



Chat-Box Icebreaker

- Name
- Location of your waterfront property or favorite lake.



Dock & Shoreline Invaders

Identification and Management

Presented by:

Brittney Rogers-SLELO PRISM

Sarah Trick-IRLC

Jessica Hart-NYSDEC

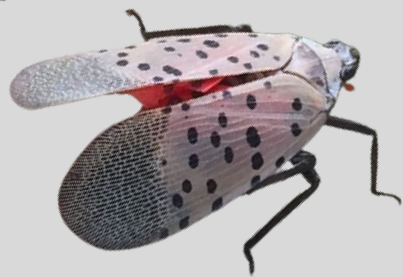
Emily Sheridan-NYSDEC



Science
Speaker Series

WEBINAR
6.10.21



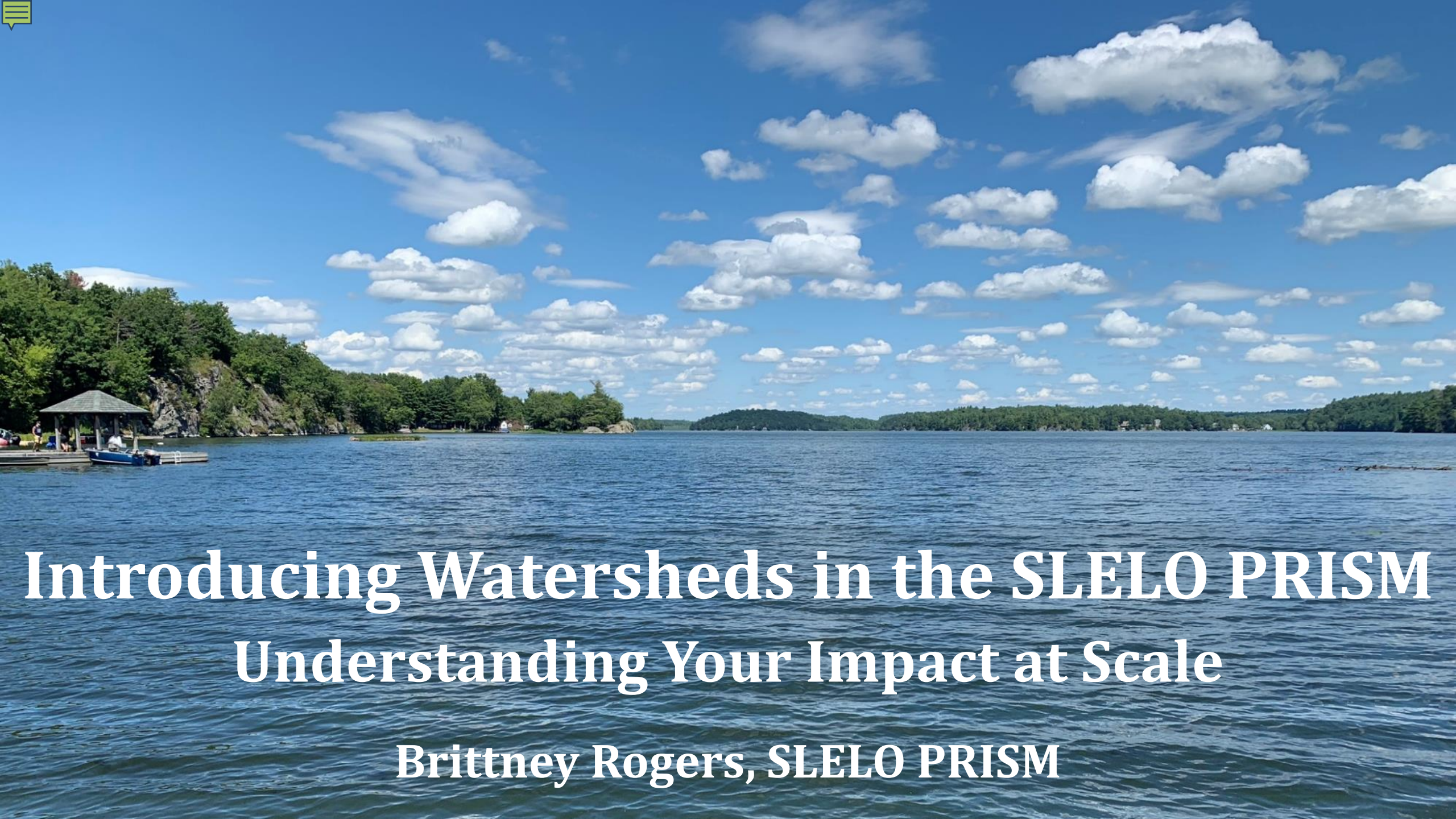


New York Invasive Species Awareness Week

JUNE 6-12, 2021

#NYISAW WWW.NYISAW.ORG



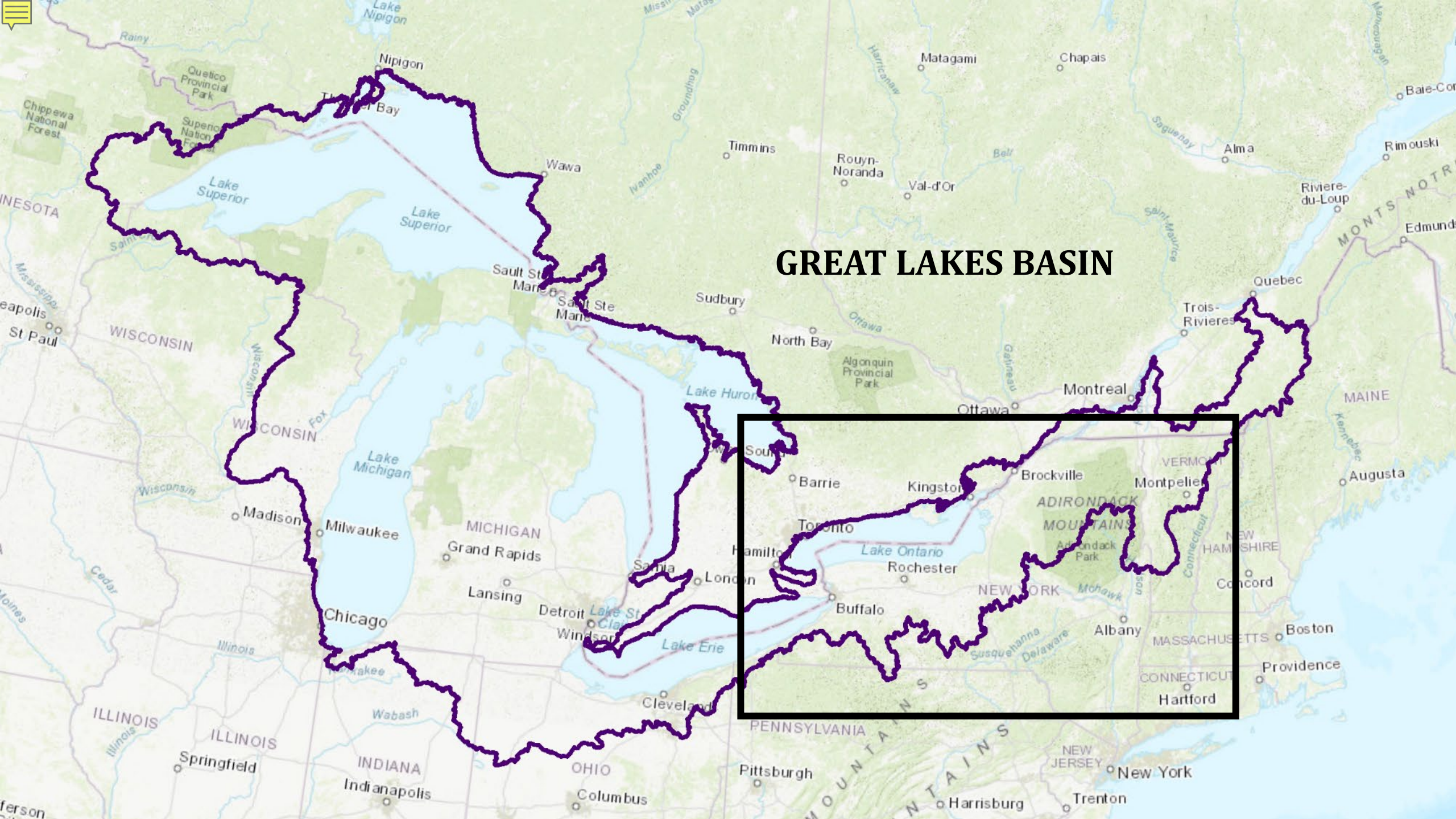
A scenic photograph of a large body of water, likely Lake Superior, under a bright blue sky with scattered white clouds. The water is a deep blue with gentle ripples. In the distance, a forested shoreline is visible. On the left side, a rocky shore is covered in green trees, and a small wooden dock with a covered pavilion and a blue boat is situated near the water's edge.

Introducing Watersheds in the SLELO PRISM

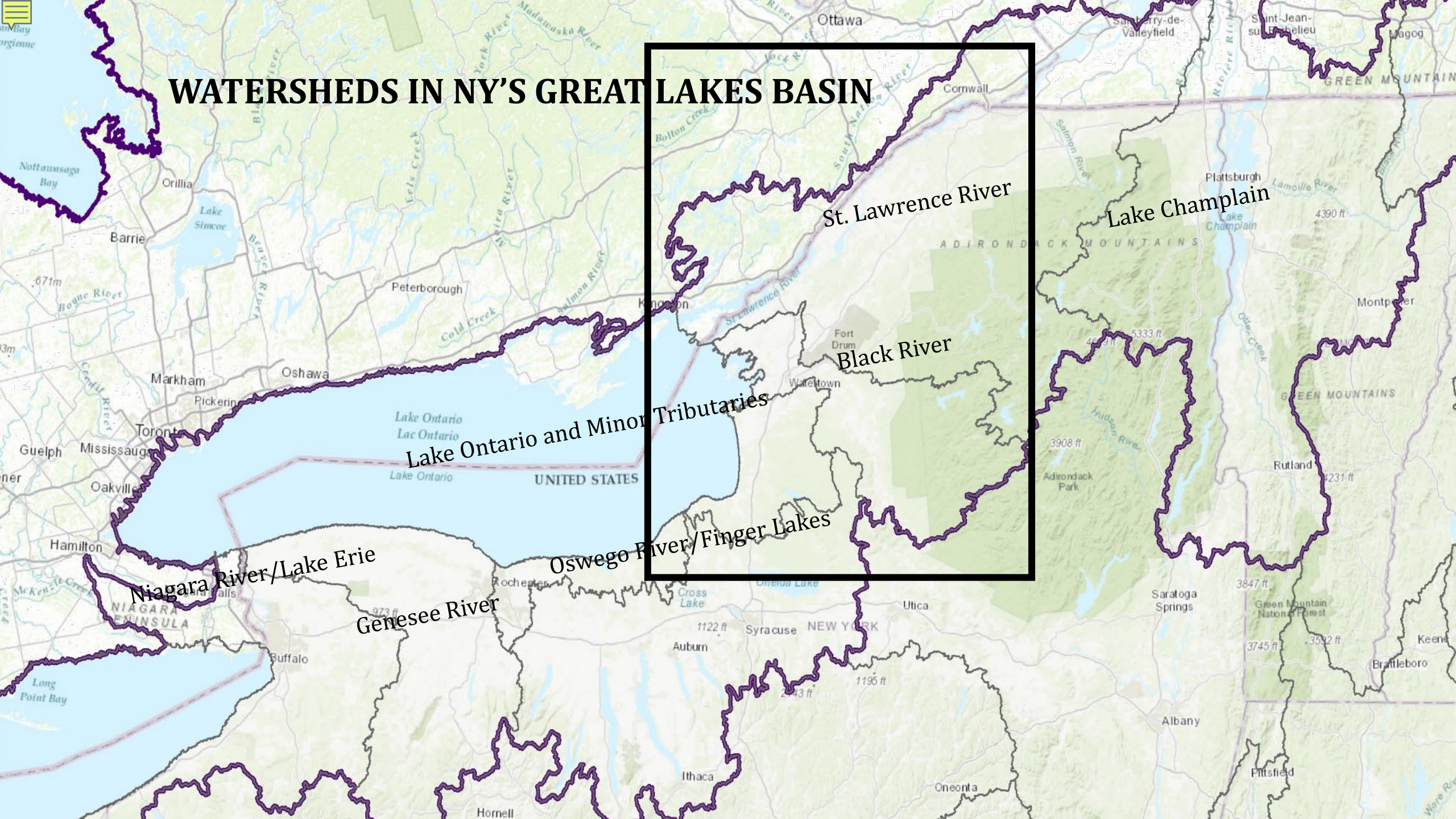
Understanding Your Impact at Scale

Brittney Rogers, SLELO PRISM

GREAT LAKES BASIN



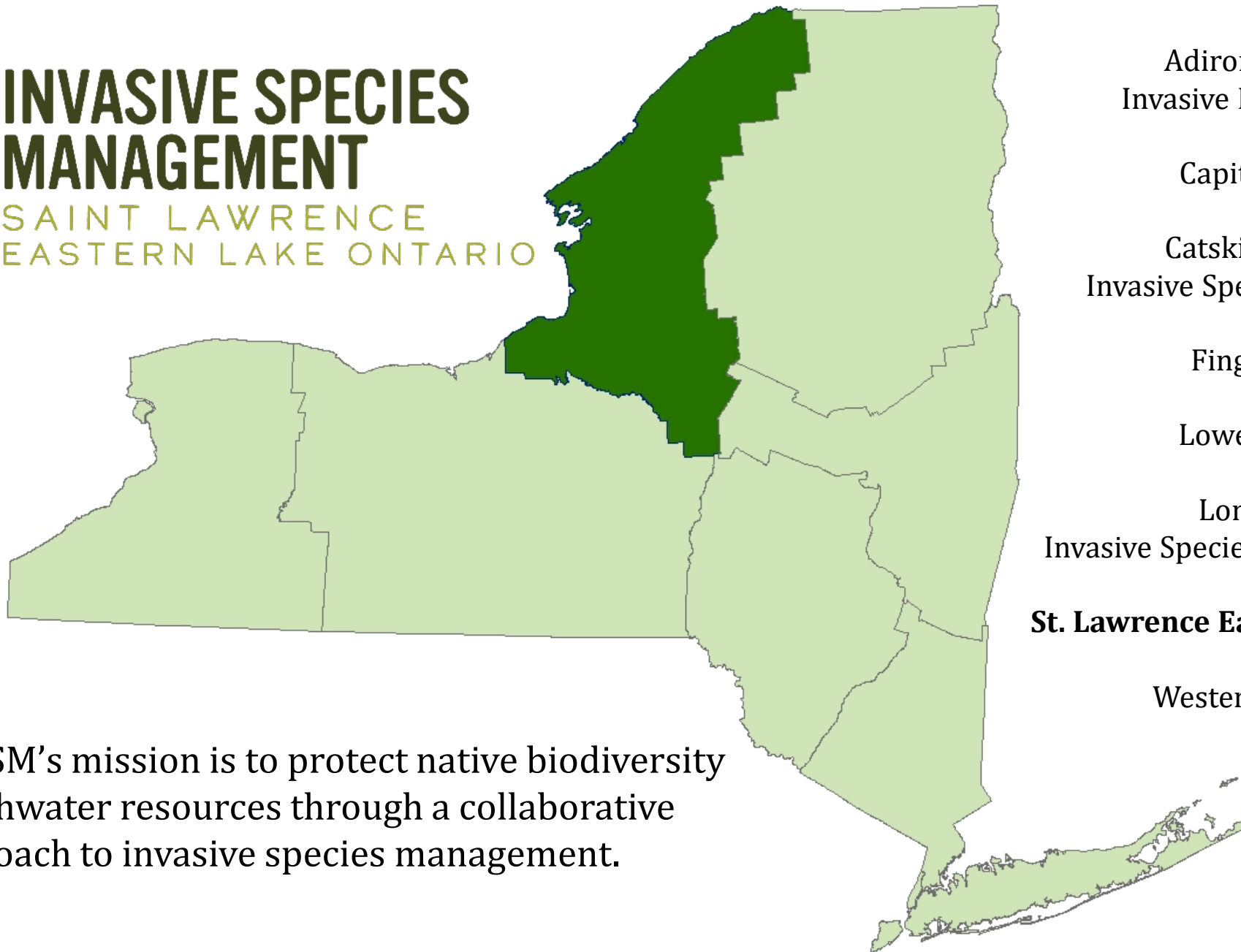
WATERSHEDS IN NY'S GREAT LAKES BASIN





INVASIVE SPECIES MANAGEMENT

SAINT LAWRENCE
EASTERN LAKE ONTARIO



Adirondack Park
Invasive Plant Program

Capital Region

Catskill Regional
Invasive Species Partnership

Finger Lakes

Lower Hudson

Long Island
Invasive Species Management Area

St. Lawrence Eastern Lake Ontario

Western New York

SLELO PRISM's mission is to protect native biodiversity
and freshwater resources through a collaborative
approach to invasive species management.



