure 2:** Survey route for the aquatic and terrestrial HPAs of Upper and Lower Lakes WMA. The yellow line indicates the driving route taken to get to each terrestrial HPA, while the blue line indicates the canoe route taken to get to each aquatic HPA. Green dots were surveyed terrestrially, blue dots were surveyed aquatically, while red dots were surveyed both terrestrially and aquatically.

The following ‘Target Management Species’ were found during the field survey (**Table 1; Table 2; Table 3**): purple loosestrife (*Lythrum salicaria*), Eurasian water milfoil (*Myriophyllum spicatum*), phragmites (*Phragmites australis*), Japanese knotweed (*Fallopia japonica*), common buckthorn (*Rhamnus cathartica*), and black swallow-wort (*Cynanchum louiseae*). The following ‘General Species of Concern’ were also found: European frogbit (*Hydrocharis morsus-ranae*) and wild parsnip (*Pastinaca sativa*).

Purple loosestrife was found within HPAs 2, 9-11, 14, 18-19, 23, 26, and 35. There was only one stalk of purple loosestrife found at both HPAs 2 and 23, which were hand pulled.

European frogbit was observed at HPAs 2, 9, 11, and 18-26. The frogbit found at HPA 25 was very sparse and made up little of the vegetative composition at the site. Eurasian water milfoil was seen at HPAs 2, 18-21, 26, 28, and 32. The plant appeared very dense throughout the lake, particularly in deeper areas of the water. Phragmites was observed at multiple points around the wildlife management area, down route 68 and Irish Settlement Road (**Table 3; Figure 6**). Japanese knotweed was also observed along route 68 and Irish Settlement Road, as well as route 16, route 14, and HPAs 11, 39, and 41 (**Table 3; Figure 6**). Additionally, small individual Japanese knotweed plants were seen at multiple points along route 16 (coordinates 44.57124, -75.30501 to 44.57110, -75.30464). Common buckthorn was found at HPAs 1, 3-7, 10-11, 16-17, 19, 37-38, and 41. Wild parsnip was seen at all of the terrestrial HPAs except for HPA 3. Although not at HPA 3, wild parsnip was seen along the road leading to this site, indicating a high potential for this plant to spread into this HPA in the future. **A dense patch of black swallow-wort (0.89 acres) was found at HPA 7 on both sides of the dirt road (Figure 3).**

**The black swallow-wort found at HPA 7 was sprayed by the SLELO-PRISM Rapid Response Team.**



**Figure 3:** Black Swallow-wort found in HPA 7. Photos taken by Alicia Wood.

**Table 1:** Descriptions, coordinates, and invasive species sightings at each HPA at Upper and Lower Lakes WMA.  
New HPAs sampled only in 2017 are highlighted in yellow.

