MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Online Resources Available to Stream and Lake Monitoring Groups

Tamara Lipsey, Chris Vandenberg, Ryan Crouch,
Molly Rippke, Kevin Walters

Staff from Water Resources Division, EGLE

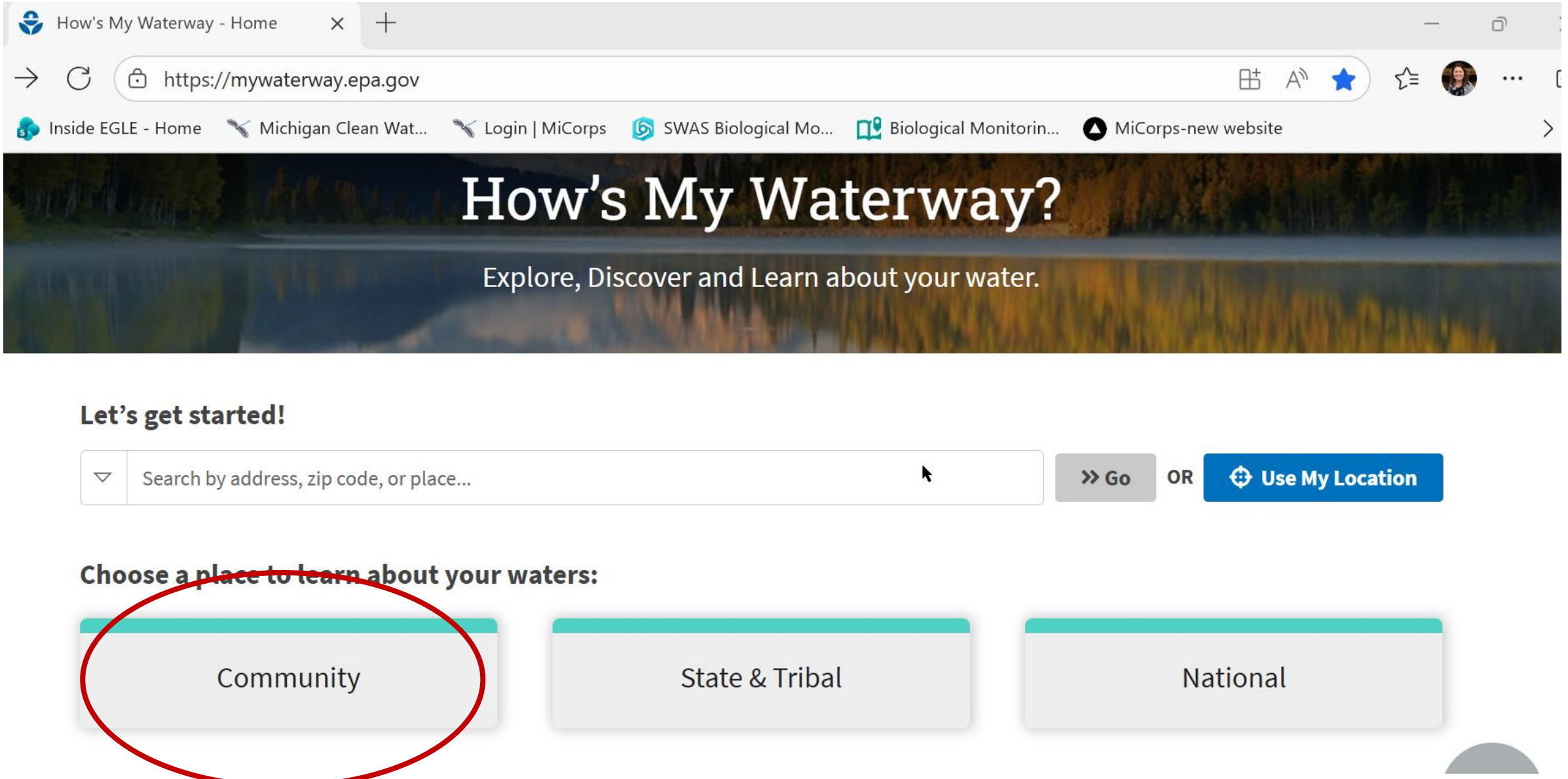
Tamara Lipsey, Aquatic Biology Specialist, MiCorps Program Lead
Water Resources Division
517.342.4372| lipseyt@michigan.gov

Outline

- How's My Waterway- Tamara Lipsey
- Biological Monitoring Story Map- Chris Vandenberg
- Lake Water Clarity Application- Chris Vandenberg
- EGLE Aquatic Nuisance Program Resources- Ryan Crouch
- E.coli Mapper- Molly Rippke
- Aquatic Invasive Species Resources- Kevin Walters

How's My Waterway

- https://mywaterway.epa.gov/
- EPA tool that helps users find information on the condition of their waters
- Can access via smart phone, tablet, or computer.
- Developed to help users find basic information about the condition of their waterways and provides easy access to EPA's public water quality information. Includes:
  - MiCorps Cooperative Lakes Monitoring Program water chemistry data
  - EGLE Water Resources Division data


How's My Waterway - Home
https://mywaterway.epa.gov
Inside EGLE - Home
Michigan Clean Wat...
Login | MiCorps
SWAS Biological Mo...
Biological Monitorin...
MiCorps-new website
How's My Waterway?
Explore, Discover and Learn about your water.
Let's get started!
Search by address, zip code, or place...
Go
OR
Use My Location
Choose a place to learn about your waters:
Community
State & Tribal
National

How's My Waterway - Community

https://mywaterway.epa.gov/community

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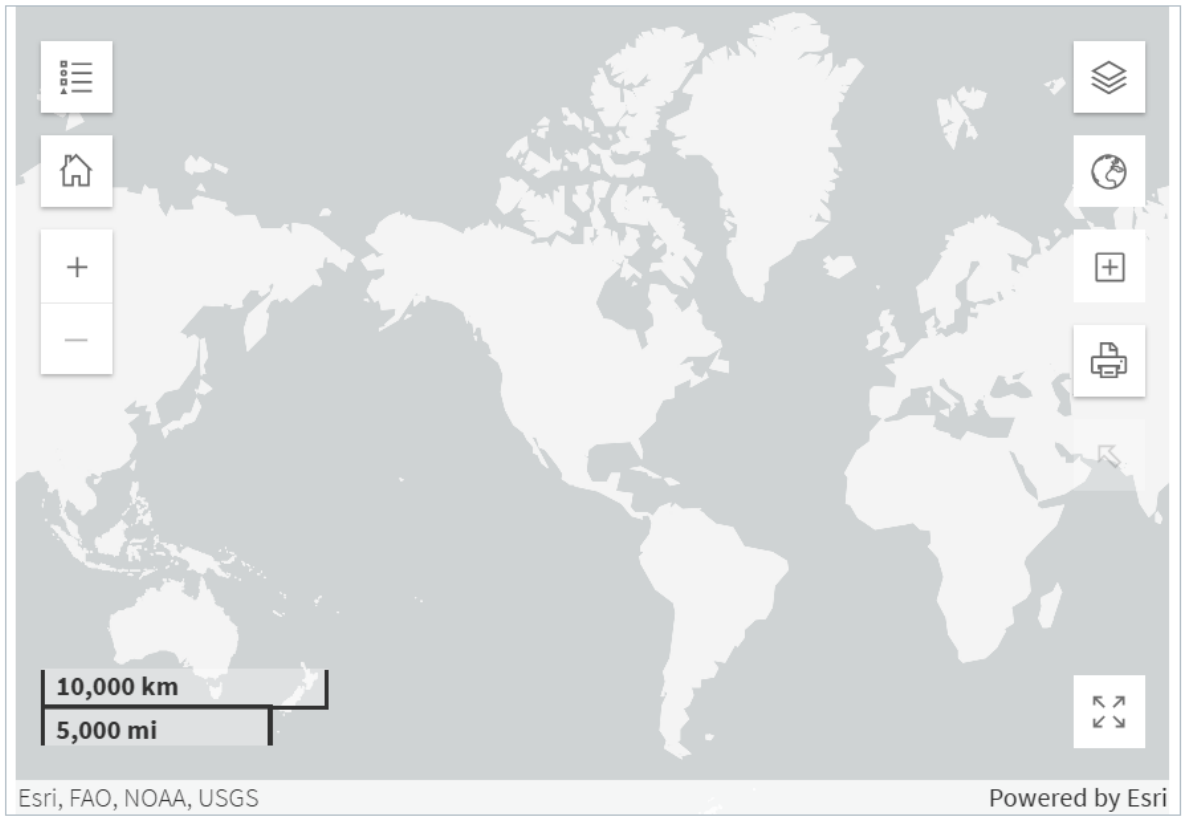


Explore Your Water

Enter a location in the search box to explore waters in your area and find out information about the following:

Overview

Swimming: EPA, states, and tribes monitor and assess water quality to keep you safe while swimming, wading, or boating.

Eating Fish: EPA, states, and tribes monitor and assess water quality to determine if fish and shellfish are safe to eat.

Aquatic Life: EPA, states, and tribes monitor and assess water quality to determine the impact of impairments on plants and animals living in the water.

Drinking Water: Who provides drinking water in your community?

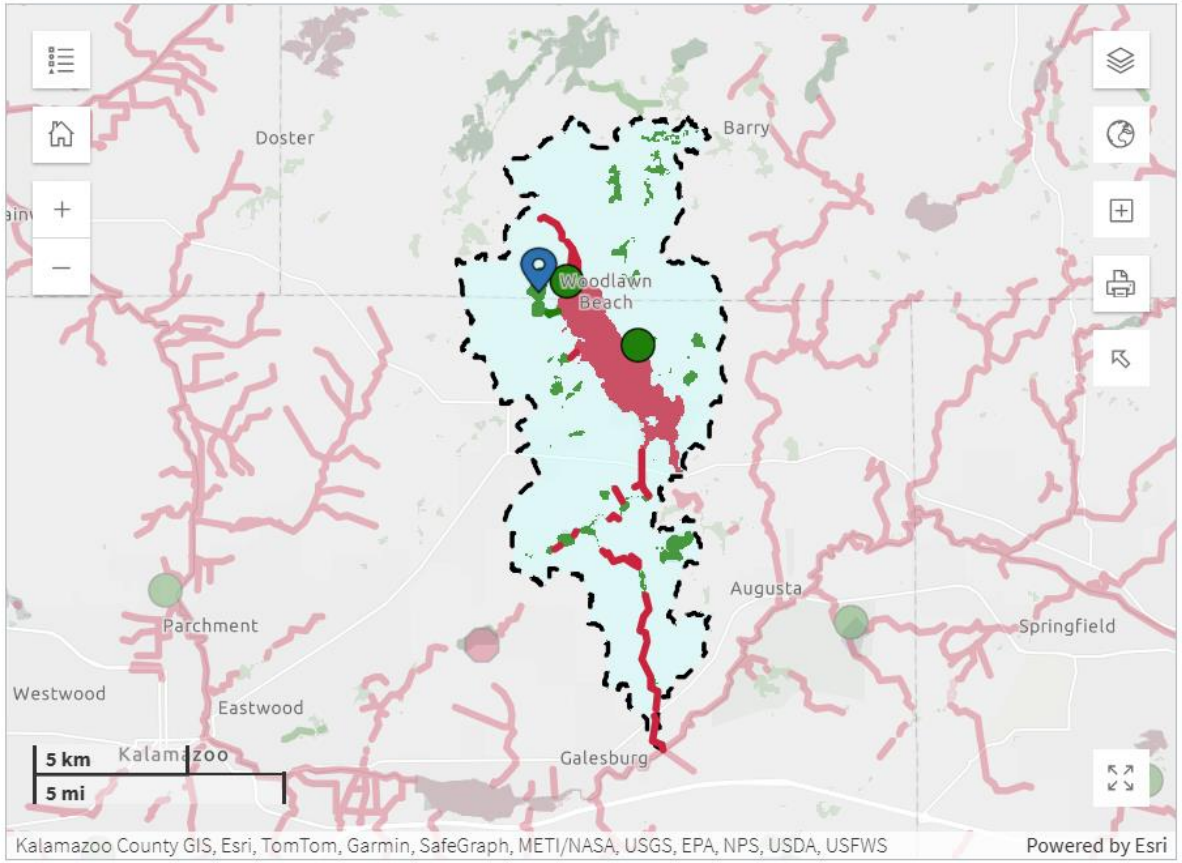
https://mywaterway.epa.gov/community/little%20long%20lake,%20mi/overview