Core Programming

Prevention

Early Detection

Rapid Response

Management and Control

Education and Outreach

Special Initiatives

AIS Macrophyte Nutrient Analysis

Aquatic Restoration Initiative

Black River Trail

Environmental DNA Monitoring

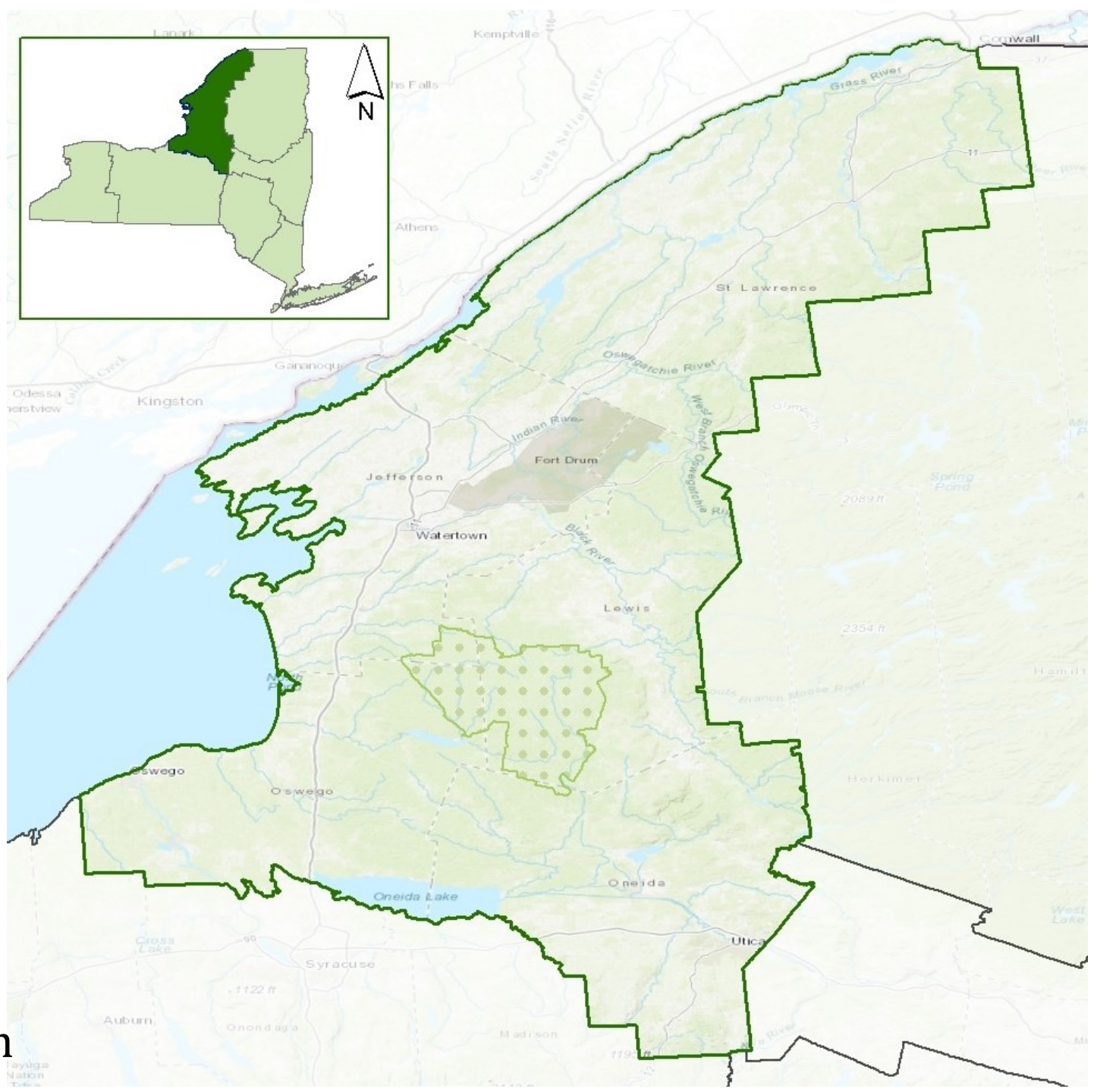
Pollinator Pathway

Spotted Lanternfly Spotters

Tug Hill Forest Restoration

Urban Forest Sustainability Initiative

Watercraft Inspection Steward Program



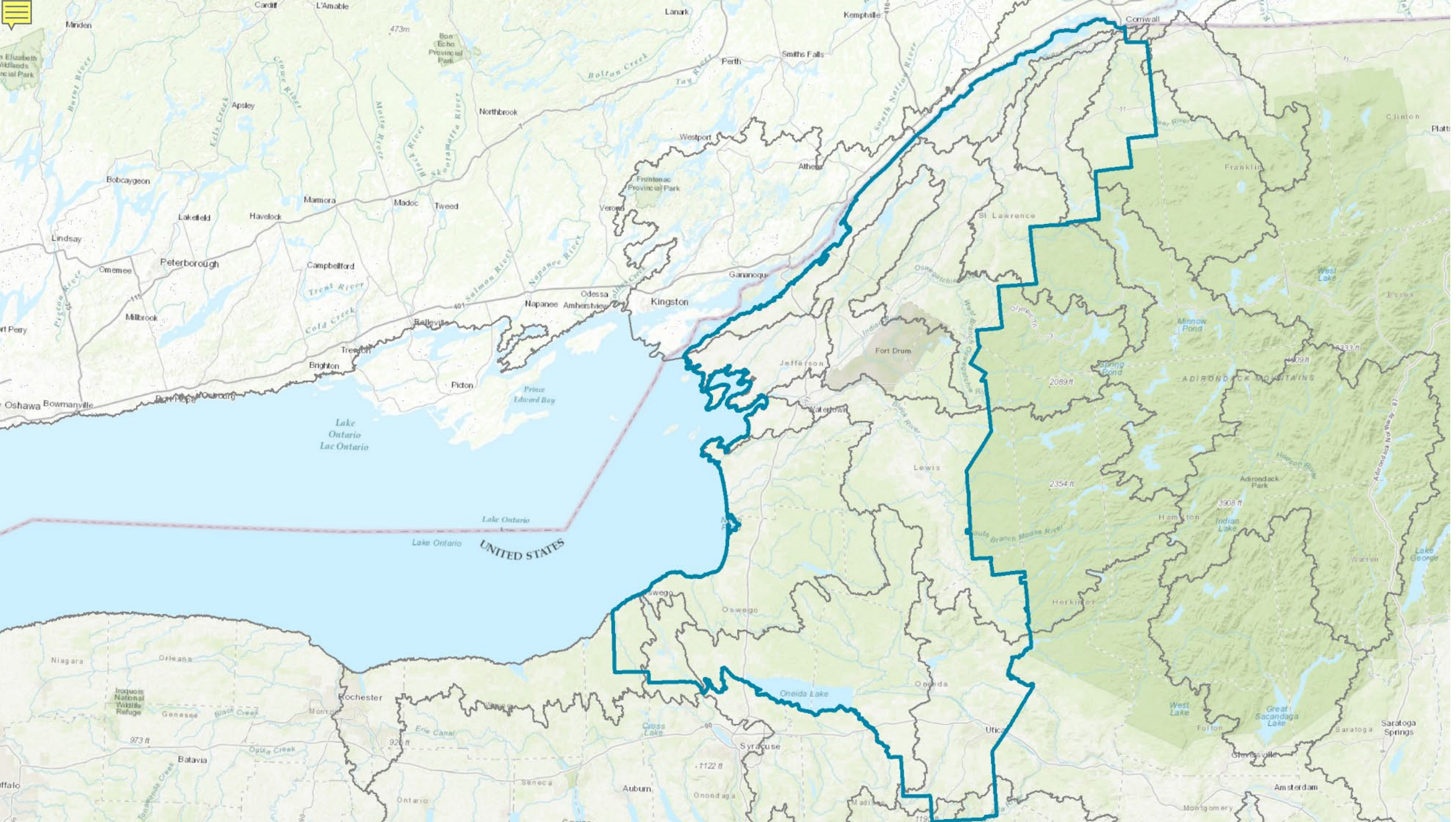


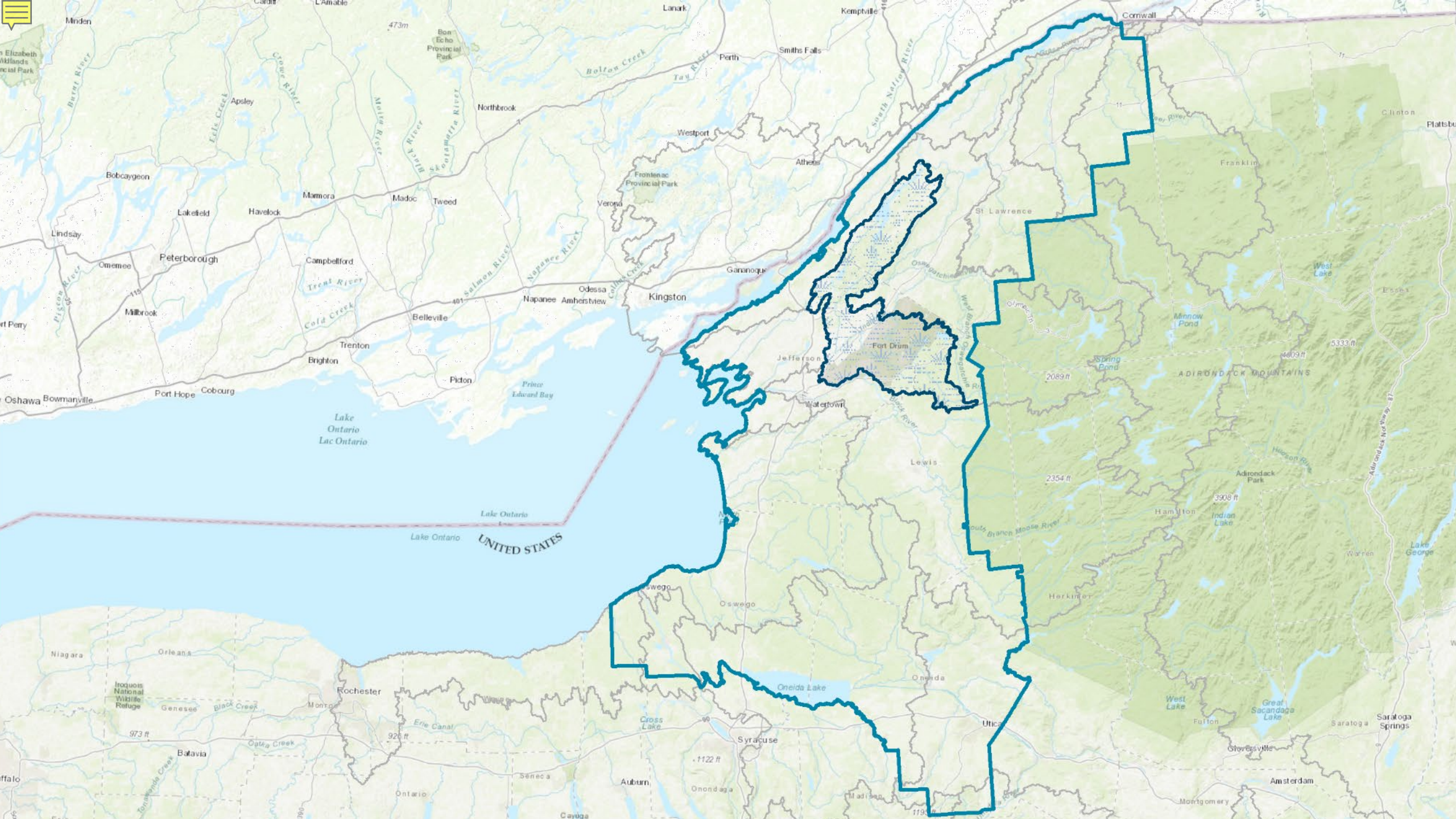
SLELO PARTNERS

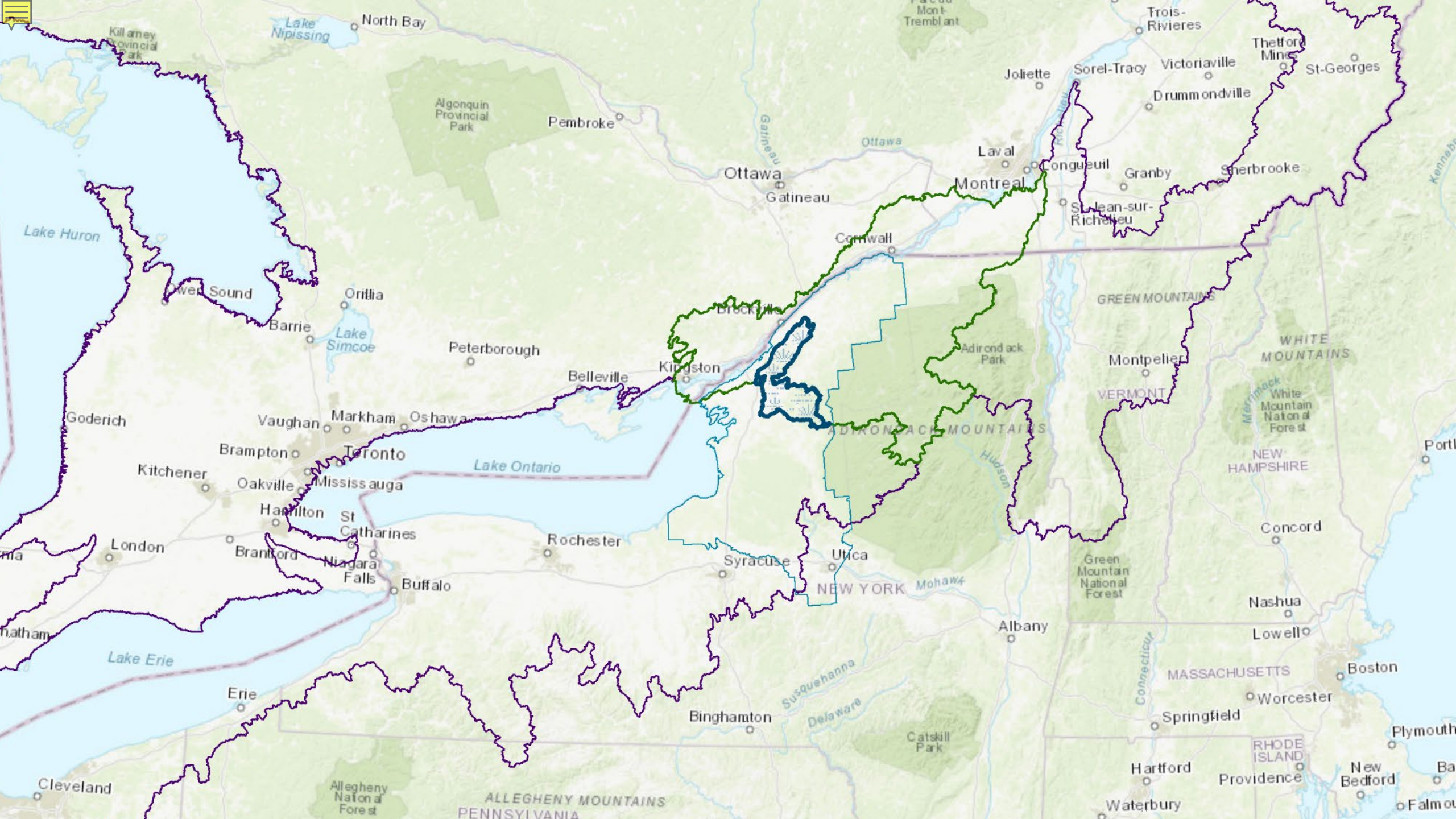
SLELO PRISM is a collaborative effort between numerous principal and cooperating partners throughout the region. The contributions and expertise provided by these partners is the key to our success. Current partners include

