Alliance of Downriver Watersheds

OURS TO PROTECT

2023 Chemistry and Flow Monitoring Results

2/13/2024

MEASURED PARAMETERS

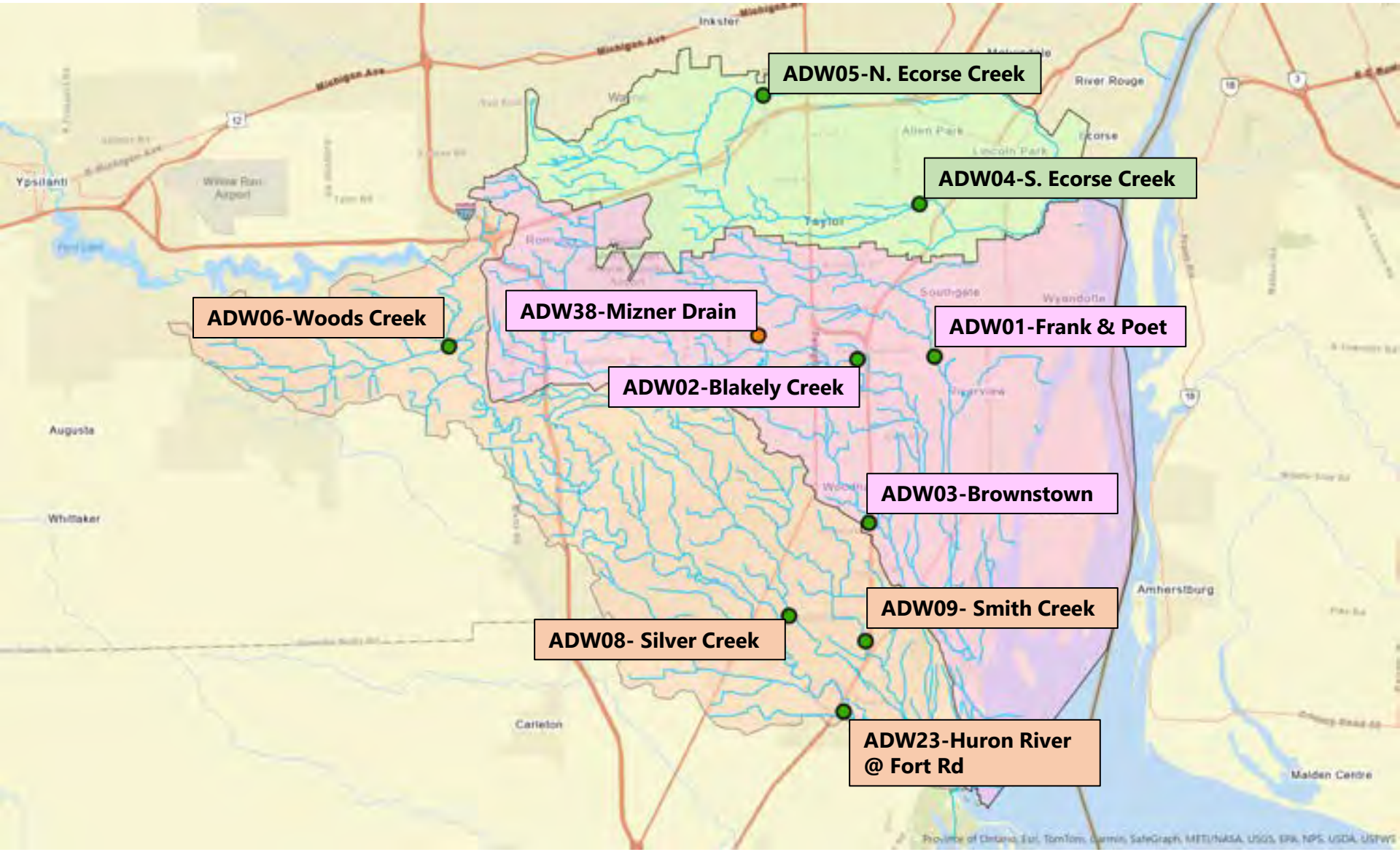
Laboratory Data

- Nutrients: *Total Phosphorus*
- Sediments: *Total Suspended Solids*
- Bacteria: *E. coli*

