2024 West 51st Street Neighborhood Ground Water Assessment Summary

Background

The W 51st Street neighborhood is in a Pike Township on the northwest side of Indianapolis and was assessed to evaluate the groundwater quality of private wells. The neighborhood includes blocks of 51st South and North Streets. Letters requesting well samples were sent to 25 properties with a door-to-door survey following (figure 1). Samples were collected throughout the summer of 2024.

Survey Results

A total of 25 properties were selected for this survey. Of the 25 homes, 12 requested well water samples test, resulting in a 48 % response rate. Samples were analyzed at the MCPHD laboratory and results were compared to EPA Drinking Water Standards.

Sampling Results

Bacteria

Total coliform bacteria were present in six wells. The unsatisfactory rate is 50%. Chlorination instructions were sent out with the laboratory report and the following instructions resampling dates were scheduled.

VOC

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

Anions

Well samples were tested for the following anions: Chloride, Fluoride, Nitrate Nitrite, Phosphate, and Sulfates. All anions were below the Maximum Contaminants Limits (MCLs).

Metals

Samples were analyzed for the following metals: Arsenic, Barium, Cadmium, Chromium, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Thallium, and Zinc. Hardness was tested as well. 83% of the properties contained trace amounts of Arsenic with 42% above the EPA Safe Drinking Water Standard Limit of 10 parts per billion (ppb). Property owners of wells with elevated Arsenic were advised to install treatment systems to remove Arsenic.

Conclusion

The primary ground water contaminant in the neighborhood, impacting 83% of the wells tested, was Arsenic. In addition, 50% of the wells were contaminated with total coliform bacteria, which is consistent with the countywide average. Homeowners were advised to use treatments to get rid of the contaminants, either chlorination to disinfect the well or treatment systems to remove Arsenic, such as RO units. Follow up well testing was also offered after treatment.