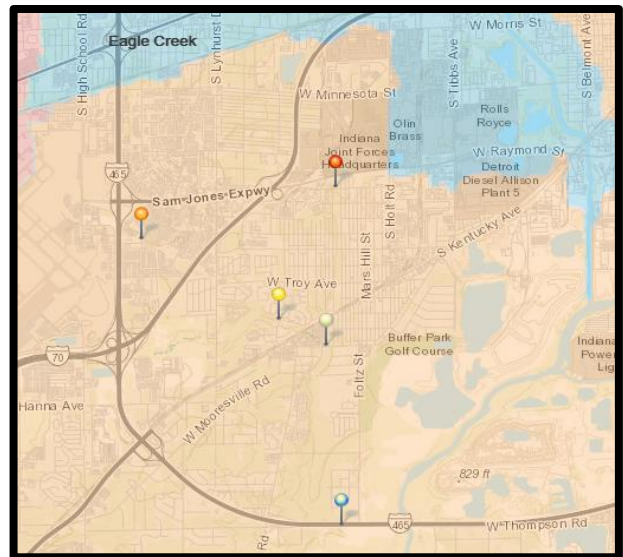
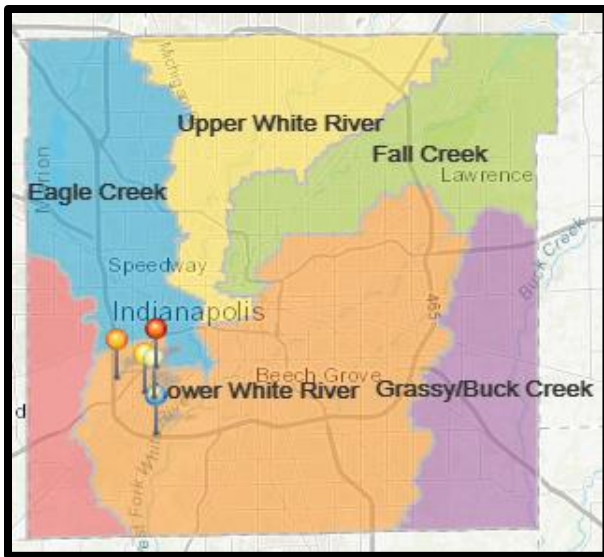


## 2023 State Ditch Sampling Summary

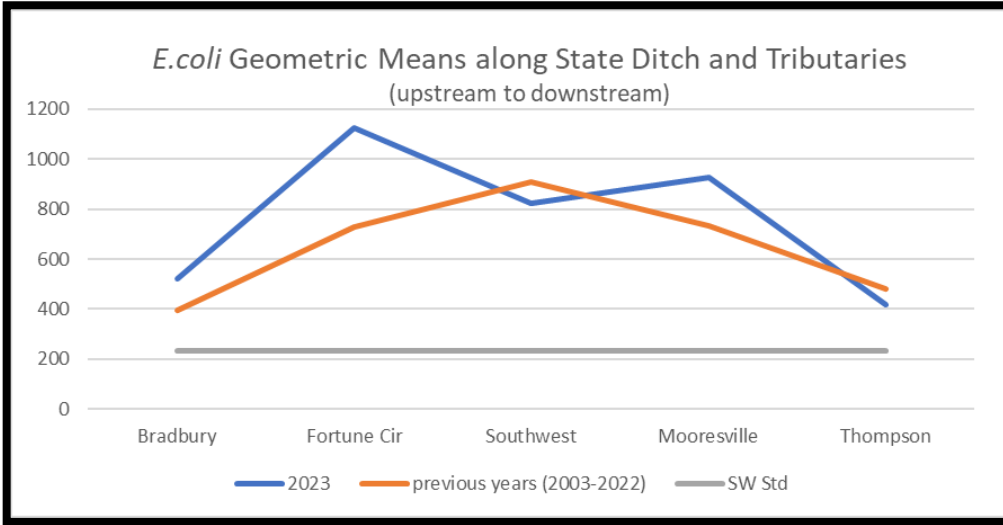
The State Ditch sampling route is located within the Lower White River watershed in southwest Marion County and includes sites along State Ditch, Seerley Creek, and Mars Ditch. The ambient sampling route consists of 5 sites that are sampled for bacteria 5 times per month year-round and 3 times a year for chemicals. There are currently no sites for macroinvertebrate sampling along this route. Sampling results for 2023 were assessed by looking at trends and applicable surface water quality standards. These water quality standards are based on the Indiana Administrative Code (327 IAC 2-1-6) and parameters are considered “out of range” if the detected level exceeds that determined by the IAC.



SITE NAME	COORDINATES
State Ditch @ Bradbury Ave	39.73131, -86.233
Mars Ditch @ Fortune Cir W Dr	39.72527, -86.2609
Seerley Creek @ Southwest Dr	39.71608, -86.241194
State Ditch @ Mooresville Rd	39.71297, -86.2344
State Ditch @ Thompson Rd	39.69183, -86.232

**Ambient *E. coli* Sampling**

In 2023, the State Ditch route was sampled 60 times and included 282 total *E. coli* samples (occasionally samples are unable to be collected due to road closures, bridge construction, frozen stream, etc.). Results are then compared to the recreational surface water standard of 235 MPN/100 ml. *E. coli* is an indicator of raw sewage and there are two Combined Sewer Outfalls to State Ditch. Combined sewers dump untreated sewage into the creeks during rain events since the sewer lines and storm lines are shared. *E. coli* levels are consistently above the recreational standard, possibly due to the 2 combined sewer outfalls and urban runoff.



