



2020 SLELO PRISM Early Detection Program Report



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2020 Highlights: Searched eight Priority Conservation Areas including 131 Highly Probable Areas

Protecting our lands and waters through a changing climate must include a focus on invasive species prevention. Second to prevention is early detection – or the ability to detect new invasive species while in low abundance – which provides land managers an opportunity to limit the species spread and associated impacts to the environment, economy or human health.



The SLELO PRISM Restoration and Resiliency Coordinators along with volunteers conduct invasive species surveys inside and outside of Priority Conservation Areas (PCA's) on a year-round basis. Various invasive species are more observable at different times of the year making seasonal early detection more efficient.



In 2019-2020 twelve sites with established hemlock stands were searched throughout the region, primarily searching for the presence of the invasive Hemlock Woolly Adelgid, results can be found in a report on the SLELO PRISM website.



The following report summarizes PCA's searched and findings by the Restoration and Resiliency Coordinators that occurred in 2020. This report may not include all invasive species present at a site, only what was found in 2020.

Executive Summary

During the 2020 field season, SLELO staff visited eight Priority Conservation Areas (PCAs) and surveyed approximately 134 acres of 131 highly probable areas (HPAs) for aquatic and terrestrial invasive species. A total of 41 different species were found during the surveys. Overall, pale swallow-wort was the most reported species, present at 52 different HPAs. Eurasian watermilfoil was the most frequently encountered aquatic invasive. No new infestations of tier 1 or 2 species were detected in 2020.

SLELO staff and contractors managed invasive species at six PCAs in 2020. Pale swallow-wort was managed at 59 HPAs across six PCAs that were also surveyed by SLELO staff. A total of 54.7 acres were treated with a selective application of triclopyr based herbicide. Less than 1 acre of common reed grass was managed at two HPAs at one PCA. Additional sites were treated and can be found in a separate report.

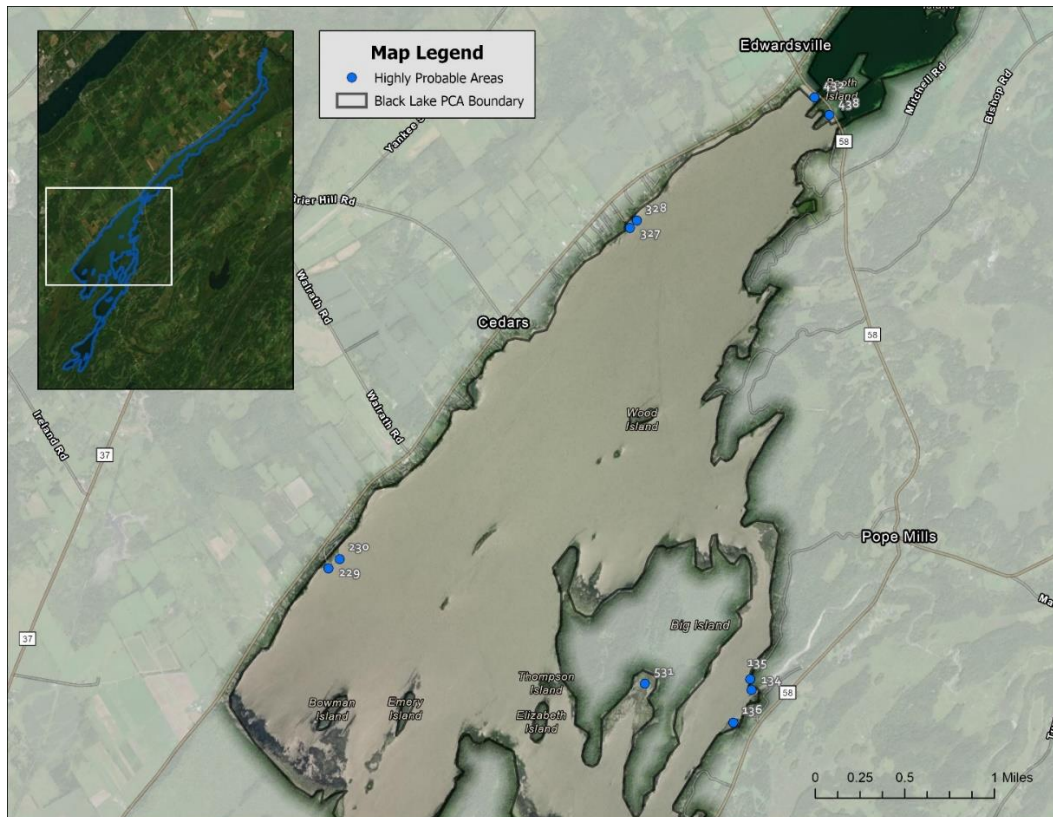


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Black Lake

Black Lake PCA was surveyed in July 2020 by Brittney Rogers and Robert Smith. SLELO staff examined ten HPA's for aquatic invasive species (Map 1) using visual surveys and rake tosses. Data was recorded using iMapInvasive's Simple Aquatic Survey (SAS) Pro mobile monitoring tool.

