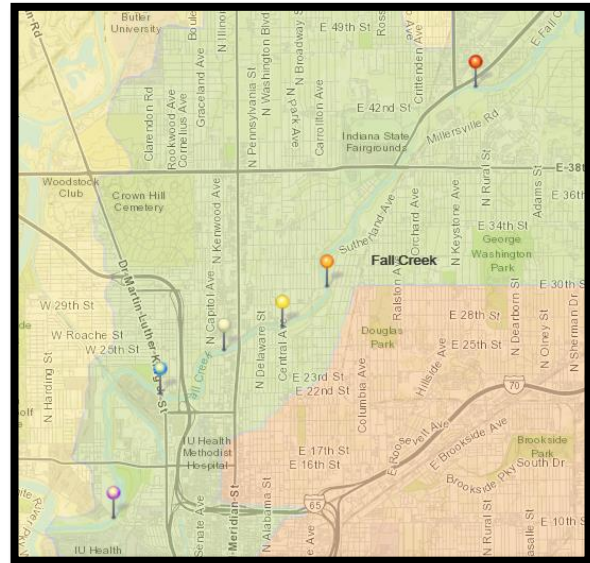
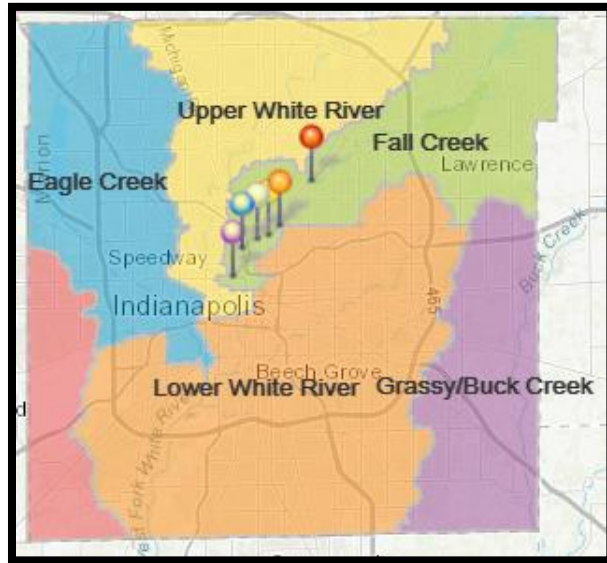


2023 Fall Creek Sampling Summary

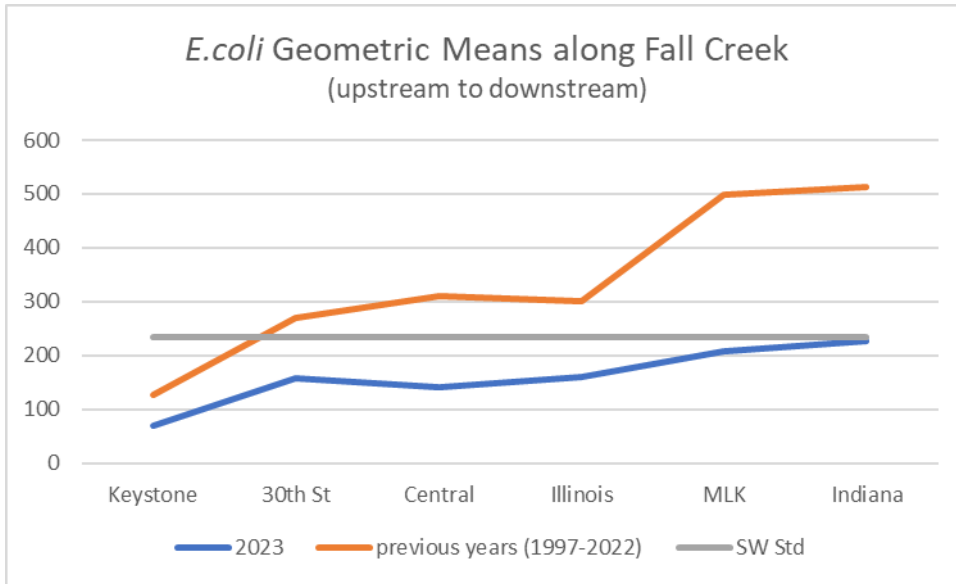
The Fall Creek sampling route is located within the Fall Creek watershed and includes both Fall Creek and its tributary Devon Creek. The ambient sampling route consists of 6 sites on Fall Creek that are sampled 5 times per month year-round, plus an additional 3 sites on Devon Creek for quarterly chemical sampling. Macroinvertebrate sampling occurs once a year at 4 sites along Fall Creek. 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
Fall Creek @ Keystone Ave	39.8355, -86.1182
Fall Creek @ 30 th St	39.810472, -86.14214
Fall Creek @ Central Ave	39.805583, -86.1496
Fall Creek @ Illinois St	39.8025, -86.159
Fall Creek @ MLK	39.797167, -86.16942
Fall Creek @ Indiana Ave	39.781778, -86.17683
Devon Creek @ Radnor Rd	39.84472, -86.0679
Devon Creek @ Brown Rd	39.838768, -86.093856
Devon Creek @ Millersville Rd	39.841028, -86.100944