Inside EGLE - Home | Michigan Clean Wat... | Login | MiCorps | SWAS Biological Mo... | Biological Monitorin... | MiCorps-new website

Let's get started!

little long lake, mi

» Go OR Use My Location



SIZE: 24,011 acres / 97.17 km^2

Overview | Swimming | Eating Fish | Aquatic Life | Drinking Water | Water Mc

Overview

Show Text

Your Waters: What We Know

Waters in your community are connected within a local watershed. The **dashed outline on the map shows your watershed.**

Water quality is monitored for physical, chemical and biological factors. The monitoring results are assessed against EPA approved water quality standards or thresholds. Water can be impaired, meaning it is not able to be used for certain purposes.... Show more

DISCLAIMER

9	48	2
Waterbodies	Water Monitoring Locations	Permitted Dischargers

Waterbodies | Water Monitoring Locations | Permitted Dischar

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Let's get started!

little long lake, mi

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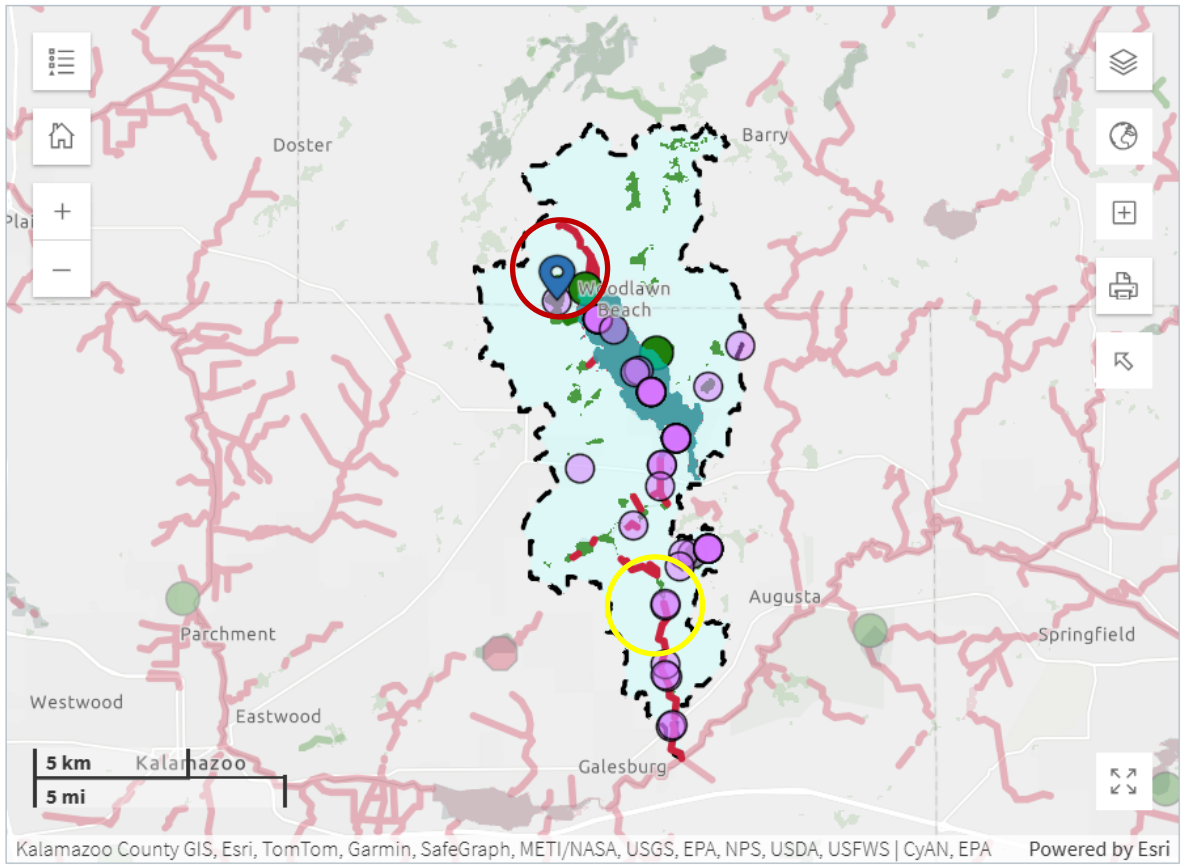

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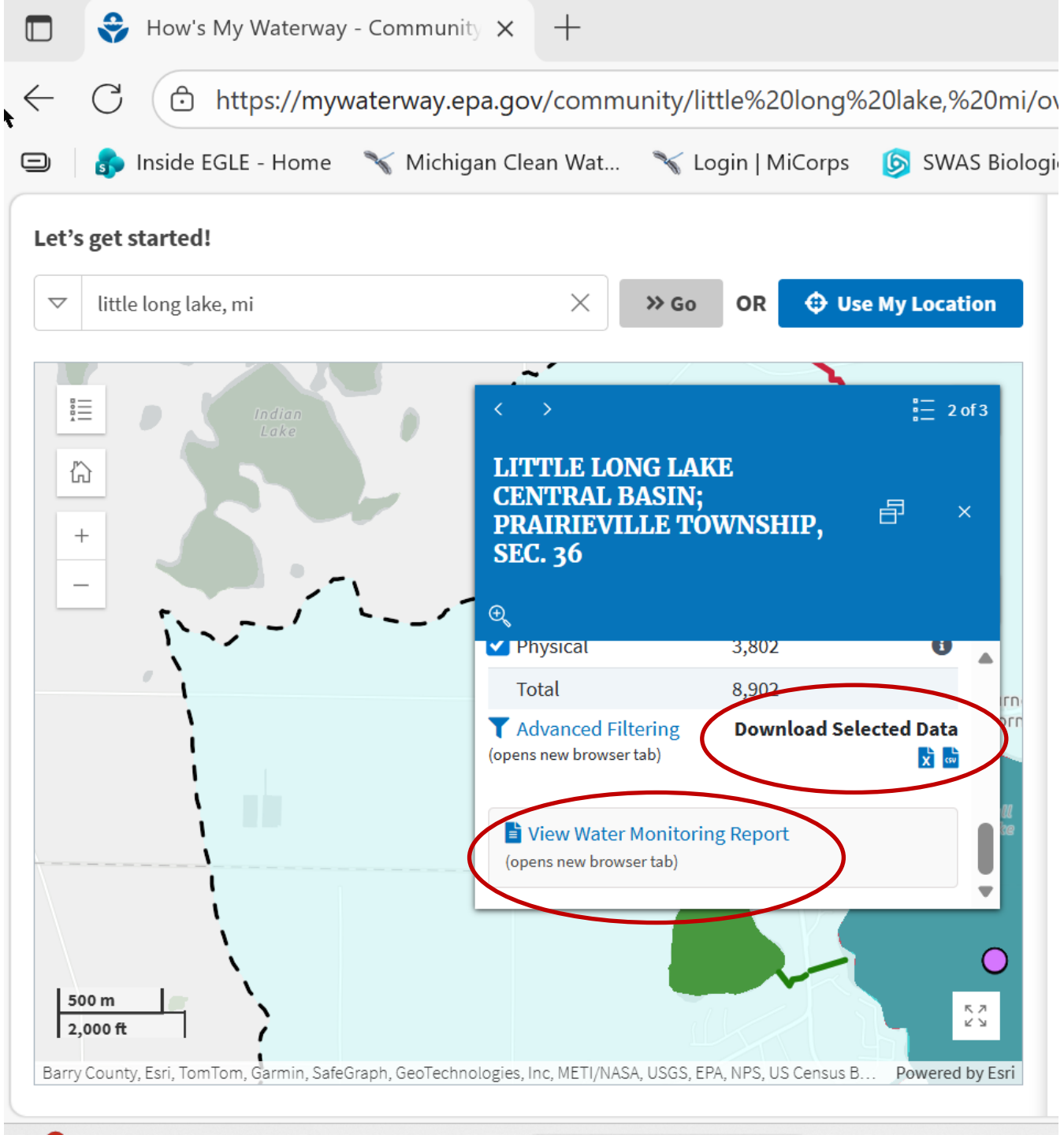
How's My Waterway - Community
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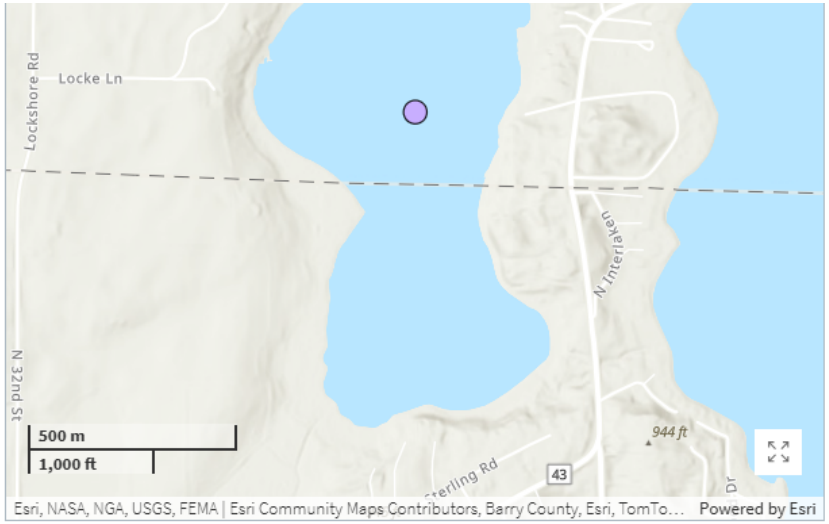
Michigan Clean Wat...
Login | MiCorps
SWAS Biologi
Let's get started!
little long lake, mi
» Go
OR
Use My Location
Indian Lake
2 of 3
LITTLE LONG LAKE CENTRAL BASIN; PRAIRIEVILLE TOWNSHIP, SEC. 36
Physical 3,802
Total 8,902
Advanced Filtering
(opens new browser tab)
Download Selected Data
View Water Monitoring Report
(opens new browser tab)
500 m
2,000 ft
Barry County, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census B...
Powered by Esri



