



2023

Potential Pathogens and Total Phosphorus **ANNUAL REPORT**

Water Quality Monitoring (WQM) Program

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2023 POTENTIAL PATHOGENS AND TOTAL PHOSPHORUS ANNUAL REPORT

This report shows lab data parameters on the sites of specific concern (see below: [ALL SITES LOCATION MAP](#)) and some relevant comments (i.e. *manure spreading, precipitation, surface water levels, etc.*).

The full range of lab parameters can be found on the [Potential Pathogens and Total Phosphorus Report 2009 to 2022](#), which is updated every January, and is available upon request.

Monthly baseline monitoring data is reported in the Surface Water Integrated System (<https://dnrx.wisconsin.gov/swims/login.jsp>) and can be seen on the Surface Water Data Viewer (<https://dnrm.wisconsin.gov/H5/?Viewer=SWDV>).

Lab testing is done by Leuther Lab LLC, AgSource Lab and the Wisconsin State Lab of Hygiene (WSLH).

Lab data is sent at the end of each monitoring season to the Laboratory Coordinator of the Wisconsin Department of Natural Resources (DNR).

Data parameters included in this report:

Escherichia coli (E. coli):

- Pollution indicator of fecal pathogens (i.e., *Salmonella* and *Cryptosporidium*).
- Lives in warm blooded animal feces.
- Certain strains cause serious or even lethal digestive problems in humans.
- Human and hog feces carry over one million *E. coli* per gram.
- The safety standard for rivers is below 126 cfu/100mL. 750cfu/100ml requires a swimming advisory to be posted, and 1,000 cfu/100mL mandates closing of public beaches.
- *170,000 E. coli colony forming units (cfu) were found in 2019, over 1,300 the times the standard!*

Total Phosphorus (TP):

- Pollution indicator nutrient.
- Low levels of TP (up to 0.075 mg/L) are naturally found in surface waters, but high amounts cause “eutrophication”:
Excess algae and plant growth ➡ Death and decomposition ➡ Oxygen levels drop dramatically
➡ Die-off of fish and other aquatic organisms
- The most widespread water pollutant in Wisconsin due to soil erosion, manure lagoons and septic systems, detergents and runoff from farmland or lawns.
- *The highest TP result was seen in 2019: 4.22 mg/L, 56 times the standard!*



INDEX

All Sites LOCATION MAP	1
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ZONE 1 (Scott & Haney Townships):

• <u>Site location map</u>	<u>2</u>
• <u><i>E. coli</i> and Total Phosphorus results, 2023 (current year)</u>	<u>3</u>

ZONE 2 (Wauzeka Township):

• <u>Site location map</u>	<u>4</u>
• <u><i>E. coli</i> and Total Phosphorus results, 2023 (current year)</u>	<u>5</u>

ZONE 3 (Marietta Township):

• <u>Site location map</u>	<u>6</u>
• <u><i>E. coli</i> and Total Phosphorus results, 2023 (current year)</u>	<u>7</u>

REFERENCES	8
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ALL SITES LOCATION MAP

Crawford County



ZONE 1 (Scott & Haney Townships):

- A. Station A: #10044917 (Richland Creek), **impaired***
- B. Station B: #10044132 (Shaw Hollow Creek-Kickapoo River - Taylor Ridge Rd. bridge)



ZONE 2 (Wauzeka Township):

- C. Station #10032119 (WI River Tributary, 0.5 mi SE of STH 60 and Knob Ln Intersection), **impaired***
- D. Station #10032123 (Boydton Creek)
- E. Station #10052569 (Unnamed 5035112 at Spring), **impaired***