The first report of water chestnut at Black Lake was received by members of the public, but no plants were found during surveys by SLELO Staff. A newly found confirmed infestation of water chestnut is present to the north on the Oswegatchie River. This infestation presents a threat to Black Lake and many other PCAs in the region; early detection monitoring efforts will continue.



Map 1. Map of Black Lake HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

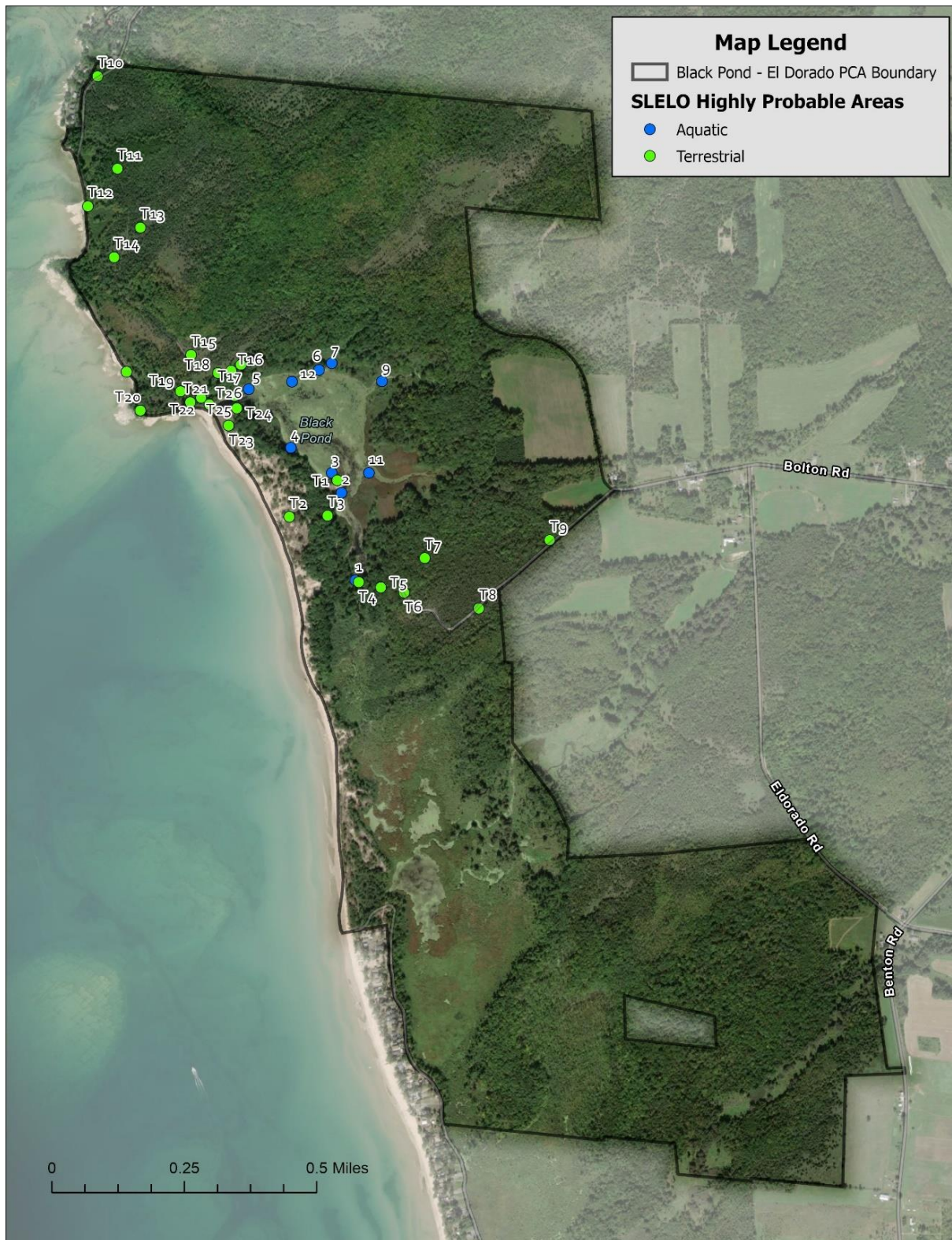
Invasive Species	Tier Ranking	HPA's Affected
Curly-leaved pondweed	4	3
Eurasian water-milfoil	4	9
European frog-bit	4	2
Zebra mussel	4	4
Banded mystery snail	*	2

