

2025

# Potential Pathogens and Total Phosphorus ANNUAL REPORT

Water Quality Monitoring (WQM) Program

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## 2024 POTENTIAL PATHOGENS AND TOTAL PHOSPHORUS ANNUAL REPORT

This report shows lab data parameters on the sites of specific concern and some relevant comments (i.e. manure spreading, precipitation, surface water levels, etc.).

The full range of lab parameters can be found on the <u>Potential Pathogens and Total Phosphorus Report 2009 to 2024</u>, which is updated every January, and is available at <u>crawfordstewardship.org</u> or upon request.

Monthly baseline monitoring data is reported in the Surface Water Integrated System (<a href="mailto:dnrx.wisconsin.gov/swims/login.jsp">dnrx.wisconsin.gov/swims/login.jsp</a>) and can be seen on the Water Action Volunteers Program Stream Monitoring Data Dashboard (<a href="mailto:connect.doit.wisc.edu/wav-dashboard">connect.doit.wisc.edu/wav-dashboard</a>).

Lab testing is done by Leuther Lab, AgSource Labs, Helix Biolab, and the Wisconsin State Lab of Hygiene. Lab data is submitted to and validated by the Laboratory Coordinator of the WDNR at the end of each monitoring season.

## 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 colony forming units (cfu)/100mL. 750 cfu/100ml requires a swimming advisory to be posted, and 1,000 cfu/100mL mandates closing of public beaches.
- The highest E. coli result was seen in 2019: 170,000 cfu/100ml, over 1,300 times the standard.

## **Total Phosphorus (TP):**

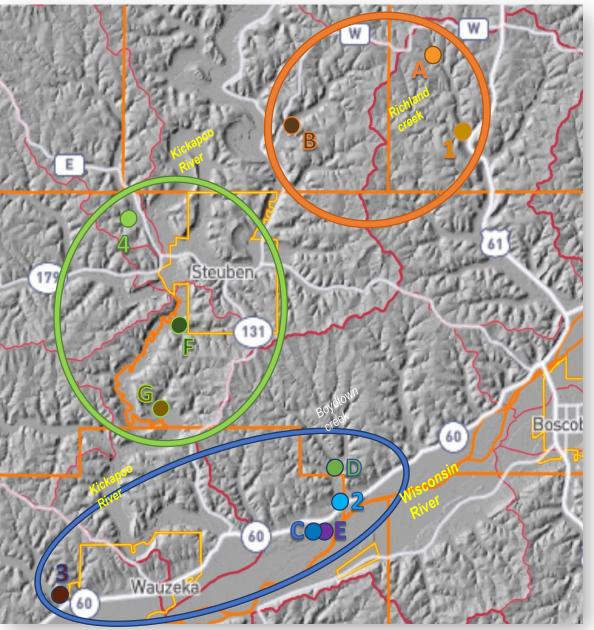
- Pollution indicator nutrient.
- Low levels of TP (up to 0.075 mg/L) are naturally found in surface waters, but high amounts cause "eutrophication":

  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.

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\*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).

# ALL SITES LOCATION MAP

**Crawford County** 



## **ZONE 1 (Scott & Haney Townships):**

- A. Station #10044917 (Richland Creek at Byers Road), impaired\*
- **B.** Station #10056913 (Unnamed Trib 1183600 at Drake Rd.), was #10044132
- Station #10044131 (Richland Creek Childs Hollow Rd Bridge)

## **ZONE 2 (Wauzeka Township):**

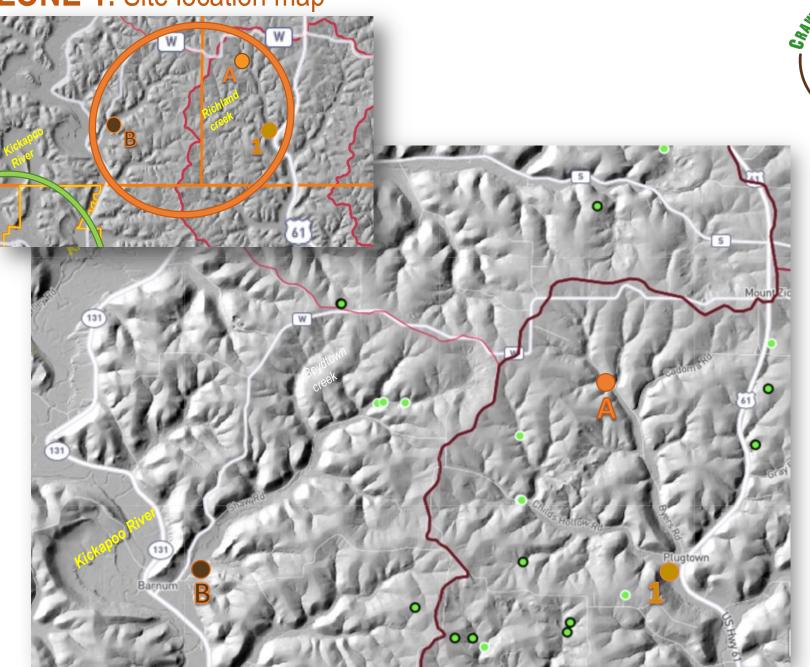
- C. Station #10032119 (WI River Tributary, 0.5 mi SE of STH 60 and Knob Ln Intersection), impaired\*
- D. Station #10032123 (Boydtown Creek 400 ft west of Hilldale Rd)
- **E.** Station #10052569 (Unnamed 5035112 at Spring), *impaired*\*
- 2. Station #10013610 (Boydtown Creek Station 1-From STH 60 Upstream)
- 3. Station #10029558 (Little Kickapoo Creek, Hwy 60 St 1)