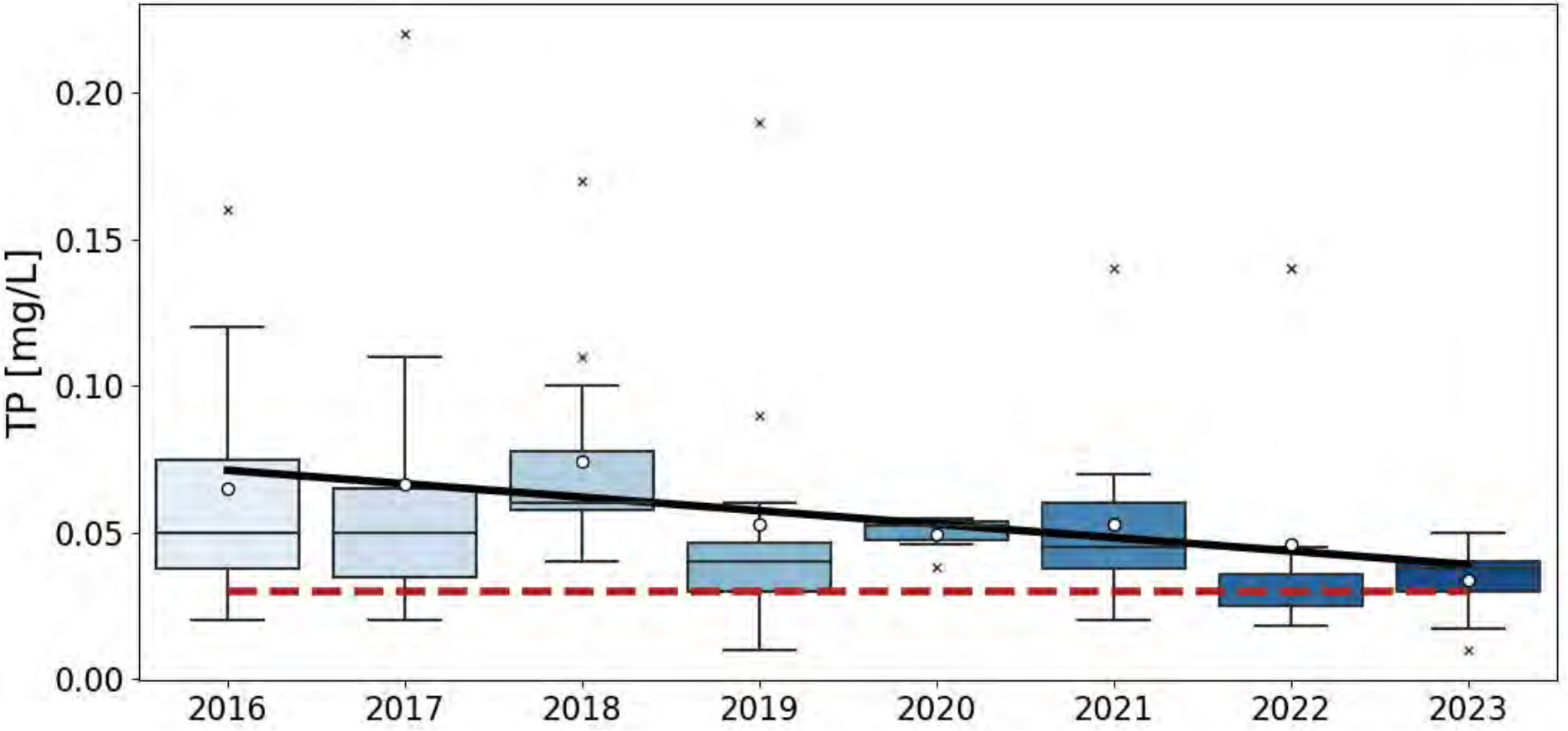
YSI Data

- Dissolved Oxygen
- Conductivity
- Temperature
- pH