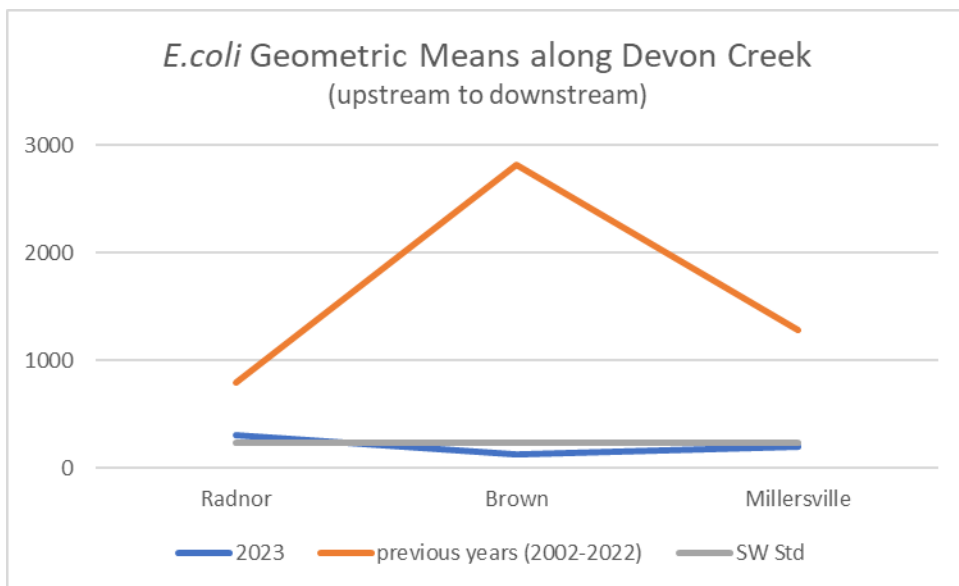
Ambient *E. coli* Sampling

In 2023, the Fall Creek route was sampled 60 times and included 361 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 most of the sites on this route are located within the Indianapolis’ Combined Sewer Area. Combined sewers dump untreated sewage into the creeks during rain events since the sewer lines and storm lines are shared.



SITE	% EXCEED STD (2023)
Keystone	16.9
30 th St	32.2
Central	30.5
Illinois	30.5
MLK	33.9
Indiana	38.6

As expected, *E. coli* levels are lowest at Keystone, which is upstream of the Combined Sewer Area. Levels generally increase as sites move downstream and are impacted by more of the 27 combined sewers outfalls along Fall Creek. Note that annual mean for all sites is below the surface water standard. The percentage of samples that exceed the standard are also lower compared to last year.



Historic *E. coli* levels are elevated at Brown and Millersville, likely due to a broken sewer lateral that was repaired in 2022. Average levels in 2023 were all at or below the surface water standard.

Ambient Chemical Sampling

Chemical samples are completed three times annually, in March, July, and November at all nine sites. During 2023, the only parameters found out of range were Ammonia and heavy metals. Two sites (Devon Creek @ Brown Rd and Fall Creek @ Illinois) had high levels of Copper during November sampling.

Surface Water Parameter Occurrences of Out of Range Values, 2023 % Samples Out of Range, 2023

Chloride	0	0
Ammonia	2	7
VOCs	0	0
Heavy Metals	2	7

The Devon Creek at Radnor site has a history of trace amounts of total trihalomethanes (TTHMs), or disinfection byproducts, especially during the spring sampling date. TTHMs in surface water can be due to municipal water breaks, swimming pool discharge, or well chlorination flushing. After an investigation following the March sampling date, it was discovered that there was a water main leak near 46th Street and Arlington Ave. This was brought to the attention of staff at Citizen’s Energy Group and the leak was repaired.