** Species is not currently ranked*

NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Black Pond WMA – El Dorado Preserve

Black Pond Wildlife Management Area (WMA) and El Dorado Nature Preserve were surveyed in July 2020 by Brittney Rogers and Robert Smith. SLELO staff performed visual surveys at ~36 acres of 26 terrestrial HPAs throughout the PCAs. Ten aquatic HPAs on Black Pond were surveyed by rake toss (Map 2). Data was recorded using iMapInvasives SAS Pro and iMap Mobile Advanced (iMMA) monitoring tools.



Map 2. Map of Black Pond – El Dorado HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	7	2.86+
Common reed grass	3	2	0.04
Pale swallow-wort	3	12	1.04
Yellow iris	3	2	0.002
Curly-leaved pondweed	4	3	-
Eurasian water-milfoil	4	3	-
European frog-bit	4	7	-
Leafy spurge	4	1	0.02
Purple loosestrife	4	4	0.03
Climbing nightshade	*	2	0.02
Common barberry	*	1	-
Creeping jenny	*	3	0.51
Eastern helleborine	*	1	-
Garlic mustard	*	3	0.27
Great mullein	*	2	0.01
Honeysuckle spp.	*	9	0.57

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

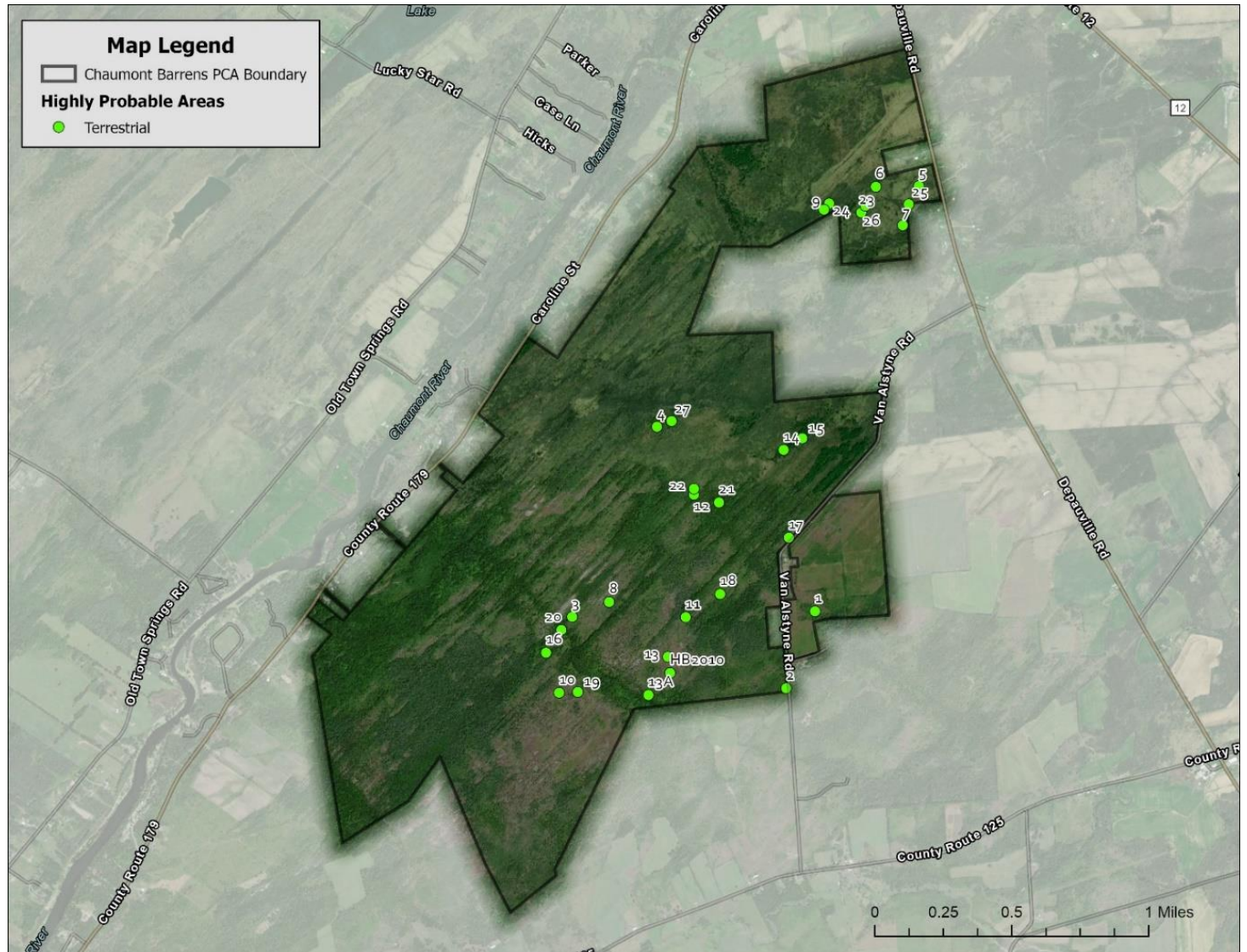
NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Management Summary

