MARION COUNTY PUBLIC HEALTH DEPARTMENT
Prevent. Promote. Protect.

2019 Northgate Neighborhood

Ground Water Assessment Summary

Background

The initiative for this project was the presence of Trichloroethylene (TCE) in the well water at a Northgate residential property, which is routinely sampled and monitored. Multiple potential sources exist in the neighborhood, so a well survey was conducted for the entire neighborhood to determine if any other properties were being impacted. Two dry cleaners and a construction site all participate in IDEM's State Cleanup or Voluntary Remediation Program.

Survey Results

A total of 51 properties were selected for the survey and invitation letters were mailed. Out of the 51 homes, nine of them were found to be vacant. Of the remaining 42 homes, 15 properties were sampled, resulting in a 36.6% response rate.

Sampling Results

Bacteria

E. coli bacteria were present in one of the wells and total coliform bacteria were present in five of the wells. Results were unsatisfactory for five of the properties, or 33.33% of the samples. This percentage is typical of that from previous well water assessments. Chlorination instructions were sent out with the laboratory reports and follow up inspections were scheduled.

Volatile Organic Compounds

No volatile organic compounds were detected in any of the samples. This includes TCE and any byproducts, levels of which were all below the lab detection limits.

Anions

Well samples were tested for the following anions: Chloride, Fluoride, Nitrate, Nitrites, Phosphates, and Sulfates. All anions were below the Maximum Contaminant Levels (MCLs) established by the Environmental Protection Agency.

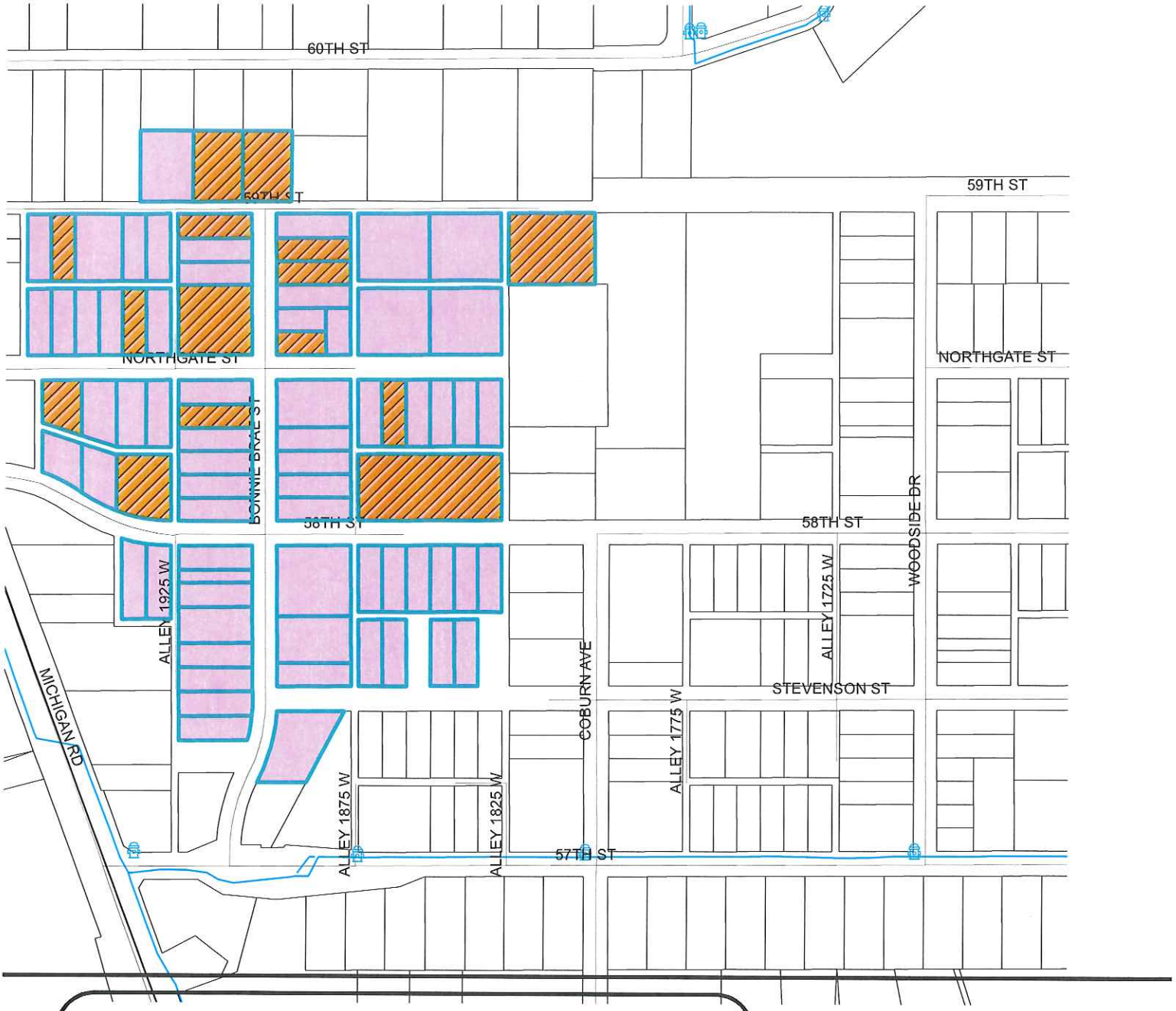
Metals

Samples were analyzed for the following heavy metals: Arsenic, Barium, Boron, Cadmium, Calcium and Magnesium as hardness, Chromium, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Thallium and Zinc. All metals were below the MCLs. The only metals detected were Iron and Manganese which are nuisance chemicals and not health hazards. 53% of the samples contained Iron above the secondary standard of 300 ppb (parts per billion) and approximately 27% contained Manganese above the standard of 50 ppb.

Conclusions

Well water sampling in the Northgate neighborhood did not find any contamination from TCE or other volatile organic compounds. Also no contamination from anions or heavy metals was discovered. And the rate of wells determined to be bacteriologically unsatisfactory was consistent with rates found in other parts of the county.

Northgate Well Survey Map



Legend

- 2019 Northgate Sampled Properties
- 2019 Northgate Planned to be Surveyed
- Major Streets

Water Main

- Water Main
- Parcels 2018