- The Department of Environmental Conservation
- The Nature Conservancy
- Central New York Regional Planning & Development Board
- Cornell Cooperative Extension
- County Soil & Water Conservation Districts
- Ducks Unlimited
- Fort Drum Military Installation
- Indian River Lakes Conservancy
- New York Power Authority
- New York Sea Grant
- NYS Department of Transportation
- NYS Parks, Recreation & Historic Preservation
- Onondaga Audubon
- Save the River
- St. Regis Mohawk Tribe-Environmental Division
- Thousand Islands Land Trust
- Tug Hill Commission
- Tug Hill Tomorrow Land Trust
- U.S. Coast Guard Auxiliary
- Algonquin to Adirondack Collaborative

www.sleloinvasives.org/slelo-prism-partners







Indian River Lakes



Indian River Lakes
CONSERVANCY

Protect • Learn • Enjoy • Forever

WE LIVE IN A UNIQUE AREA

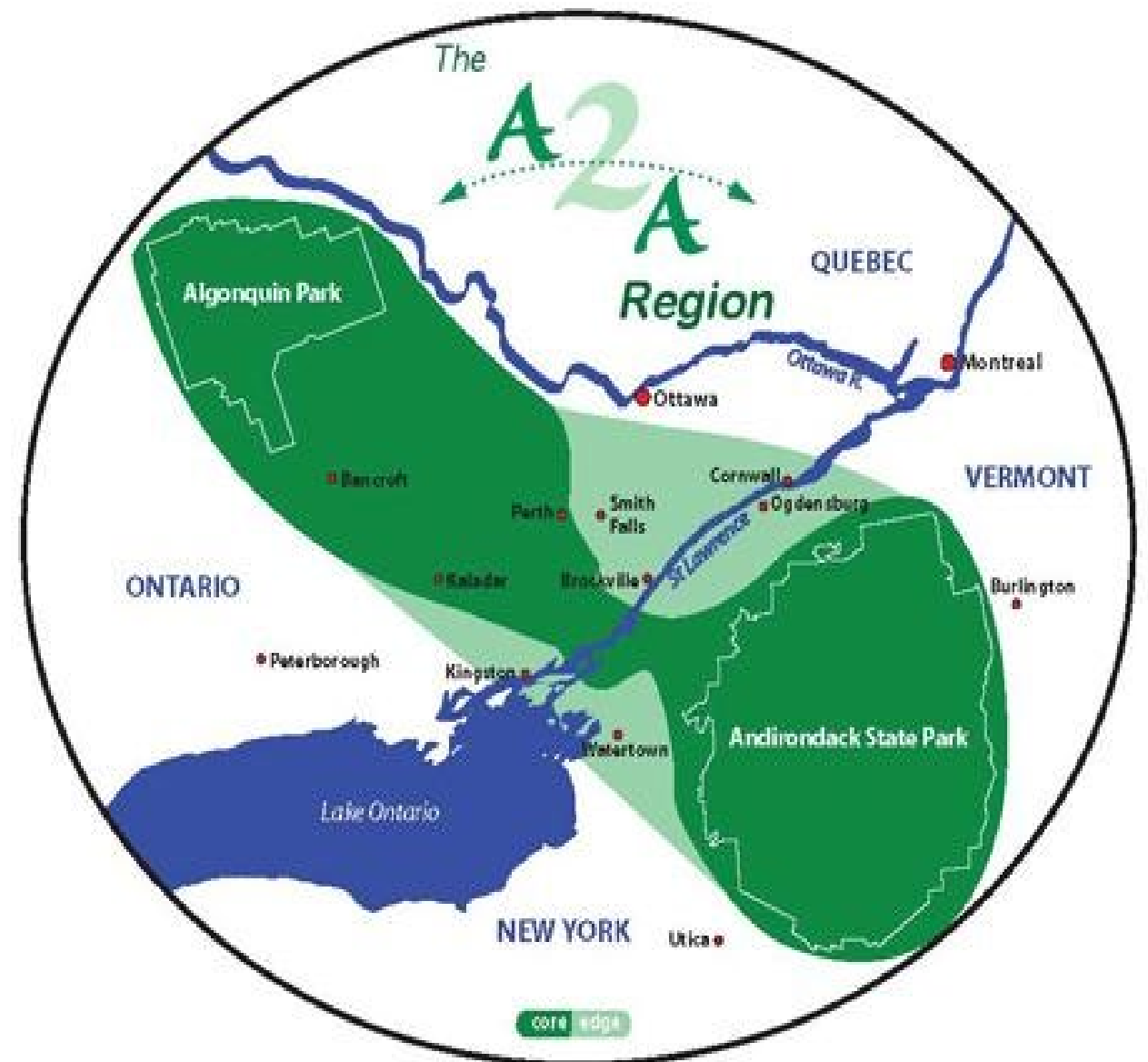
Frontenac Arch

- Important wildlife corridor between the U.S. and Canada

Uniquely diverse- *Lake chain has three different lake classifications:*

- Warm
- Cool
- Cold

Each type represents a different type of fishery



CHALLENGES:

Although relatively undeveloped, usage and development is increasing within our watershed

- Stressed septics
- Increased spread of invasives
- Increase in runoff from impervious surfaces

Our lakes are a regional economic driver

- Recreation
- Property value

Not all Indian River Lakes are in our watershed

- Hyde Lake -Perch River Watershed
- Yellow Lake, Moon Lake, Pyne Lake- Oswegatchie Watershed
- Bonapart - not classified as an I.R. Lake, but is in our Watershed





Department of
Environmental
Conservation



Funding Opportunities for Invasive Species Management in NY's Great Lakes

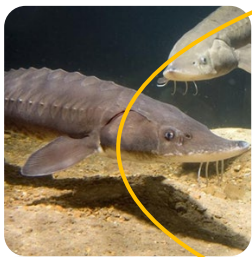
DEC Great Lakes Program

Emily Sheridan;
Eastern Great Lakes Watershed Coordinator. NYSDEC/NHT
Indian River Lakes Conservancy/SLELO PRISM Webinar
June 10th, 2021

Great Lakes Action Agenda Goals



Clean Up Pollution Sources and Restore Beneficial Uses

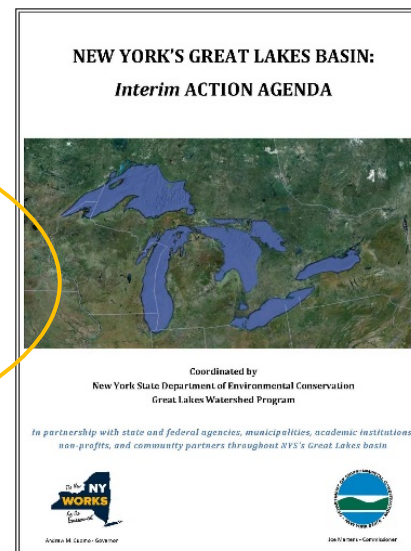


Conserve Natural Resources

4. Combat Invasive Species
5. Conserve and Restore Native Fish and Wildlife
6. Conserve Great Lakes Water Supplies

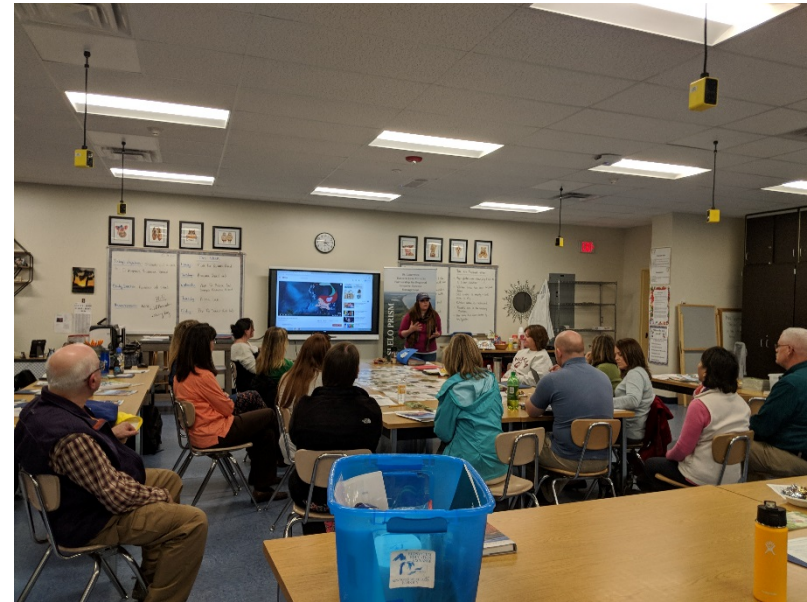


Promote Resilient Communities & Sustainable Development



GLAA Cross-Cutting Priorities

- Promote Partnerships and Coordinated Action
- Climate Change Mitigation and Adaptation
- Enhance Coordinated Science, Monitoring and Information Management
- Support Environmental Education and Outreach Initiatives



Educator workshop held at Indian River Middle School in 2019

Ecosystem-based Management



“When one tugs at a single thing in nature, he finds it attached to the rest of the world.”

-John Muir

Funding Opportunities Matrix

Funding Opportunities for invasive species management in the St. Lawrence- Eastern Lake Ontario Region May 2021

Are you a SLELO Partner looking to do an invasive species management and/or habitat restoration projects within St. Lawrence, Jefferson, Lewis, Oneida or Oswego Counties? Check out these funding opportunities!

Please inform the [SLELO PRISM Manager](#) of your project and potential application to help track conservation efforts in the region.



**INVASIVE SPECIES
MANAGEMENT**
SAINT LAWRENCE
EASTERN LAKE ONTARIO

Grant opportunities support the St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management 2019-2023 Strategic Plan

* Strategies identified in the [SLELO PRISM 2019-2023 Strategic Plan](#)

Opportunity Title	SLELO PRISM Strategies*	Focus Areas	Deadlines
GREAT LAKES OPPORTUNITIES			
Great Lakes Restoration Initiative www.glri.us	Prevention Control Information management Innovation	US Environmental Protection Agency offers funding for invasive species control, spread prevention, and research in the Great Lakes.	As funding is available

*Document will be shared with attendees



NEW YORK
STATE OF
OPPORTUNITY
Department of
Environmental
Conservation

Federal Great Lakes Restoration Grants

- Federal agencies and partners provide grants for 5 Focus Areas, including invasive species management.
- IS Focus Area Objectives:

2.1. Prevent introductions of new invasive species.

2.2. Control established invasive species.

2.3. Develop invasive species control technologies and refine management techniques.



<https://www.glri.us/funding>



Department of
Environmental
Conservation

Federal Grants Currently Available

- USFWS Joint Venture Habitat Restoration and Protection – due 6/15
- USFWS North American Wetlands Conservation Act- standard grants due 7/9 and small grants due 10/14
- NOAA Bay Watershed Education and Training in the Great Lakes - due 9/9
- US Forest Service Great Lakes Restoration grants – due 7/8



Henslow's Sparrow (Audubon);
Indian River Lakes wetland

<https://www.grants.gov>

State Grants for Invasive Species Management and Habitat Restoration

- NYSDEC Conservation Partnership Program – typically due in December
- NYSDEC Urban and Community Forestry Grants
- NYSDAM Riparian Buffers for Source Water Protection- due Oct 2024
- NYSDEC Water Quality Improvement Project- due July 30
- NYSOPRHP Parks, Preservation and Heritage due July 30

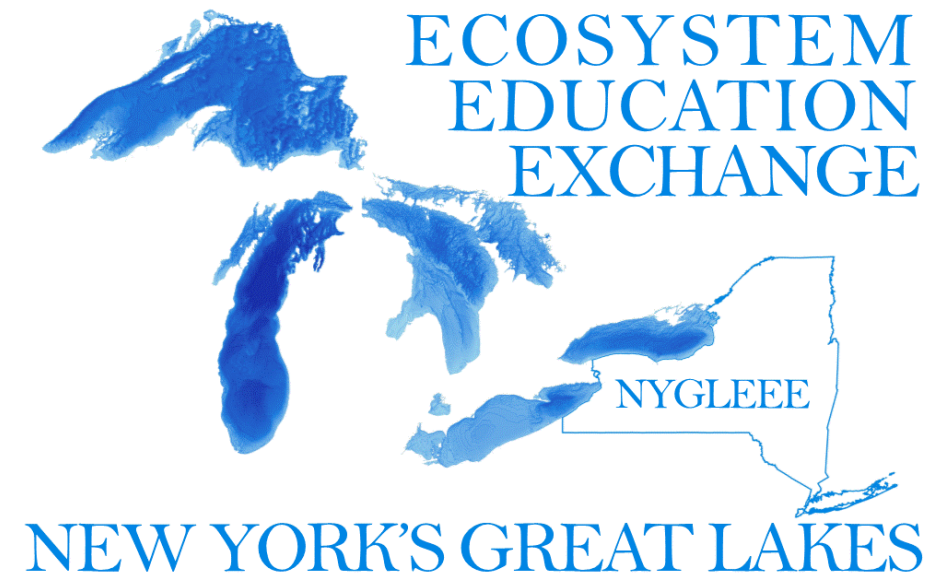


TILT has been acquiring lands for source water protection within the St. Lawrence watershed under DEC WQIP grants.
Photo by Thousand Islands Land Trust.

