

 Cleveland Metroparks®  
**FIND YOUR PATH**

Ohio AIS Surveillance  
2/7/2023

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# Role

Site surveys

Detection and decontamination materials

Management



Connect agencies to resources

Collect and share detections

# ED Methods: State of Ohio

Opportunistic observations – ODNR staff trainings  
Specific districts may have expertise

No devoted staff for ED of Invasive Aquatic Plants

Contractors for in-depth surveys

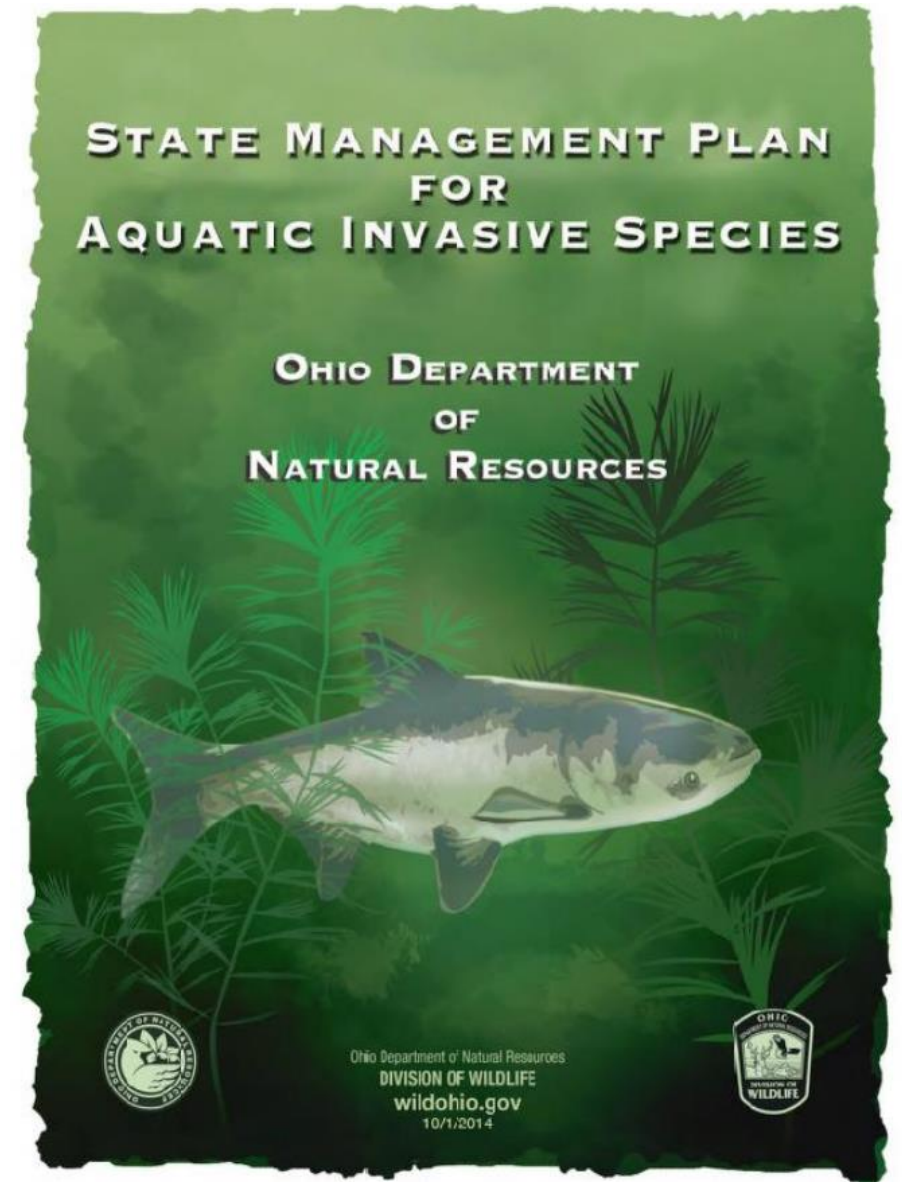
Coordinate & enable partners to conduct ED

Solicits reports from public – Mostly fish – No plants yet



Hold up your phone!

