

2023 Edgewood Neighborhood Groundwater Assessment Summary

Background

The Edgewood Neighborhood is in southern Indianapolis in Perry Township. Properties located on Shelby St., E. Thompson Rd., and Manker St. were included in this survey. This area contains an unusually high number of private wells compared to surrounding neighborhoods. Routine monitoring of well water is important to identify and remove harmful contaminants such as Arsenic. The survey was conducted in the summer of 2023, with letters mailed out followed by a door-to-door survey.

Survey Results

A total of 3 out of 48 properties were surveyed. This resulted in an approximately 6.2% response rate.

Sampling Results

Bacteria

E.coli bacteria were absent from all samples, but coliform bacteria were found in two of the three samples. This is a 67% unsatisfactory result rate for properties sampled, which is above the Marion County average of ~48%.

VOCs

No volatile organic compounds were found above detection limits in any of the samples taken.

Anions

Well samples were tested for the following anions: Chloride, Fluoride, Nitrates, Nitrites, Phosphates, and Sulfates. All anions were below the Maximum Contaminant Levels (MCLs).

Metals

Samples were analyzed for the following metals: Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Thallium, and Zinc. Arsenic was detected in levels above MCL in two of the three samples. The level of Arsenic present was 18.6 parts per billion (ppb) and 37.6 ppb, well above the EPA drinking water standard of 10 ppb. Fact sheets on arsenic in drinking water were distributed to both residences.

Conclusions

In conclusion, the two contaminants found during this groundwater survey were coliform bacteria and Arsenic. The presence of Arsenic in Marion County is common due to naturally occurring shale in the bedrock. Further testing is recommended in this area. Coliform bacteria are present in nearly half of all well samples throughout the county, so the presence of coliform in two out of three wells sampled is not a significant concern. The major limitation of the survey was the low response rate and few samples collected, which makes characterizing the groundwater quality difficult.