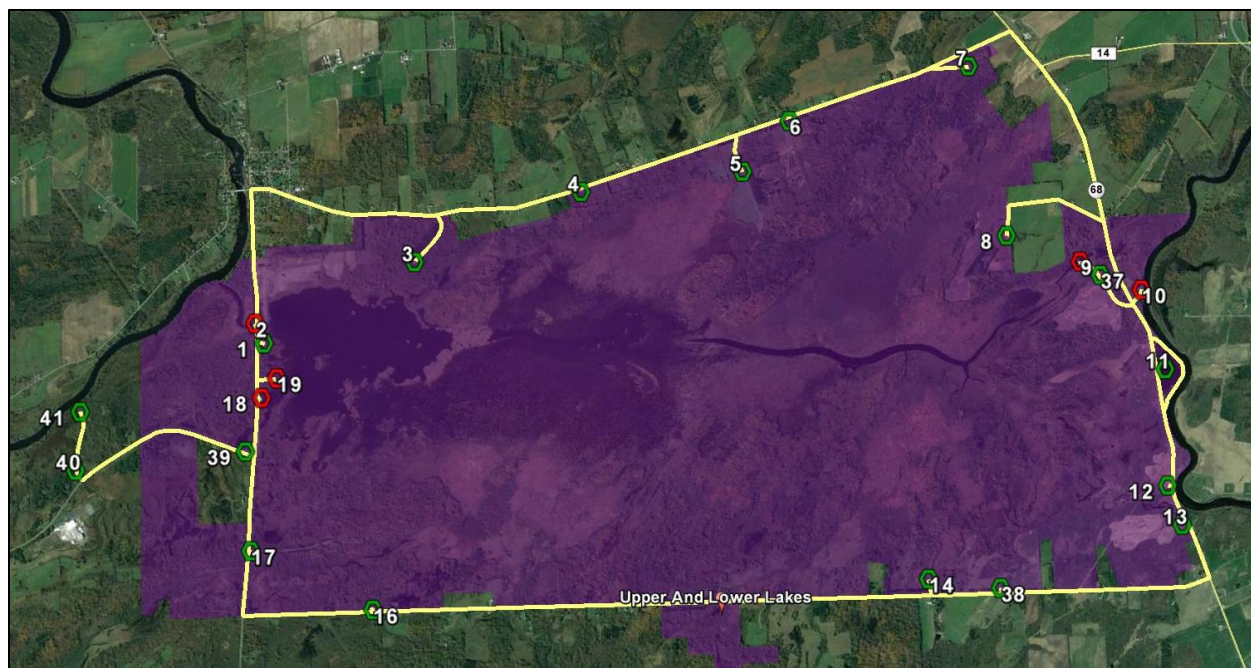
HPA	Habitat Description	Latitude	Longitude	Species
1	Bird Watching Area and Parking Area	44.57962	-75.3092	WP, CB

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2	Fishing Access	44.58061	-75.3113	PL, WP
3	Indian Creek Nature Center Parking and Trails	44.59178	-75.2995	CB
4	East Trailhead and parking area for Indian Creek Nature Center	44.60389	-75.2875	WP, CB
5	DEC Gated Road	44.61236	-75.2729	WP, CB
6	Field Access Road Pull-off	44.61794	-75.2714	WP, CB
7	Unmaintained Dirt Track Road	44.62964	-75.25711	BSW, CB, WP
8	Parking Area	44.61930	-75.24310	WP
9	Car Top Boat Launch and Parking Area	44.62069	-75.23427	PL, FB, WP
10	Boat Launch Ramp and Parking Area	44.62137	-75.22658	PL, WP, CB
11	Wetland with Road Ring Loop	44.61680	-75.21950	JKW, WP, CB, PL, FB
12	Parking Area	44.60873	-75.2124	WP
13	Parking Area	44.60661	-75.2087	WP
14	DEC Gated Road	44.59194	-75.2302	WP, PL
16	Road into the WMA	44.56601	-75.2823	WP, CB
17	DEC Gated Road	44.56479	-75.2977	CB, WP
18	Parking Area/Car Top Boat Launch	44.57575	-75.30608	WP, PL, FB
19	Parking Area and Handicap Trail to Lower Lake	44.57775	-75.30581	WP, CB, PL, FB
37	Parking Area	44.62061	-75.23151	WP, CB
38	Road Pull off Area	44.59441	-75.22268	WP, CB
39	Road Pull off Area	44.57137	-75.30434	JKW, WP
40	Trailhead	44.56276	-75.31966	WP
41	Parking Area	44.56697	-75.32285	JKW, CB, WP

**Key:** PL = Purple Loosestrife, FB = European Frogbit, WP = Wild Parsnip, CB = Common Buckthorn, JKW = Japanese Knotweed, BSW = Black Swallow-wort



**Figure 4:** Survey route for the terrestrial HPAs of Upper and Lower Lakes WMA. The yellow line indicates the driving route taken to get to each HPA. Green dots were surveyed terrestrially, while red dots were surveyed terrestrially and aquatically.