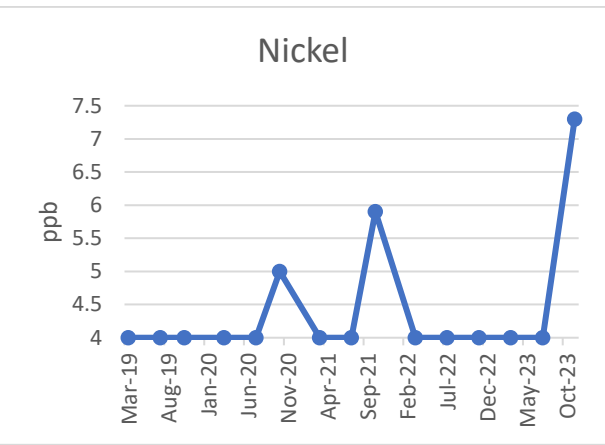
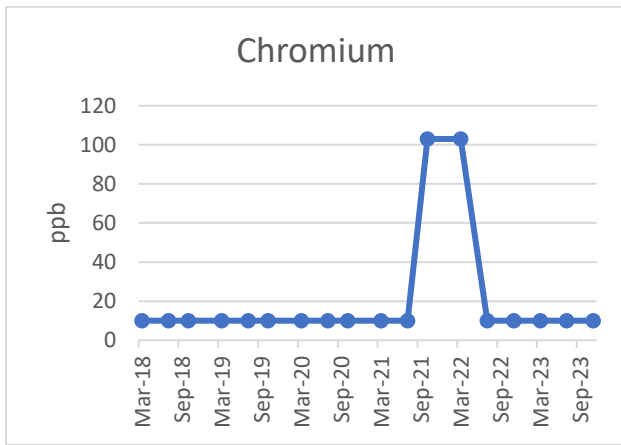
SITE	% EXCEED STD (2023)
Bradbury	78.3
Fortune Cir	81.7
Southwest	71.7
Mooresville	85
Thompson	62.8

**Ambient Chemical Sampling**

Chemical samples were collected in March, July, and November from all five sites, though Thompson Rd. could not be sampled in July due to bridge construction. During 2023, two samples taken from the Mars Ditch site had heavy metal levels out of range. This site occasionally has low and high levels of multiple heavy metals and may require further study. The only other out of range chemical was.

Surface Water Parameter	Occurrences of Out of Range Values, 2023	% of Samples Out of Range, 2023
Chloride	0	0
Ammonia	4	29
VOCs	0	0
Heavy Metals	2	14

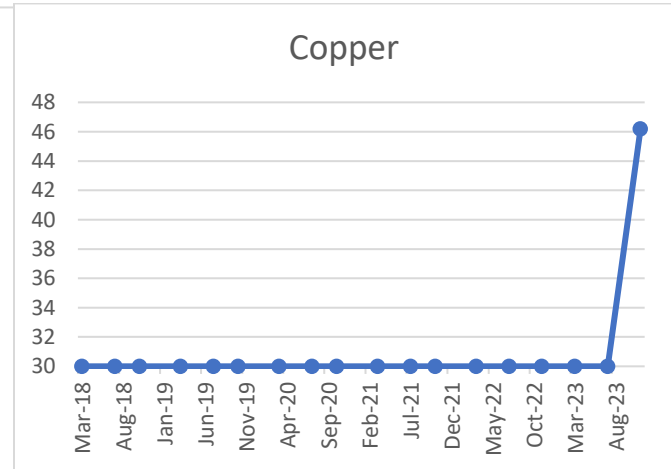
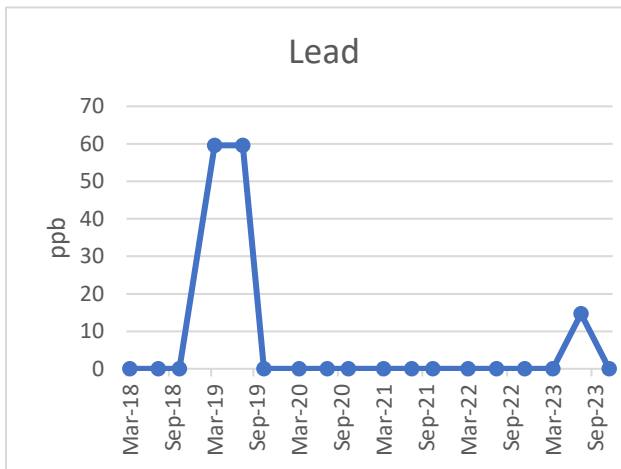
**Heavy Metals detected at Mars Ditch @ Fortune Cir W Dr, 2018-2023**



\*Detection limit for Chromium is 10 ppb.

\*Detection limit for Nickel is 5 ppb.

\*No samples are available from 2018 due to laboratory equipment issues.



\*Detection limit for Lead is 0.4 ppb.

\*Detection limit for Copper is 40 ppb.