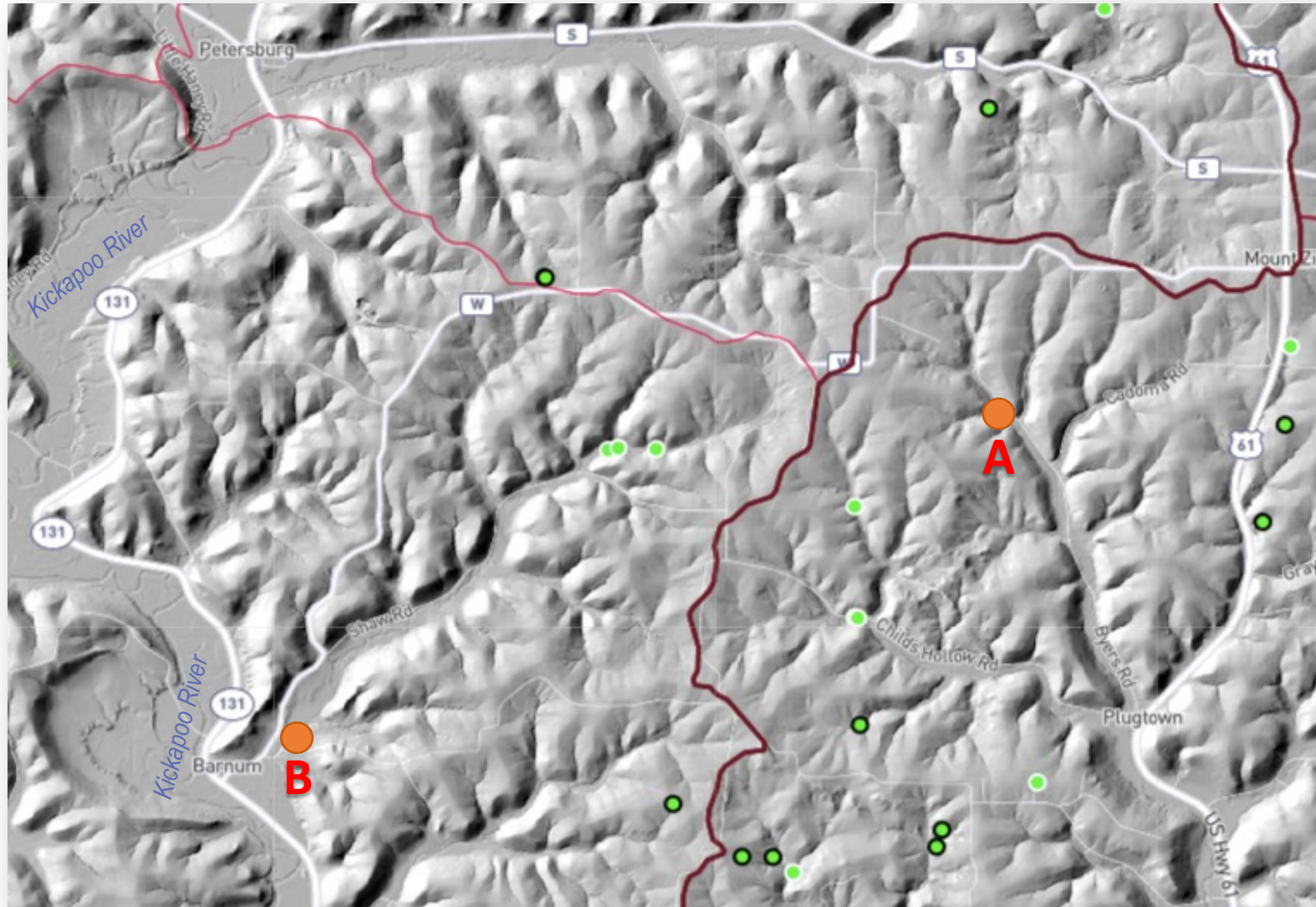
ZONE 3 (Marietta Township):

- F. Station #10052670 Unnamed (5034616)
- G. Station #10052671 Unnamed (5034666)
- H. Pending: Station #10052699 Spring to Kickapoo River

***Impaired (for high Total Phosphorus):** Waters that do not meet WQS (Water Quality Standards) are placed on Wisconsin's Impaired Waters List - also known as the 303(d) list, under Section 303(d) of the CWA (Federal Clean Water Act).

-  Watershed boundary
-  Sub-watershed boundary

ZONE 1: Site location map



- Watershed boundary
- Sub-watershed boundary
- Possible sinkhole*
- Probable sinkhole*

* As identified by CSP's Karst Landscapes and Groundwater Susceptibility Survey of Crawford Co.