Funding Opportunities for Educators



Project WHIRL purple loosestrife
biocontrol in summer 2019



<https://seagrant.sunysb.edu/articles/t/new-york-s-great-lakes-ecosystem-education-exchange-environmental-education-grant-programs-for-educators>



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Emily Sheridan (she/her)

**NYSDEC Eastern Great Lakes
Watershed Coordinator**

**317 Washington St. Watertown, NY
13601**

Emily.Sheridan@dec.ny.gov

1(315) 785-2382

Connect with DEC:

Facebook:

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Twitter: twitter.com/NYSDEC

Flickr: www.flickr.com/photos/nysdec



Butterfield Lake and Yellow Lake



Department of
Environmental
Conservation

Controlling Invasive Plants

Permitting Considerations

June 10, 2021



NYSDEC Jurisdictions

- Article 15 – Protection of Waters
 - <https://www.dec.ny.gov/permits/6333.html>
- Article 24 – Freshwater Wetlands
 - <https://www.dec.ny.gov/permits/6277.html>
- 401 Water Quality Certification
 - <http://www.dec.ny.gov/permits/6546.html>
- 6 NYCRR Part 360.12 – Beneficial Use Determination
 - <https://www.dec.ny.gov/chemical/8821.html>



What I'm not covering

Other possible jurisdictions:

- US Army Corps of Engineers
- NYS Department of State
- NYS Office of General Services
- Municipality
- Floodplain
- USDA

Hand Pulling or Cutting

- Permit needed in a state regulated wetland and it's 100' adjacent area.
- No permit needed in areas outside of state wetlands and their adjacent areas.



Hand pulling or cutting with suction

Suction used only to transport vegetation; no dredging:

- Permit needed in a state regulated wetland and it's 100' adjacent area.
- No permit needed in areas outside of state wetlands and their adjacent areas.

Suction used to remove bottom material; dredging:

- Permit required in:
 - State wetlands and adjacent areas
 - Protected streams
 - Navigable waterways



Mechanical Aquatic Weed Harvesters

- Mowing or gently uprooting
 - Permit needed in a state regulated wetland and 100' adjacent areas.
 - No permit needed in areas outside of state wetlands and their adjacent areas.
 - Case-specific BUD may be required for the disposal.
- Raking, digging, or otherwise removing substrate is considered dredging
 - Permit required in:
 - State wetlands and adjacent areas
 - Protected streams
 - Navigable waterways



Dredging

Permit required in:

- State wetlands and adjacent areas
- Protected streams
- Navigable waterways

Spoil disposal may require any of the above and:

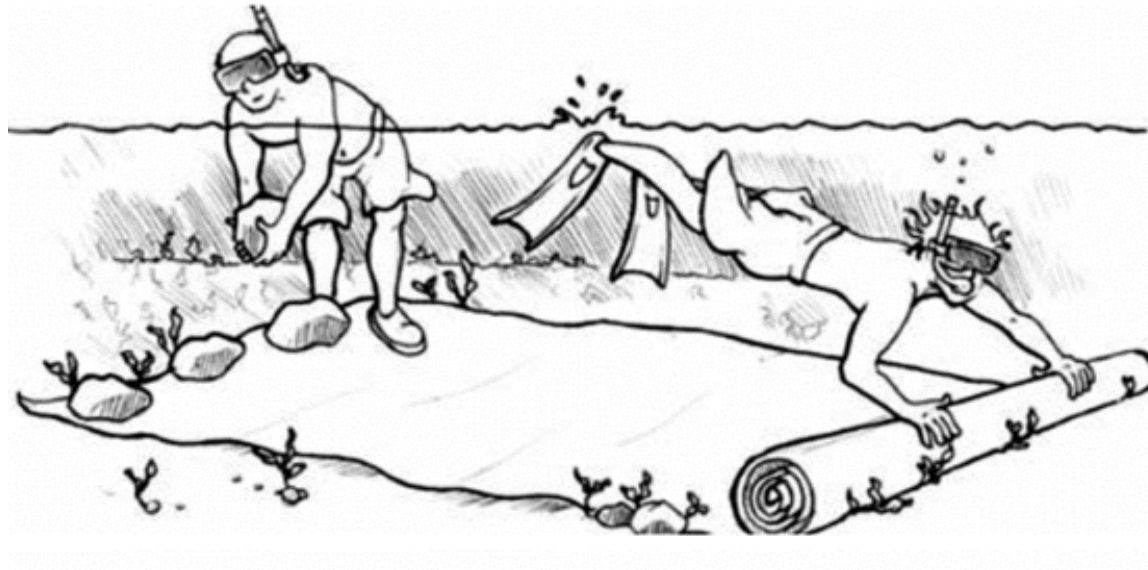
- Case-specific BUD
- 401 Water Quality Certification



Benthic Mats

Permits are needed for benthic mats:

- In state regulated wetlands and adjacent areas
- If fill is used to anchor benthic mats (rocks, concrete, etc.).



Herbicides

- An aquatic pesticide permit is required for the direct application of an aquatic pesticide to surface waters of an acre or more in size.
- A freshwater wetland permit is required in state regulated wetlands and the 100' adjacent areas.

Biological Control

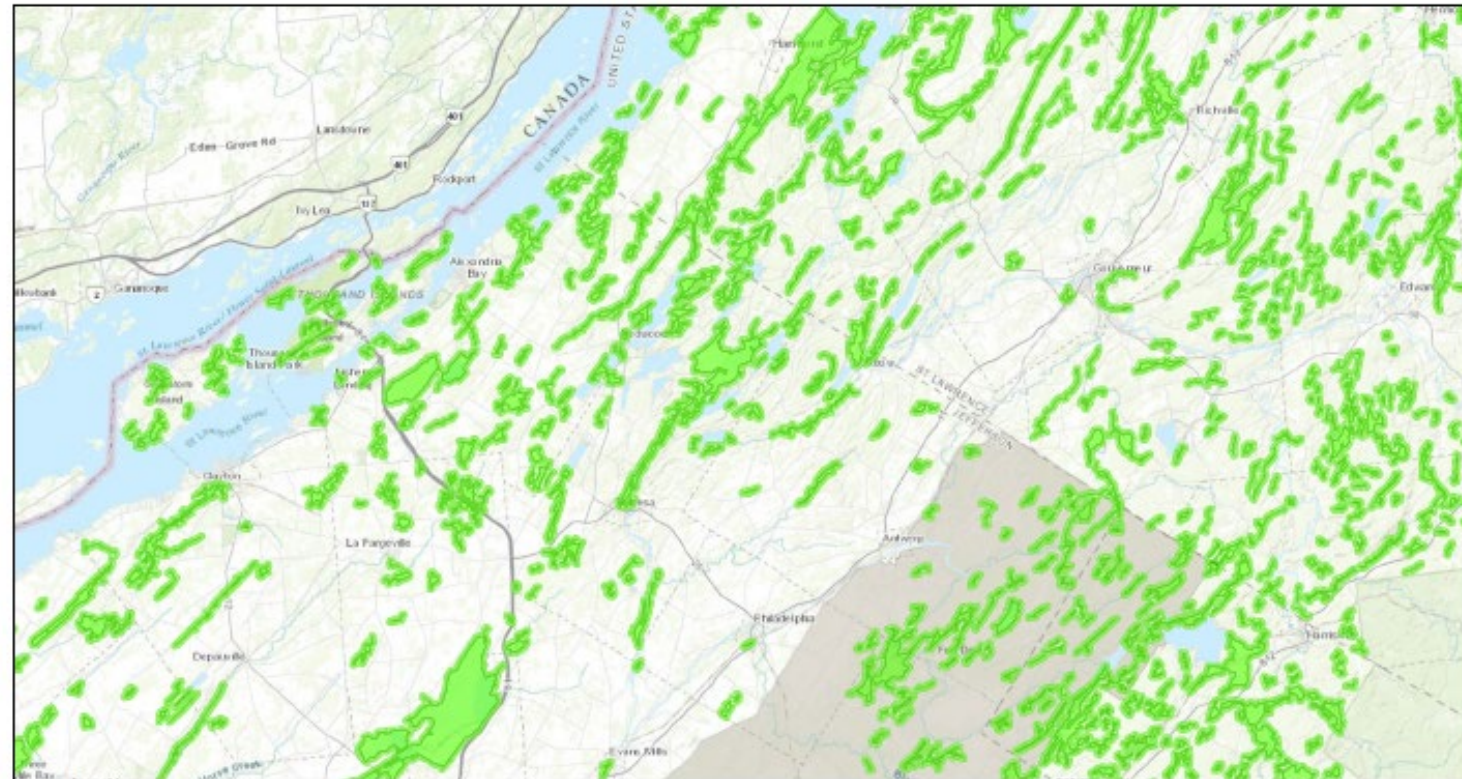
Purple Loosestrife Beetles

- No permit needed from NYSDEC

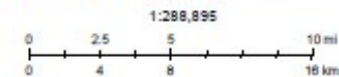


DEC Natural Resource Navigator

Wetlands in Indian River Lakes



June 7, 2021



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, and the GIS User Community

Author: ES
Not a legal document



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Conservation

<https://gisservices.dec.ny.gov/gis/erm/>

Thank You

Jessica Hart

Deputy Regional Permit
Administrator

317 Washington St,
Watertown, NY 13601

jessica.hart@dec.ny.gov

315-785-2246

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Flickr: www.flickr.com/photos/nysdec



Department of
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Conservation



Invasive Species Knowledge in SLELO PRISM

Why Your Efforts are Impactful

Brittney Rogers, SLELO PRISM

		Difficulty of Eradication/Cost of Control Abundance (In PRISM plus Buffer)				
		Low None in PRISM	Medium (Eradication/Full containment may be feasible)	High (Established/widespread in PRISM; only strategic localized management)	N/A	
Impact (current and future)	Impact Very High or High	Tier 1 <i>Early Detection/Prevention</i> Not in Prism, but within 100 mile buffer or introduction pathway exists. Highest level of early detection survey efforts.	Tier 2 <i>Eradication</i> Present in Prism, but at low abundance with suitable treatment methods available to make eradication feasible within Priority Conservation Areas (PCA's).	Tier 3 <i>Suppression</i> Too widespread for eradication from PRISM, but some areas remain unaffected. Targeted management to suppress the population within Priority Conservation Areas (PCA's).	Tier 4 <i>Local Control</i> Present and widespread throughout PRISM with no chance of eradication. Localized management applied to protect high priority resources like rare plant or recreation assets.	Tier 5 <i>Monitor</i> Species that may or may not be in PRISM but are difficult to respond to or that require more knowledge of.

Asian Jumping Worm
 Asian Long Horned Beetle
 Silver, Big Head, Black, and Grass Carp Species
 Hydrilla
 Kudzu
 Mile-A-Minute Vine
 Slender False Brome
 Spotted lanternfly
 Water Lettuce
 Water Hyacinth
 Water Soldier

Asian Clam
 Fanwort
 Giant Hogweed
 Hemimysis
 Hemlock Woolly Adelgid
 Porcelainberry
 Spiny Water Flea
 Tench

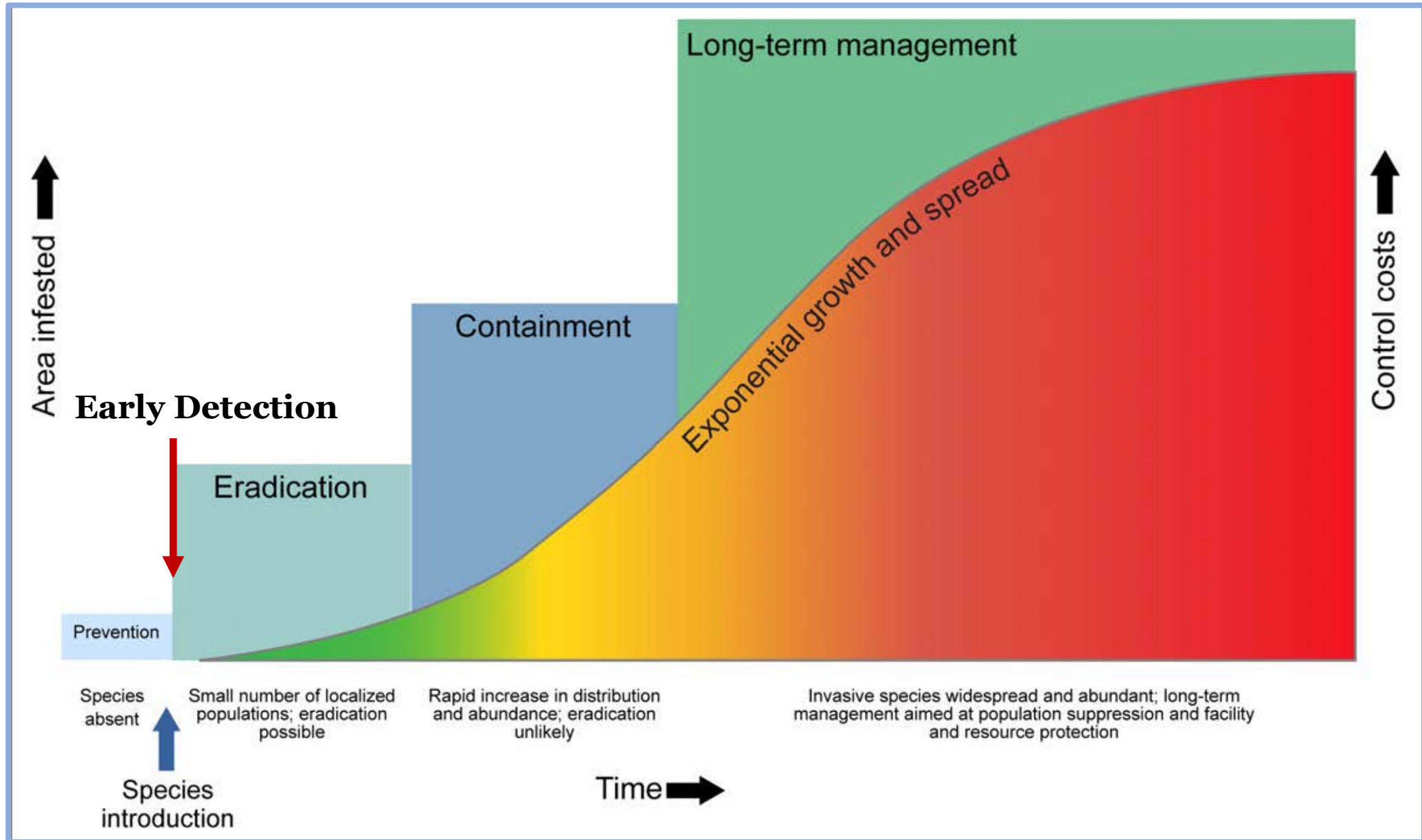
Black & Pale Swallow-wort
 Japanese Knotweed
 Japanese Stiltgrass
 Oriental Bittersweet
 Phragmites/Common Reed
 Rusty Crayfish
 Starry Stonewort
 Tree-of-Heaven
 Water Chestnut
 Wild Chervil
 Yellow Iris

Common Buckthorn
 Curly Leaf Pondweed
 Emerald Ash Borer
 Eurasian Water Milfoil
 European Frogbit
 Feral Swine
 Glossy Buckthorn
 Honeysuckle Spp.
 Leafy Spurge
 Purple Loosestrife
 Round Goby
 Spotted Knapweed
 Wild Parsnip
 Zebra/Quagga Mussel

LEGEND:

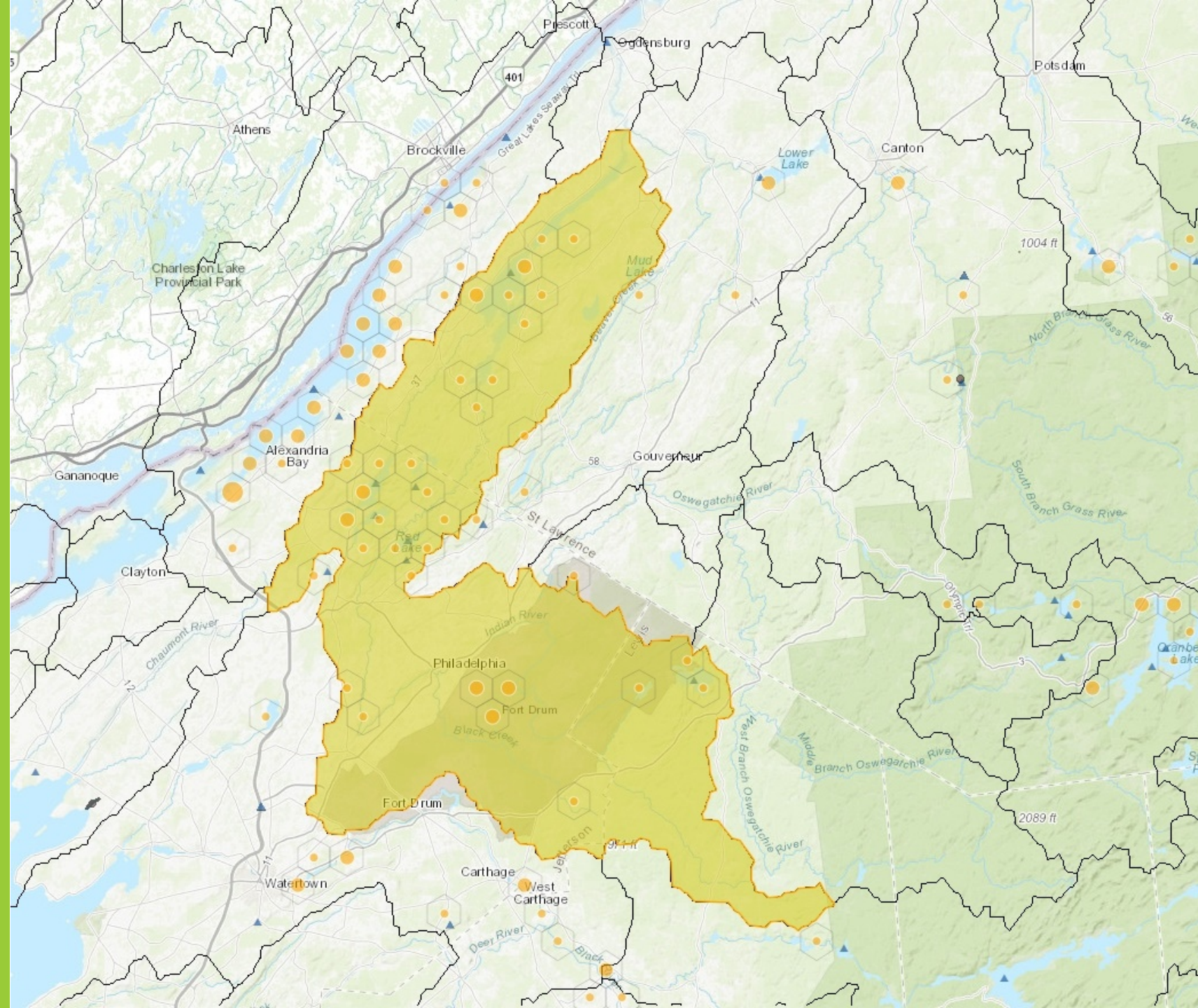
Insects
Aquatic Species
Mammals
Woody Plants
Graminoids
Forbs
Vines
Subterranean

Why is Early Detection Important?



Invasive Species reported in the Indian River Watershed

Banded Mysterysnail
 Black Locust
 Black Swallowwort
 Canada Bluegrass
 Climbing Nightshade, Bittersweet Nightshade
 Coltsfoot
 Common Buckthorn
 Common Carp
 Common mullein
 Common reed grass, phragmites
 Curly Pondweed
 Eurasian Water-milfoil
 European Frogbit; Common Frogbit
 False Spiraea
 Garlic Mustard
 Glossy Buckthorn, European Buckthorn
 Gypsy-weed, Common Speedwell
 Honeysuckle (species unknown)
 Japanese Knotweed, Japanese Bamboo
 Knotweed (species unknown)
 Leafy Spurge
 Meadow Timothy
 Morrows honeysuckle
 Mystery snail (species unknown)
 Oriental Bittersweet
 Pale Swallowwort
 Policemen's Helmet, Himalayan Balsam
 Purple Loosestrife
 Queen Anne's Lace, Wild Carrot
 Reed Canarygrass
 Rudd
 Shepherd's Purse
 Spotted Knapweed
 St. Johnswort
 Starry Stonewort
 Swallowwort (species unknown)
 Tartarian Honeysuckle
 Tufted Vetch
 Variable Watermilfoil; Broadleaf Watermilfoil
 Wild Parsnip
 Yellow Iris
 Zebra Mussel





Saturday, June 12th
Butterfield Lake Boat Launch
Redwood, NY



Indian River Lakes
CONSERVANCY
Protect • Learn • Enjoy • Forever

**Live Aquatic Plant Showcase
&
Floating Classroom**



**INVASIVE SPECIES
MANAGEMENT**
SAINT LAWRENCE
EASTERN LAKE ONTARIO

Registration Required

Two-hour Sessions Between 9 am-1 pm.

Learn about dock and shoreline species near you.

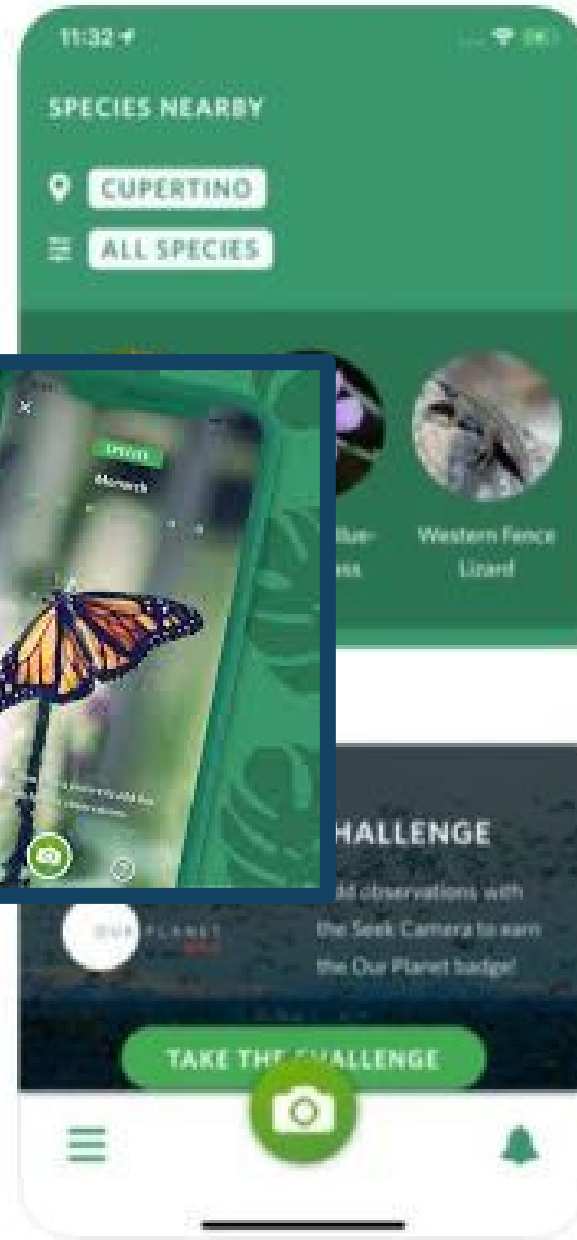
-COVID Compliant-

#NYISAW

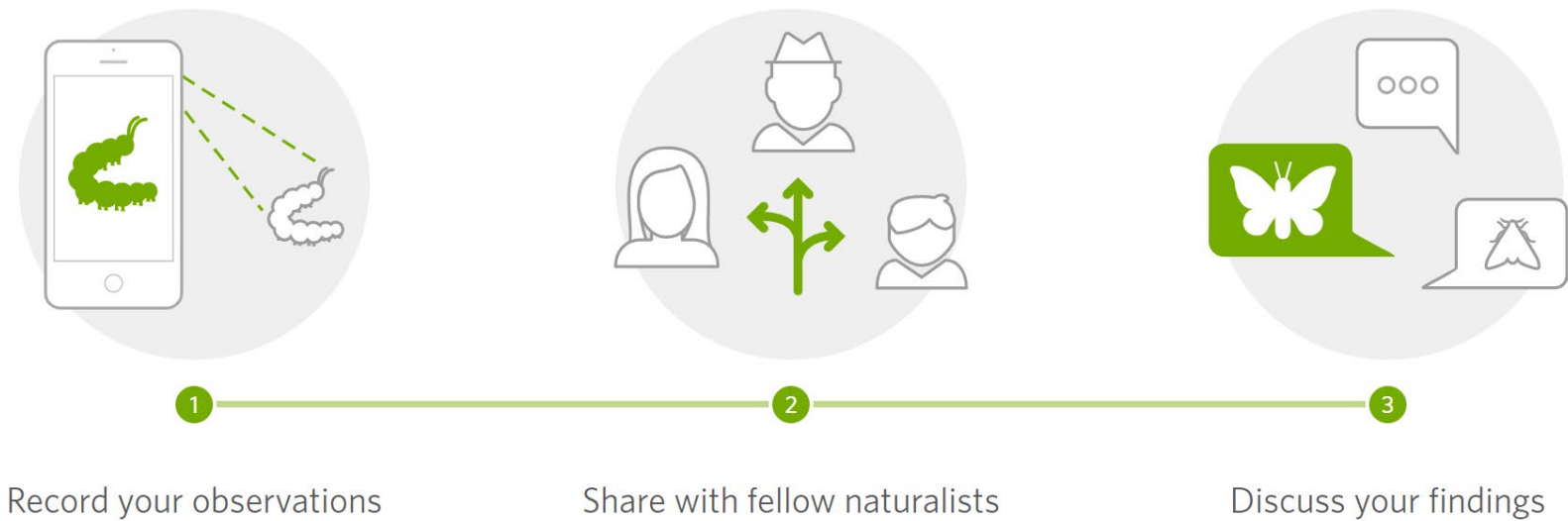
NY Invasive Species Awareness Week Event

Apps that Explore Nature





How It Works

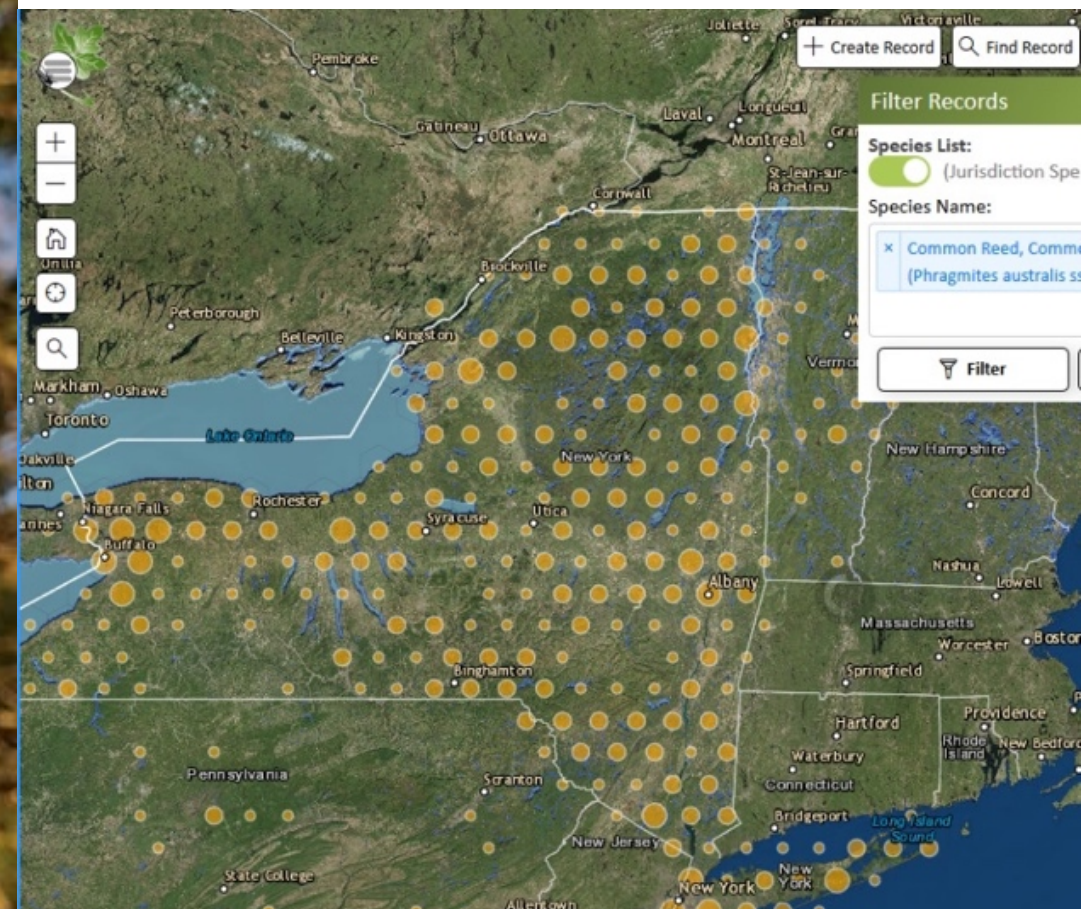


Contribute to Science

Every observation can contribute to biodiversity science, from the rarest butterfly to the most common backyard weed. We share your findings with scientific data repositories like the [Global Biodiversity Information Facility](#) to help scientists find and use your data. All you have to do is observe.



iMapInvasives



What is iMapInvasives?

A collaborative GIS-based,
online tool for invasive
species management

OBJECTIVES

iMapInvasives Users

Students, professionals and citizen scientists concerned about invasive species can report locations to the NYS Invasive Species Database, iMapInvasives

- **Become a “first detector”**
 - by learning the signs of and reporting species new to your area
- **Monitor invasive species**
 - in your area (home, town, park, etc.)
- **Help natural resource professionals (yourself?)**
 - by improving distribution maps, awareness of spread
- **Search the database**
 - to understand where invasive species have been found in NYS



New York
Natural Heritage
Program

New York Natural Heritage's mission is to facilitate conservation of New York's biodiversity by providing comprehensive information and scientific expertise on rare species and natural ecosystems to resource managers and other conservation partners.