Download Data

2009 — 2023

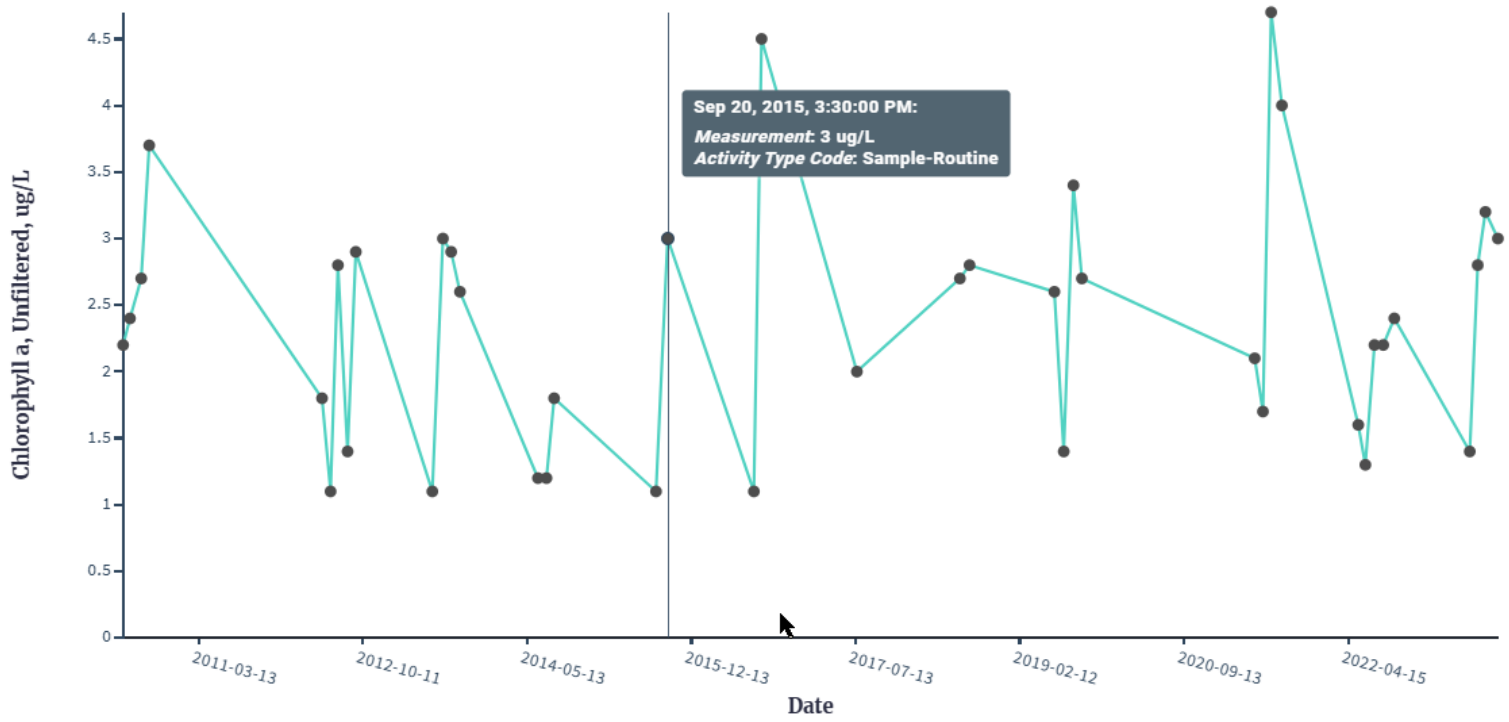
2009 2013 2017 2021 2023

	Characteristic Groups	Number of Measurements
☑ Toggle All	Expand All	
☑	Biological, Algae, Phytoplankton	57
☑	Information	2,096
☑	Not Assigned	2,921

2010 — 2023

2010 2014 2018 2022 2023

Unit: ug/L | Sample Fraction: Unfiltered | Media Name: Water | Scale Type: Linear / Log | Chart Type: Scatter Plot, Line Graph



DISCLAIMER

Measurement Statistics

MiCorps
Monitoring Michigan's Water Quality
www.micorps.net

@MiCorps

Instagram
micorpsmi

Tamara Lipsey, MiCorps Program Lead
Water Resources Division, EGLE
517.342.4372| lipseyt@michigan.gov

EGLE

Biological Monitoring of Michigan's Rivers and Streams StoryMap **Online Demonstration**

Chris Vandenberg
Water Resources Division
517-342-4543| vandenbergc@Michigan.gov

Michigan Lake Water Clarity Dashboard
Online Demonstration

Chris Vandenberg
Water Resources Division
517-342-4543| vandenbergc@Michigan.gov

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Aquatic Nuisance Control Program Update

Ryan Crouch

Water Resources Division

517-388-7139 | CrouchR1@Michigan.gov

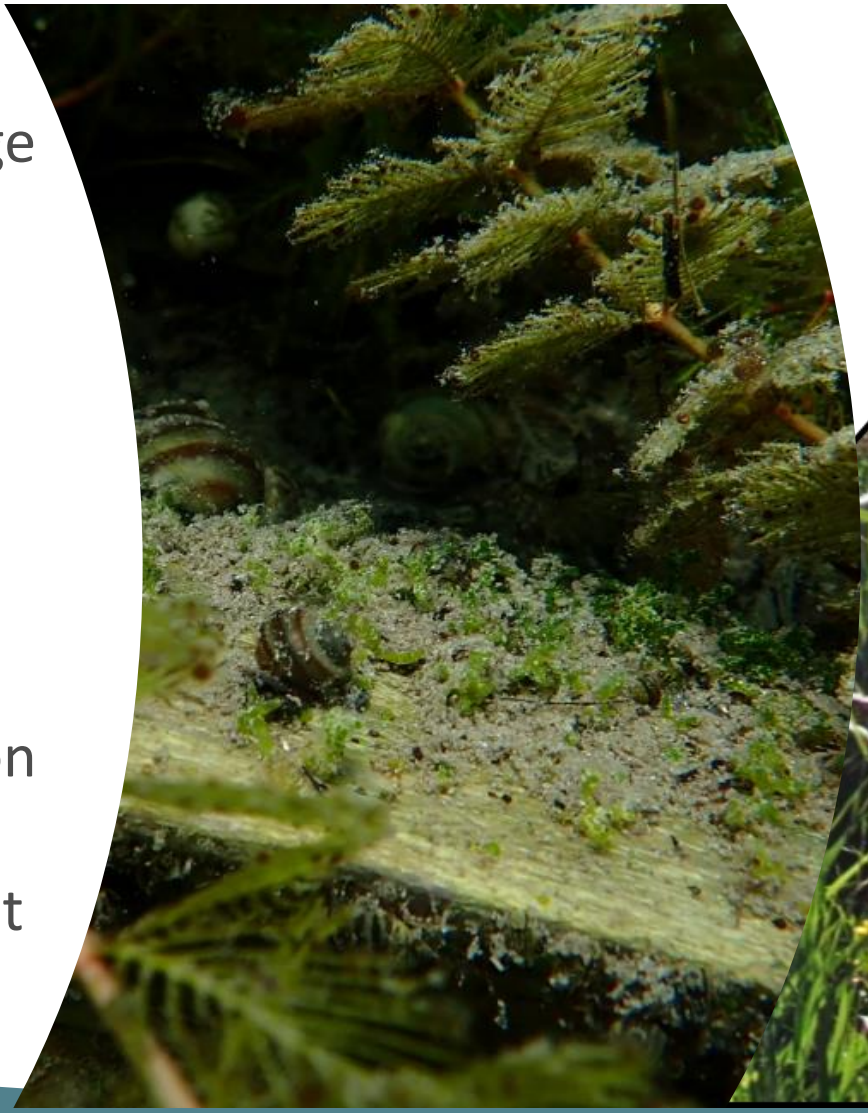
Aquatic Nuisance Control (ANC) Permitting

- Water Quality and Aquatic Nuisance Control Permits Unit
- 5 Staff based in Lansing
- ANC permits use of pesticides to treat
  - Invasive species
  - Nuisance aquatic plants
  - Algae
    - PART 33, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA)
    - www.mi.gov/anc under Aquatic Nuisance Laws & Rules
- Permits are written to treat nuisance plants, algae, and invasive species
- Protect water quality and aquatic life

EGLE

Area of responsibility

- Projects spans from large inland lakes to small backyard ponds
  - Standard and Individual Permits
  - General Permits for specific projects
    - Ponds
    - Marinas/Canals on Great Lakes
    - Invasive Emergent Species



ANC Program Staff

Please use the telephone rotation schedule unless your call is related to an issue you have been addressing with a specific staff member. If necessary, leave a voice mail message for the person covering the telephones for that day; returning your call is his/her top priority for the day. EGLE's Aquatic Nuisance Control main telephone number is 517-284-5593.

If changes to the schedule are necessary, the voice mail of the scheduled person will direct callers to the appropriate alternate staff person.

General email address: EGLE-WRD-ANC@Michigan.gov. The email address should be used as you would the telephone rotation schedule. The person covering telephones on a given day will also be checking the email and is responsible for responding to you.