ZONE 1: *E. coli* and Total Phosphorus results, 2023 (current year)



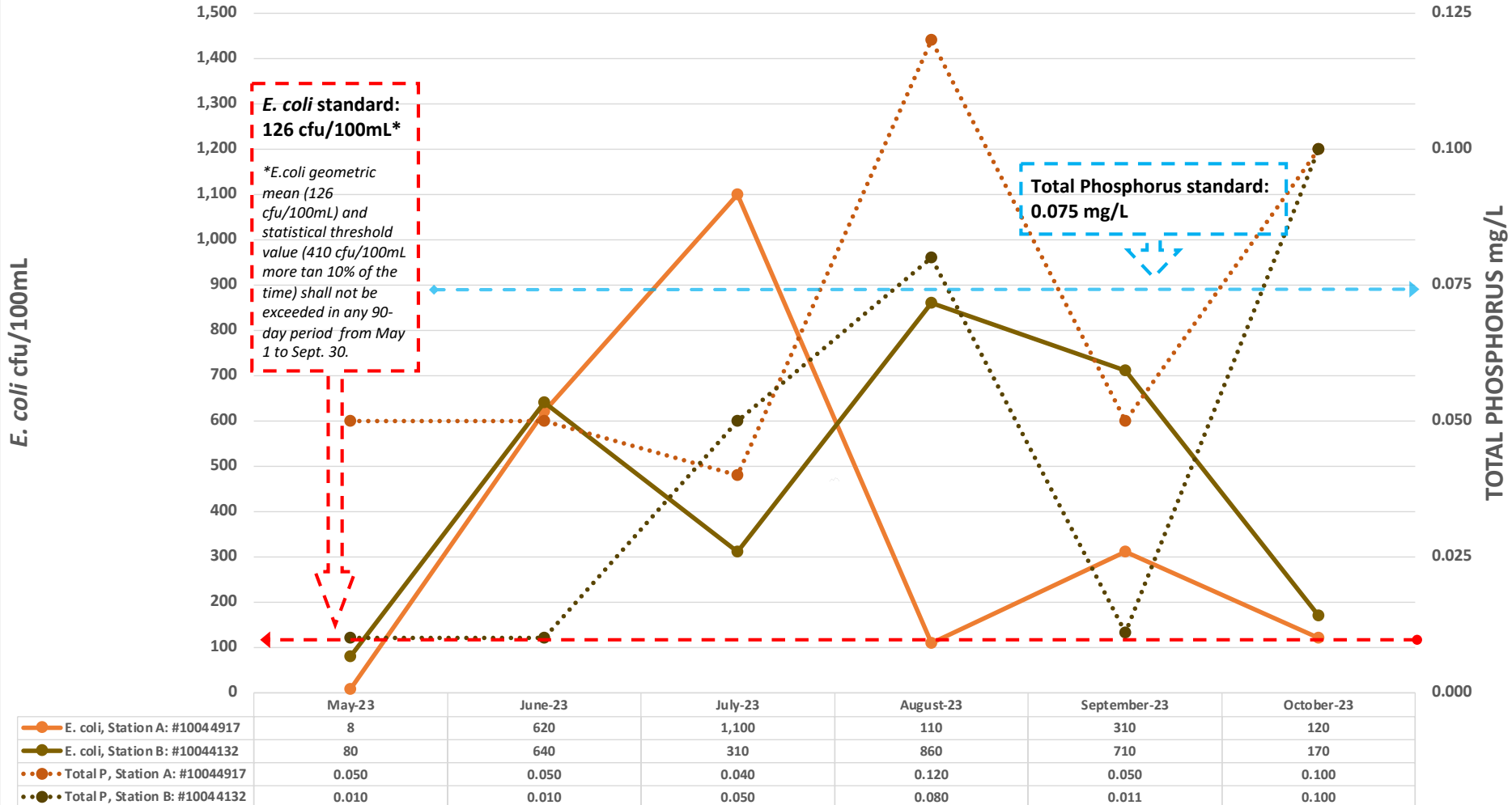
Comments:

- Drought conditions and low levels of running water in general
- High levels of *E. coli* found on STATION A (#10044917)