2023 ADW MONITORING SITES

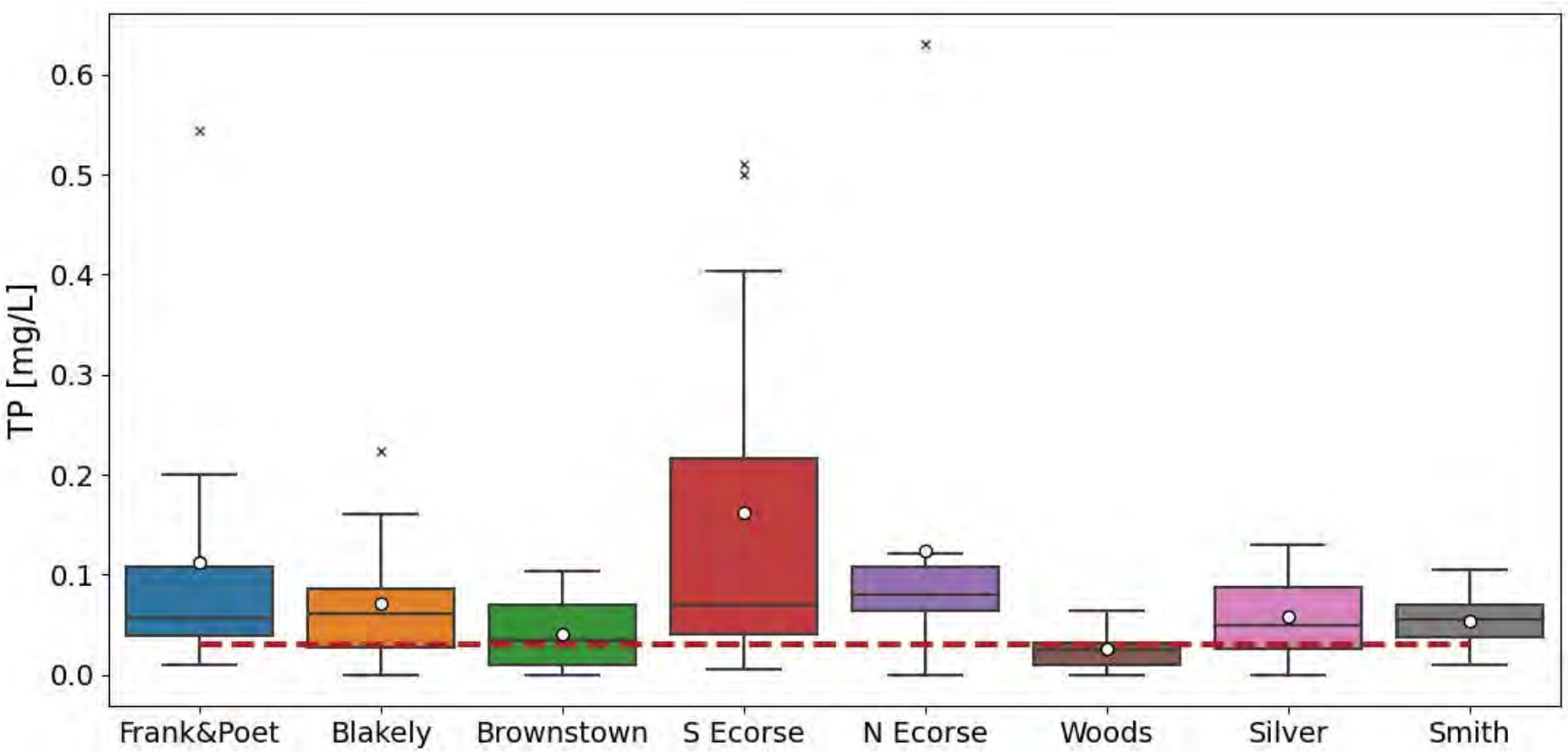


TOTAL PHOSPHORUS BY YEAR
in the Huron River at Fort Rd.



