



March 25, 2023

**HURON RIVER WATERSHED COUNCIL**

**Chemistry & Flow Monitoring  
Virtual Volunteer Orientation**

# Orientation Overview

Program Overview

Procedures & Logistics

Introduction to Survey123

Illicit Discharge  
Identification

Sign Up & Scheduling





What are you most  
looking forward to  
about monitoring?



# Program Overview

**WHY** do we monitor?

**WHAT** do we monitor for?

**WHERE** do we monitor?

**WHEN** do we monitor?

# WHY do we monitor?

- Collect high quality scientific data
- Track the status and trends of impairments
- Inform local projects and policies
- Find hot spots, pollutant sources
- Satisfy permit requirements for local municipalities
- Engender stewardship



# WHAT do we monitor for?

- Water Chemistry – Lab
  - Phosphorus (TP)
  - Sediments (TSS)
  - Bacteria (E. coli)
  - Chloride
  - Nitrogen (NO<sub>2</sub>-NO<sub>3</sub>)
- Field Chemistry
  - pH
  - Temperature
  - Oxygen (DO)
  - Conductivity
  - Total Dissolved Solids (TDS)
- Stream Flow (Discharge)



Map of the Detroit River watershed showing sampling sites. The map includes the Detroit River, major roads, and surrounding cities. A legend in the bottom left corner identifies three types of sampling sites: Intensive Study Site (red dot), Investigative (orange dot), and Long-term (green dot). The map shows a high density of sites along the river and in the surrounding urban areas.