Pale swallow-wort and common reed grass are both priority management species at the Black Pond – El Dorado PCA. Two common reed grass infestations and four pale swallow-wort infestations were treated with a selective application of herbicide. Common reed treatments impacted 0.04 acres, while pale swallow-wort treatments covered approximately 8.06 acres of the PCA.

Chaumont Barrens

Chaumont Barrens was surveyed June to July 2020 by Brittney Rogers and Robert Smith. SLELO staff performed visual surveys at ~52 acres of 28 terrestrial HPAs throughout the PCA (Map 3). Data was recorded using iMapInvasives iMMA monitoring tool.



Map 3. Map of Chaumont Barrens HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	2	0.34+
Oriental bittersweet	3	1	-
Pale swallow-wort	3	27	27.07
Common barberry	*	1	-
Garlic mustard	*	1	0.03
Honeysuckle spp.	*	4	1.79
Tufted vetch	*	1	0.03

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

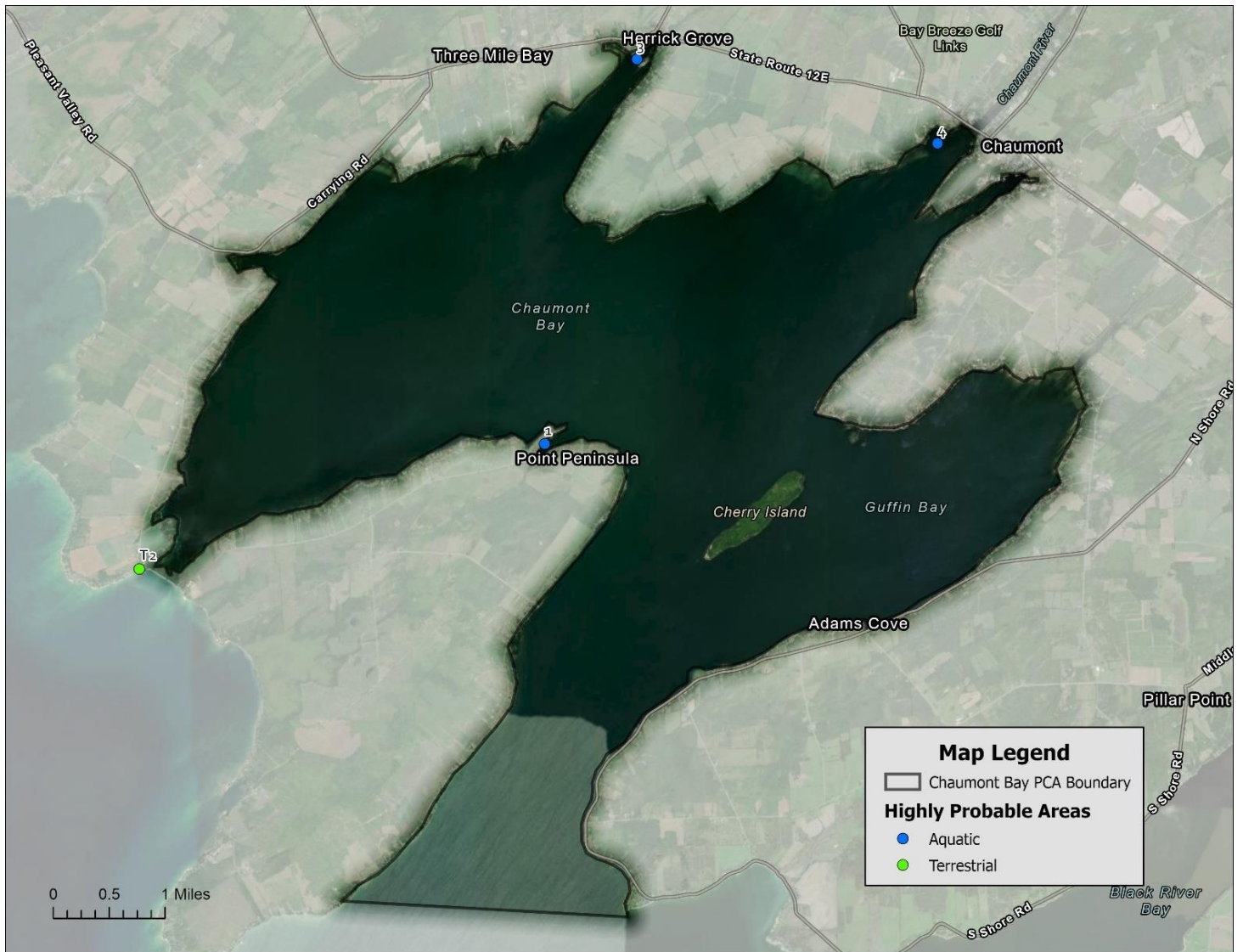
NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Management Summary