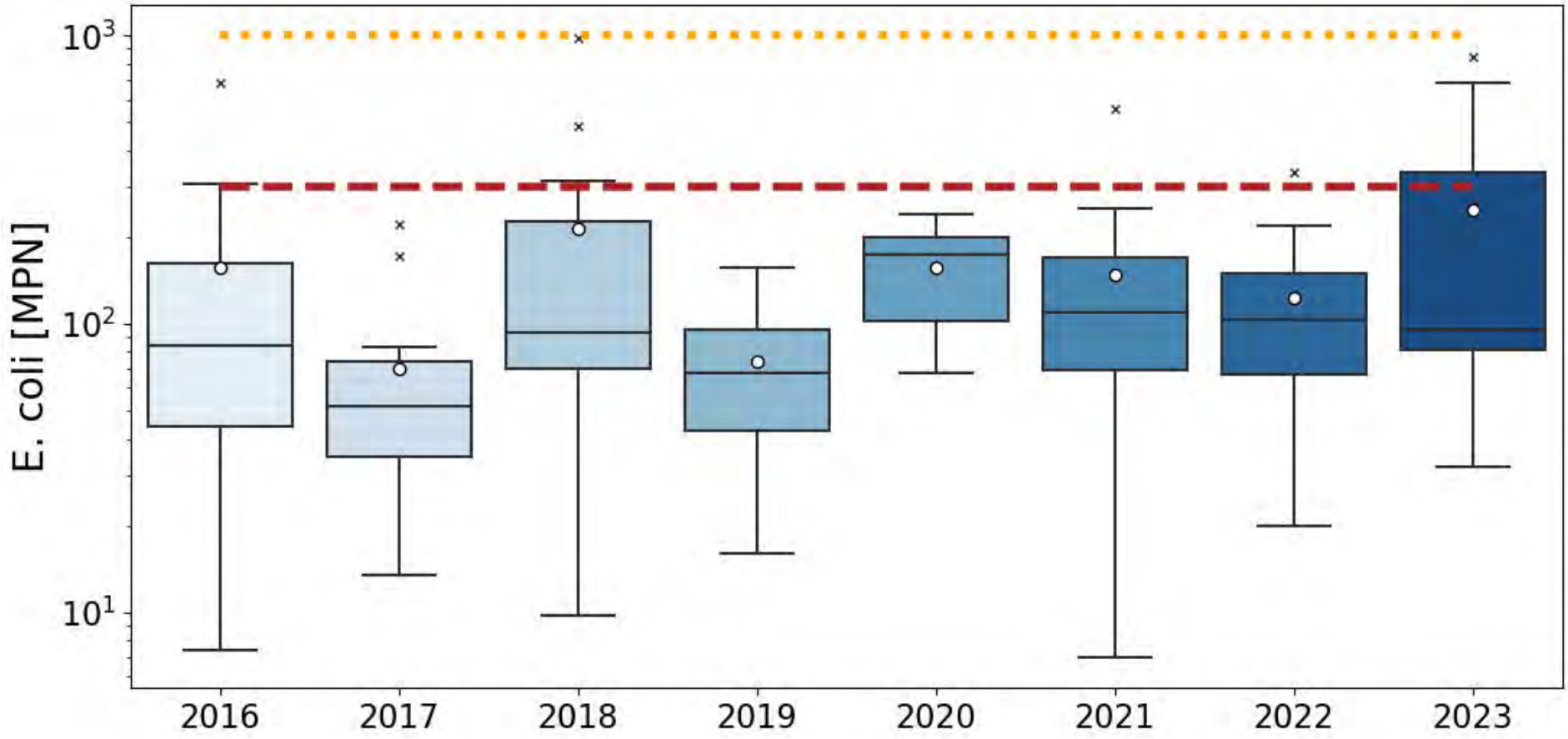
TP TARGET OF 0.03 mg/L INDICATED BY RED DASHED LINE