# WHEN do we monitor?

April through September

WEEK A

WASHTENAW

Saturday, Tuesday,  
Wednesday

WEEK B

WAYNE

Wednesday, Thursday



# WHEN do we monitor?



## WEEK A

### WASHTENAW

Duration: 2-4 hours  
4-5 sites



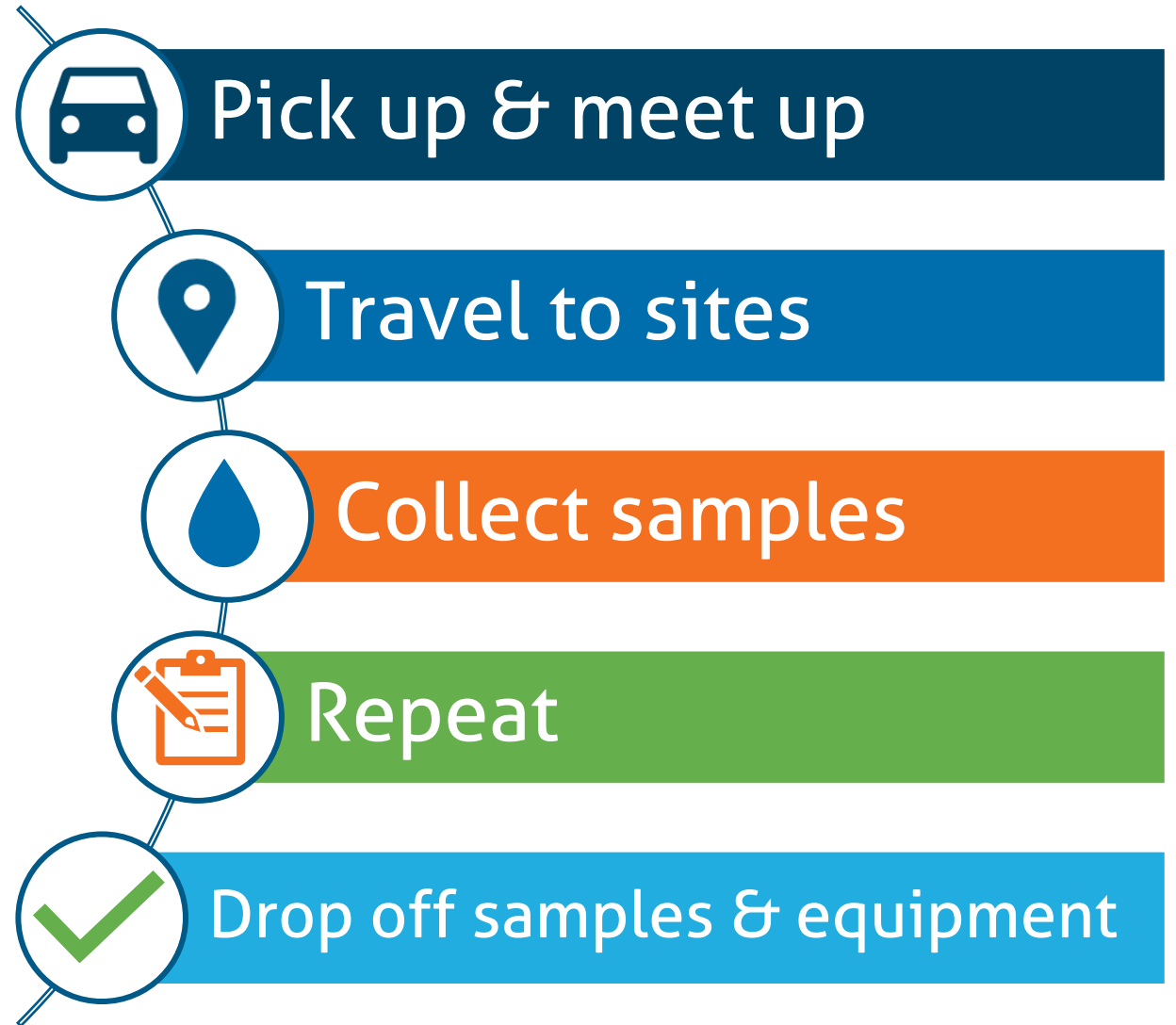
## WEEK B

### WAYNE

Duration: 2-4 hours  
5 sites

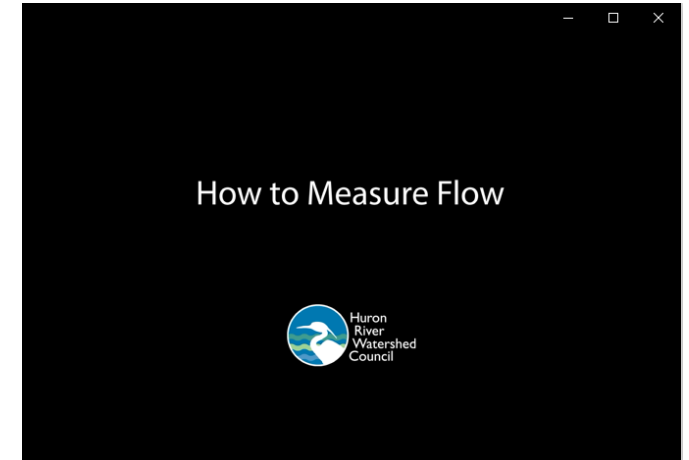


# Outing Logistics



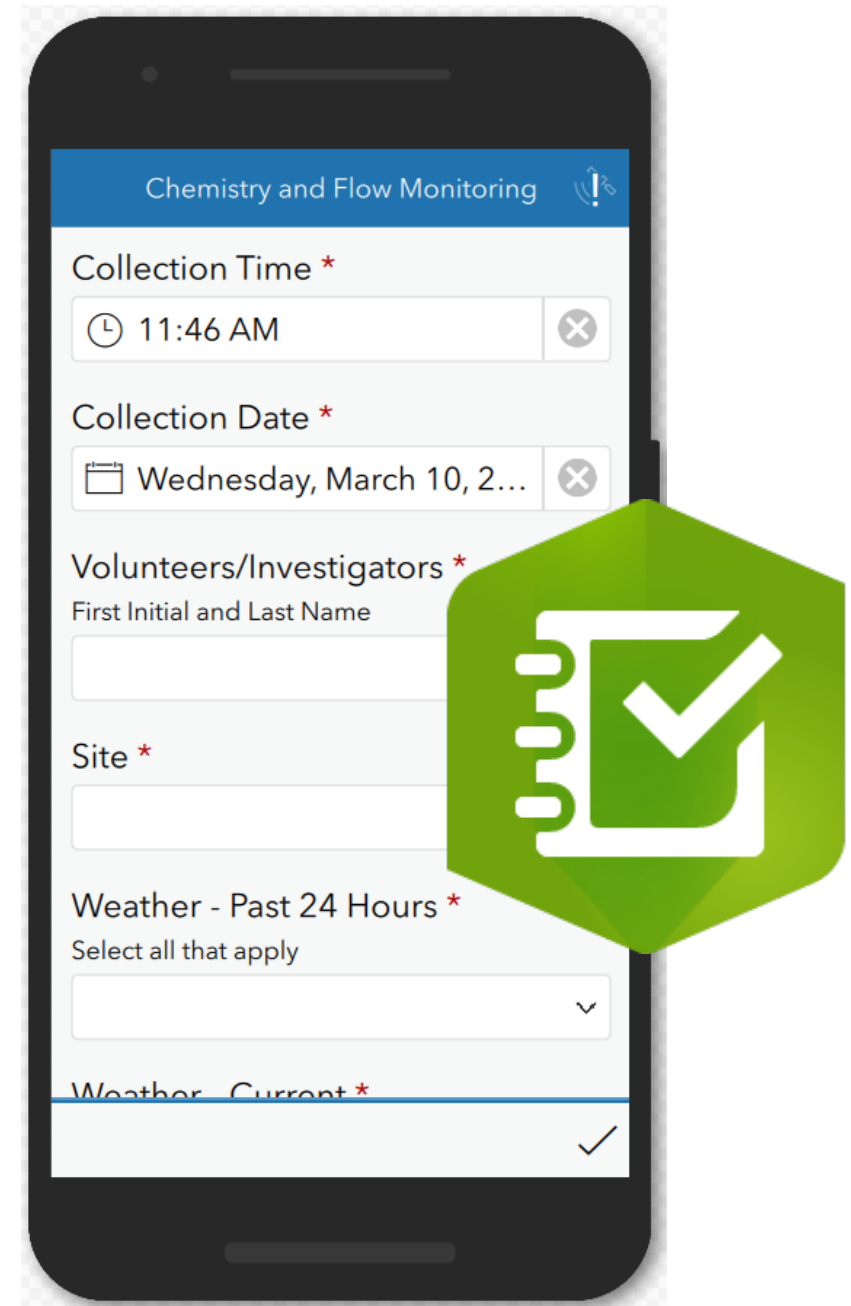
# Field Methods Training

- Field methods covered during first outing
- Led by return volunteer or HRWC staff
- Training videos available on HRWC's YouTube:  
[www.youtube.com/HuronRiverWC](http://www.youtube.com/HuronRiverWC)
- Please watch prior to first outing
- Videos cover methods for:
  - Flow monitoring
  - Sample collection
  - Using water quality meters
  - Reading staff gauges



# Survey123

- Mobile app used to collect field data
- Please download Survey123 app before your first outing
- Complete one form per site
- Contact Andrea with questions and feedback



Chemistry and Flow Monitoring

Collection Time \*  
🕒 11:46 AM

Collection Date \*  
📅 Wednesday, March 10, 2...

Volunteers/Investigators \*  
First Initial and Last Name  
[Text Field]

Site \*  
[Text Field]

Weather - Past 24 Hours \*  
Select all that apply  
[Dropdown Menu]

Weather - Current \*  
[Text Field]

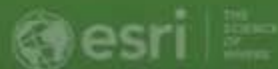


# ArcGIS® Survey123

Sign in with ArcGIS Online

Manage ArcGIS connections

Continue without signing in



# Field Safety



**CLOTHING:** Dress appropriately



**WEATHER:** Be prepared & stay cautious



**PLANTS & BUGS:** Keep an eye out



**WATER:** Assess before you enter

# Keep Your Eyes & Ears Open!

- Evaluate and assess the area
- Be alert and watch for threats to our watershed
- When you are in the field you are our “eyes and ears”



# Bank Observations

- Exposed fill
- Construction
- Erosion
- Muddy discharge from outfalls/pipes
- Coatings on streambank
- No silt fences



# Sewage Discharge and Failed Septics

- Grey/black, turbid water
- Staining on shore
- Rotten egg odor
- Oil and paper residue