Links to Ohio AIS submission form



2014

# ED Methods: Cleveland Metroparks

## Goals

- Lake Erie watershed, primarily
- many waterbodies
- near known infestations
- public > private
- identify plants in field
- record data



Site Specific Approach  
Boat, kayak, wading, rake tosses

# ED Methods: Cleveland Metroparks

One FT coordinator, two seasonal surveyors

**Quick, meander surveys**

Increase rigor if priority IAP detected

**12 ft and shallower (max 30 ft)**

Rake Tosses at places of interest

Boat ramps, inflows, outflows, fishing piers, areas partners identify, backflows and oxbows, water control features



Site Specific Approach  
Boat, kayak, wading, rake tosses

Technique	Waterbody size	Pros	Cons
<b>Walking the banks (Visual assessment)</b>	<b>Small, isolated</b>	<b>Quick, field many questions from public</b>	<b>May not be able to walk entire margin, 20-30 ft reach only</b>
Wader survey	Small, shallow, tributaries, margins	Thorough, often observe species at small pop. sizes	Labor intensive, potentially hazardous
<b>Kayak</b>	<b>Medium (&lt;75 acres), nooks and crannies of large systems</b>	<b>Reach shallow areas, emergent plant zones</b>	<b>Fewer acres than boating, difficult to toss rakes</b>
Boating	Large (>75 acres)	many acres quickly	Set up and clean up lengthy, often borrowing boats - coordination



Rakes may/may not be included in each method

# Summary slide: ED methods



No devoted ED staff

**Opportunistic surveys**

Contractors for in-depth surveys

**Coordinate and enable others to survey**



Meander surveys with 3 staff

**Kayaks, wading > boat surveys**

Site-specific approach

**Prioritize points of human interaction\***  
**Areas near known infestations**

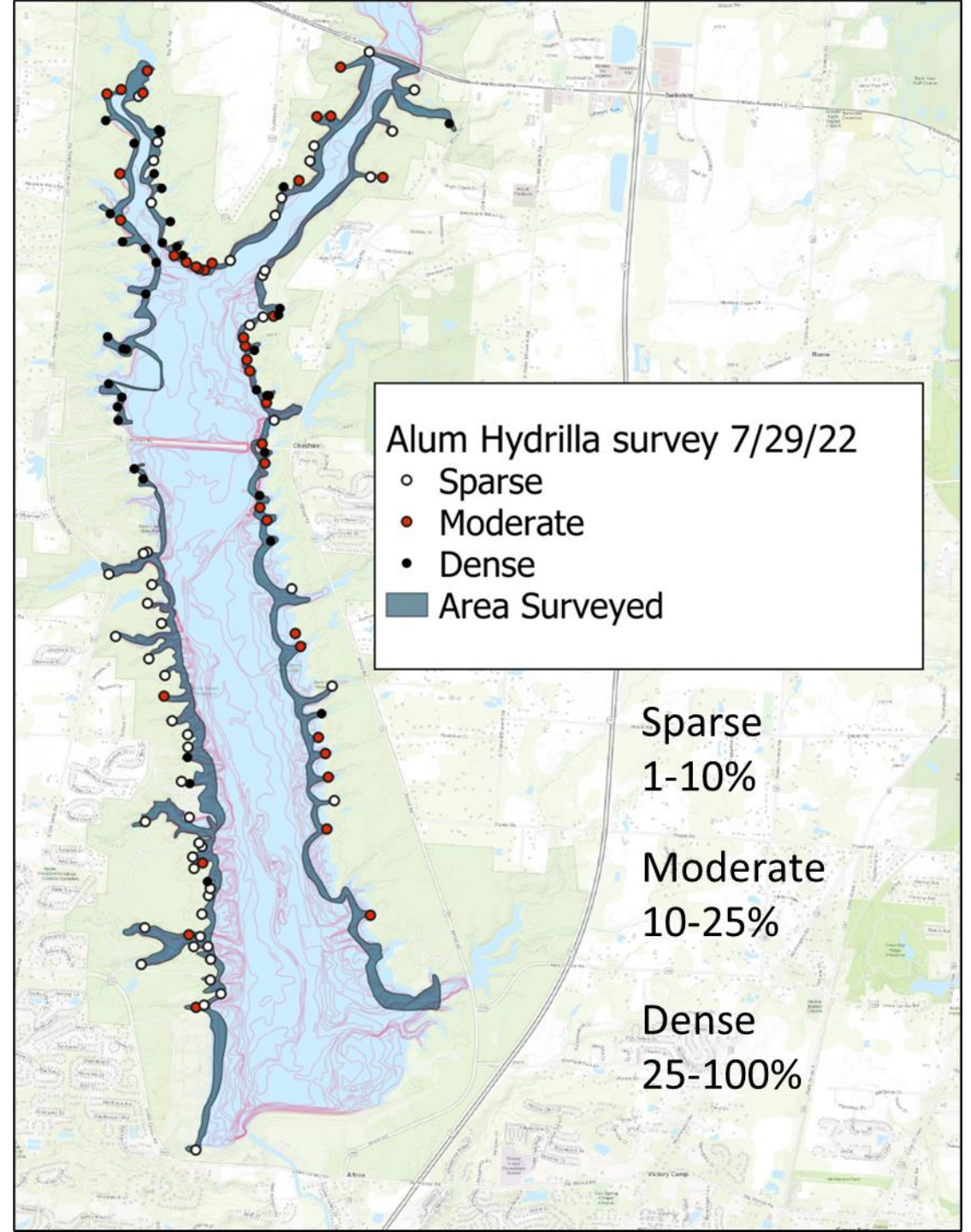
\*Boat ramps, inflows, outflows, fishing piers, areas partners identify, backflows and oxbows, water control features