Partnership between NYS DEC and SUNY ESF

Invasive Species Database Program:

Providing invasive species mapping resources for NYS

A collaborative GIS-based,
online tool for invasive
species management

Funding provided by:

New York State

Environmental Protection Fund



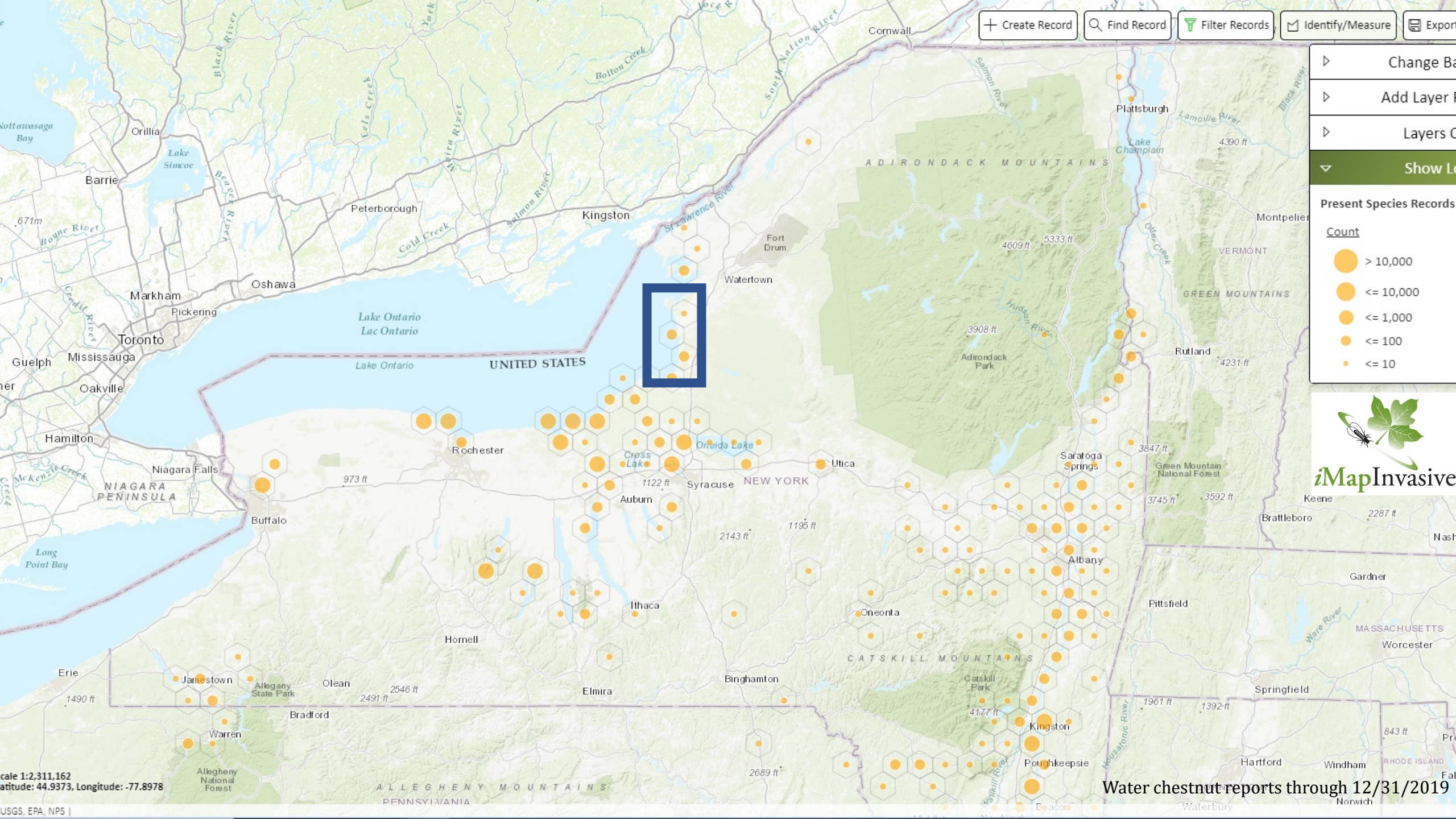
Overview of NY iMapInvasives

Can you identify this species?
What are some key features in the photos?
How could you improve the photos?



Not-so-Great Photos!