Staff	Position	Phone Number	Email Address
Joshua Allison	Unit Secretary	517-243-7260	AllisonJ6@Michigan.gov
Eric Bacon	Monday Coverage	517-331-5223	BaconE1@Michigan.gov
Lisa Huberty	Tuesday Coverage	517-331-5226	HubertyL@Michigan.gov
Mark Huffsmith	Wednesday Coverage	517-388-7138	HuffsmithM@Michigan.gov
Ryan Crouch	Thursday Coverage	517-388-7139	CrouchR1@Michigan.gov
Blake Cahill	Friday Coverage	517-331-6393	CahillB@Michigan.gov

FAQ: Aquatic Nuisance Control

Michigan.gov/egle/faqs/water-quality-protection/aquatic-nuisance-control

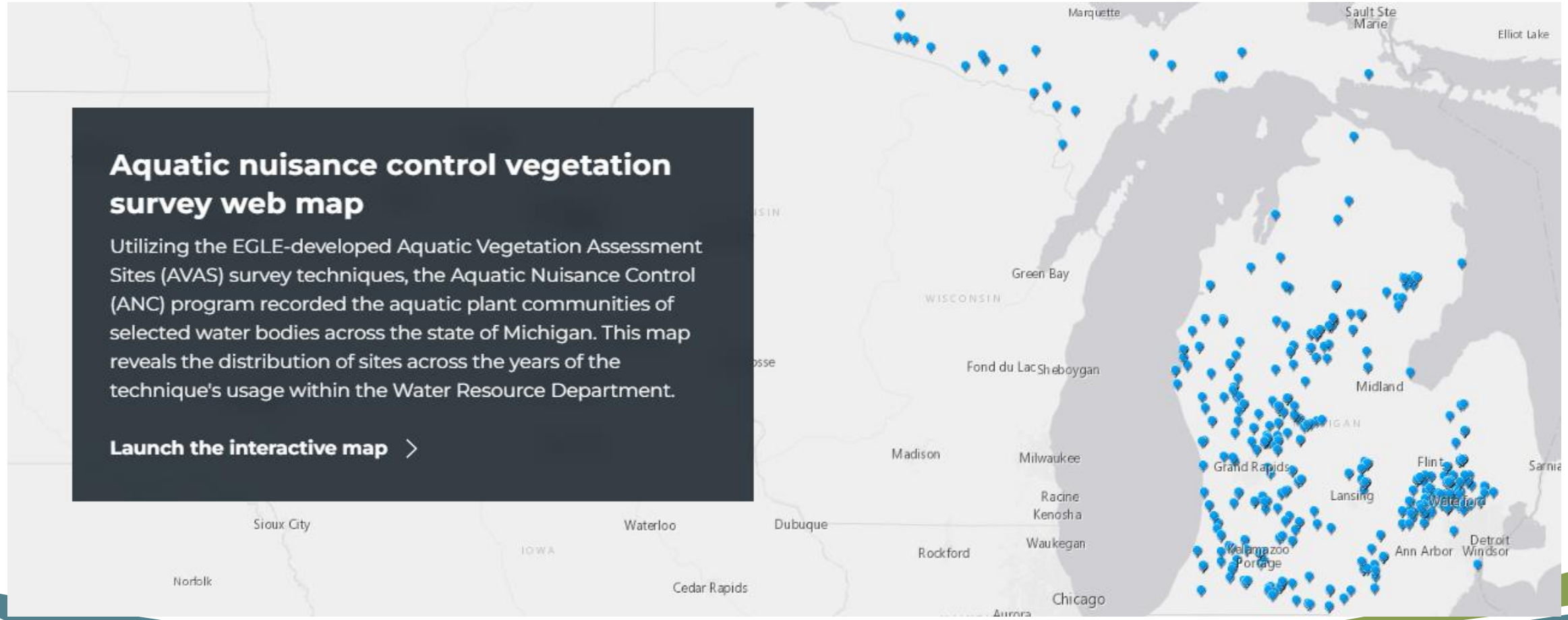
- Do I need a permit to control aquatic vegetation on my property?
- Who do I contact for permits for lake digging, dredging, and/or beach grooming?
- What is a General Permit and Certificate of Coverage?
- How long do the permits last?
- May I apply chemicals myself, or do I need to hire a certified applicator?
- If I decide to hire a contractor, where can I find a list of licensed pesticide applicators?
- What happens if I treat without a permit or violate my permit?
- How can I find information about permit applications and in-effect permits for a specific waterbody?

EGLE

ANC Survey GIS Map

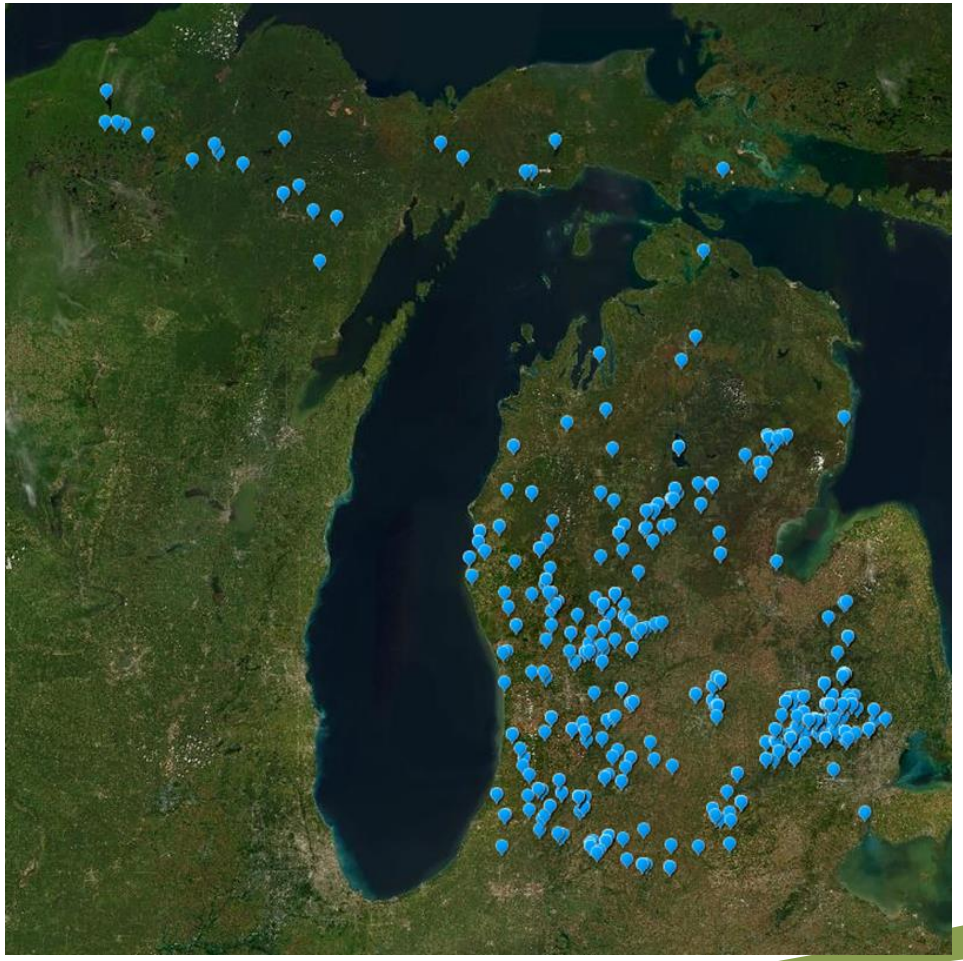
- Statewide map of vegetation surveys conducted by or sent to ANC by other surveyors (consultants, researchers, etc.)
- Link to map portal posted on Michigan.gov/ANC (scroll to middle of webpage)

ANC Survey GIS Map



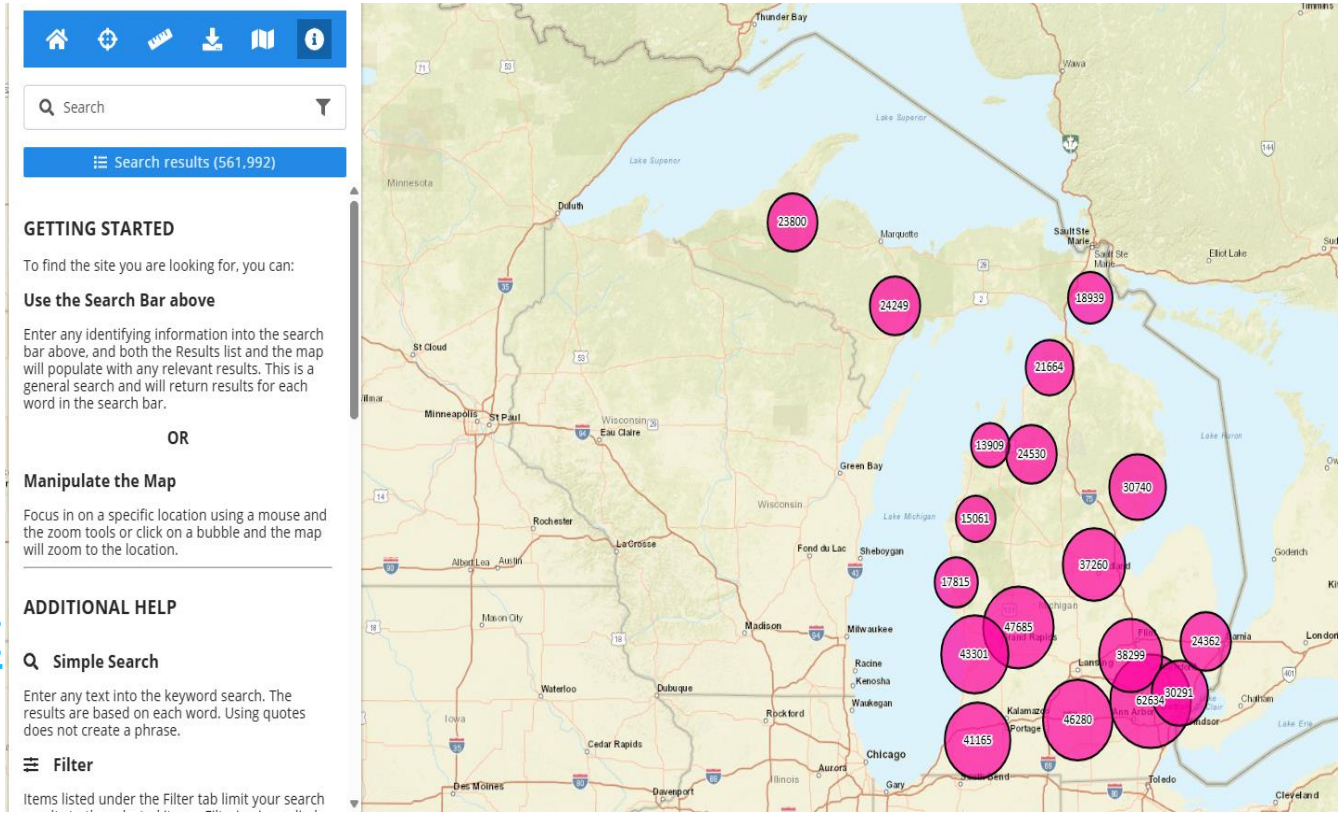
ANC Survey GIS Map

- Shows not just where surveys have been conducted but also how many surveys over the years
- Help to find actual survey data through MiEnviro Site Explorer where it is stored