Ohio DNR and Cleveland Metroparks cooperate on surveys

Alum Creek Lake 1-day, boat survey

3 boats, 11 people

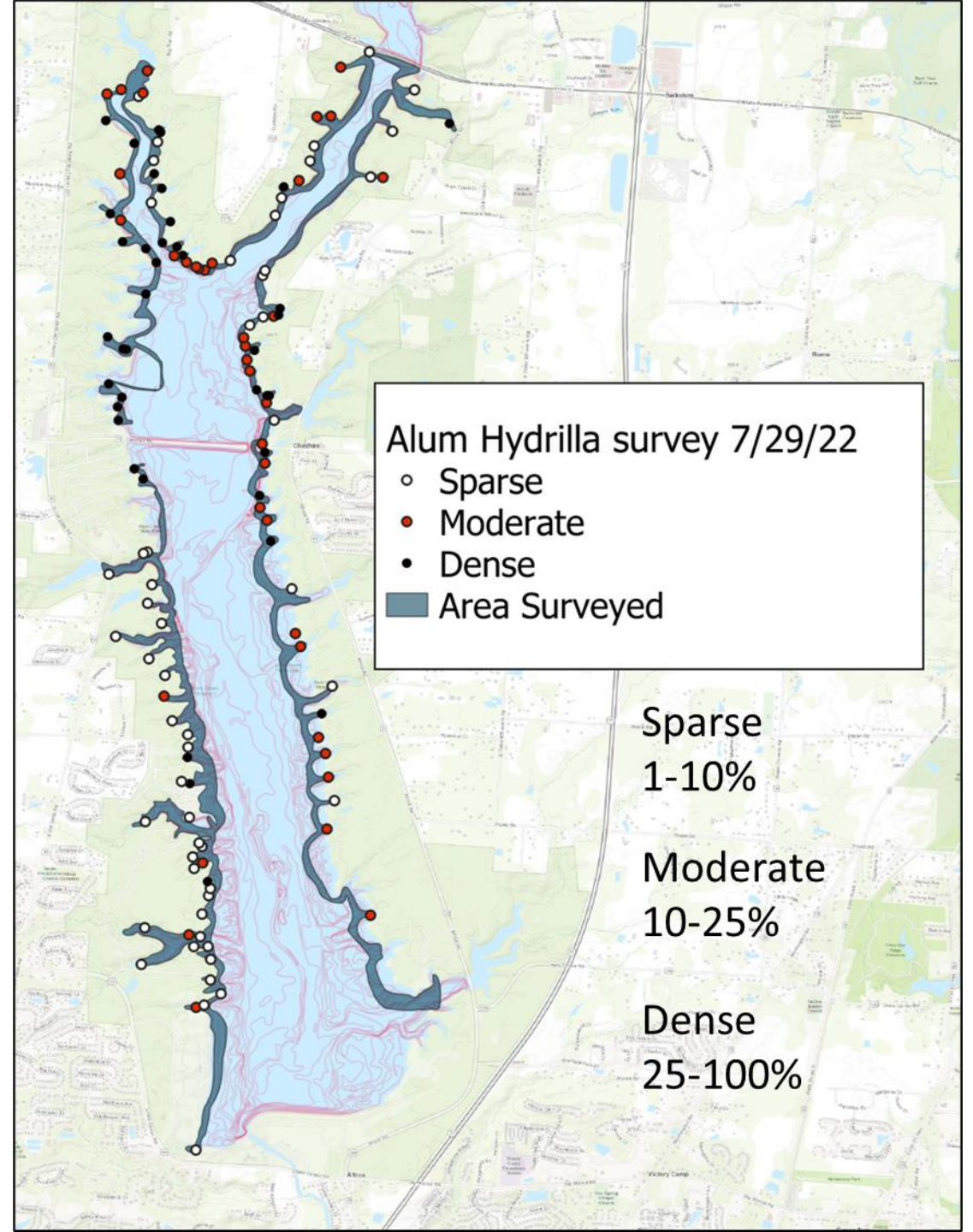
Reach shallow areas, develop management plan





Ohio DNR and Cleveland Metroparks cooperate on surveys

Great Lakes Landing Blitz did enable voluntary boat ramp inspections.