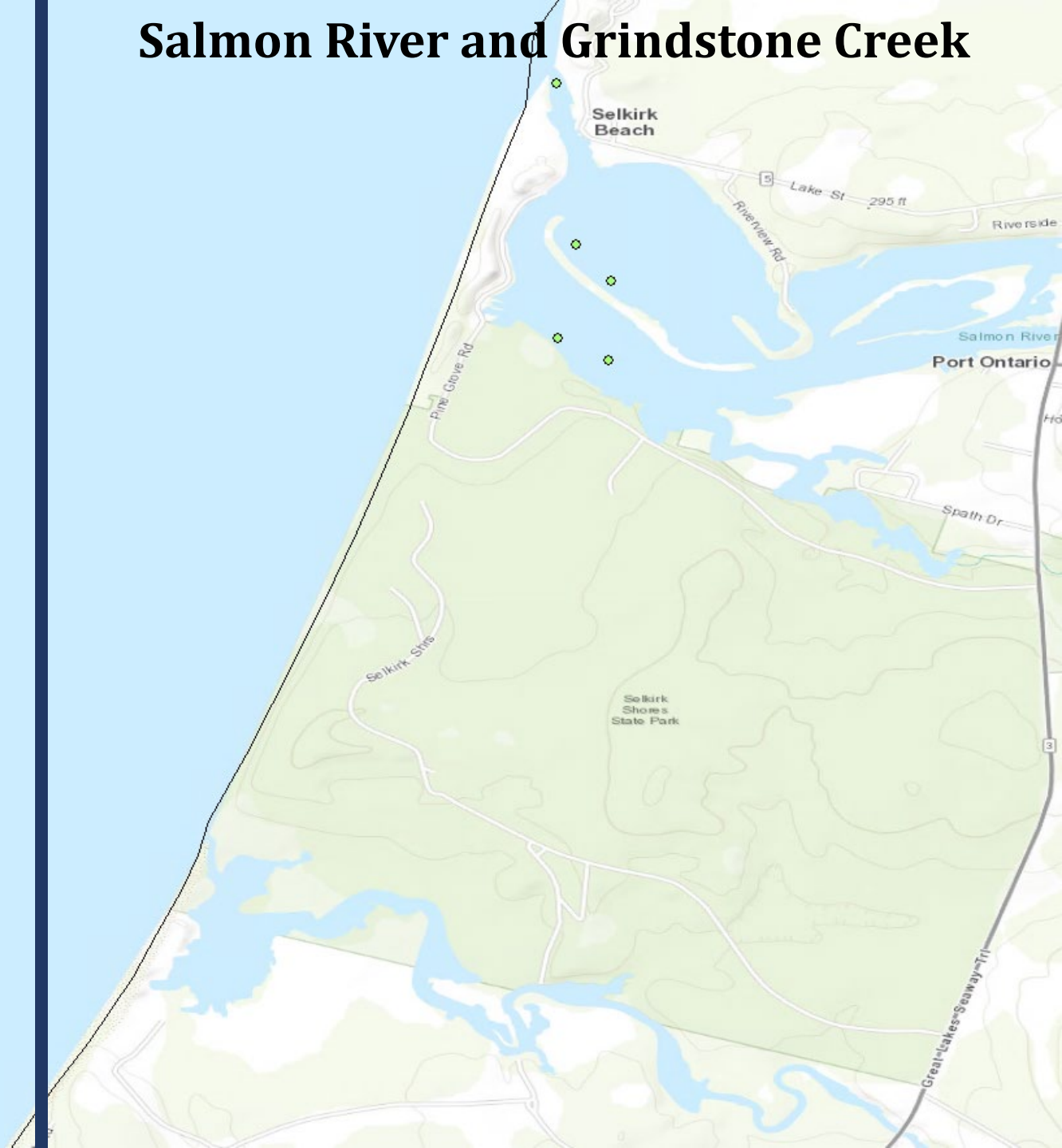


Lakeview Wildlife Management Area

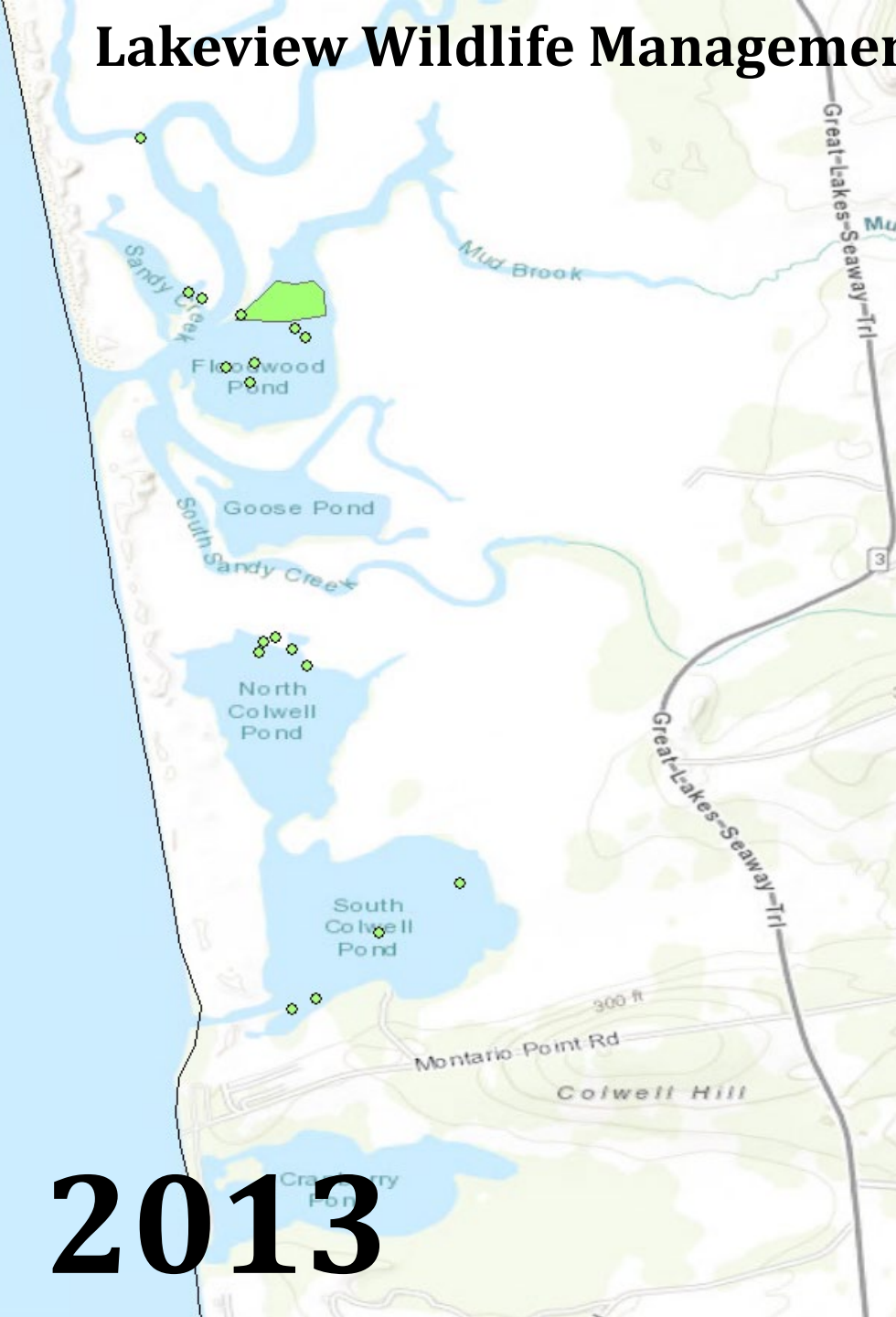


2011

Salmon River and Grindstone Creek

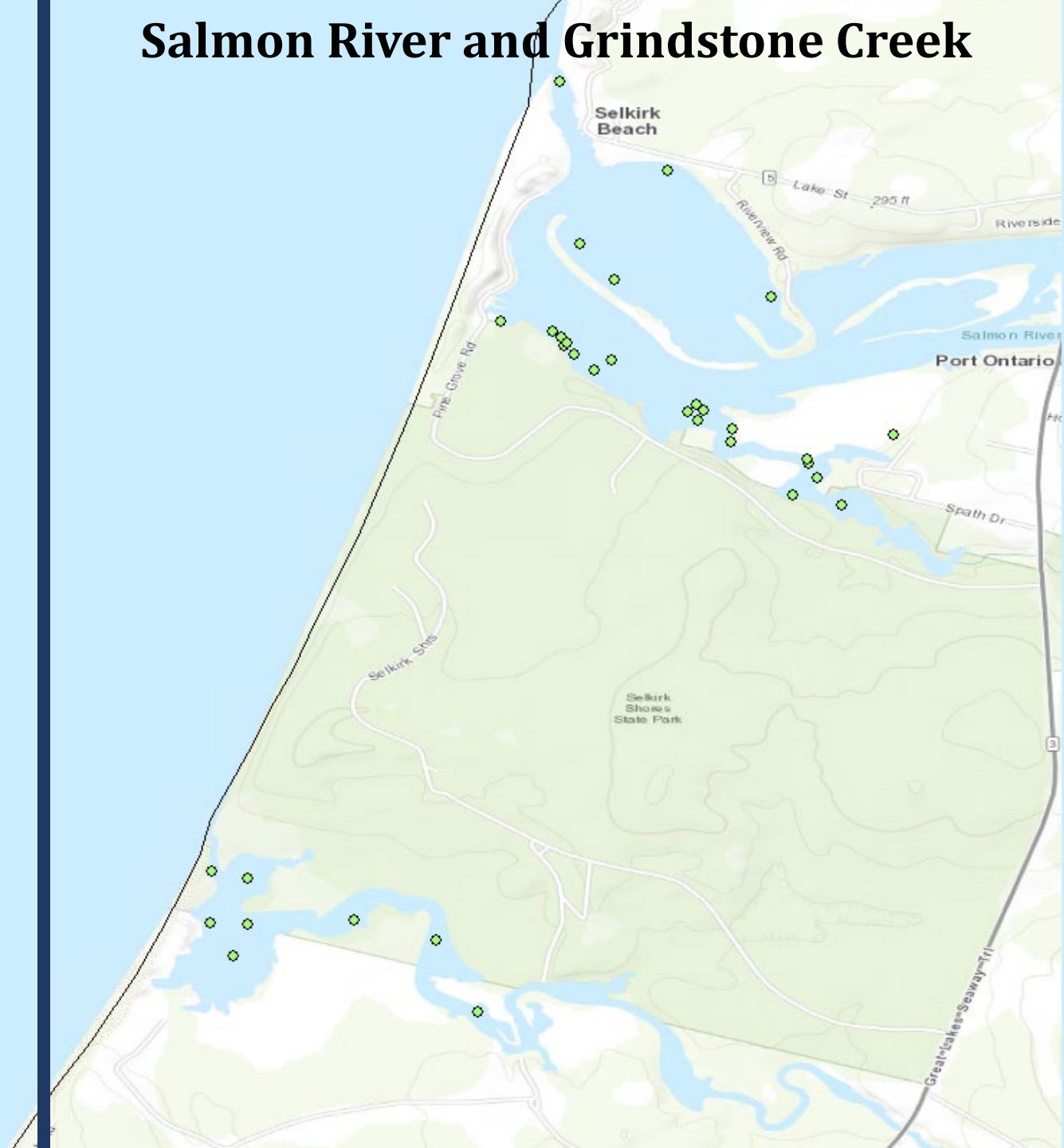


Lakeview Wildlife Management Area

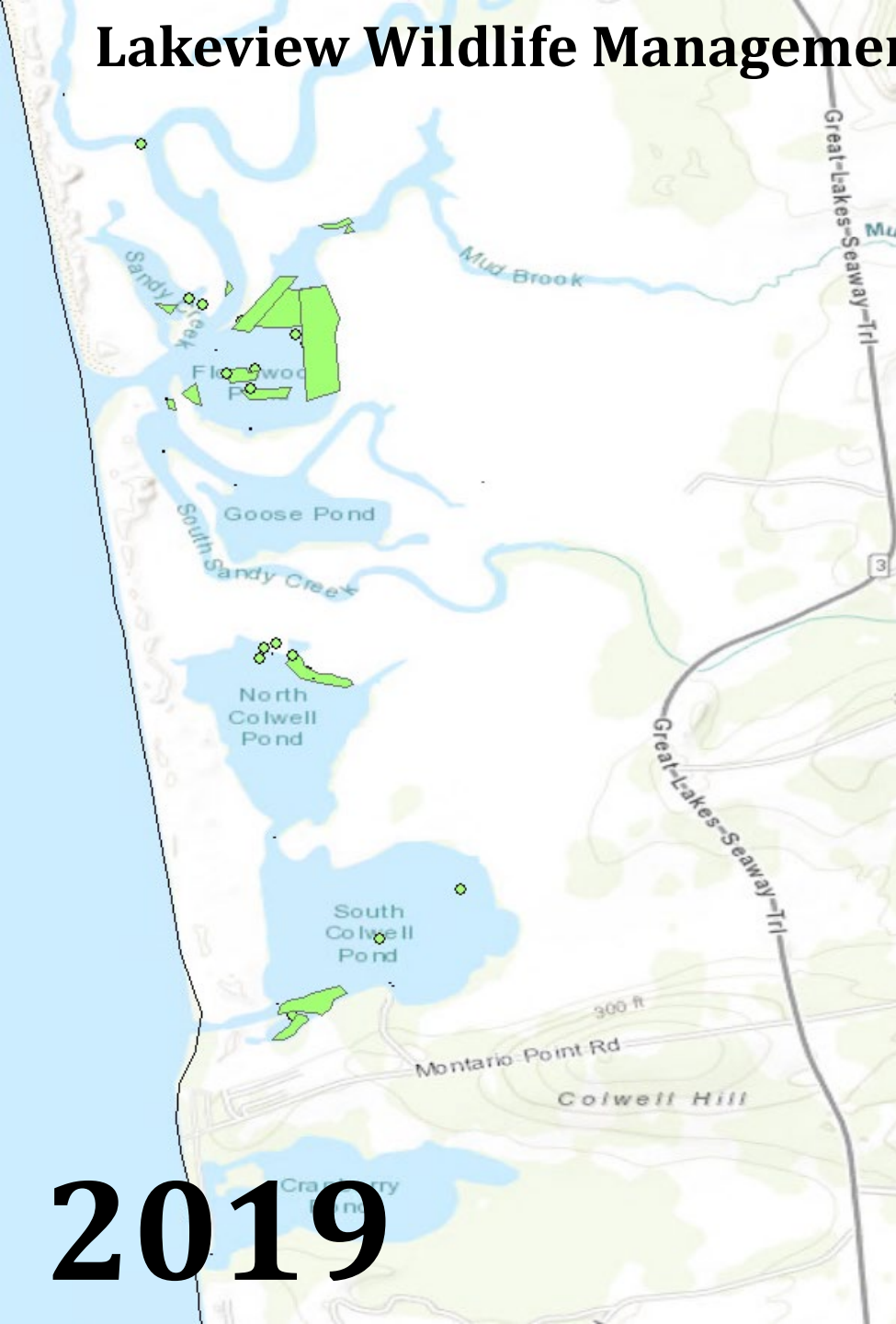


2013

Salmon River and Grindstone Creek

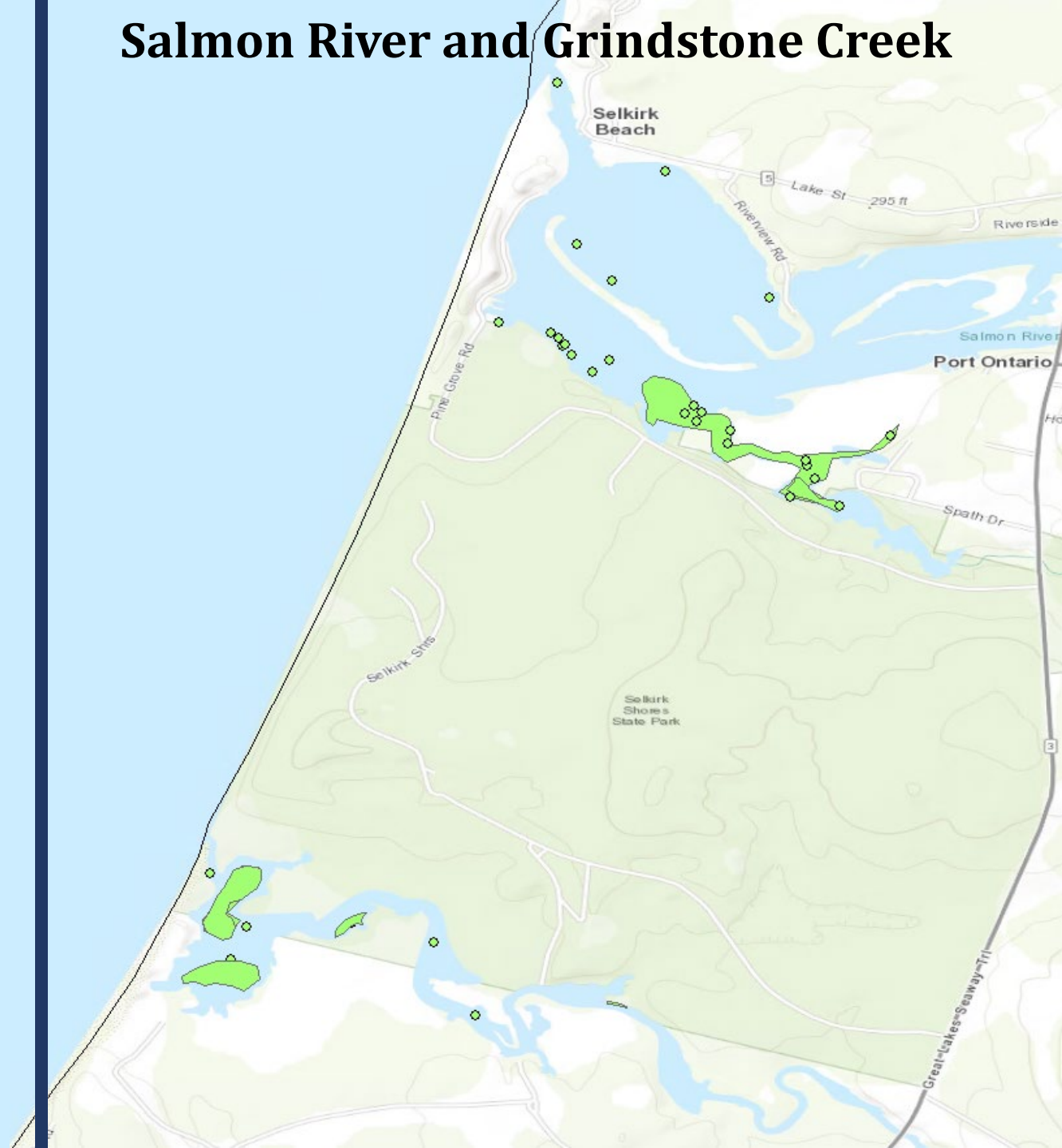


Lakeview Wildlife Management Area

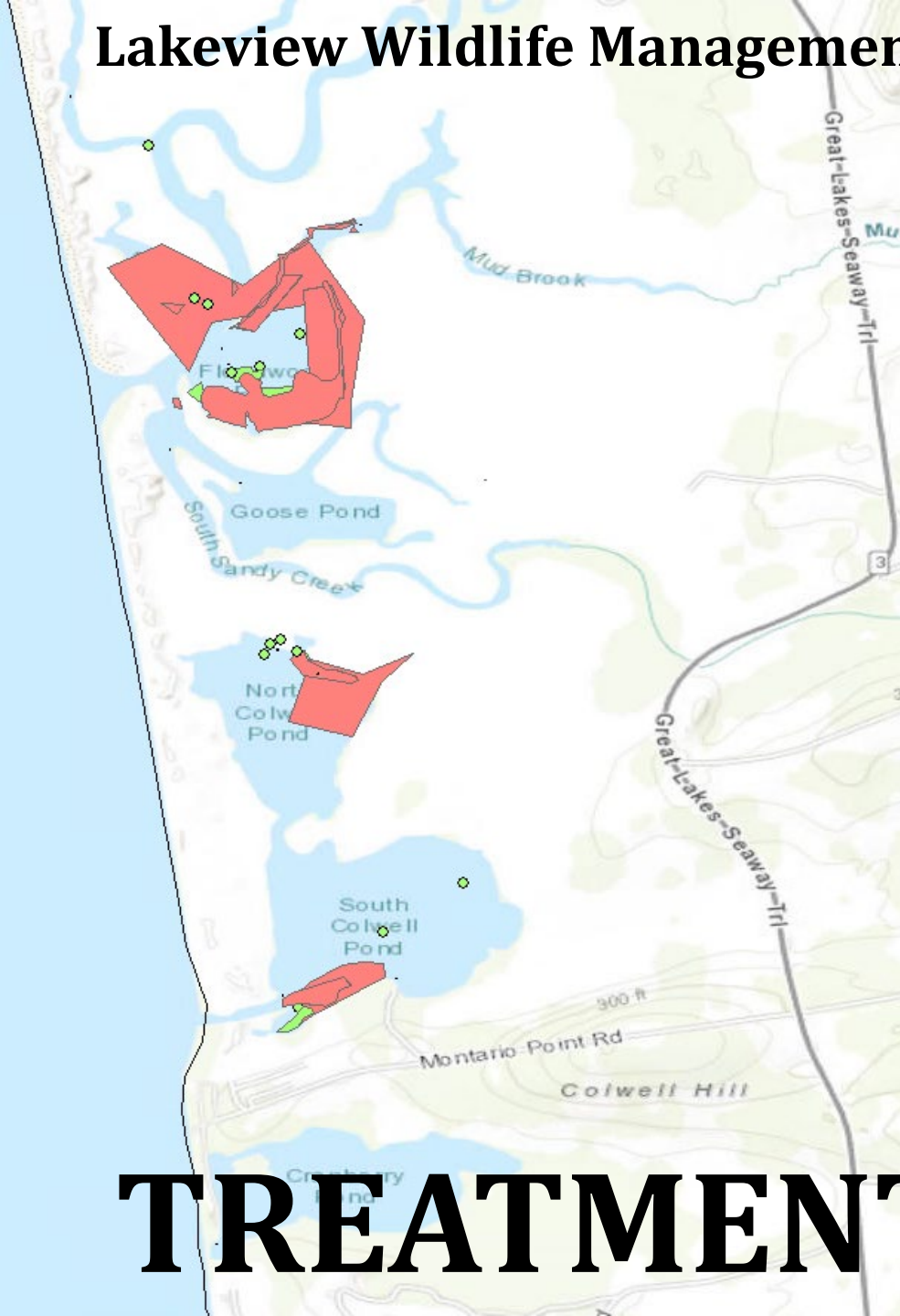


2019

Salmon River and Grindstone Creek

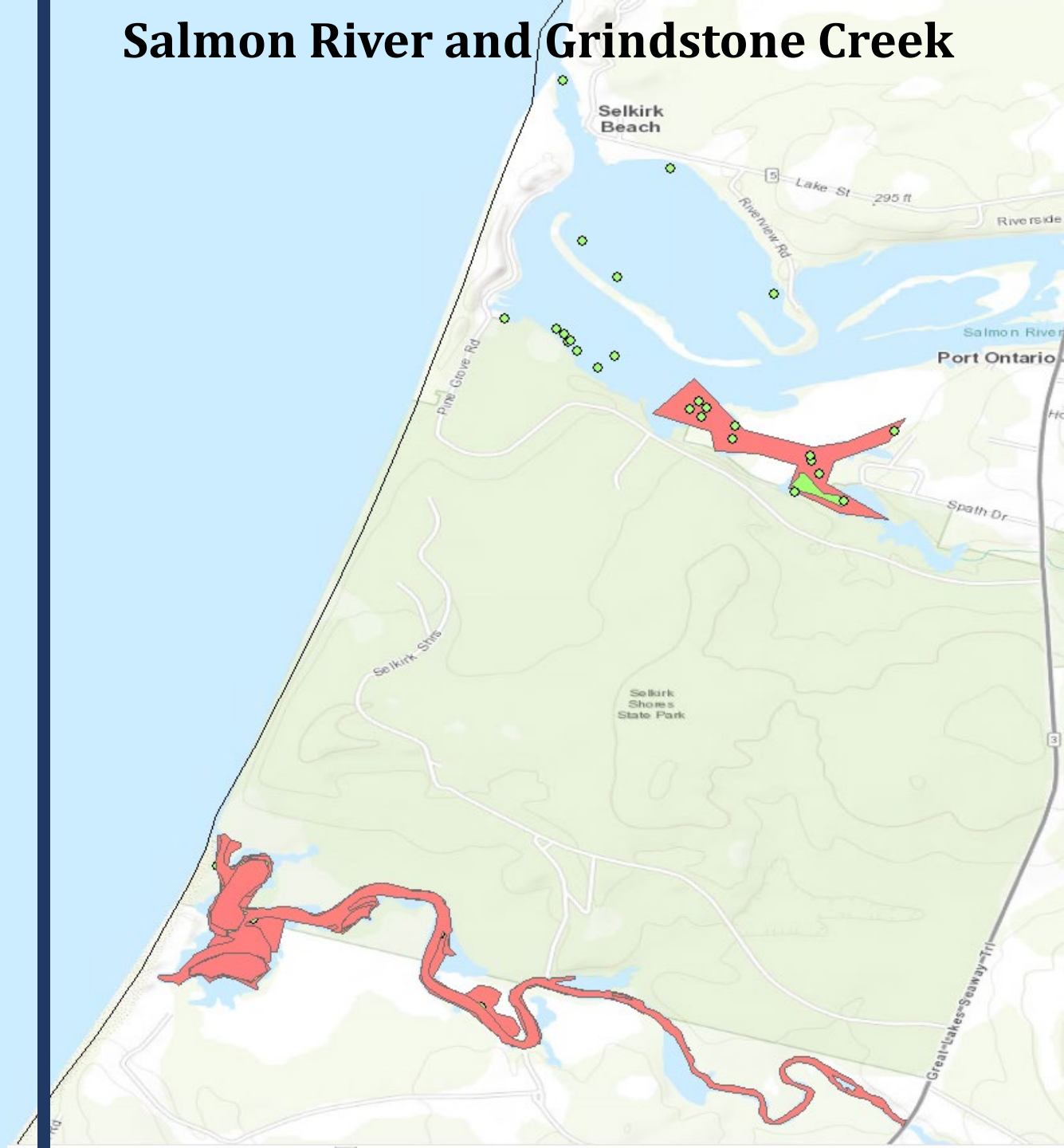


Lakeview Wildlife Management Area



TREATMENTS

Salmon River and Grindstone Creek





Survey123 for ArcGIS

My Surveys

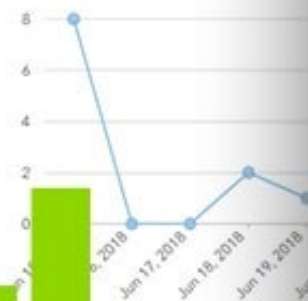
Help

Survey123 2018 World Cup

19

Total Records

Surveys Count: 19 (Total: 19)



Top Participants

User

Anonymous user

Jul 5
2018

Last Submitted On

6/15/18 - 7/19/18



Tree Survey

Inspection date:
Thursday, June 23, 2016

Tree ID:
As shown in tree tag if available

Tree location:
GPS coordinates can only be collected when in field

Health:

Good

Action required?

Yes

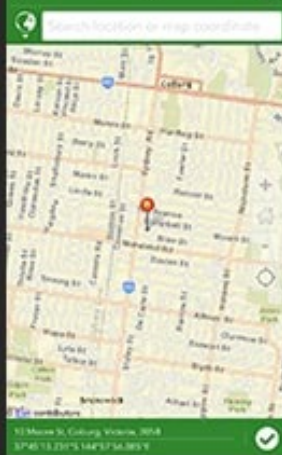
Action:

Trim

Target date for action:
Thursday, June 23, 2016

Photo

GPS





iMap3 - Forest Pest Data Collection

▼ Searched Area Fields

Site Name

Disturbance Type

Choose disturbance type.