**Table 2:** Descriptions, coordinates, and invasive species sightings at aquatic HPAs at Upper and Lower Lakes WMA. New HPAs sampled only in 2017 are highlighted in yellow.

HPA	Habitat Description	Latitude	Longitude	Throw	Depth (ft)	# Total Spp.	# Inv.	Inv. Type	Notes
2	Fishing Access	44.58061	-75.3113	1	3	4	0	EWM	<u>Visual:</u> EWM, FB
				2		5	1		
9	Water off of Car Top Boat Launch	44.62069	-75.23427	1	3.5	3	0		<u>Visual:</u> PL, FB
				2		3	0		
10	Water off of Boat Launch Ramp	44.62137	-75.22658	1	4	0	0		<u>Visual:</u> PL
				2		0	0		
18	Water at Car Top Boat Launch	44.57575	-75.30608	1	3	6	1	FB	<u>Visual:</u> FB, EWM
				2		9	2	FB, EWM	
19	Water at End of Handicap Trail	44.57775	-75.30581	1	3	4	0		<u>Visual:</u> FB, EWM, PL
				2		7	1	FB	

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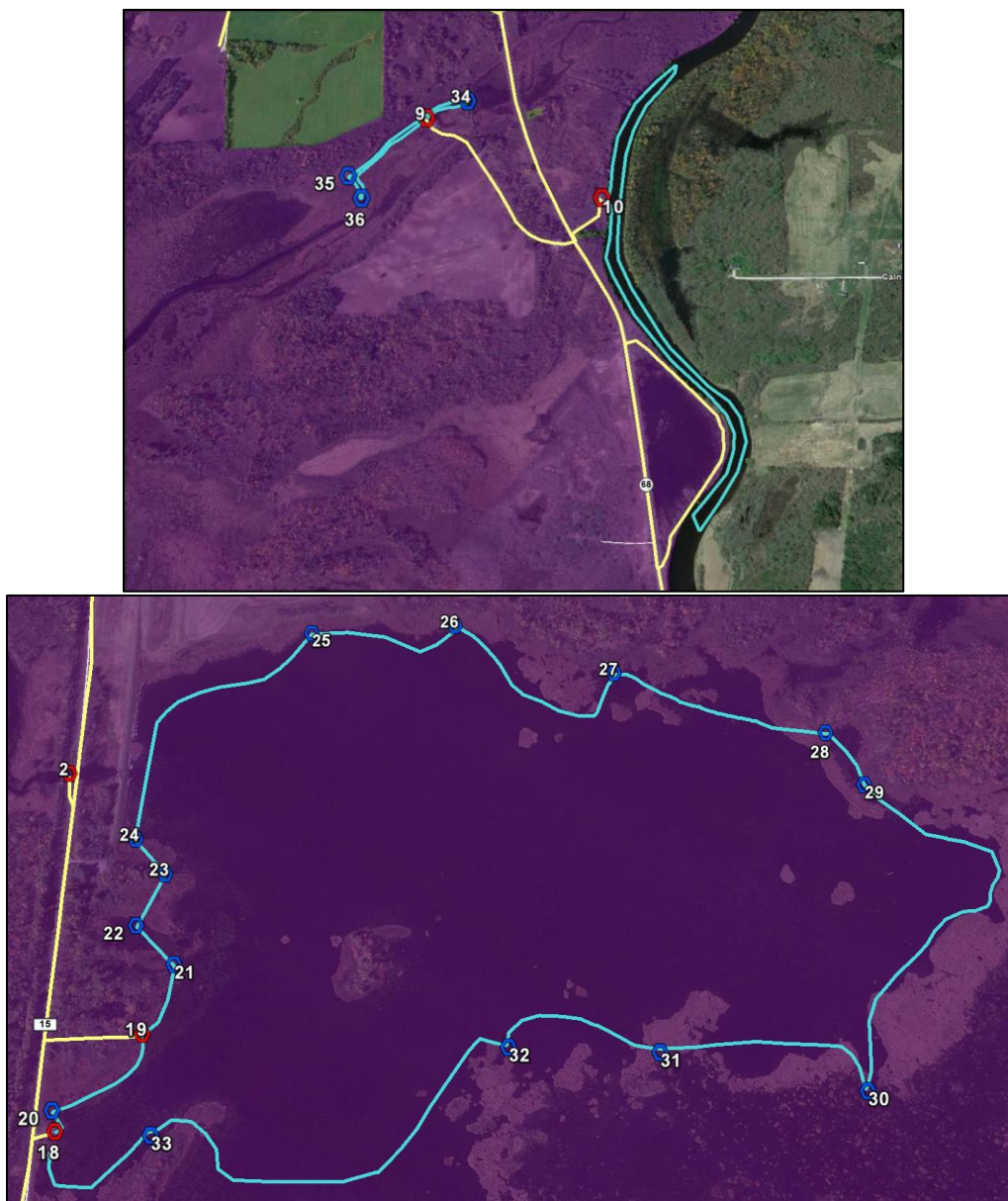
20	Cove with Slow Moving Water	44.57598	-75.30643	1	3.5	5	0		<u>Visual:</u> FB, EWM
				2		7	2	FB, EWM	
21	Cove with Slow Moving Water	44.57895	-75.30621	1	3	5	1	EMW	<u>Visual:</u> FB
				2		4	0		
22	Cove with Slow Moving Water	44.57912	-75.30754	1	3	2	1	FB	<u>Visual:</u> FB
				2		1	0		
23	Cove with Slow Moving Water	44.58010	-75.30775	1	2	4	1	FB	<u>Visual:</u> FB, PL
				2		4	1	FB	