Pale swallow-wort is a priority management species at the Chaumont Barrens PCA. Twenty-eight sites (total 22 acres) were treated in 2020 via selective application of triclopyr based herbicide.

Chaumont Bay

Chaumont Bay PCA was surveyed in August 2020 by Brittney Rogers and Robert Smith. SLELO staff examined three HPA's for aquatic invasive species and one HPA for terrestrial invasive species (Map 4) using visual surveys and rake tosses. Data was recorded using iMapInvasives SAS) Pro and iMMA monitoring tools.



Map 4. Map of Chaumont Bay HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	1	0.004
Pale swallow-wort	3	1	0.004
Curly-leaved pondweed	4	1	-
Eurasian water-milfoil	4	3	-
European frog-bit	4	1	-
Purple loosestrife	4	1	0.058
Zebra mussel	4	3	-
Butter-and-eggs	*	1	0.058
Climbing nightshade	*	1	0.058
Honeysuckle spp.	*	1	0.004

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Management Summary

Pale swallow-wort is a priority management species at the Chaumont Bay PCA. Two sites (total 2.8 acres) were treated in 2020 via selective application of triclopyr based herbicide.

Deer Creek Marsh Wildlife Management Area

Deer Creek Marsh WMA was surveyed June-July 2020 by Brittney Rogers and Robert Smith. SLELO staff performed visual surveys at 23.4 acres of 16 HPAs throughout the PCA (Map 5). Data was recorded using the iMMA mobile monitoring tool.

In 2020, the Aquatic Restoration Initiative Phase I was completed at Deer Creek and Lakeview WMA. Visit our website for more information on the results of this study.



Map 5. Map of Deer Creek Marsh WMA HPAs examined by SLELO staff in 2020

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	3	0.22
Glossy buckthorn	3	5	0.05
Pale swallow-wort	3	11	15.76
Japanese knotweed	4	3	0.30
Amur honeysuckle	*	1	0.01
Black locust	*	1	0.01
Climbing nightshade	*	1	-
Dame's rocket	*	1	-
Eastern helleborine	*	1	-
Garlic mustard	*	4	0.12
Honeysuckle (species unknown)	*	4	0.61
Japanese barberry	*	4	-
Multiflora rose	*	8	1.53
Tufted vetch	*	2	0.02