☐ Natural

Disturbance Severity

Heavy Disturbance: Greatly reduced plan

Moderate Disturbance: Intact canopy and

Light Disturbance: Minimal disturbance to

No Disturbance: No soil disturbance, no s

☐

None

Native Vegetation Distribution

How is the native vegetation distributed?

☐ Subdominant

Landscape Type

☐ Lake/Pond

☐ Agricultural

☐ Forested

☐ Grassland

☐ Human Dominated

☐ Riparian

☐ Wetland

► Crew Details

► Weather Details

▼ Species Surveyed

Species: *

If no species are displayed, please ensure that either Scier

Hemlock Woolly Adelgid

Taxa Type:

Animal Insect

Detected / Not Detected: *

Was the species detected?

☐

Detected

► Species Polygon

► Not Detected Record Fields

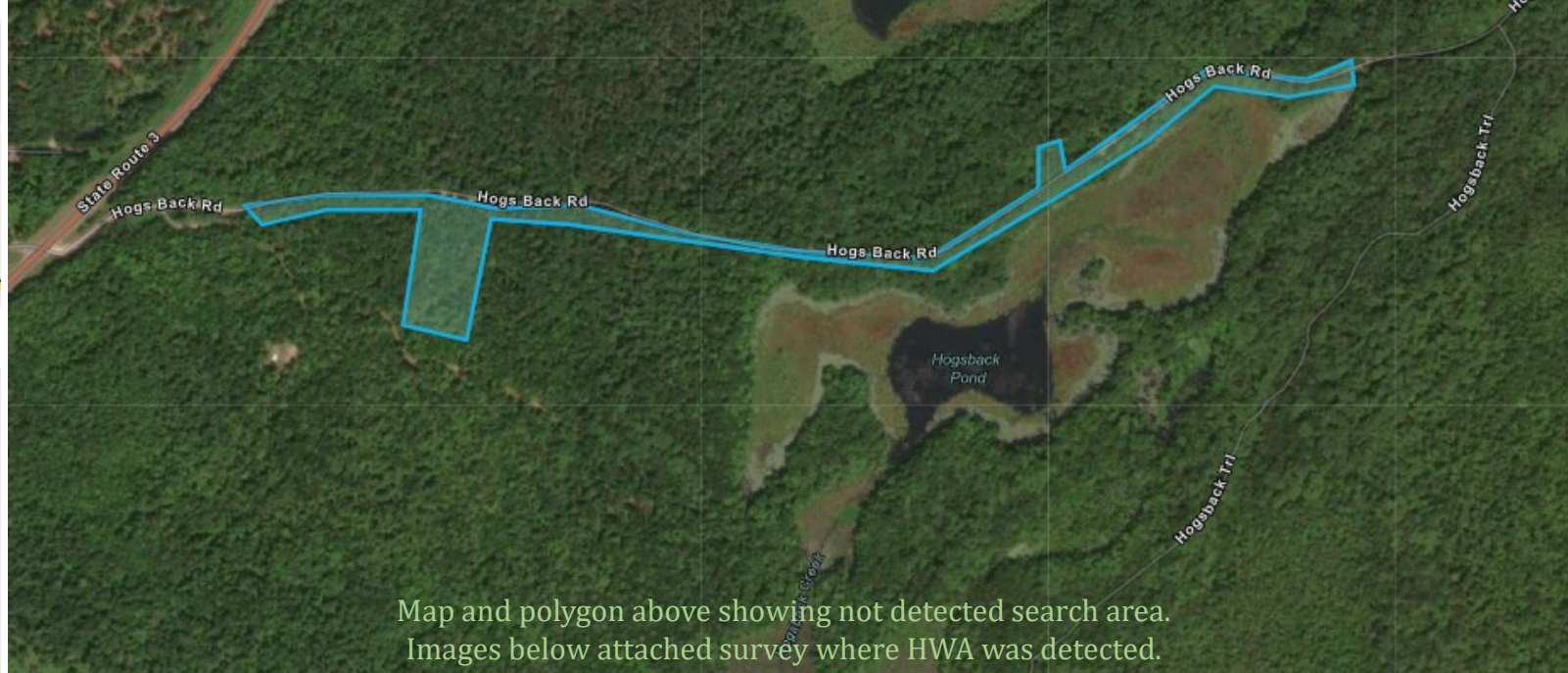


▼ Hemlock Prioritization Metrics

► Hemlock Stand Traits and Valu

► Hemlock Stand Characteristics

▼ Treatments Applied



▼ **Survey Methods**

General survey method

- ☐ Top water
- ☐ Underwater
- ☐ Dry land/shoreline

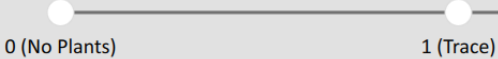
Specific survey method

- ☐ Benthic grab
- ☐ Electric shock
- ☐ Net - fishing
- ☐ Net - plankton

Survey method comments

Water Depth

Whole Rake Abundance *



▼ **Species detected on rake toss**

To add multiple species, tap the + icon at the lower right side of this section.

Species *

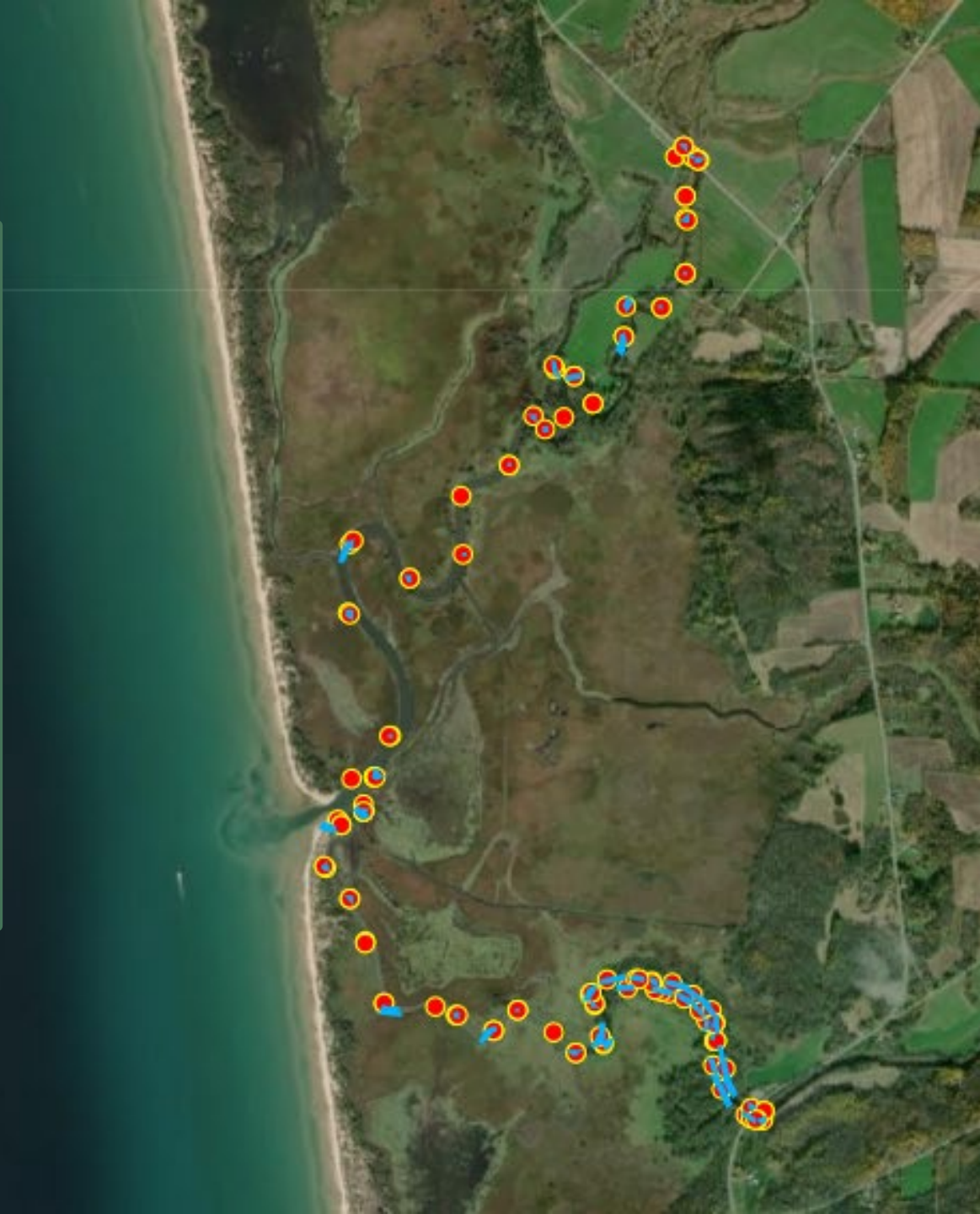
Please select a **Rake Toss Abundance Method** at the top of the survey form.

Present Species Comments

Image of Species



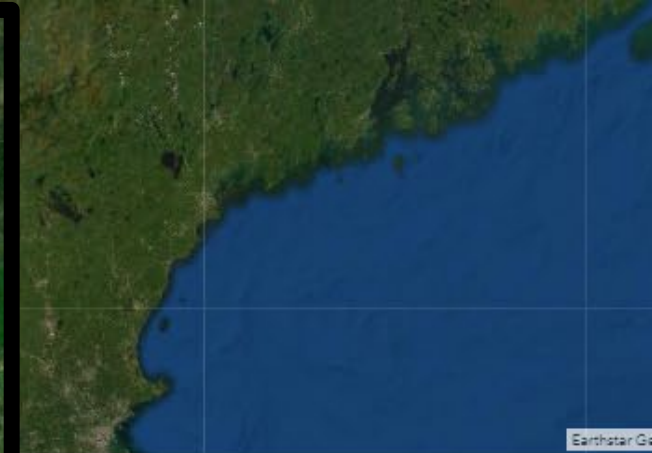
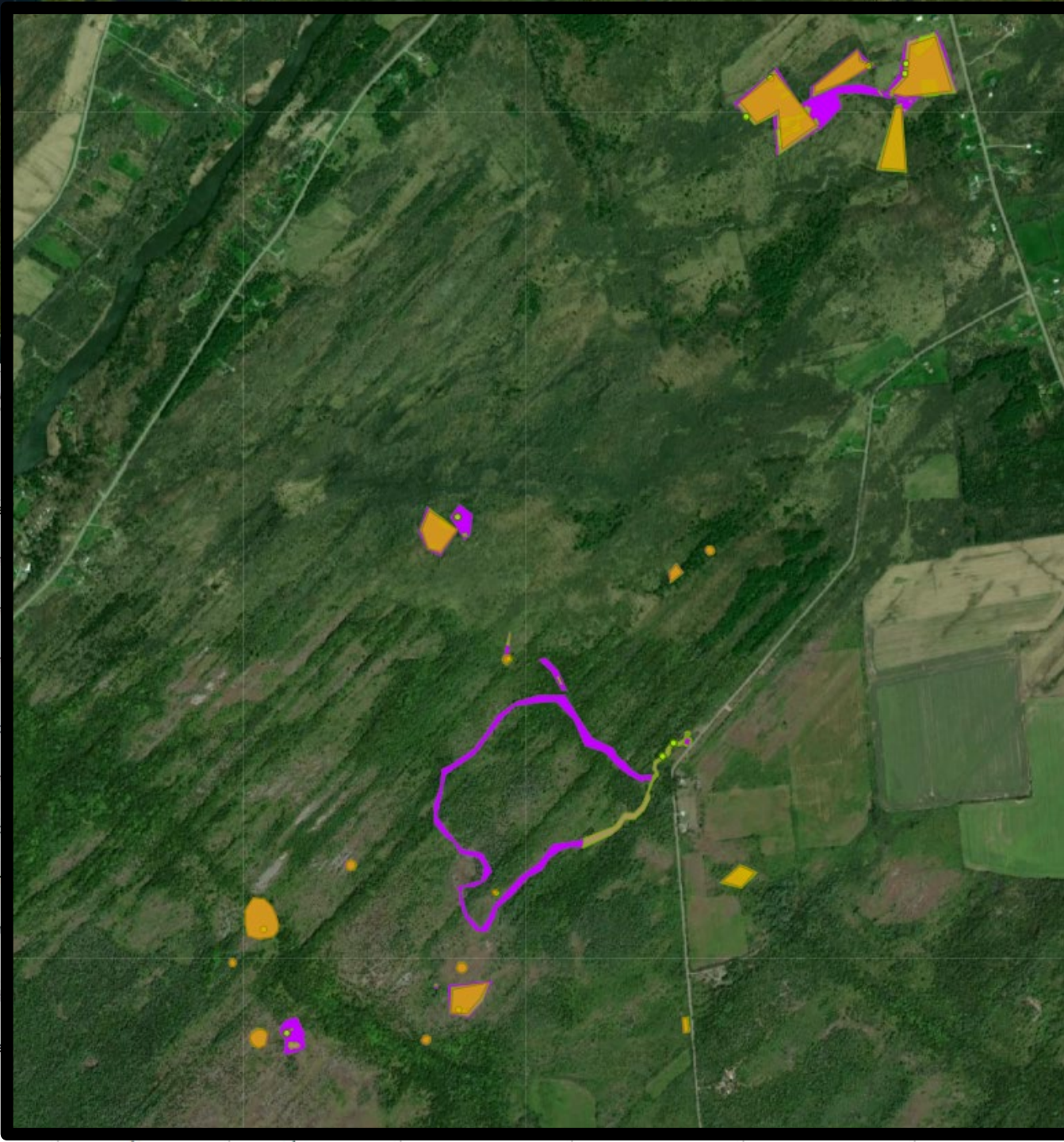
Add/Remove species records detected on this rake toss using the icons immediately below.





imap3 mobile advanced - Searched Area (Features: 320)

Organization ID	Date	Site Name
748	12/31/2019, 7:00 PM	Limerick Cedar
748	6/24/2020, 5:49 PM	Chaumont Barr New Site
748	6/22/2020, 11:42 AM	Chaumont Barr
748	6/23/2020, 8:45 AM	Chaumont Barr
748	6/24/2020, 12:36 PM	New Chaumont Barrens Site
748	6/24/2020, 2:02 PM	Chaumont Barr CB 3
748	6/24/2020, 3:54 PM	New Chaumont Barrens Site 2
748	6/24/2020, 4:19 PM	Updated Search CB12
748	6/25/2020, 8:58 AM	Deer Creek Ma WMA
748	6/25/2020, 3:46 PM	Deer Creek Par Area 4
748	6/25/2020, 4:20 PM	Japanese Barbe
748	6/25/2020, 4:22 PM	DCM Japanese Barberry



Native Vegetation Distribution	Site Address	Ownership
Dominant		
Dominant		
	Van Alstyne Rd	Public
Dominant		
Dominant		
Subdominant		Public
Dominant		Public

Networking! Volunteers!
Prioritization tools! Natural Resource Managers Use It!
Collaboration! **Research!** Assessments!
Early Detection is KEY! Awareness for management!
Mapping species distribution!
Agency/organization responses!
Sharing information! Citizen science!
Partnerships!

Final Messages:

It important to do this!

Contact Information:

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**INVASIVE SPECIES
MANAGEMENT**

SAINT LAWRENCE
EASTERN LAKE ONTARIO





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Questions & Open Discussion