## **ZONE 3 (Marietta Township):**

- F. Station #10052670 (Unnamed 5034616 at Kickapoo Valley Road)
- **G.** Station #10052671 (Unnamed 5034666 at Kickapoo Valley Road)
- 4. Station #10009025 (Citron Creek #1 Bridge on Cty E)

Watershed boundary
Sub-watershed boundary

# **ZONE 1:** Site location map





■ Watershed boundary

Sub-watershed boundary

Possible sinkhole\*

Probable sinkhole\*

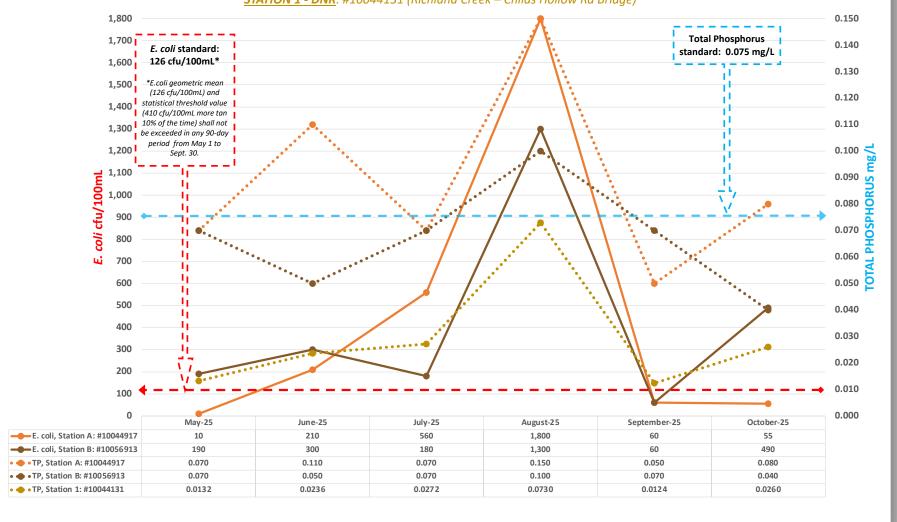
\* As identified by CSP's Karst Landscapes and Groundwater Susceptibility Survey of Crawford Co.

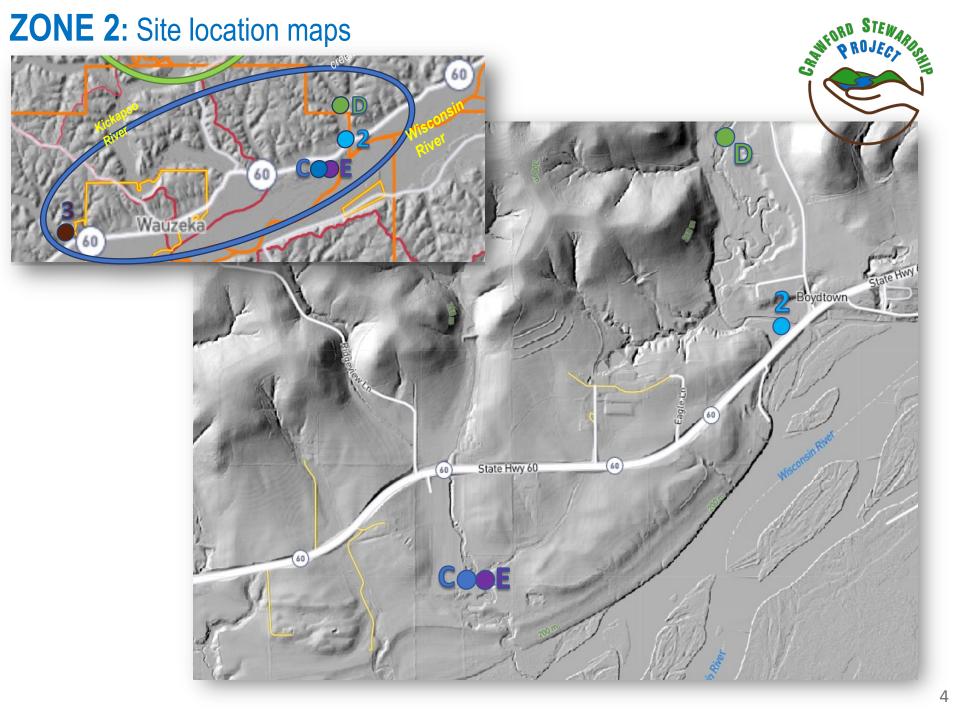
## **ZONE 1:** *E. coli* and **Total Phosphorus** results, 2025

