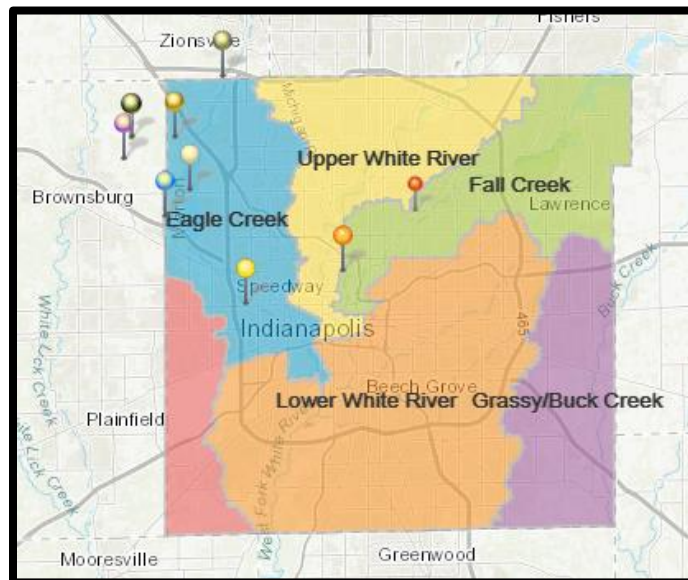


2022 Herbicide Sampling Summary

The Herbicide sampling route is nine sites located in the Fall Creek, Upper White River, and Eagle Creek watersheds. These sites are sampled from April through September for metals, anions, ammonia, and select herbicides (atrazine, simazine, cyanazine, metolachlor, and alachlor). There is no sampling for *E. coli* or macroinvertebrates at these sites. Sampling results for 2022 were assessed by looking at trends and applicable surface water quality standards. There are currently no surface water standards for the sampled herbicides, so EPA drinking water standards (Maximum Contaminant Levels, or MCLs) were used for comparison. Water quality standards for metals, anions, and ammonia 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 @ Fall Creek Pkwy N Dr	39.833639, -86.121889
Canal @ Burdsal Pkwy	39.800917, -86.178972
Eagle Creek @ 10 th St	39.780472, -86.259722
Eagle Creek Reservoir @ 56 th St	39.8525, -86.30311
School Branch @ Raceway Rd	39.836278, -86.327444
School Branch @ CR 750 N	39.873044, -86.361629
School Branch @ Maloney Rd	39.886, -86.355472
Fishback Creek @ Wilson Rd	39.886028, -86.318833
Eagle Creek @ Ford Rd	39.925944, -86.278861

Ambient Chemical Sampling

Herbicide sampling is done weekly from April to September. During the 2022 sampling season, there were 17 out of range values for Ammonia noted at the Burdsal Pkwy, Maloney Rd, Wilson Rd, Ford Rd, and 56th St sites. Some of the spikes in levels may be due to heavy rainfall events (May 3 and June 14) resulting in more herbicide runoff. An important consideration is herbicide levels tend to be higher at the beginning of the season because that is when most herbicides are land applied. There is no surface water standard for the herbicides sampled by MCPHD, so sample results are compared to EPA Drinking water standards. For information on herbicides in treated water, contact Citizens Energy Group or visit <https://info.citizensenergygroup.com/water/quality>. It should be noted that one sample is missing from the CR 750 site due to bridge construction.

Surface Water Parameter	Occurrences of Out of Range Values, 2022	% of Samples Out of Range, 2022
Anions	0	0
Ammonia	17	12
Herbicides	11	8
Heavy Metals	0	0