# Results & Outputs



Ohio AIS Committee

**Coordination among partners**

Agency training

**Reporting pathway**

Data from contractors



100 – 200 sites surveyed per year (1.5 – 3.5K acres)

**2 – 3 in depth surveys @ large waterbodies**

Plant lists w/ GPS data (natives too)

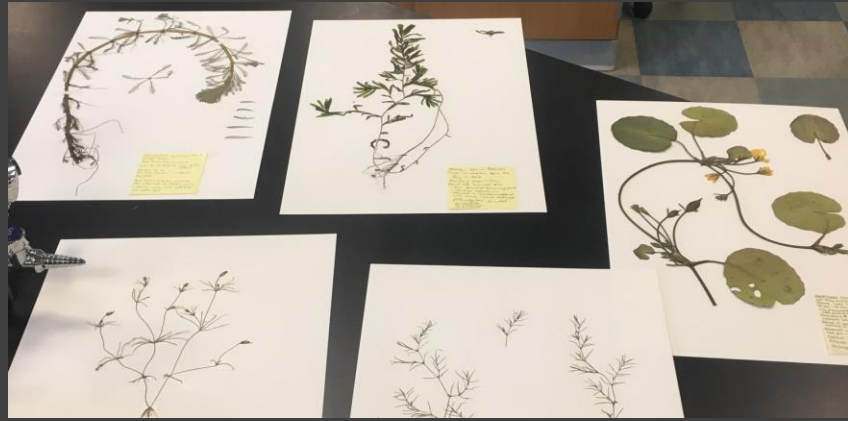
**Herbarium vouchers**

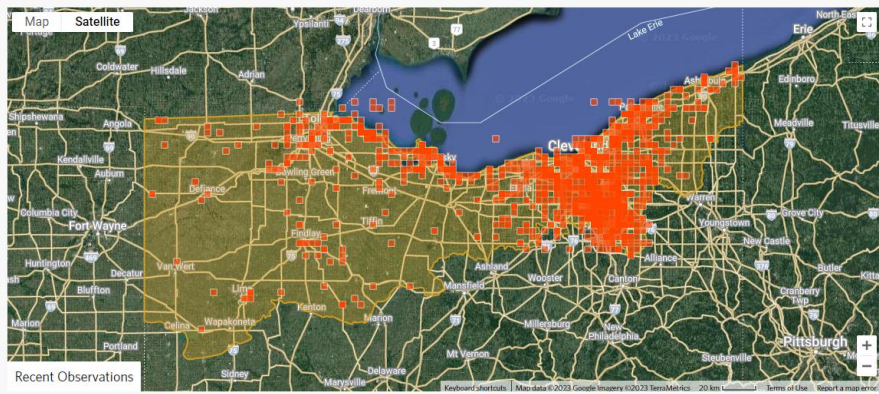
ED results submitted to USGS

**Photos of plants in habitat + nuisance populations**

Many records on **iNaturalist**

# Herbarium vouchers – can train your next crew





Aquatic Invasive Plant Survey (Lake Erie Basin)

About

Members 44

Collects information on the distribution and abundance of aquatic invasive species (AIS) in Ohio's Lake Erie basin. Funding for the coordination of this project comes from ODNR and USFWS via the Great Lakes Restoration Initiative.

Read More >

Your Membership

Edit Project

Project Journal

iNaturalist for showy species

- 1 – 5 heroic observations per year
- Low time investment
- May confirm growing season

Water Lettuce (*Pistia stratiotes*) ! Research Grade



1,195 observations

Observed: Sep 18, 2022 - 7:01 PM EDT

Submitted: Sep 18, 2022 - 7:18 PM EDT

North Chagrin Reservation (US-OH... Show Details

784 observations Purple Loosestrife ( <i>Lythrum salicaria</i> )	619 observations Common Reed ( <i>Phragmites australis</i> )	326 observations Yellow Iris ( <i>Iris pseudacorus</i> )	216 observations Reed Canary Grass ( <i>Phalaris arundinacea</i> )	174 observations Curly-leaf Pondweed ( <i>Potamogeton crispus</i> )
168 observations Flowering-Rush ( <i>Butomus umbellatus</i> )	151 observations Narrow-leaved Cattail ( <i>Typha angustifolia</i> )	122 observations Eurasian Water-Milfoil ( <i>Myriophyllum spicatum</i> )	111 observations Brittle Naiad ( <i>Najas minor</i> )	87 observations European Frog-Bit ( <i>Hydrocharis morsus-ranae</i> )
24 observations Water Fringe ( <i>Nymphaoides peltata</i> )	10 observations Hydrilla ( <i>Hydrilla verticillata</i> )	8 observations Water Lettuce ( <i>Pistia stratiotes</i> )	6 observations Brazilian Waterweed ( <i>Egeria densa</i> )	4 observations Parrot's Feather ( <i>Myriophyllum aquaticum</i> )

