



March 23, 2024

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



The Huron River is 125 miles long. The watershed...



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
- Find hot spots, pollutant sources
- Inform local projects and policies
- Satisfy permit requirements for local municipalities
- Engender stewardship

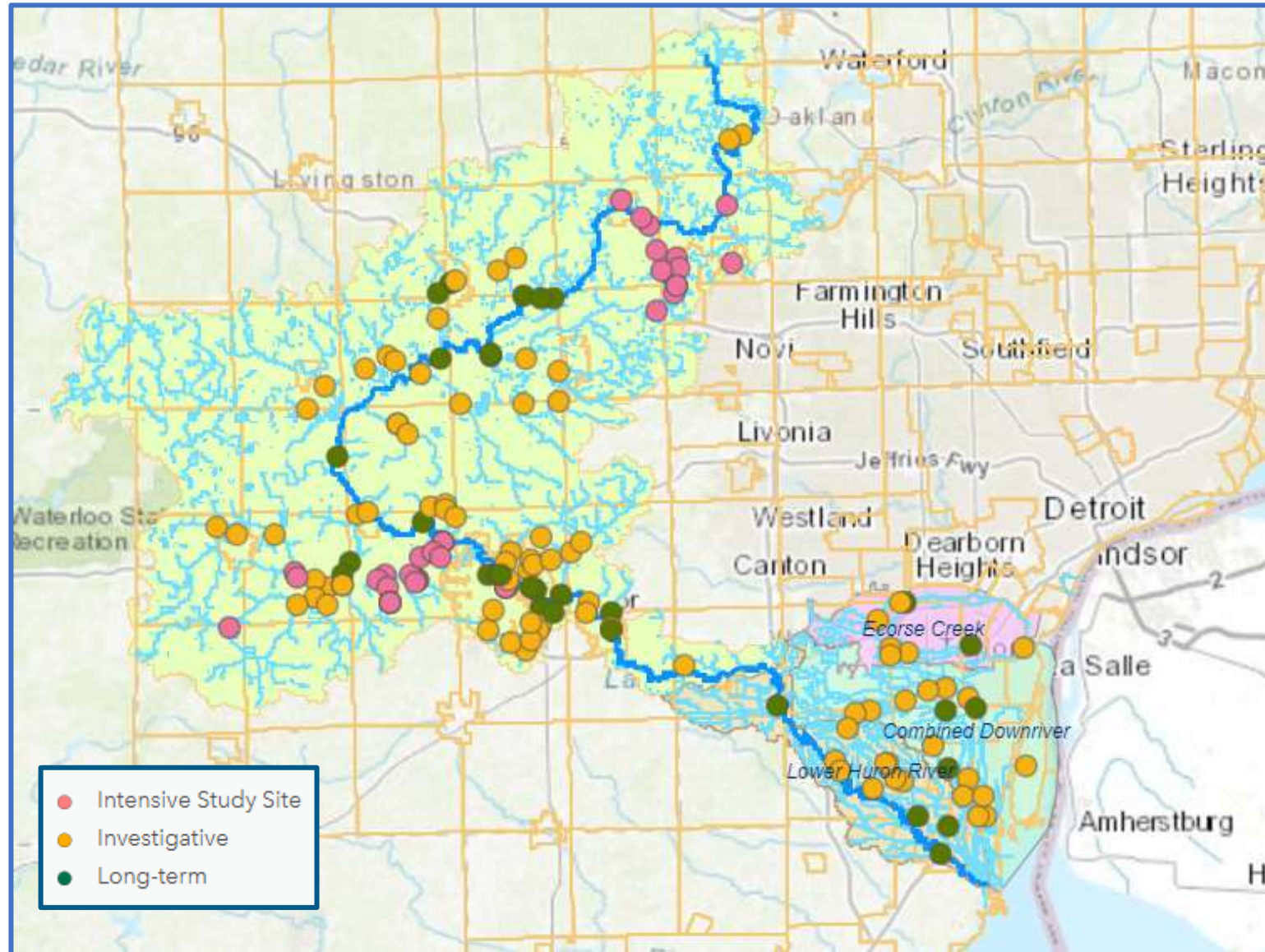


WHAT do we monitor for?