TOTAL PHOSPHORUS BY TRIBUTARY



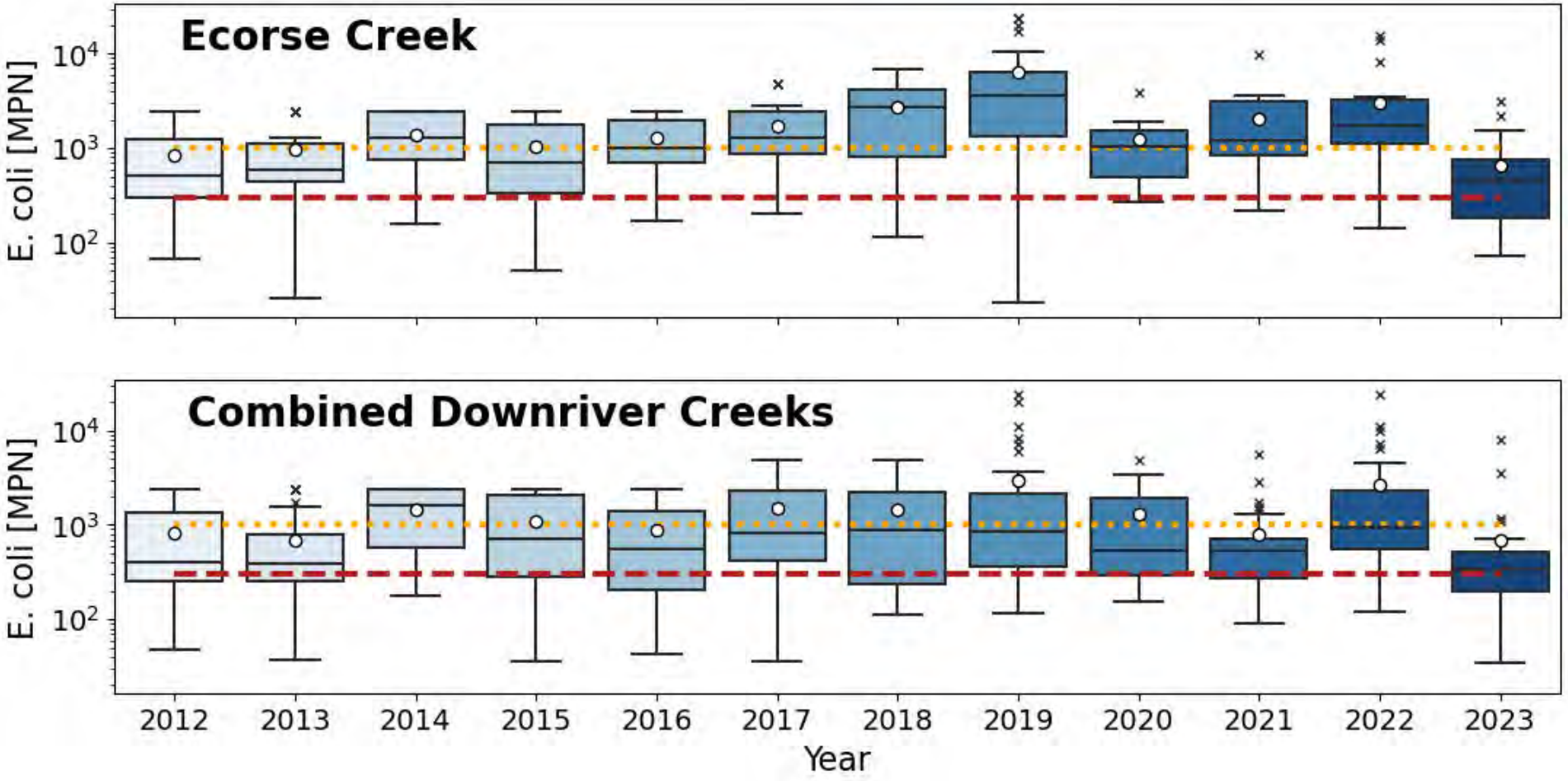
TP TARGET OF 0.03 mg/L INDICATED BY RED DASHED LINE

E.COLI BY YEAR
in the Huron River at Fort Rd



Full Body Contact Standard of 300 MPN Indicated by RED DASHED LINE
Partial Body Contact Standard of 1000 MPN Indicated by YELLOW DOTTED LINE