MiEnviro Site Explorer Portal

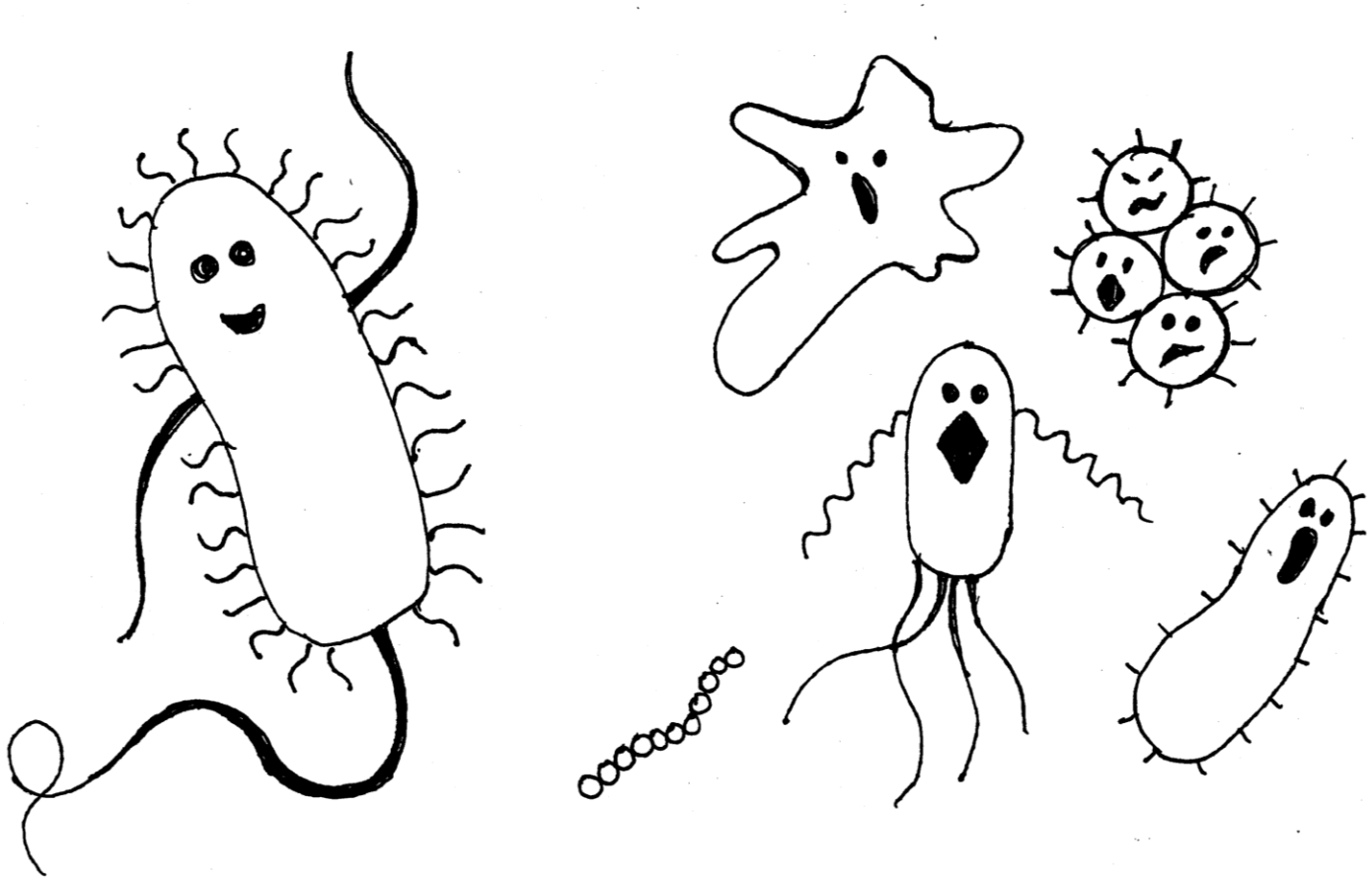
- How to view public information related to Water Resources Permits in Michigan
- Michigan.gov/egle/maps-data/mienviroportal/site-map-explorer (User Guidance)
- https://www.youtube.com/watch?v=n6_rT3BfySU (Training Video



E. coli Pollution and Solution Mapper

Molly Rippke (rippkem@michigan.gov)

www.Michigan.gov/Ecoli

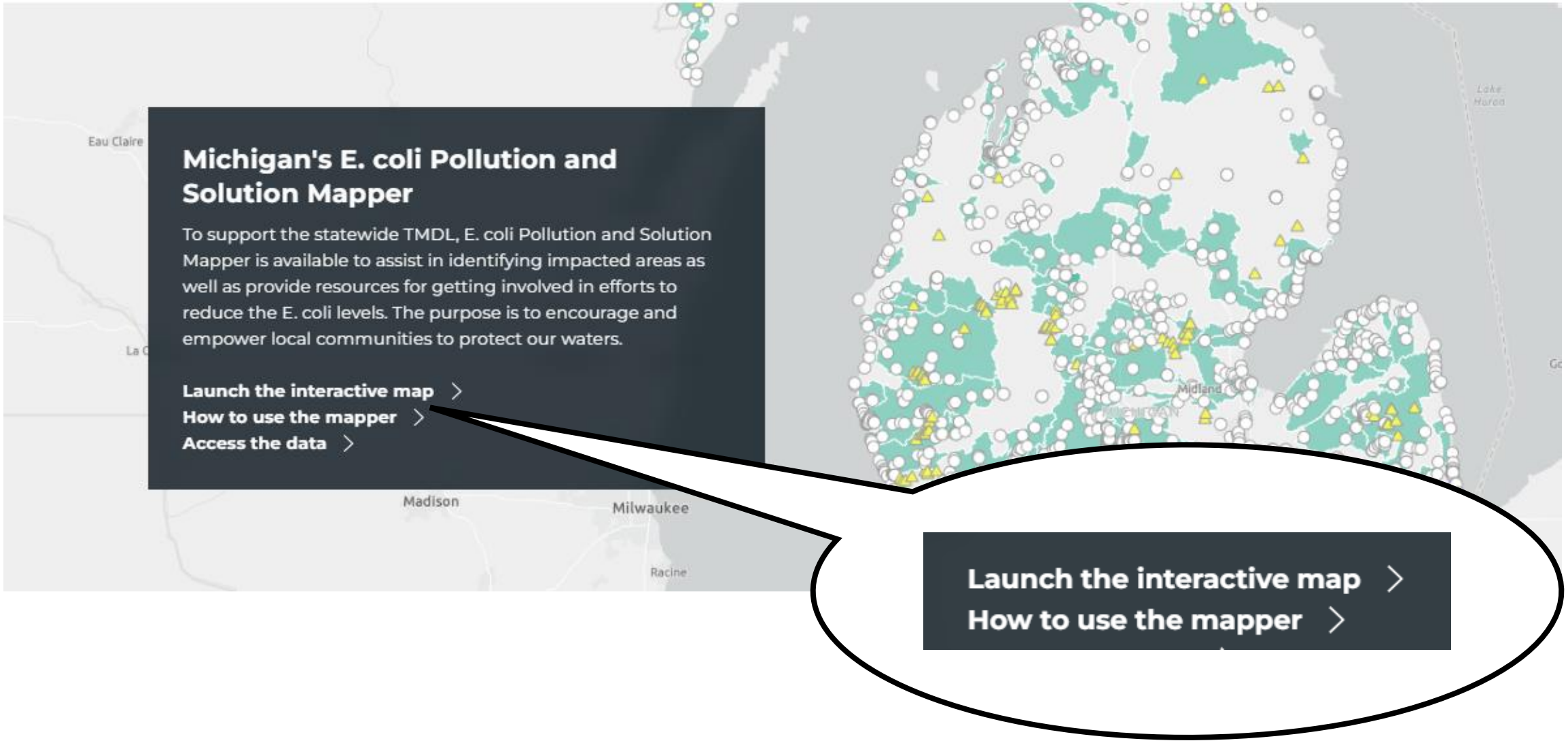


Purpose of this Tool

Inform the public of pathogen Water Quality monitoring sites, our results, and pollution issues

***E. coli* is our indicator of all water borne pathogens, to protect health during recreation.**

www.Michigan.gov/ecoli



Michigan's *E. coli* Pollution and Solution Mapper

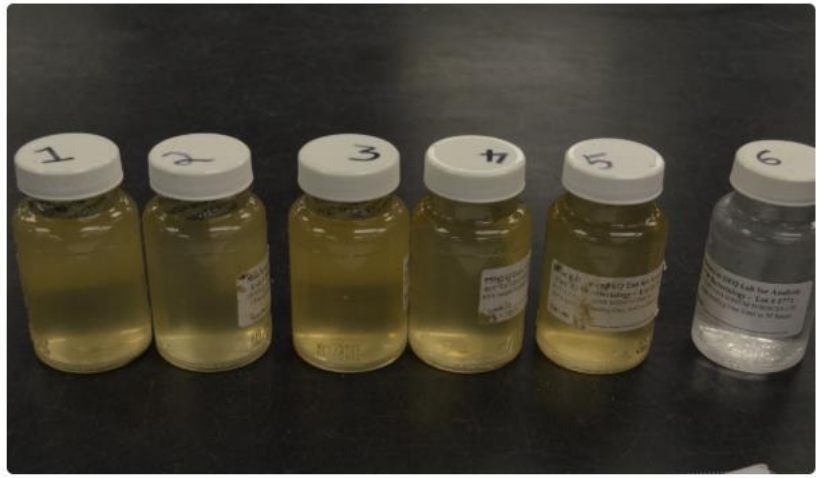
Michigan Department of Environment, Great Lakes, and Energy

EGLE

Introduction | E. coli Monitoring & Impaired Waters | Potential Sources | NPDES Discharges | Nonpoint Sources | Solutions | Mapper | Help

Introduction

Michigan residents and our visitors want and deserve safe and clean waters for swi
boating, wading, and fishing. The *E. coli* Water Quality Standard (WQS) is intended to e
that all streams, rivers, lakes, and beaches are safe for recreation from a human health standpoint. *E. coli* is a type of bacteria used as an indicator of fecal pollution; it also indicates the potential for other pathogens to be present. Sources of *E. coli* may include untreated human sewage through Sanitary Sewer Overflows (SSO), untreated Combined Sewer Overflows (CSO), failing septic tanks, and illicit connections from these systems to surface waters. Animal waste is another source of *E. coli*, originating from practices such as livestock manure land applications, pastures, improper disposal of pet waste, and from wildlife. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) estimates, based on ambient monitoring (and extrapolation to the rest of the state waters), that approximately 50 percent of the rivers and streams in Michigan exceed the WQS for *E. coli*, and about 20 percent of monitored beaches have had closures recently due to bacterial pollution. To address these problems in an effective and efficient manner, EGLE has developed a **statewide *E. coli* Total Maximum Daily Load (TMDL).**



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E. coli Monitoring & Impaired Waters

What is a TMDL?