- Water Chemistry – Lab
 - Phosphorus (TP, PO₄)
 - Sediments (TSS)
 - Bacteria (*E. coli*)
 - Chloride
 - Nitrogen (NO₃)
- Field Chemistry
 - pH
 - Temperature
 - Oxygen (DO)
 - Conductivity
 - Total Dissolved Solids (TDS)
- Stream Flow (Discharge)



WHERE do we monitor?



WHEN do we monitor?

April through September

WEEK A

WASHTENAW

Saturday, Tuesday, Wednesday

LIVINGSTON

Thursday + 2 Saturdays

WEEK B

WAYNE

Tuesday, Wednesday



WHEN do we monitor?

WEEK A

WASHTENAW

Duration: 2-4 hours
4-5 sites

LIVINGSTON

Duration: 3-4 hours
7 sites

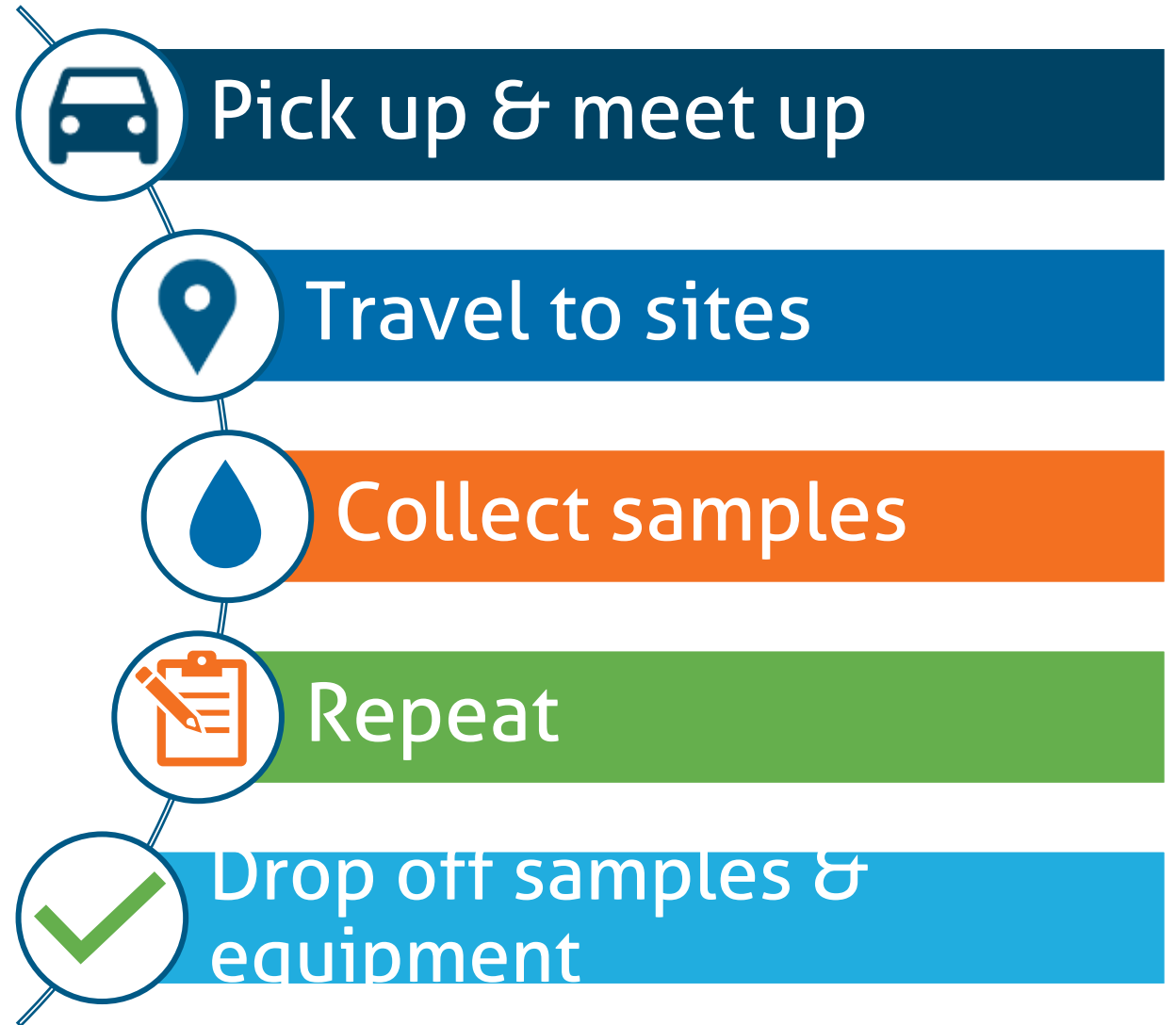
WEEK B

WAYNE

Duration: 2-4 hours
5 sites

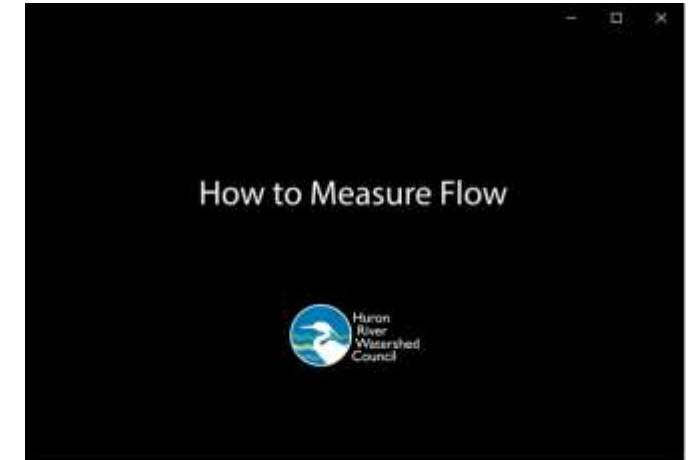


Outing Logistics



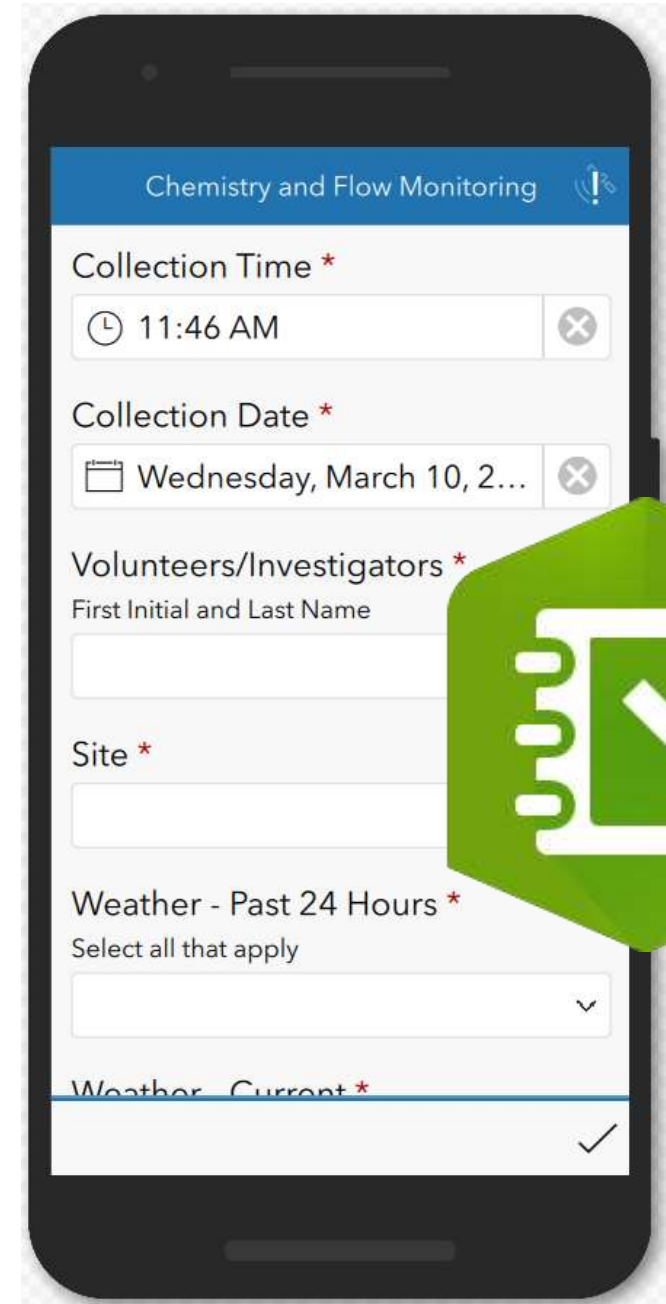
Field Methods Training

- Field methods covered during first outing
- Led by return volunteer or HRWC staff
- Training videos available on HRWC's YouTube:
www.youtube.com/HuronRiverWC
- Please watch prior to first outing
- Videos cover methods for:
 - Flow monitoring
 - Sample collection & filtration
 - Using water quality meters
 - Reading staff gauges
 - Decontamination of gear between sites



Survey123

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