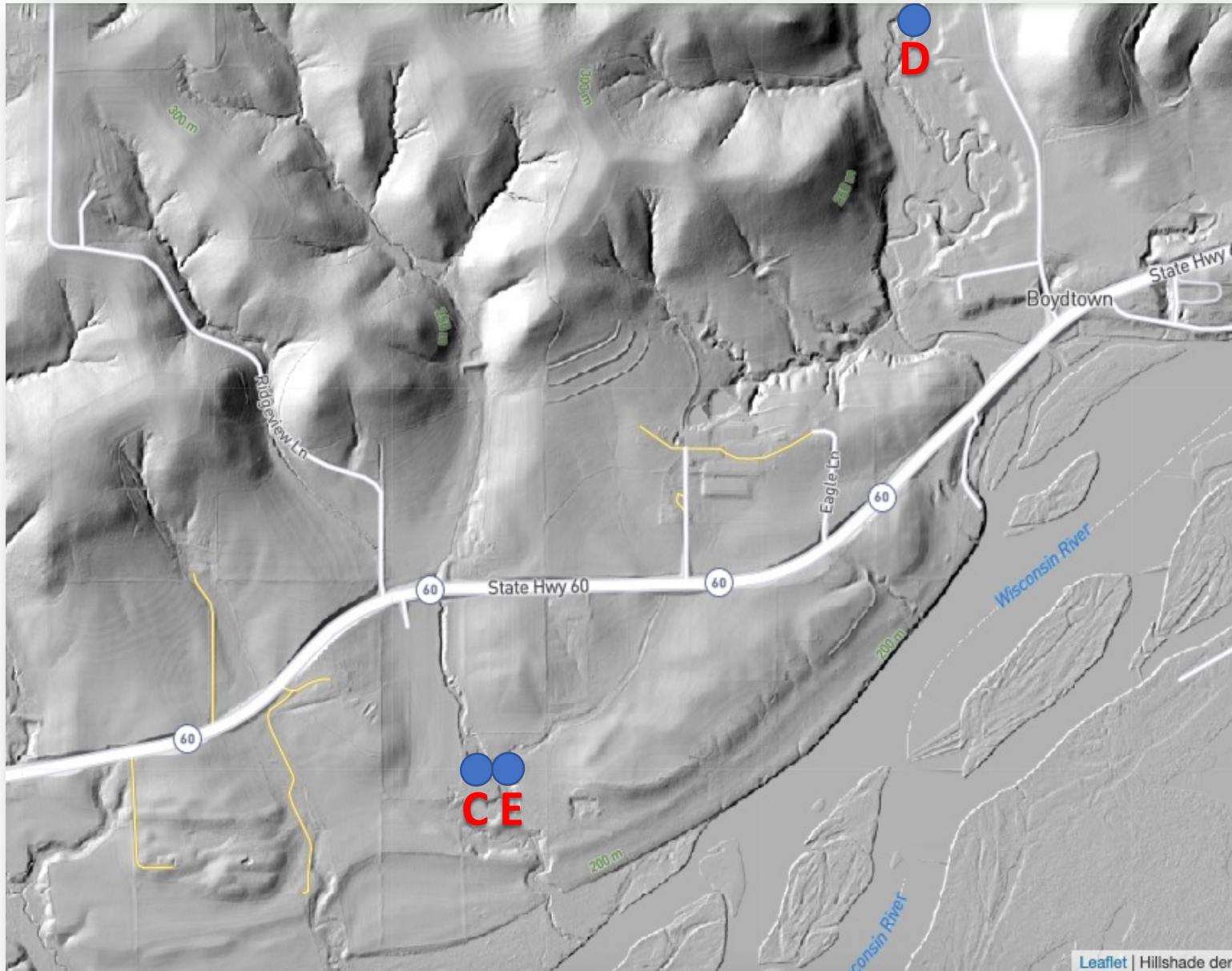
ZONE 1: *E. coli* AND TOTAL PHOSPHORUS RESULTS, 2023

STATION A: #10044917 (Richland Creek)

STATION B: #10044132 (Shaw Hollow Creek - Kickapoo River - Taylor Ridge Rd. bridge)