## Comments:

- Constant and very high levels of E. coli, Total Phosphorus, Staphylococcus specie and/or background bacteria found on all stations

**STATION A**: #10044917 (Richland Creek at Byers Road) **STATION B**: #10056913 (Unnamed Trib (1183600) at Drake Rd) STATION 1 - DNR: #10044131 (Richland Creek - Childs Hollow Rd Bridge)





# ZONE 2: E. coli and Total Phosphorus results, 2025

## Comments:

- Highest precipitation levels in the month of August since 2019
- Constant and very high levels of E. coli, Total Phosphorus, Staphylococcus specie and/or background bacteria found on all stations
- Alarming levels of Staphylococcus aureus (6,000/100 mL) found on STATION E (spring #10052569) in September

## **ZONE 2: E. coli AND TOTAL PHOSPHORUS RESULTS, 2025**

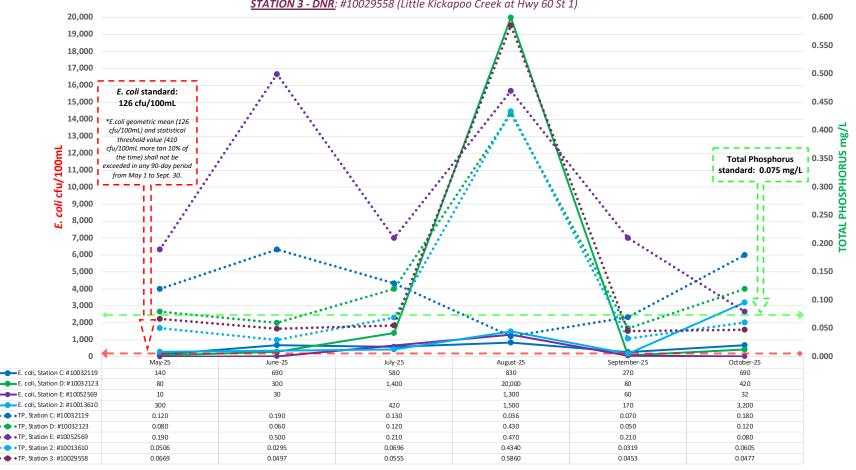
STATION C: #10032119 (WI River Tributary, 0.5 mi SE of STH 60 and Knob Ln Intersection)

**STATION D**: #10032123 (Boydtown Creek 400 ft west of Hilldale Rd)

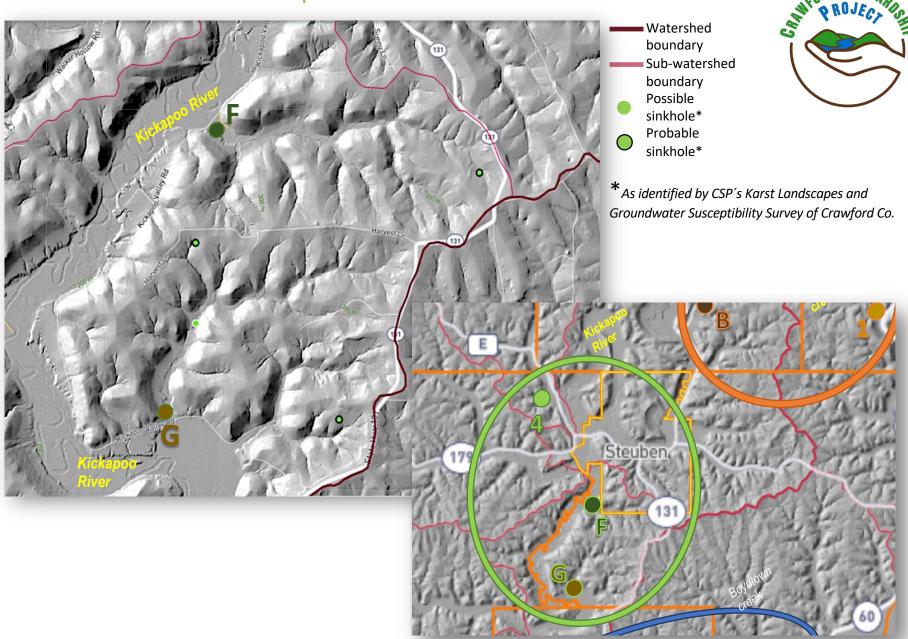
**STATION E**: #10052569 (Unnamed (5035112) at Spring)