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# Summary: Ohio Results & Outputs

Heavy agency investment

**At least 20 ED kits in circulation**

Pathways for community observations

**Opportunistic/Incidental records, sporadic**

Absent records not yet shared with EDDMapS

**Annual AIS records to USGS NAS**

Contractors contribute



Early Detection and Decontamination kit

# Trade Offs

Agency support vs coordinating partners/citizens

**Few devoted agency staff**

Prioritize speed and sites over thorough surveys  
Multi-species (native) included add value

**Meander surveys vs point intercept**

Difficulties sharing data collection forms/format

**Building awareness = more reports?**



Representative of  
many surveys

# Outstanding questions

**Improve our methods with limited staff?**

Visit sites or perform thorough surveys?

**Engage other agencies?**

Which community data collection method is best?

**ED to rapid response:**

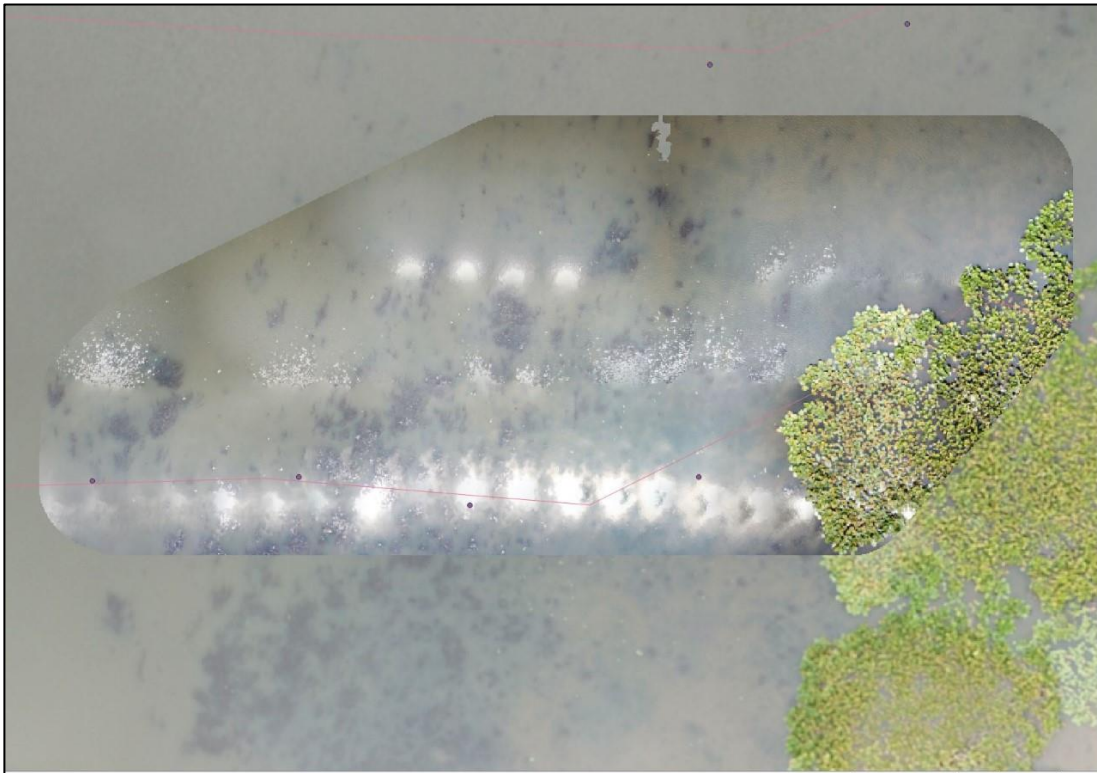
Year 1 - mobilize and qualitative

Year 2 – more capacity and quantitative



# Outstanding questions – remote detection

Great Lakes specific: eDNA, genetic testing labs, pricing, contracts  
(Off topic – independent herbicide residue lab)



Drone  
imagery

eDNA







Cleveland Metroparks®

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