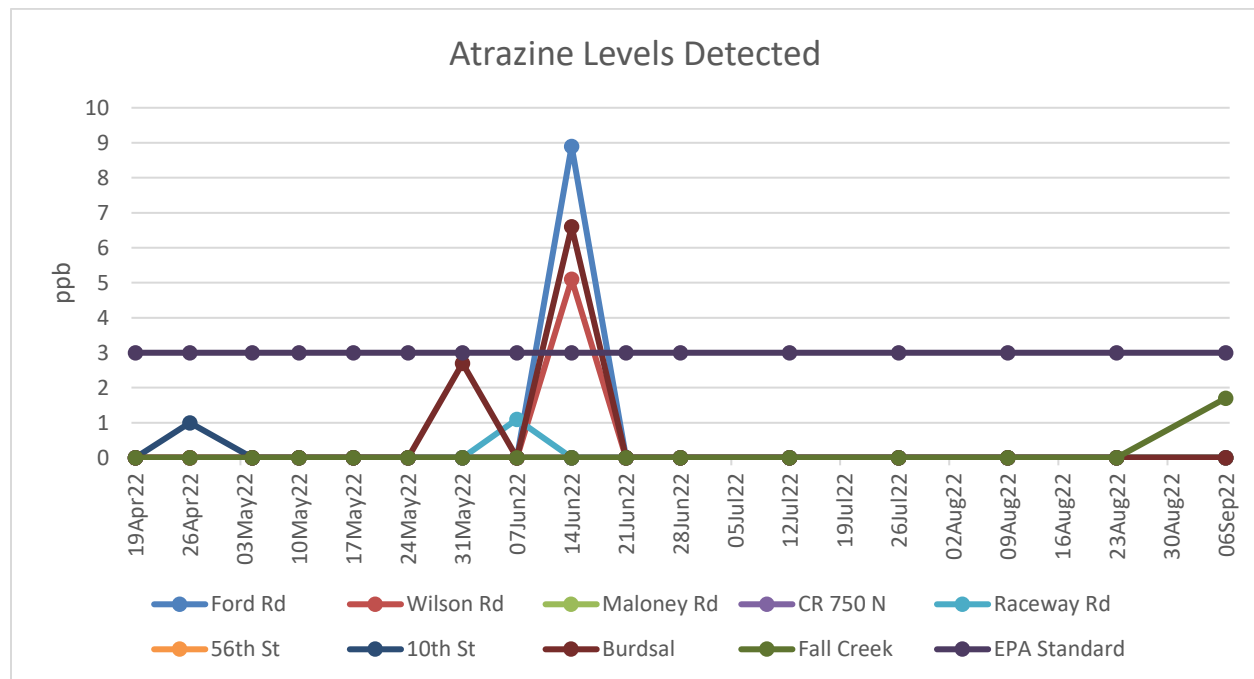


Figure 1: Atrazine levels are compared to EPA drinking water standard at 3 ppb ($\mu\text{g/L}$) because there is no current surface water standard.