ZONE 2: Site location map

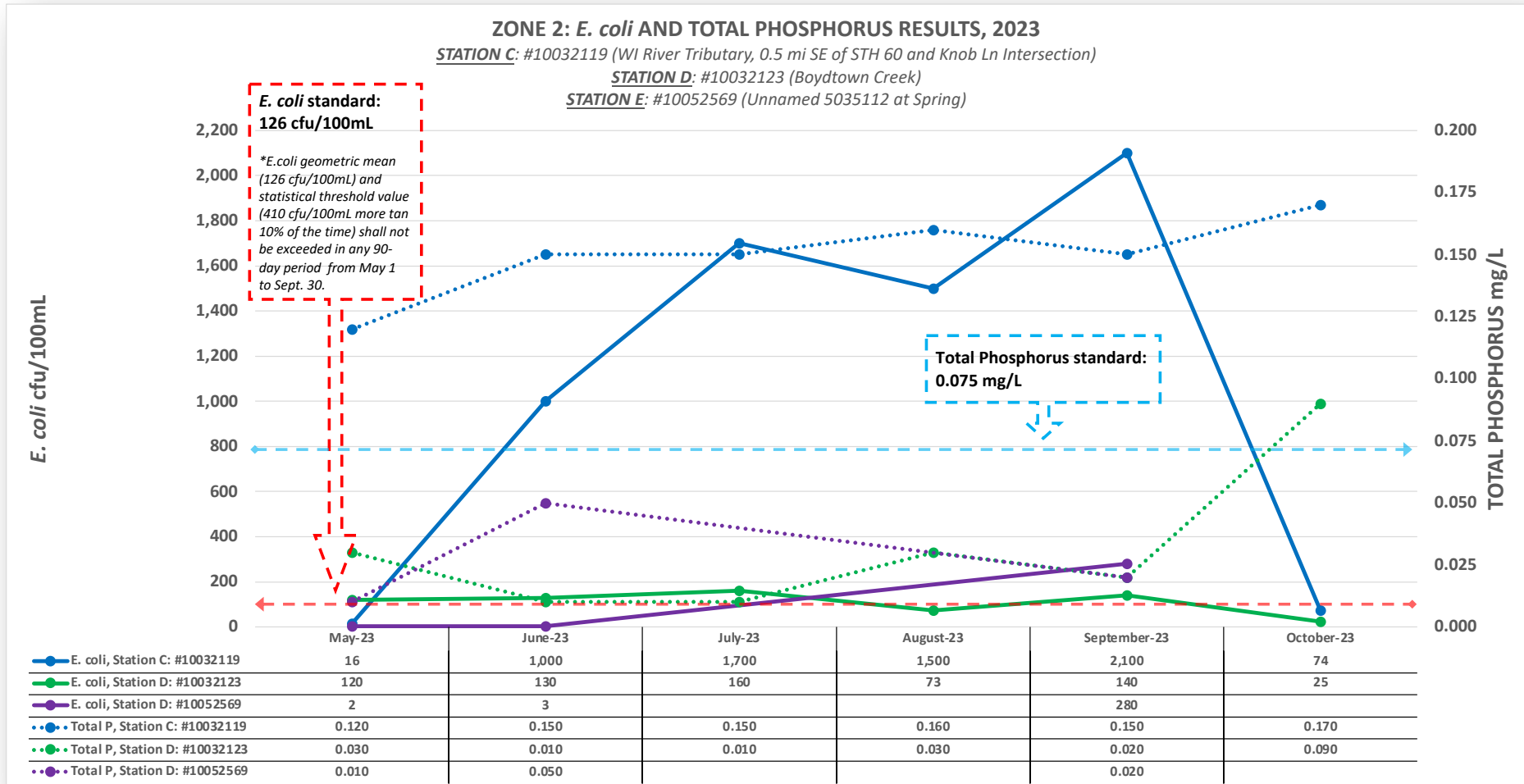


ZONE 2: *E. coli* and Total Phosphorus results, 2023 (current year)