24	Cove with Slow Moving Water	44.58031	-75.30888	1	3	3	0		<u>Visual:</u> FB
				2		1	0		
25	Area with Stagnant Water	44.58512	-75.30858	1	2.5	4	0		<u>Visual:</u> FB
				2		3	0		
26	Cove with Slow Moving Water	44.58668	-75.30566	1	2.5	4	0		<u>Visual:</u> FB, EWM, PL
				2		4	0		
27	Cove with Slow Moving Water	44.58748	-75.30157	1	4.5	5	0		<u>Visual:</u> FB
				2		6	1	FB	
28	Cove with Slow Moving Water	44.58857	-75.29633	1	3	4	1	EWM	<u>Visual:</u> FB
				2		3	0		
29	Cove with Slow Moving Water	44.58809	-75.29487	1	3	2	0		<u>Visual:</u> FB
				2		3	0		
30	Area with Stagnant Water	44.58352	-75.29121	1	3	2	0		<u>Visual:</u> FB
				2		3	1	FB	
31	Area with Stagnant Water	44.58219	-75.29562	1	3	5	1	FB	<u>Visual:</u> FB
				2		2	1	FB	
32	Area with Stagnant Water	44.58089	-75.29859	1	4	2	0		<u>Visual:</u> FB, EWM
				2		5	1	EWM	
33	Cove with Slow Moving Water	44.57655	-75.30423	1	4	5	0		<u>Visual:</u> FB
				2		4	0		
34	End of Stream	44.62174	-75.23330	1	4	3	0		<u>Visual:</u> FB
				2		5	0		
35	Cove with Stagnant Water	44.61810	-75.23546	1	3	3	0		<u>Visual:</u> FB, PL
				2		2	0		

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36	Cove with Stagnant Water	44.61777	-75.23447	1	5.5	3	0		<u>Visual:</u> FB
				2		2	0		