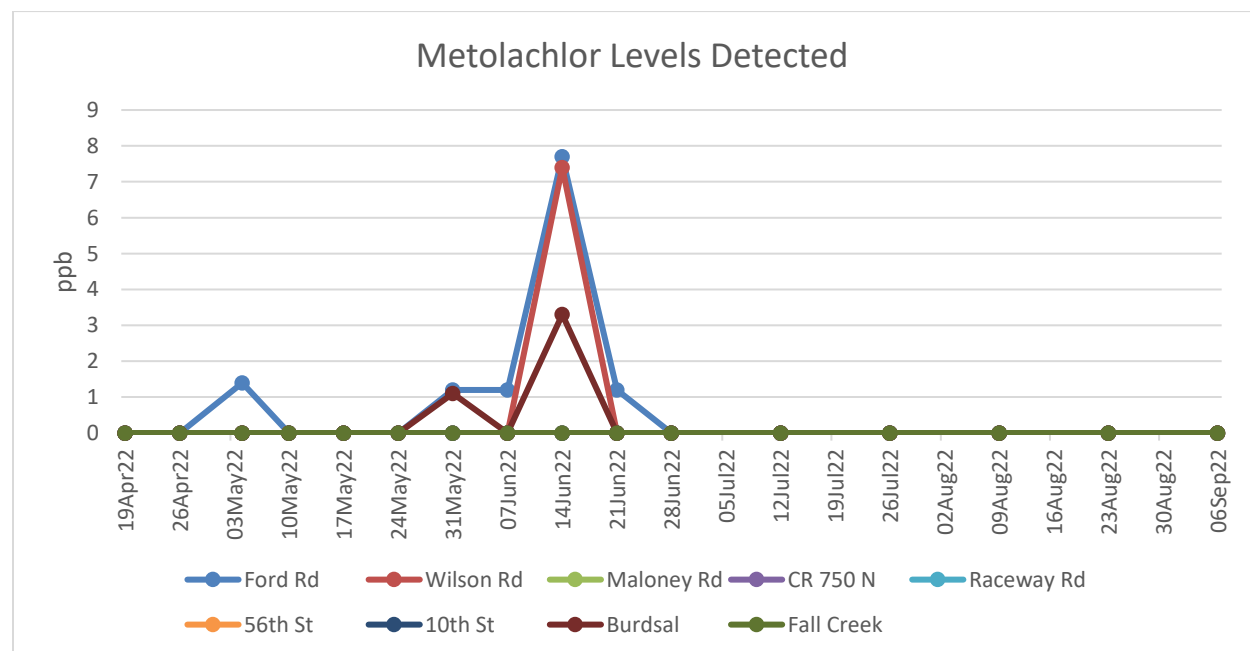
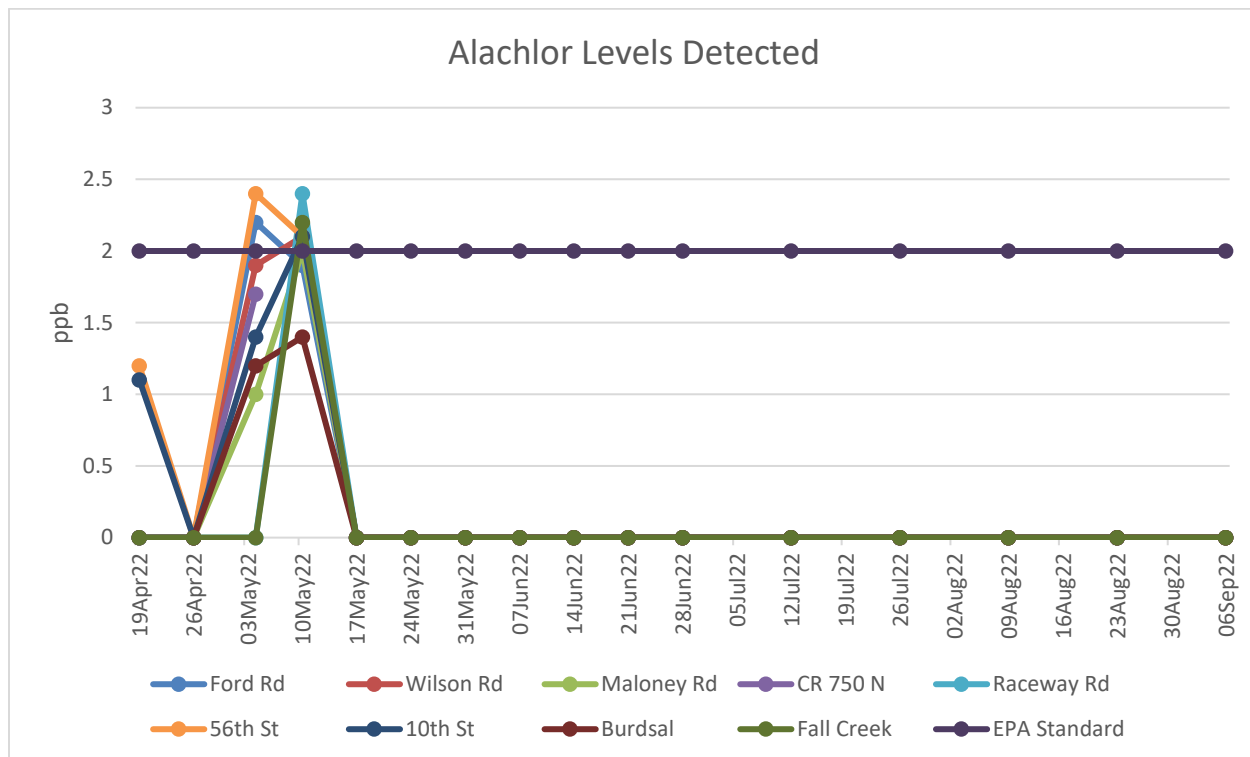