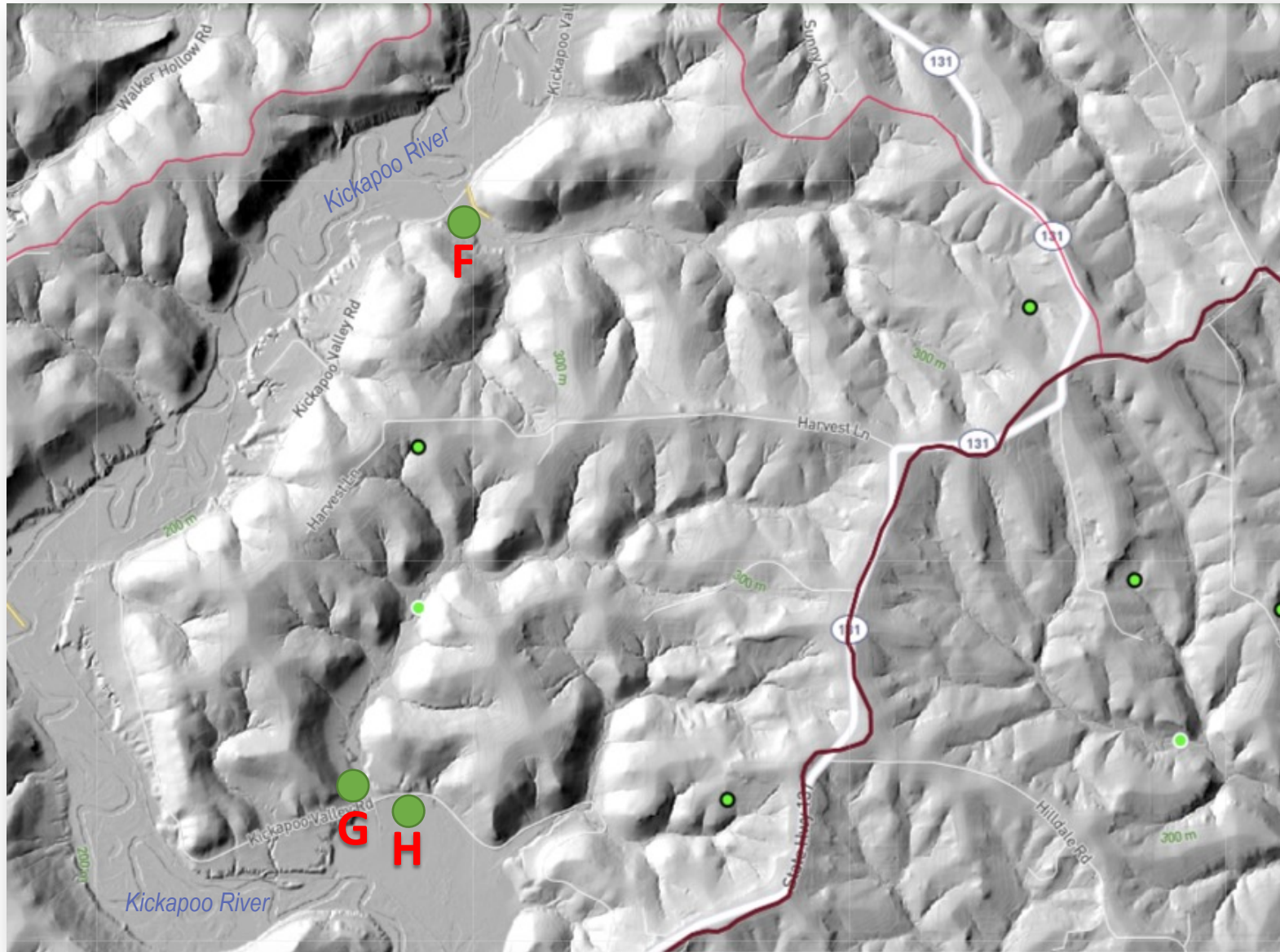


Comments:

- Drought conditions and low levels of running water in general (STATION E (#10052569) was dry in July, August, and October
- High levels of *E. coli* and Total Phosphorus found on STATION C (#10032119)
- Alarming levels of Fungi and *Staphylococcus aureus* found on STATION C (#10032119) and STATION E (#10052569) in September



ZONE 3: Site location map



- Watershed boundary
- Sub-watershed boundary
- Possible sinkhole*
- Probable sinkhole*

* As identified by CSP's Karst Landscapes and Groundwater Susceptibility Survey of Crawford Co.