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

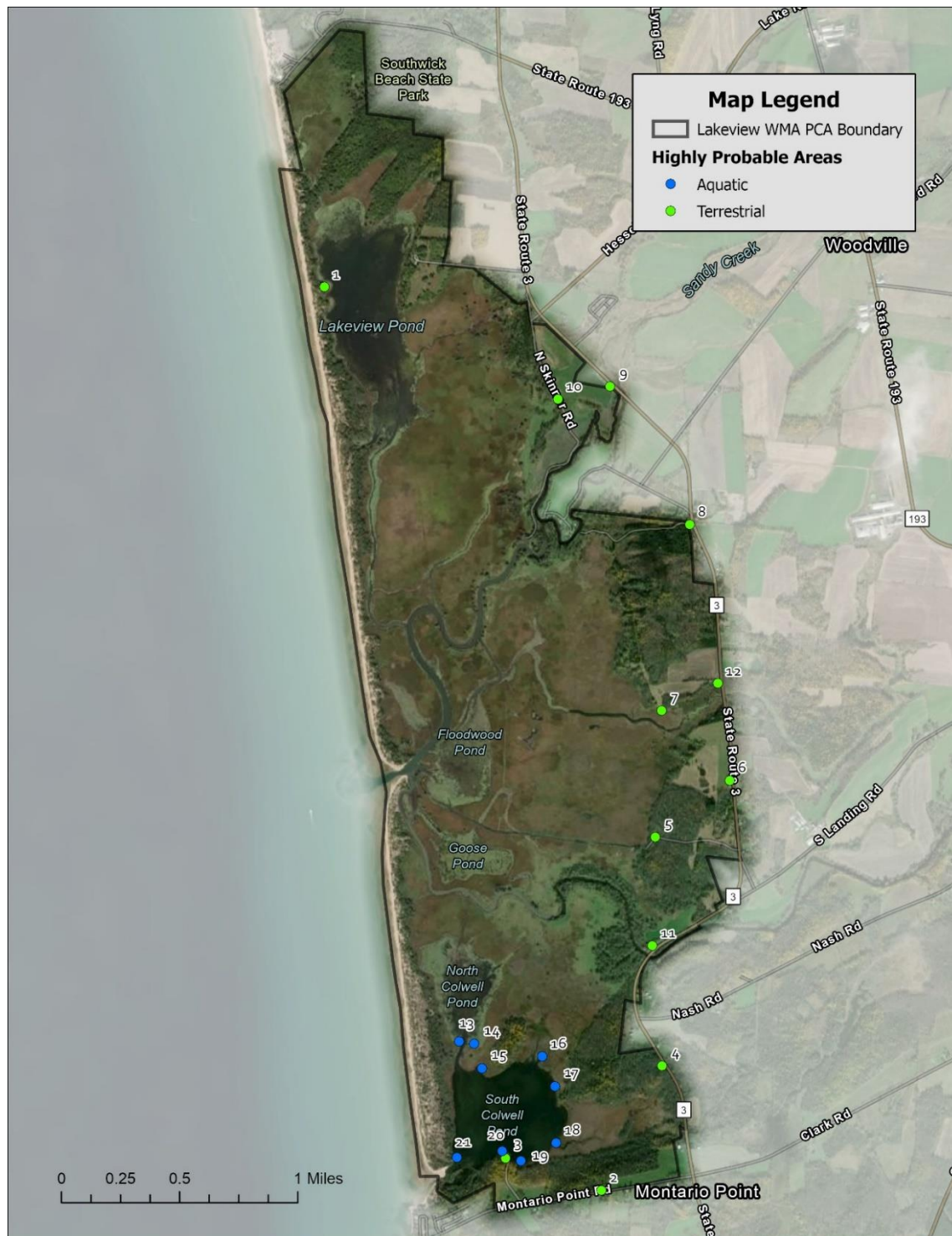
Management Summary

Pale swallow-wort is a priority management species at Deer Creek Marsh WMA PCA. Twenty-two sites (total 9.8 acres) were treated in 2020 via selective application of triclopyr based herbicide.

Lakeview Wildlife Management Area

Lakeview WMA was surveyed in August 2020 by Brittney Rogers and Robert Smith. SLELO staff performed visual surveys at ~10.6 acres of 12 terrestrial HPAs throughout the PCA. Nine aquatic HPAs on South Colwell Pond were surveyed by rake toss (Map 6). Data was recorded using iMapInvasives SAS Pro and iMMA monitoring tools.

In 2020, the Aquatic Restoration Initiative Phase I was completed at Sandy Creek and South Sandy Creek. Visit our website for more information on the results of this study.



Map 6. Map of Lakeview Wildlife Management Area HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	6	1.76
Glossy buckthorn	3	1	0.01
Japanese knotweed	3	1	0.01
Oriental bittersweet	3	1	0.32
Yellow iris	3	1	-
Curly-leaved pondweed	4	2	-
Eurasian water-milfoil	4	7	-
European frog-bit	4	5	-
Leafy spurge	4	1	-
Purple loosestrife	4	8	0.18+
Wild parsnip	4	5	1.28
Zebra mussel	4	4	-
Bishop's goutweed	*	2	0.17
Climbing nightshade	*	2	-
Cut-leaved teasel	*	1	-
Honeysuckle spp.	*	7	0.54
Multiflora rose	*	3	0.16
Stringy stonecrop	*	1	-
Tufted vetch	*	2	1.93