- Overgrown or wet patch of grass
- Soap suds



# Illegal Discharge

- Oily sheen that cannot be broken apart
- Strong odor of gasoline or chemicals
- Turbid, discolored water



# Natural Occurrences

Tanin



Iron bacteria slime & sheen



Some foams



Bacteria films



# What to Do

- If you find anything of suspect, take photos, note the time, location, and observations on datasheet in Survey123
- Notify HRWC staff ASAP
- If you can, try to find pollutant source



# Sign Up & Scheduling

- Sign up links at: [www.hrwc.org/chemflowvolunteerresources](http://www.hrwc.org/chemflowvolunteerresources)
- **Commitment:** At least 4 outings during the monitoring season

## Chemistry and Flow Monitoring— Volunteer Resources

[Home](#) > [Volunteer](#) > [Chemistry and Flow Monitoring](#) > [Chemistry and Flow Monitoring – Volunteer Resources](#)

Edit


 **Contact Information**




 **Procedures** Instructional documents and videos



 **Sign Up** Links to SignUpGenius



[Washtenaw County: April 8 – September 20, 2023](#)  
[Wayne County: April 19 – September 28, 2023](#)

**Volunteer**  
[Sign up](#)  
[What to expect](#)  
[River Cleanups](#)  
**Chemistry and Flow Monitoring**  
[> Chemistry and Flow Monitoring – Volunteer Resources](#)

**Huron River Watershed Council**

**Chemistry and Flow Monitoring**  
**2023 Chemistry and Flow Monitoring - Washtenaw County**  
 **Andrea Paine**  [Contact](#)  
Already signed up? [Change my sign up](#)  
  
If you have any questions or issues, please contact Andrea at [apaine@hrwc.org](mailto:apaine@hrwc.org) or 231-233-5353.  
  
 **Location** Washtenaw County

Dates shown as mm/dd/yyyy EDT  

Date	Available Slot	
<b>04/08/2023</b> 9:00am Saturday	<b>Volunteers</b> If you would like to serve as an outing leader, write "Leader" in the comments field. <b>2 of 4 slots filled</b>	<a href="#">Sign Up</a>  Jeff Pu  John R Ames Jr 



**THANK YOU!**

**Questions?**

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**Ric Lawson**

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**Huron  
River  
Watershed  
Council**