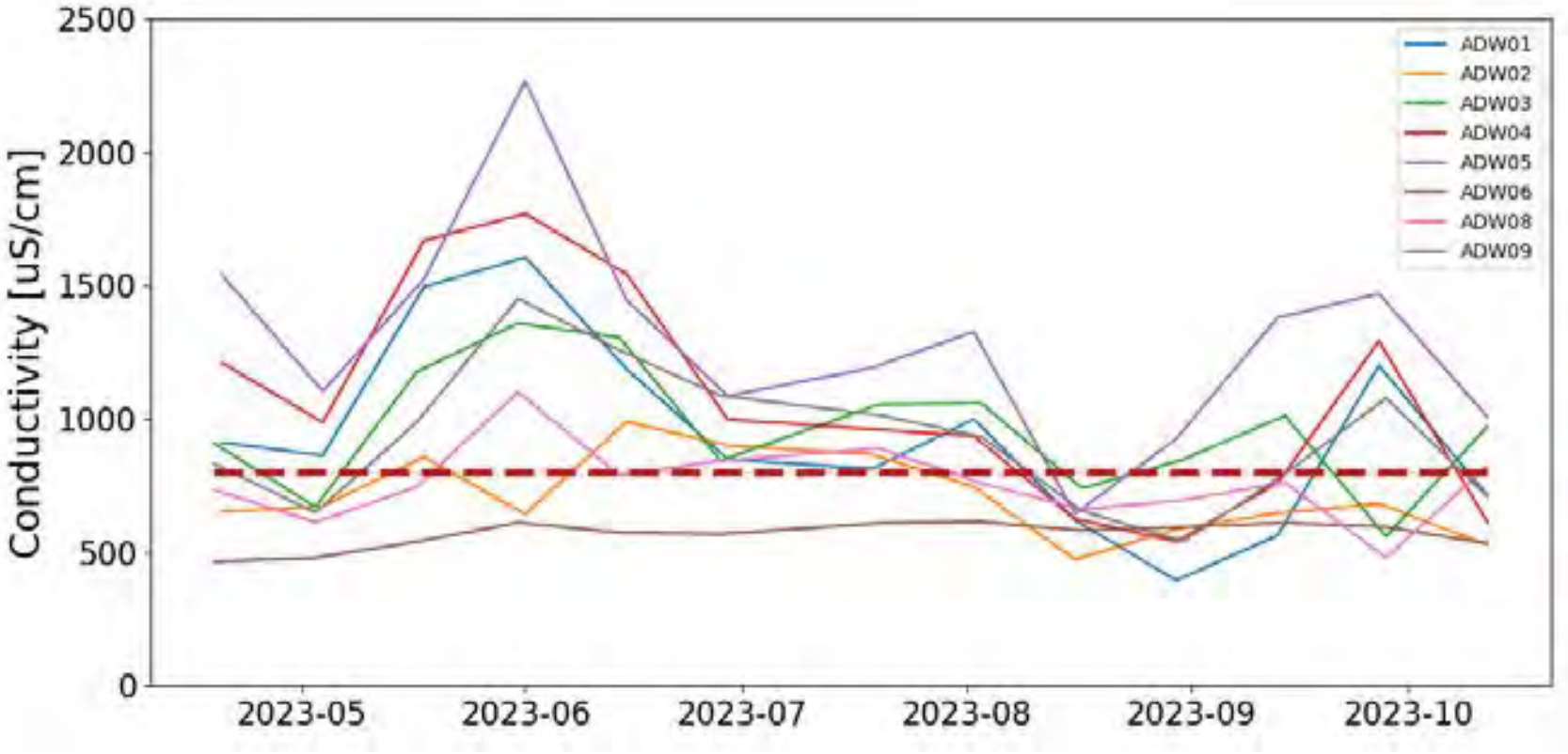
E.COLI BY YEAR



Full Body Contact Standard of 300 MPN Indicated by RED DASHED LINE
Partial Body Contact Standard of 1000 MPN Indicated by YELLOW DOTTED LINE