**Key:** PL = Purple Loosestrife, FB = European Frogbit, EWM = Eurasian Water Milfoil



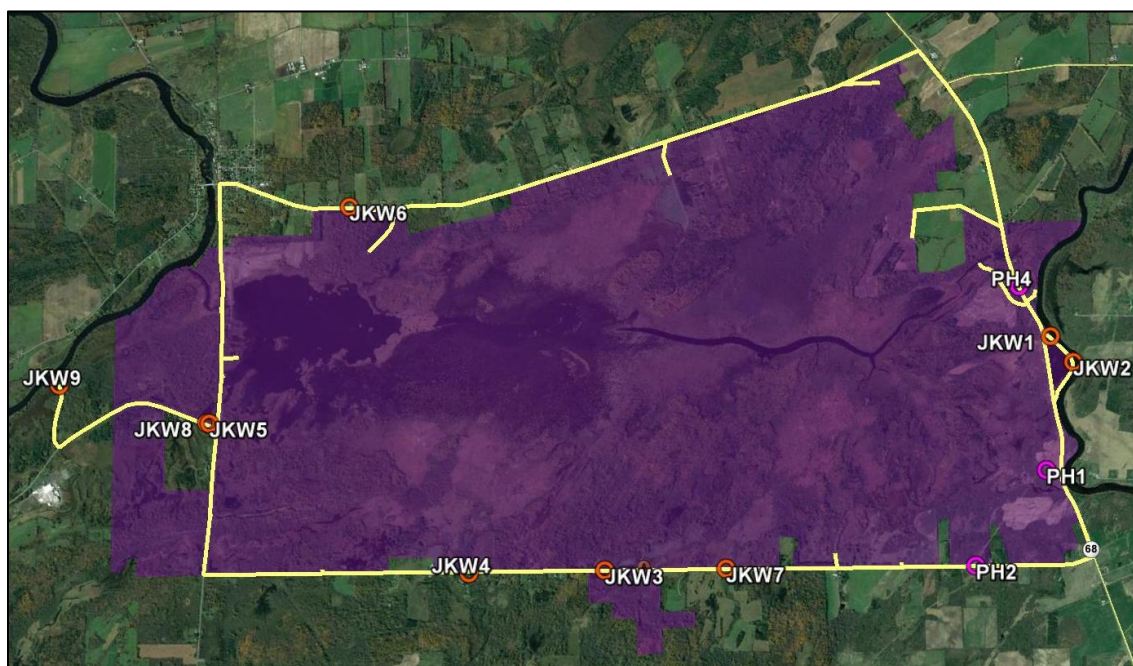
**Figure 5:** Survey route for the aquatic HPAs of Upper and Lower Lakes WMA. The blue line indicates the canoe route taken to get to each HPA. Blue dots were surveyed aquatically, while red dots were surveyed terrestrially and aquatically.

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**Table 3:** Coordinates of Japanese Knotweed (JKW) and Phragmites (PH) found along Upper and Lower Lakes WMA.

Point	Latitude	Longitude	Notes
JKW 1	44.61856	-75.2219	Along the Road Ring Loop – Within HPA 11
JKW 2	44.61771	-75.2178	Along the Road Ring Loop – Within HPA 11
JKW 3	44.57958	-75.25304	Along Irish Settlement Road
JKW 4	44.57284	-75.2670	Along Irish Settlement Road
JKW 5	44.57137	-75.30434	Along Route 16 (Mcadoo Road) – Within HPA 39
JKW 6	44.59429	-75.3046	Along Route 14
JKW 7	44.58552	-75.2405	Along Irish Settlement Road
JKW 8	44.57127	-75.30464	Along Route 16 (Mcadoo Road)
JKW 9	44.56692	-75.32275	Along a DEC Owned Road – Within HPA 41
PH 1	44.60825	-75.2135	Along Route 68
PH 2	44.59770	-75.2147	Along Irish Settlement Road
PH 4	44.62082	-75.22854	Along Route 68



**Figure 6:** Japanese knotweed (JKW) and phragmites (PH) found along Upper and Lower Lakes WMA.