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

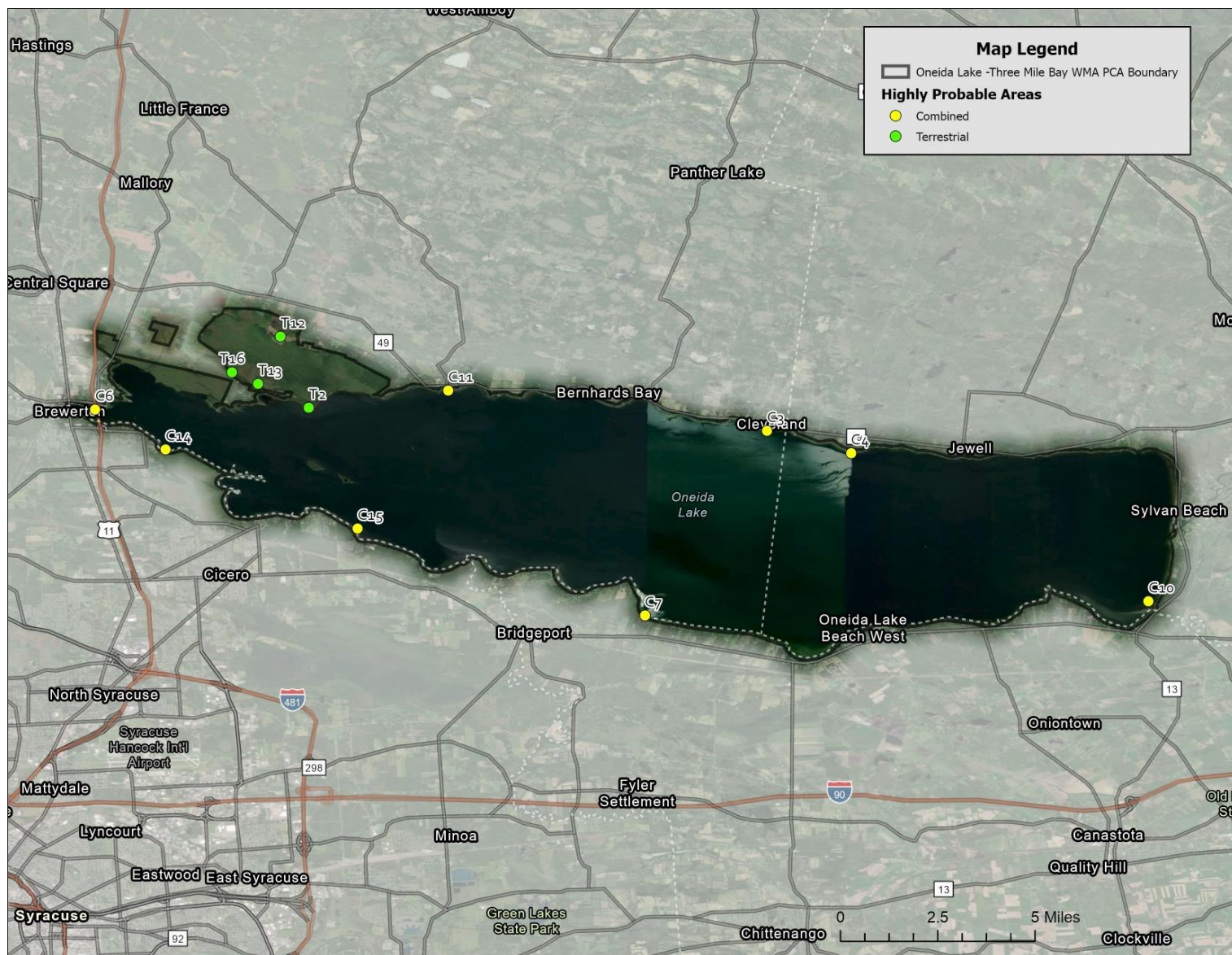
NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Management Summary

Pale swallow-wort is a priority management species at Lakeview WMA PCA. One site (total 0.4 acres) was treated in 2020 via selective application of triclopyr based herbicide.

Oneida Lake and Three Mile Bay WMA

Oneida Lake and Three Mile Bay WMA were surveyed in October 2020 by Brittney Rogers and Robert Smith. SLELO staff performed visual surveys at 73.6 acres of four terrestrial HPAs throughout the PCA. In addition, 29.4 acres of eight combined aquatic/terrestrials HPAs surrounding Oneida Lake were by rake toss and visual survey (Map 7). Data was recorded using iMapInvasives SAS Pro and iMMA monitoring tools.



Map 7. Map of Oneida Lake – Three Mile Bay WMA HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected	Total Extent (infested acres)
Common buckthorn	3	3	3.45
Common reed grass	3	7	49.72
Glossy buckthorn	3	1	-
Japanese knotweed	3	2	3.03
Oriental bittersweet	3	1	2.10
Pale swallow-wort	3	1	13.93
Tree-of-heaven	3	1	0.11
Yellow iris	3	5	8.00
Emerald ash borer	4	1	3.01
Eurasian water-milfoil	4	1	0.16
Purple loosestrife	4	5	4.34
Zebra Mussel	4	1	0.16
Bishop's goutweed	*	1	3.01
Climbing nightshade	*	3	7.29
Colt's foot	*	1	0.82
Common periwinkle	*	1	3.01
Creeping jenny	*	1	3.01
Garden stonecrop	*	2	2.17
Garlic mustard	*	1	2.13
Great/common mullein	*	2	0.40
Greater celandine	*	1	-
Honeysuckle (species unknown)	*	8	12.45
Japanese barberry	*	2	0.01
Multiflora rose	*	2	3.07
Norway maple	*	2	2.55