2023 YSI DATA: CONDUCTIVITY

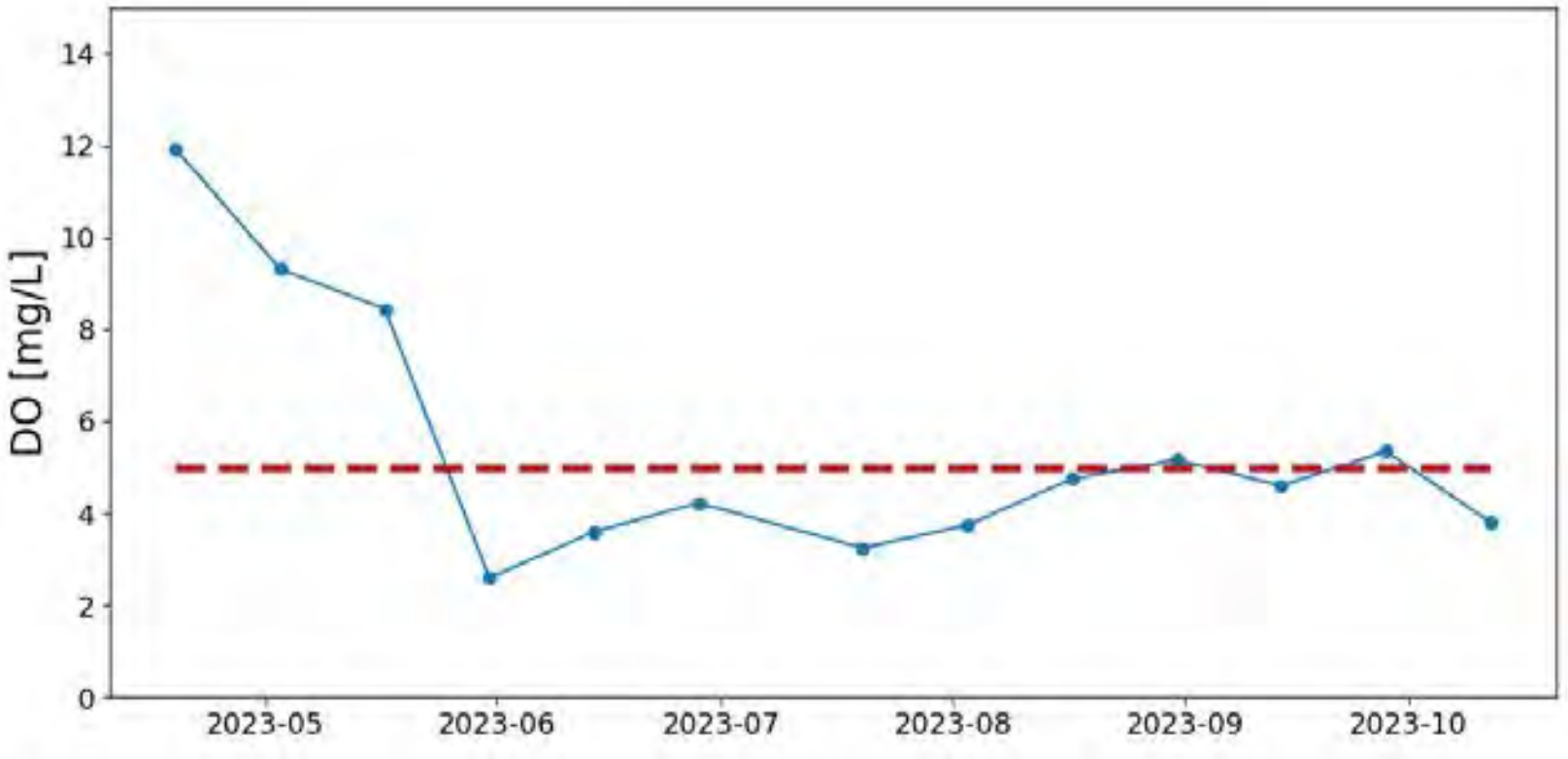
Conductivity is variable with the highest values in urban tributaries, especially Ecorse Creek



CONDUCTIVITY TARGET OF 800 us/cm INDICATED BY RED DASHED LINE

YSI DATA: DISSOLVED OXYGEN

- *Brownstown Creek has consistently low DO in the summer and fall*
- *Low DO is often associated with low flow or stagnant water*



DO TARGET OF 5 mg/L INDICATED BY RED DASHED LINE

SUMMARY OF RESULTS

- *TP:* High across the ADW
  - Improving: Huron River
  - Unchanged: Ecorse creek and the Combined Downriver creeks
    - Highest: South Branch Ecorse Creek
- *E. coli:* High at all urban sites and unchanging
- *TSS:* Moderate to good across all sites
- *Conductivity:* High at all urban sites, especially Ecorse Creek
- *Dissolved Oxygen*: Low DO at Brownstown, event-based low DO at other sites

Data available on our new
Chemistry Dashboard

INVESTIGATIVE SITE – Mizner Drain

- Drains Detroit International Airport; upstream of Blakely Creek
- 72% of dissolved oxygen records are below 5.0 mg/l
- 83% of samples above the TP target of 0.03 mg/l
- 92% of conductivity records are above 800 µS/cm
- Low TSS; average of 3.3 mg/l
- Median E. coli of 120 counts; geomean of 197 counts

NEXT STEPS

- Evaluate flow data.
- Finalize online monitoring report.
- Prepare for 2024 season.
- Identify new investigative sites.

2024 Chemistry & Flow Monitoring
VIRTUAL ORIENTATION

Saturday, March 23, 2024, 1-2:30 PM

Register: hrwc.org/volunteer/chemflow/

PROMOTE TO YOUR RESIDENTS!