ZONE 3: *E. coli* and Total Phosphorus results, 2023 (current year)



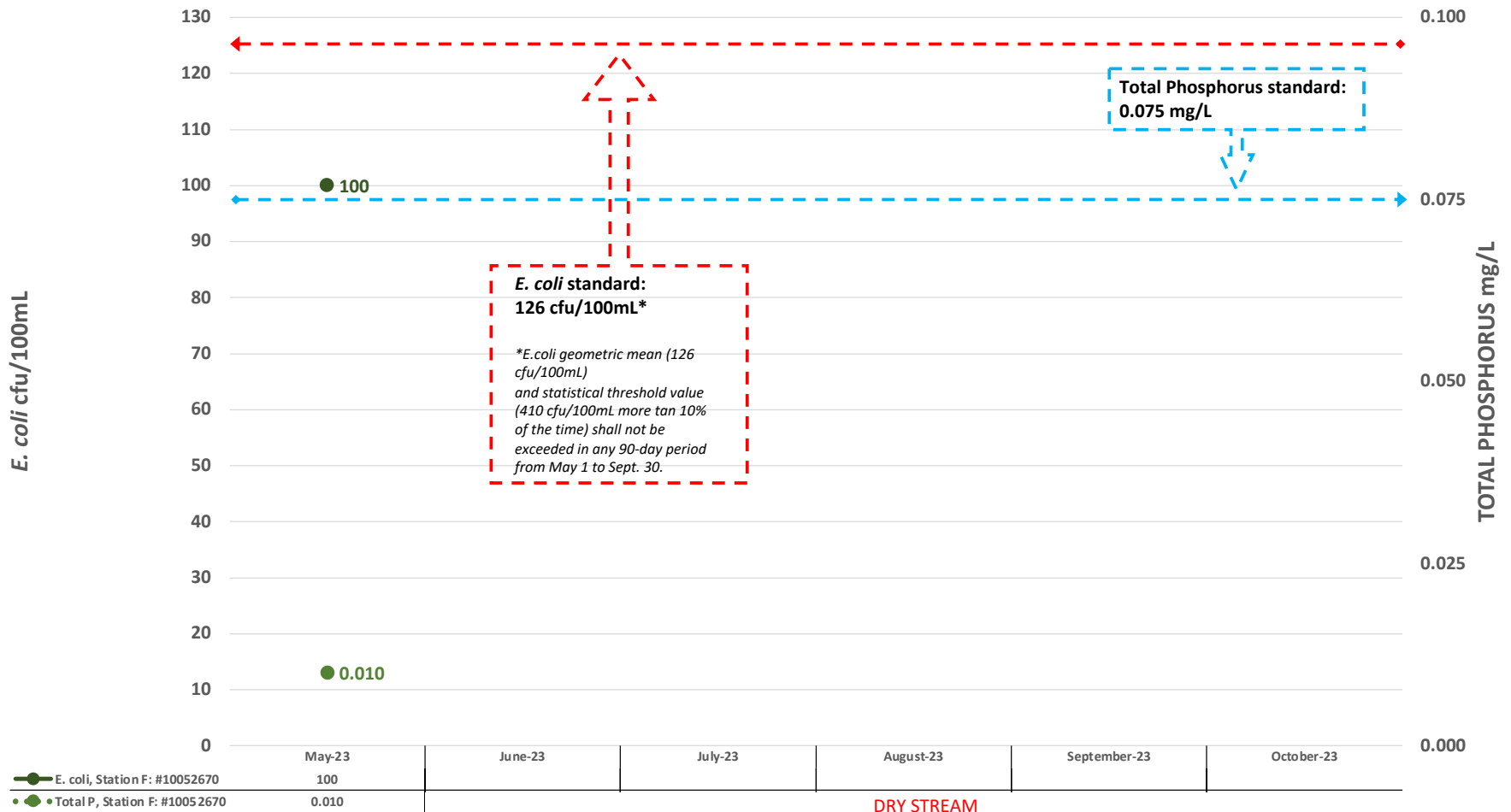
Comments:

- Drought conditions and low levels of running water or dried up streams for the entire season (STATION F (#10052670) was dry since May, and STATION G (#10052671) remained dry)

ZONE 3: *E. coli* AND TOTAL PHOSPHORUS RESULTS, 2023

STATION F: #10052670 Unnamed (5034616) at Kickapoo Valley Road

N/A DRY STREAM ALL YEAR LONG- STATION G: #10052671 Unnamed (5034666) at Kickapoo Valley Road





REFERENCES

- [CSP Surface Water Monitoring Program](#)
- [The Phosphorus Rule](#)
- [Water Condition Lists](#)
- [Water Condition Viewer](#)
- [Impaired Water Search](#)
- [CSP Regional Karst Geology Viewer](#)