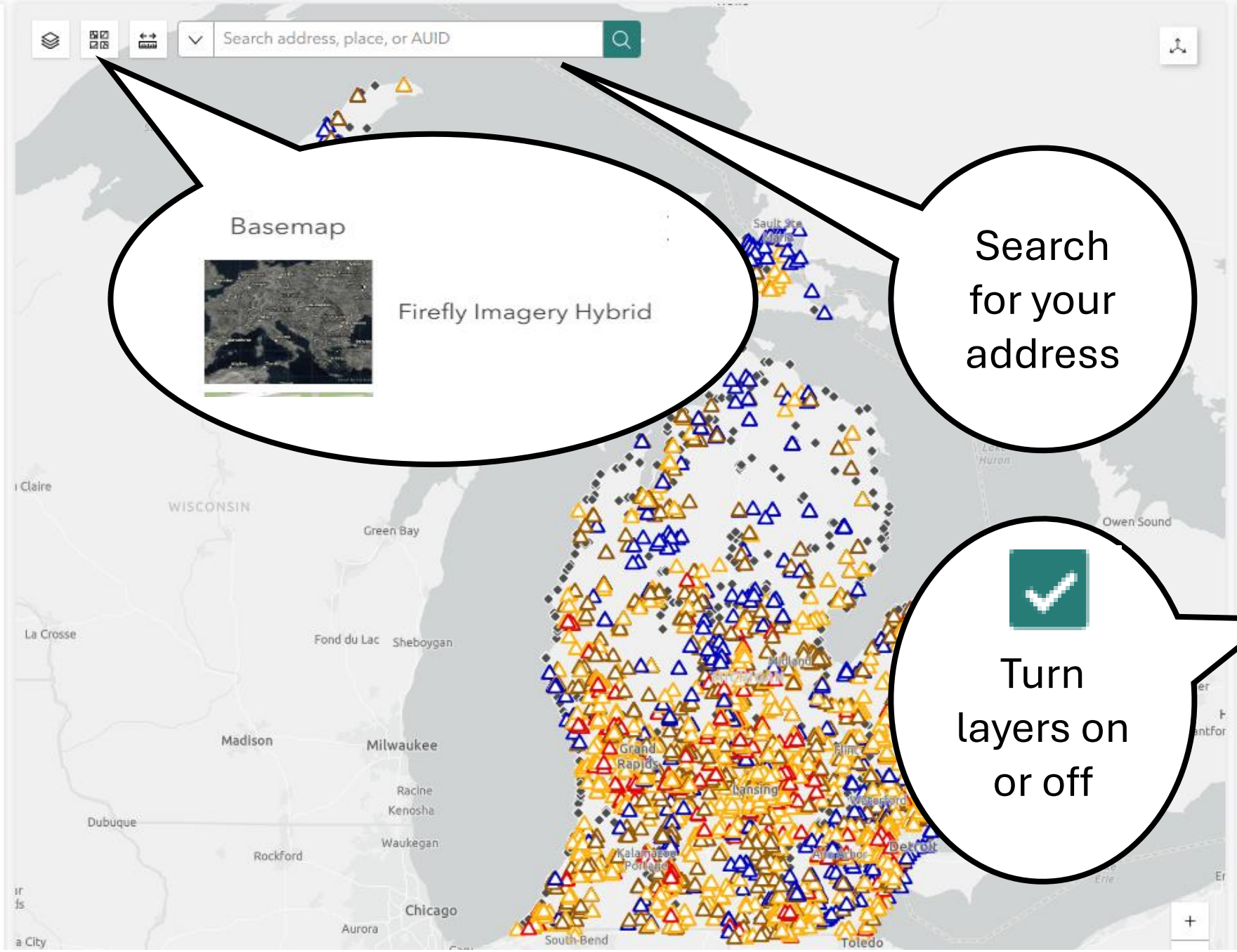
A TMDL is a document that describes the problem, water quality target, potential sources of contamination/pollution, and regulatory and non-regulatory solutions. The TMDL will need to be implemented cooperatively by state and local government agencies, watershed groups, and interested citizens. A TMDL is required when the WQS is exceeded in surface water and the recreational designated use is impaired and, as required by the federal **Clean Water Act**, the water body has been identified as impaired and listed in Section 303(d) of the **Integrated Report**.

What is the purpose of this mapping tool?

These interactive maps (available in tabs at the top of this website) support Michigan's Statewide *E. coli* TMDL. The issue of *E. coli* contamination of our rivers, lakes, and beaches is complex. There are a multitude of potential sources, and there is rarely a single source or single solution. EGLE has regulations that we implement and enforce with the goal of reducing contamination. It is important to remember that just because the TMDL, or this mapping tool, mentions a potential source, that source may not actually contribute to a
oblem in a specific water body. The purpose of this mapping tool is to allow users to
otential point and nonpoint sources of fecal pollution in their local areas. The

Need help?

For help getting started on using the mapping tool, please see the help tab. The information contained in the map is supplemental to the TMDL and EGLE recommends reading portions of the TMDL that pertain to each potential source. Sections of the TMDL that pertain to the map layers are identified in this document. Questions should be directed to Molly Rippke at **RippkeM@Michigan.gov** or 517-342-4419.



Legend

Note: The 10% E. coli WQS exceedance threshold is generally used to inform assessments included in the Integrated Report. A minimum of 5 samples is generally required.

- [x] River E. coli Monitoring Sites

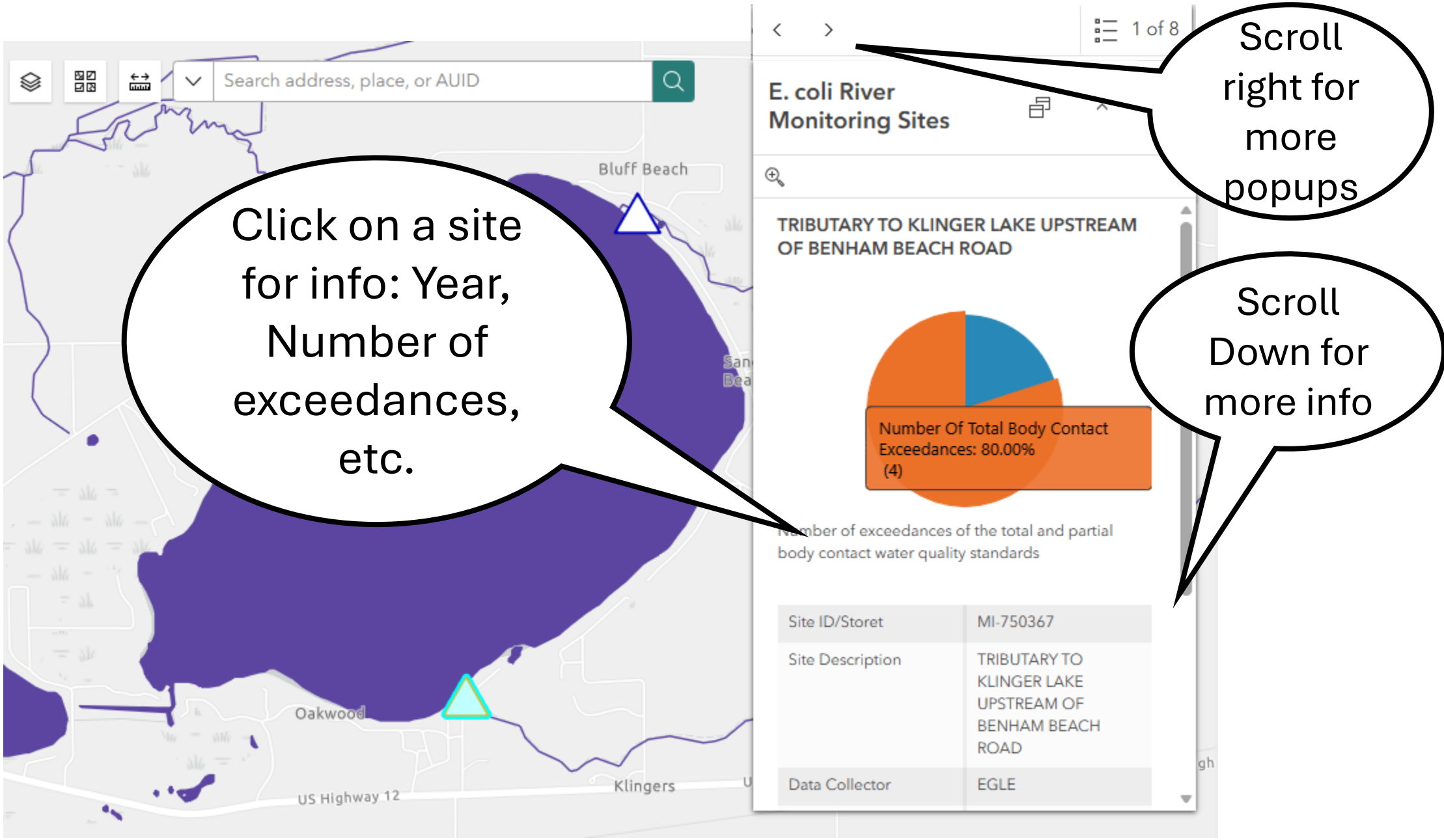
E. Coli Water Quality Standard Attainment Classification

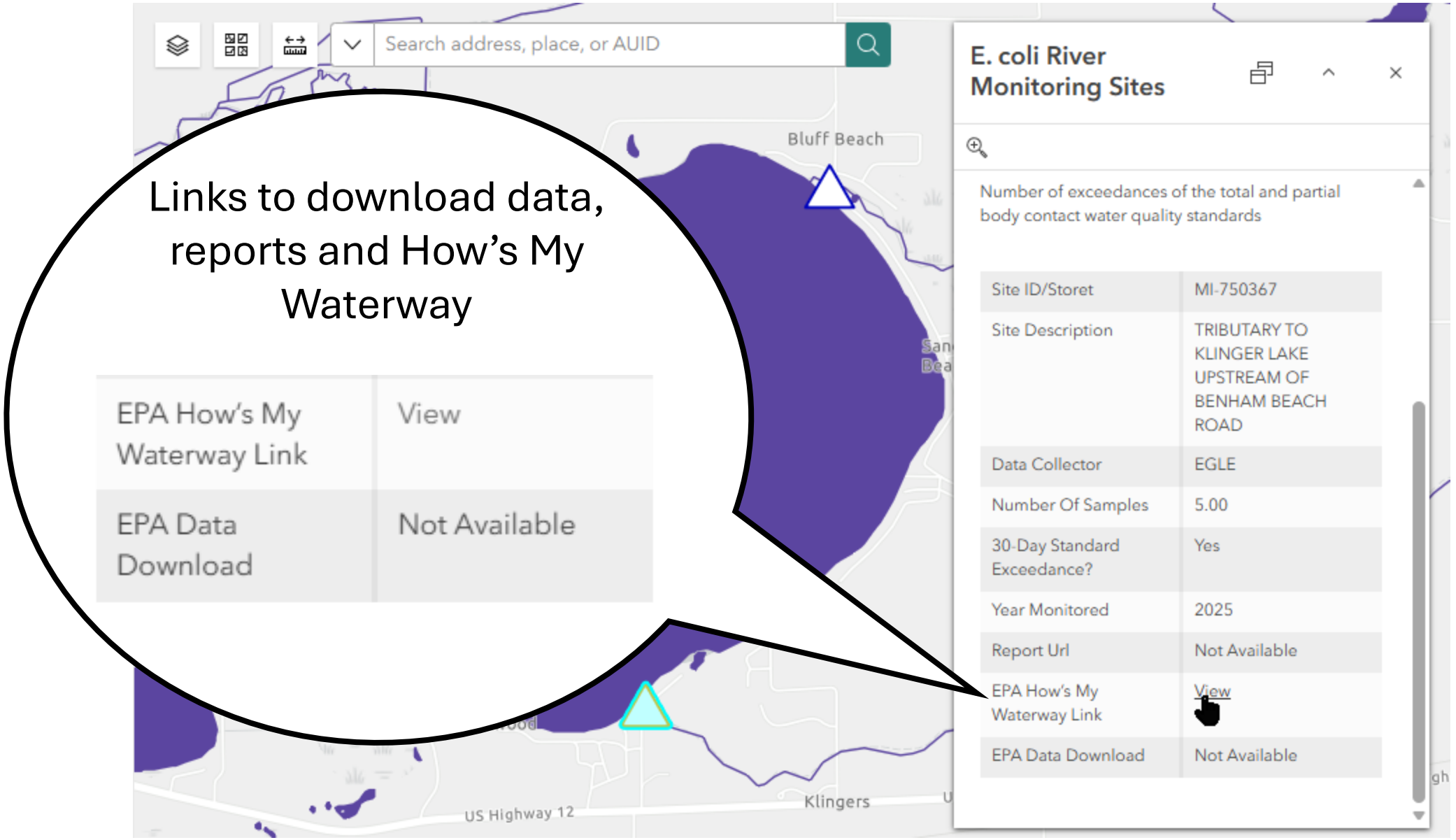
- Exceeds TBC Standard, Frequently Exceeds PBC Standard
- Exceeds TBC Standard, Occasionally Exceeds PBC Standard
- Exceeds TBC Standard, Meets PBC Standard
- Meets All E. coli Standards