STATION 2 - DNR: #10013610 (Boydtown Creek Station 1-From STH 60 Upstream)

STATION 3 - DNR: #10029558 (Little Kickapoo Creek at Hwy 60 St 1)



# **ZONE 3:** Site location maps



## ZONE 3: E. coli and Total Phosphorus results, 2025

## Comments:

- Highest precipitation levels in the month of August since 2019
- STATION F (#10052670) was only active in May and August.; STATION G (#10052671) was dry the whole season
- Alarming levels of of E. coli (40,000 cfu/100mL) and/or Total Phosphorus (1.25 mg/L) found on STATION F (#10052670)

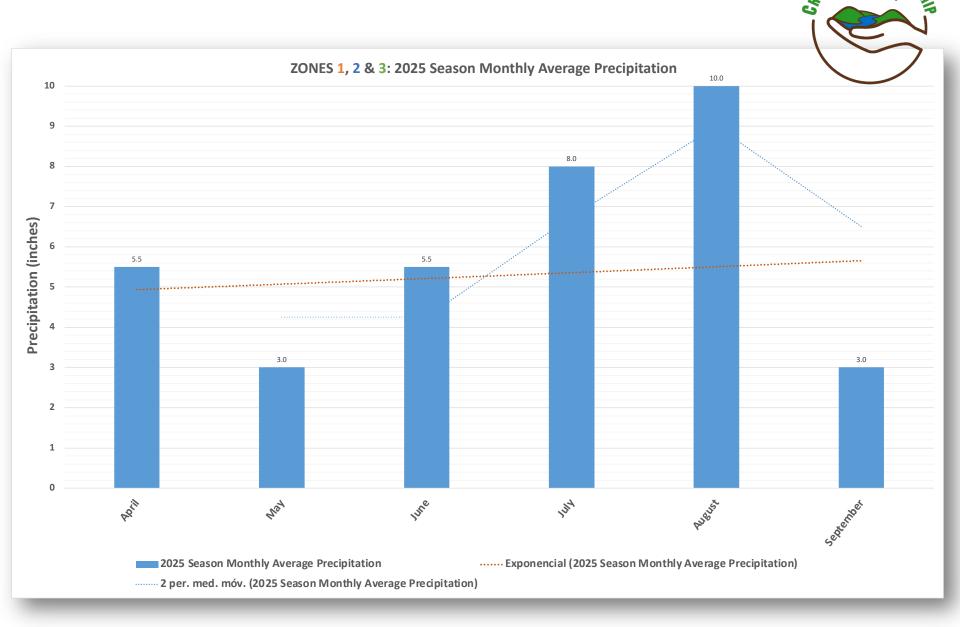
# PROJECT PROJECT

## **ZONE 3: E. coli AND TOTAL PHOSPHORUS RESULTS, 2025**

<u>STATION F</u>: #10052670 (Unnamed (5034616) at Kickapoo Valley Road) <u>STATION G</u>: #10052671 (Unnamed (5034666) at Kickapoo Valley Road) <u>STATION 4 - DNR</u>: #10009025 (Citron Creek #1 Bridge on Cty E)



# **ZONES 1, 2 & 3: 2025 Season Monthly Average Precipitation**



## **SOME REFERENCES**



- <u>CSP Surface Water Monitoring Program</u>: https://www.crawfordstewardship.org/surfacewater/
- <u>The Phosphorus Rule</u>: https://dnr.wisconsin.gov/sites/default/files/topic/Wastewater/TP\_factsheet416 2013.pdf
- Water Condition Lists:
   https://dnr.wisconsin.gov/topic/SurfaceWater/ConditionLists.html
- <u>Water Condition Viewer</u>: https://dnrmaps.wi.gov/H5/?viewer=Water\_Condition\_Viewer
- Impaired Water Search: https://apps.dnr.wi.gov/water/impairedSearch.aspx
- <u>CSP Regional Karst Geology Viewer</u>: https://karstology.crawfordstewardship.org/#/0/43.2217/center/-90.9201,43.2222

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