The screenshot displays a mobile application interface for data collection. At the top, a blue header bar contains the text "Chemistry and Flow Monitoring" and a small icon. Below the header, the form includes several fields: "Collection Time *" with a clock icon and the value "11:46 AM"; "Collection Date *" with a calendar icon and the value "Wednesday, March 10, 2..."; "Volunteers/Investigators *" with a sub-label "First Initial and Last Name" and an empty text input field; "Site *" with an empty text input field; "Weather - Past 24 Hours *" with the instruction "Select all that apply" and a dropdown menu; and "Weather - Current *" with a checkmark icon. A large green hexagonal icon with a white checkmark and a document symbol is overlaid on the right side of the form.

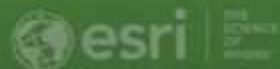


ArcGIS® Survey123

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
- **Commitment:** At least 3 outings during the monitoring season

Chemistry and Flow Monitoring – Volunteer Resources

Home > Volunteer > Chemistry and Flow Monitoring > Chemistry and Flow Monitoring – Volunteer Resources

- Contact Information
- Procedures Instructional documents and notes
- Sign Up Links to Sign Up Genius

Livingston County – April 11 – September 26, 2024

Washtenaw County – April 6 – September 25, 2024

Wayne County – April 16 – September 18, 2024

Volunteer

- Sign up
- What to expect
- River Cleanups
- Chemistry and Flow Monitoring
 - Chemistry and Flow Monitoring – Volunteer Resources
- River Roundup

Huron River Watershed Council

Chemistry and Flow Monitoring

2024 Chemistry and Flow Monitoring - Washtenaw County

Kelly McCabe [Contact](#)

If you have any questions or issues, please contact Kelly at kmccabe@hrwc.org or 314-486-3440.

Dates shown as mm/dd/yyyy EDT

Date	Location	Available Slot
04/06/2024 9:00am Saturday	Washtenaw County	Volunteers 1 slots available <small>If you are serving as an outing leader, write "Leader" in the comments field.</small>
04/09/2024 9:00am Tuesday	Washtenaw County	Volunteers 1 slots available <small>If you would like to serve as an outing leader, write "Leader" in the comments field.</small>



THANK YOU!

Questions?

Kelly McCabe

Watershed Programs Associate
kmccabe@hrwc.org

Andrea Paine

Program Coordinator
apaine@hrwc.org



**Huron
River
Watershed
Council**