- [x] Assessment Units

Beach Access Points

- [ ] E. coli TMDL Watersheds


Search address, place, or AUID
Bluff Beach
Oakwood
Klingers
US Highway 12
1 of 8
E. coli River Monitoring Sites
TRIBUTARY TO KLINGER LAKE UPSTREAM OF BENHAM BEACH ROAD
Number Of Total Body Contact Exceedances: 80.00% (4)
Number of exceedances of the total and partial body contact water quality standards
Site ID/Storet
MI-750367
Site Description
TRIBUTARY TO KLINGER LAKE UPSTREAM OF BENHAM BEACH ROAD
Data Collector
EGLE
Click on a site for info: Year, Number of exceedances, etc.
Scroll right for more popups
Scroll Down for more info


Search address, place, or AUID
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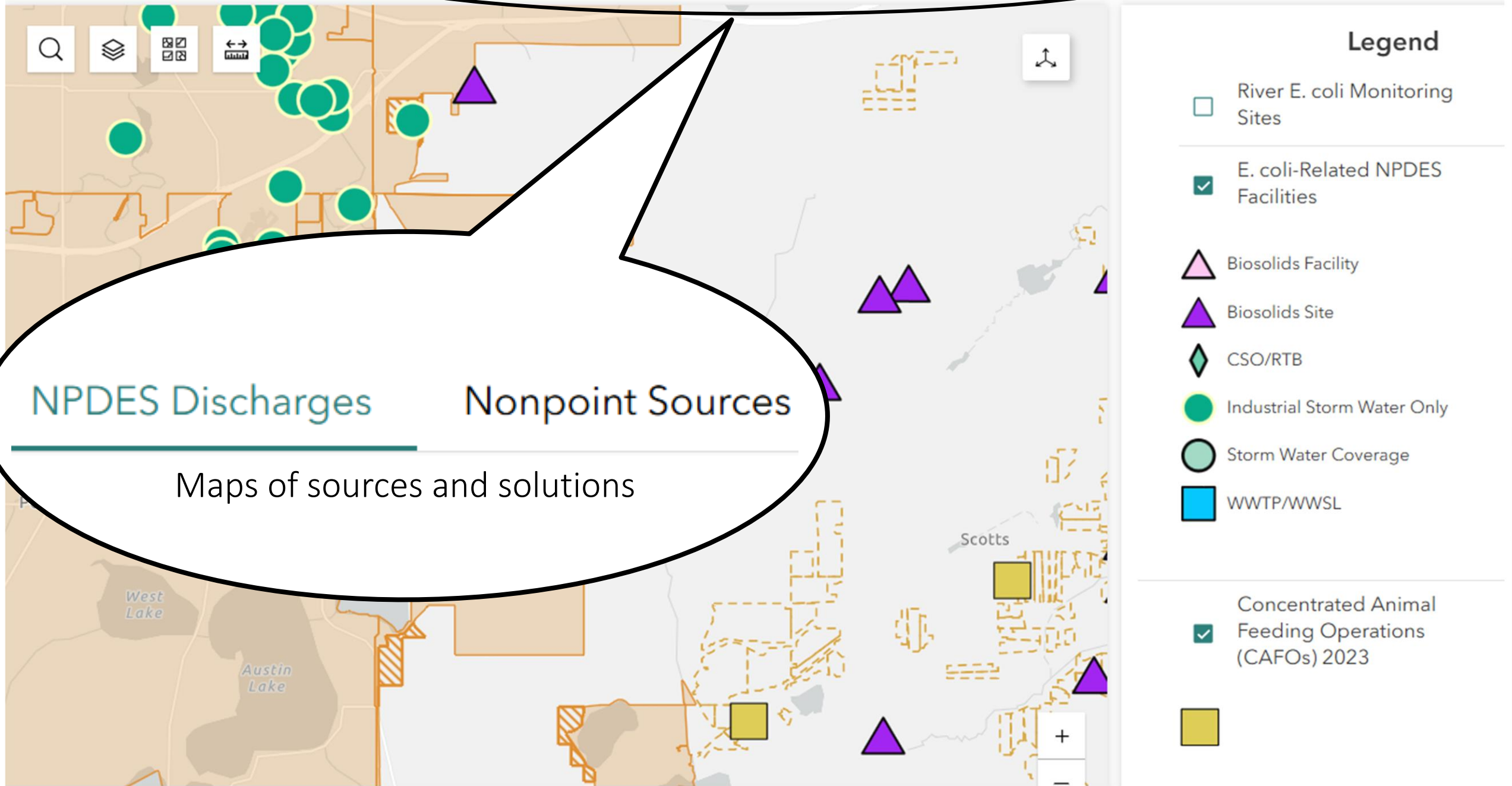
Klingers
Links to download data, reports and How's My Waterway
EPA How's My Waterway Link
View
EPA Data Download
Not Available
E. coli River Monitoring Sites
Number of exceedances of the total and partial body contact water quality standards
Site ID/Storet
MI-750367
Site Description
TRIBUTARY TO KLINGER LAKE UPSTREAM OF BENHAM BEACH ROAD
Data Collector
EGLE
Number Of Samples
5.00
30-Day Standard Exceedance?
Yes
Year Monitored
2025
Report Url
Not Available
EPA How's My Waterway Link
View
EPA Data Download
Not Available

ed Waters | Potential Sources | NPDES Discharges | Nonpoint Sources | Solutions | Mapper | H



NPDES Discharges

Nonpoint Sources

Maps of sources and solutions

Learn about sources of *E. coli* Pollution

Michigan's *E. coli* Pollution and Solution Mapper
Michigan Department of Environment, Great Lakes, and Energy

EGLE

Introduction | E. coli Monitoring & Impaired Waters | Potential Sources | NPDES Discharges | Nonpoint Sources | Solutions | Mapper | Help

Potential Sources

In general, there are three types of sources; point, nonpoint, and illegal. The TMDL does not make a final or official determination of whether a source is regulated as a point or a nonpoint source; this determination is made by federal and state regulations.

Point sources, for the purpose of discussion in this TMDL, are sources that are regulated by National Pollution Discharge Elimination System (NPDES) permits. NPDES permits regulate the discharge of pollutants into waterways from wastewater sources. Some types of stormwater are also regulated by NPDES permits. Potential point sources of *E. coli* are included in this map, and include: Municipal Separate Storm Sewer Systems (MS4), industrial stormwater, wastewater treatment facilities, Concentrated Animal Feeding Operations (CAFO), CSOs, SSOs, and biosolids land application.

Nonpoint sources of *E. coli* contamination include any source that is not a discharge regulated by an NPDES permit, including: unregulated stormwater, failing septic systems, regulated septage land application, unregulated livestock operations, manure land applications to agricultural fields, and pet and wildlife waste. Illicit discharges of wastewater (often human sewage) are also potential sources but are considered separately from point and nonpoint sources in this TMDL.

Illegal sources exist without a permit, and have not necessarily been discovered, so they are not included in this mapping system. Illegal sources include septic tanks that discharge to field tiles or surface water, milk house waste, barn wash water, direct discharges of manure from fields or farms, and SSOs. Information on issues that have been documented and are being acted upon by EGLE can be obtained from MiEnviro Site Explorer. Visit Section 7.5 of the E. coli Total Maximum Daily Load Document to learn more about illegal sources.

Raccoons, deer, and other wildlife can be potentially significant nonpoint sources of *E. coli* if they congregate in large numbers or inhabit an area frequently.

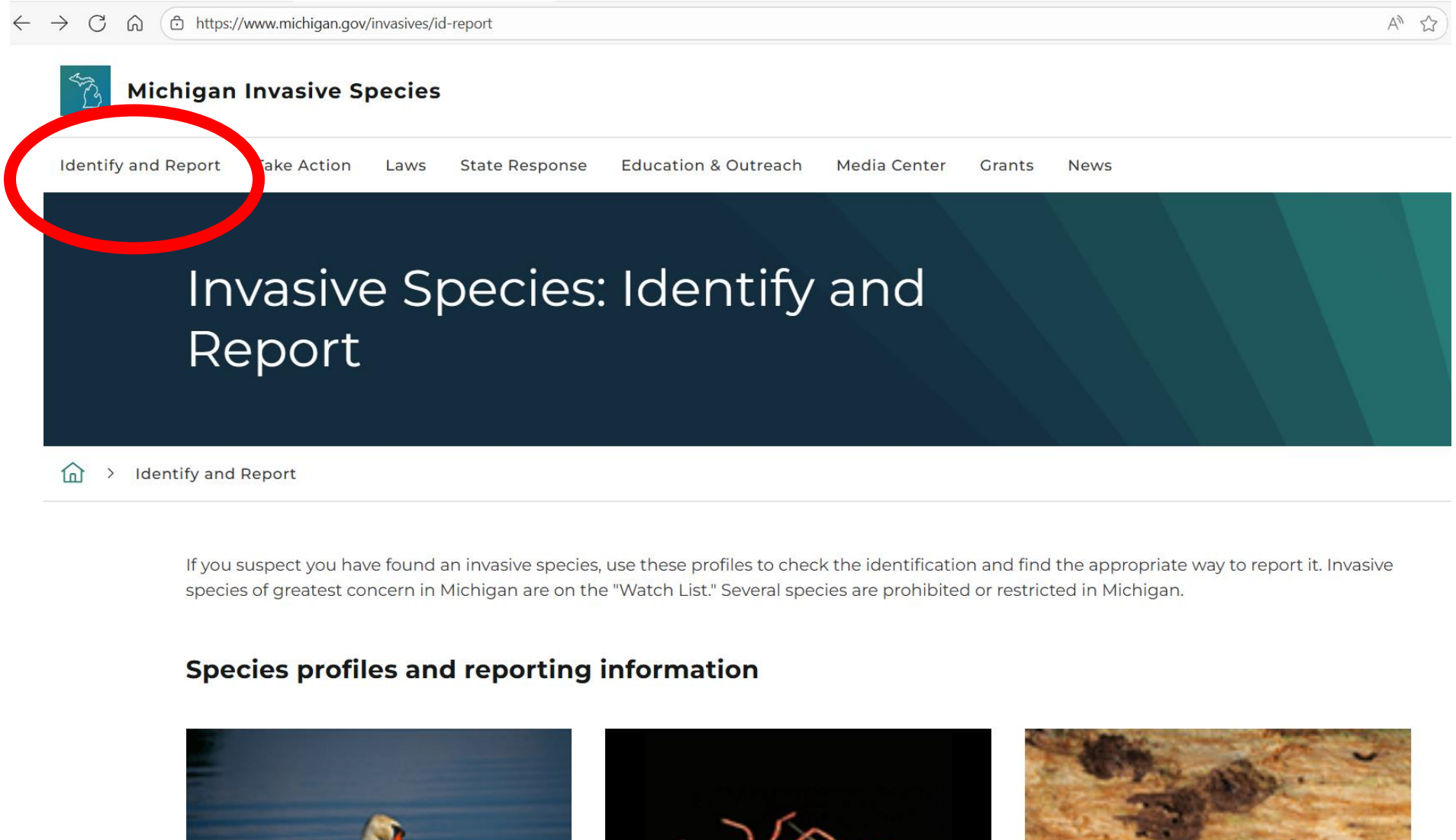
Issues, Help, or Comments?