* Species is not currently ranked

- Extent data not available

+ Full extent at HPAs not mapped

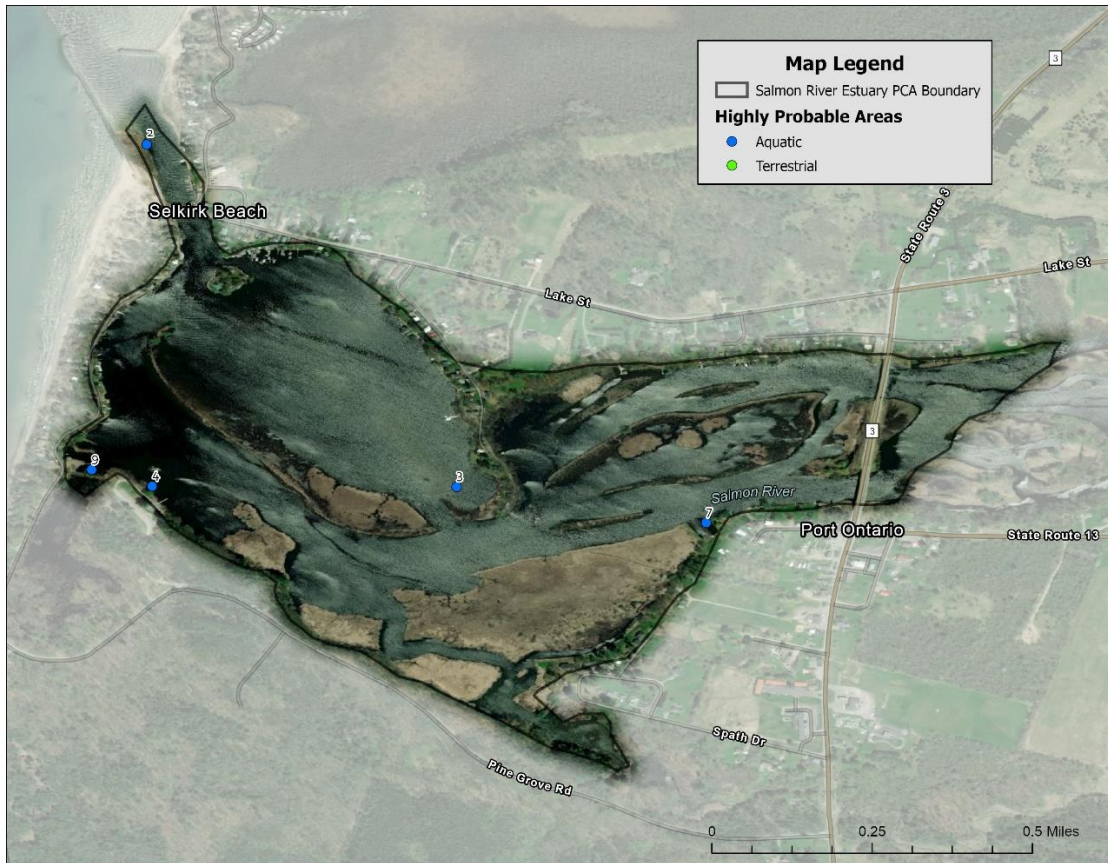
NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020

Management Summary

Pale swallow-wort is a priority management species at the Oneida Lake – Three Mile Bay WMA PCA. Two sites (total 11.6 acres) were treated in 2020 via selective application of triclopyr based herbicide.

Salmon River Estuary

Salmon River Estuary PCA was surveyed in August 2020 by Brittney Rogers and Robert Smith. SLELO staff examined five HPA's for aquatic invasive species (Map 8) using visual surveys and rake tosses. Data was recorded using iMapInvasive's SAS Pro mobile monitoring tool.



Map 8. Map of Black Lake HPAs examined by SLELO staff in 2020.

The following **Invasive Species** were found:

Invasive Species	Tier Ranking	HPA's Affected
Common reed grass	3	1
Water chestnut	3	2
Eurasian water-milfoil	4	2
European frog-bit	4	2
Purple loosestrife	4	3
Banded mystery snail	*	1

* Species is not currently ranked

NO NEW TIER 1 OR TIER 2 SPECIES WERE DETECTED IN 2020