Figure 3: Metolachlor was detected on several dates at the Burdsal Pkwy, Wilson Rd, and Ford Rd sites. There is currently no drinking or surface water standard for Metolachlor.

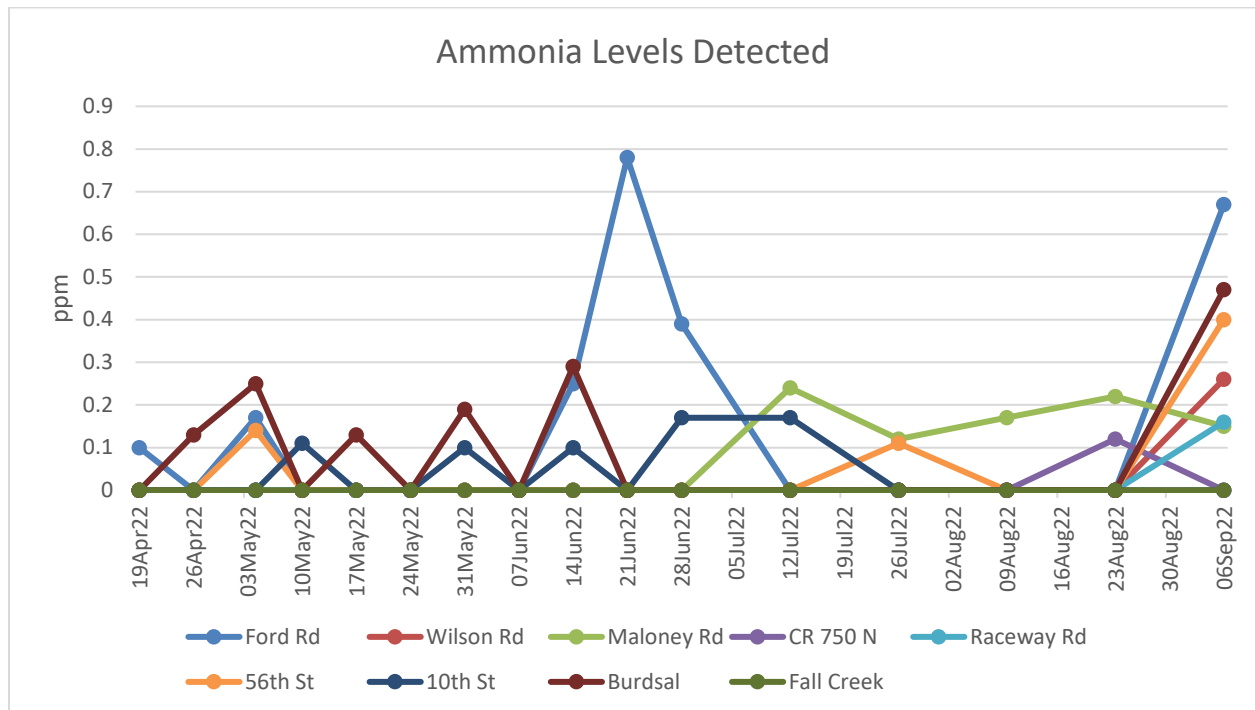


Figure 4: Ammonia was detected several times at all sites except Fall Creek Pkwy, but only 17 samples were considered out of range. There is no set standard to compare levels to because the out of range value is calculated based on the pH and temperature of water at the time of sampling.