For all things regarding pathogens in surface water, you can contact Molly at rippkem@michigan.gov

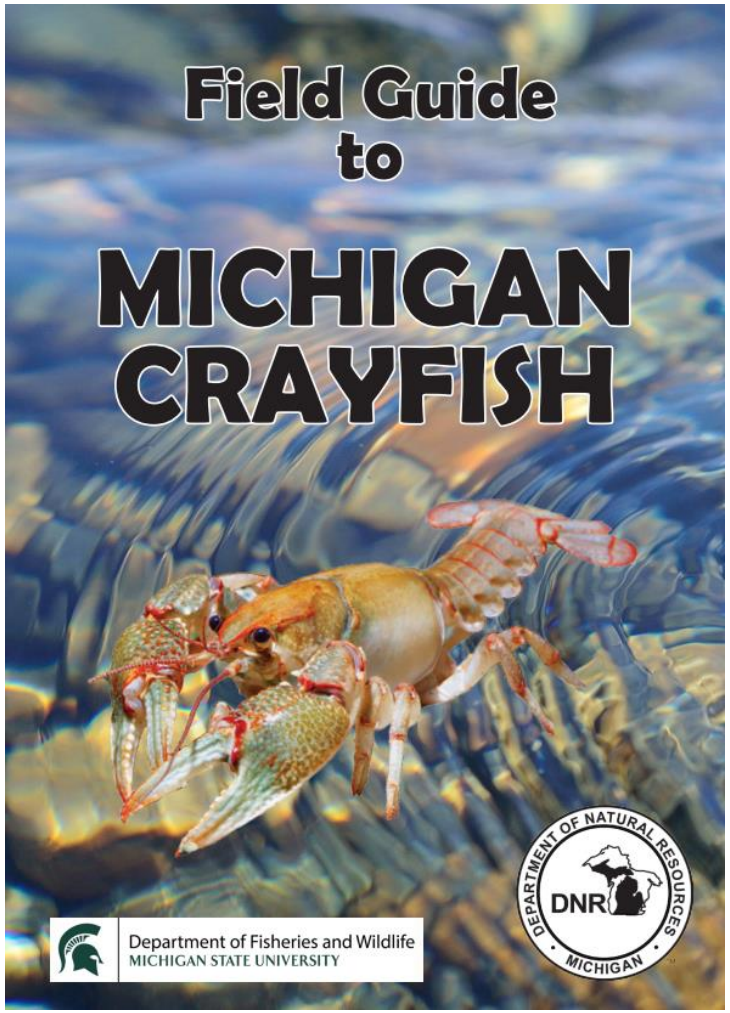
Online Resources for

Aquatic Invasive Species

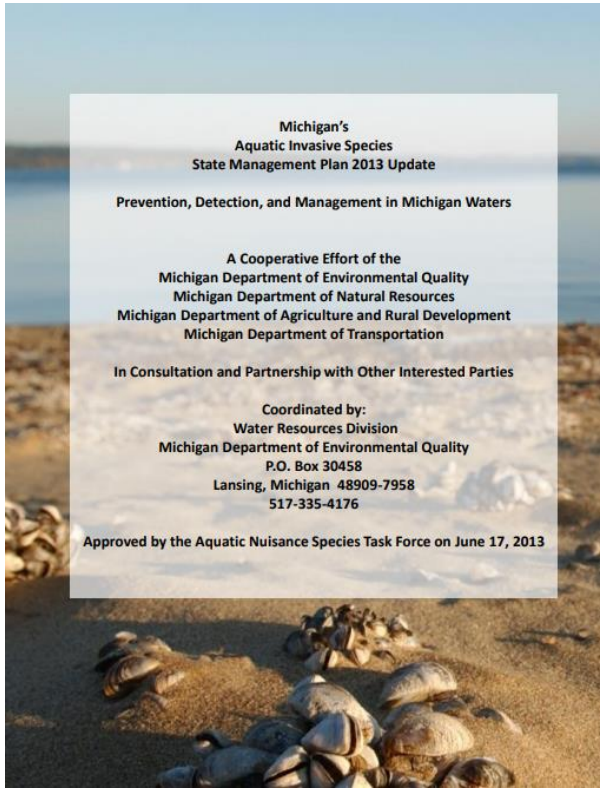
AIS Identification: www.Michigan.gov/InvasiveSpecies

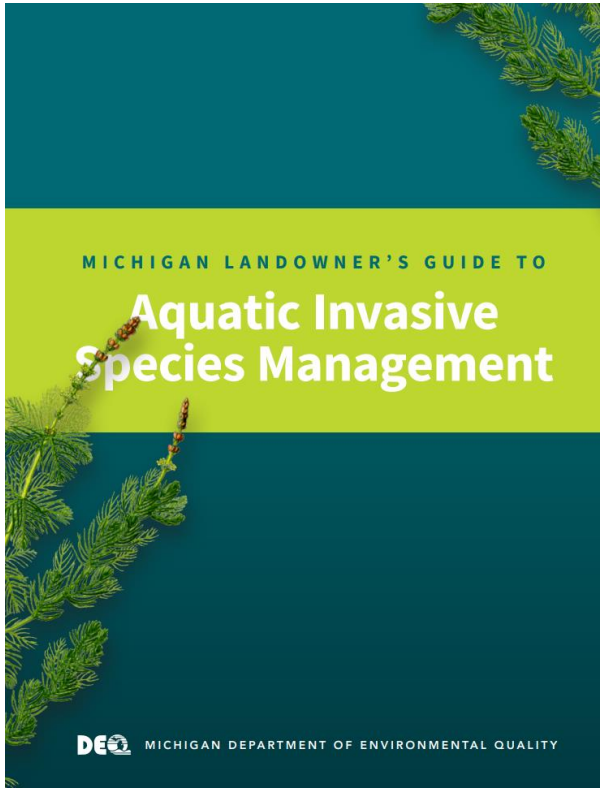


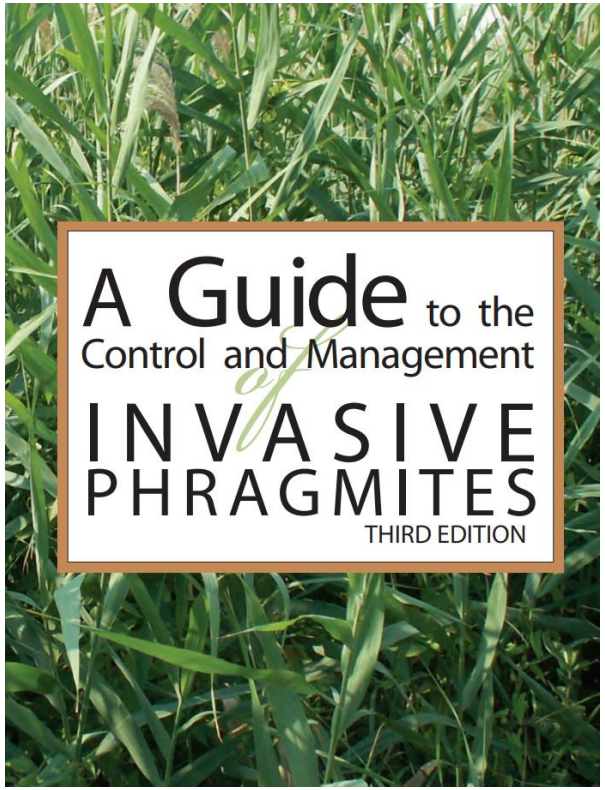
AIS Identification: Online Field Guides

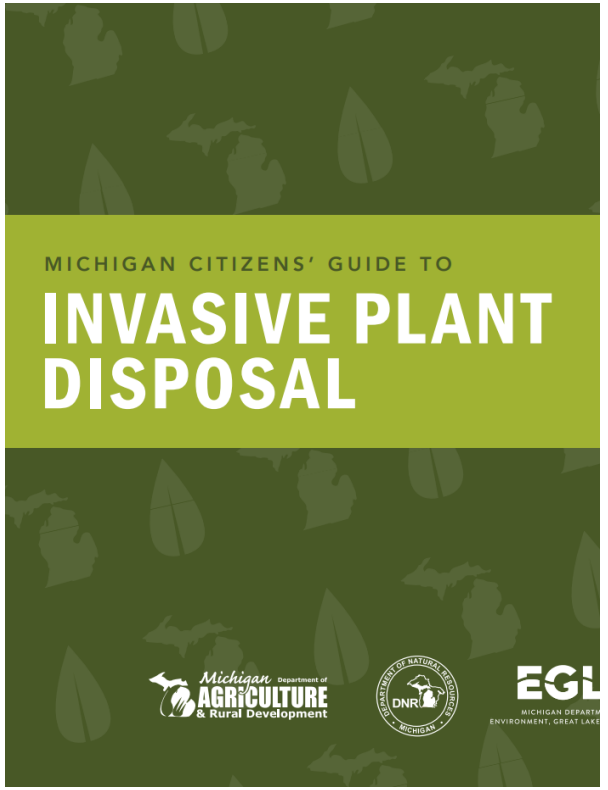


AIS Management Guides/Plans









AIS Video Series

Topics include:
- Cleaning Boats and Equipment
- Invasive Species Basics
- Invasive Species Decontamination
- Parrot Feather
- Phragmites
- Grass Carp
- Yellow Floating Heart
- Red Swamp Crayfish
- New Zealand Mud Snail
- Hydrilla *Coming Soon!*
- Don’t Dump Your Bait *Coming Soon!*

AIS Webinars

Next Live Webinar: Wednesday, January 14, 2026
In a stranglehold: Can we prevent invasive mussels from muscling in on native populations?

Recorded AIS Webinars Include:
Something Strange in Your Neighborhood? Who Ya Gonna Call?
Digging in: Michigan's Unconventional Response to Hydrilla
What Lies Beneath: Detecting Invasive Plants in Michigan Lakes
Don't let it loose! Protecting Michigan's waterways from pesky pets and plants
Genes on the move: Understanding red swamp crayfish spread in southeastern Michigan
And many more!