Drinking Water Long-Term Monitoring Program

Scio Townhall

February 17, 2022
Presented by Kristen Schweighoefer

Washtenaw County Health Department

Drinking Water Long-Term Monitoring

- The Washtenaw County Health Department (WCHD) is contracted by the Michigan Department of Environment, Great Lakes and Energy's (EGLE's) Office of Drinking Water and Municipal Assistance (DWMAD) to collect samples from drinking water wells at contamination sites.

- The agreement funding is approved under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

The purpose of the program is to ensure residential wells are below applicable criteria for contaminants of concern.

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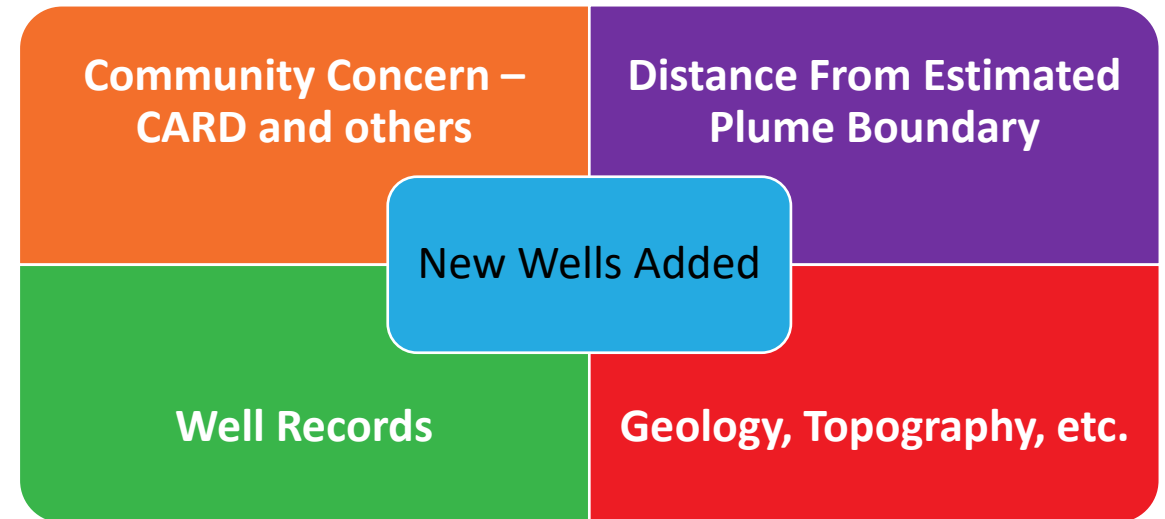
Drinking Water Long-Term Monitoring

- Samples are collected by WCHD staff within prescribed collection periods and transported to the State-designated laboratory. The program operates on an October 1 to September 30 fiscal year.

- While Gelman Sciences is the site with the longest history and largest sample collection in Washtenaw County, 8 other sites are or have been monitored through this program in other areas of Washtenaw County.

- WCHD mails out sampling notices ahead of sampling events. WCHD generates and sends result letters with laboratory results to both water well owners and water well users after each sampling event. EGLE and Scio Township get copies of results.

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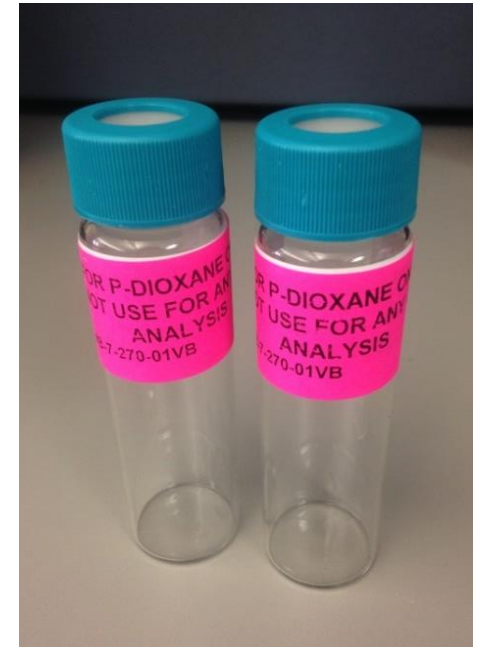
Gelman Sciences Site
Sampling of Drinking Water Wells

- Gelman Sciences was added to Drinking Water Long-Term Monitoring Program in 1995.

- Initial sampling was a very small handful of residential homes. A commercial day care was added in 2007.

- From 2013-present, new areas have been added to drinking water monitoring program

- In 2020, WCHD implemented 1,000 ft sampling area from estimated 1.0 ppb plume.

Community Concern – CARD and others	Distance From Estimated Plume Boundary
New Wells Added	
Well Records	Geology, Topography, etc.

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2022 Monitoring

- There are now 218 total drinking water wells included in the program.
  - 21 are sampled twice per year
  - 68 are sampled once per year
  - 129 are sampled every other year

- Samples are sent to the EGLE Drinking Water Laboratory in Lansing.

- The laboratory uses EPA Method 8260 SIM which has a reporting limit of 1.0 ppb for 1,4-dioxane. The reporting limit, or detection limit, is the smallest amount of a substance that can be measured by the laboratory tool.

2022 Sampling

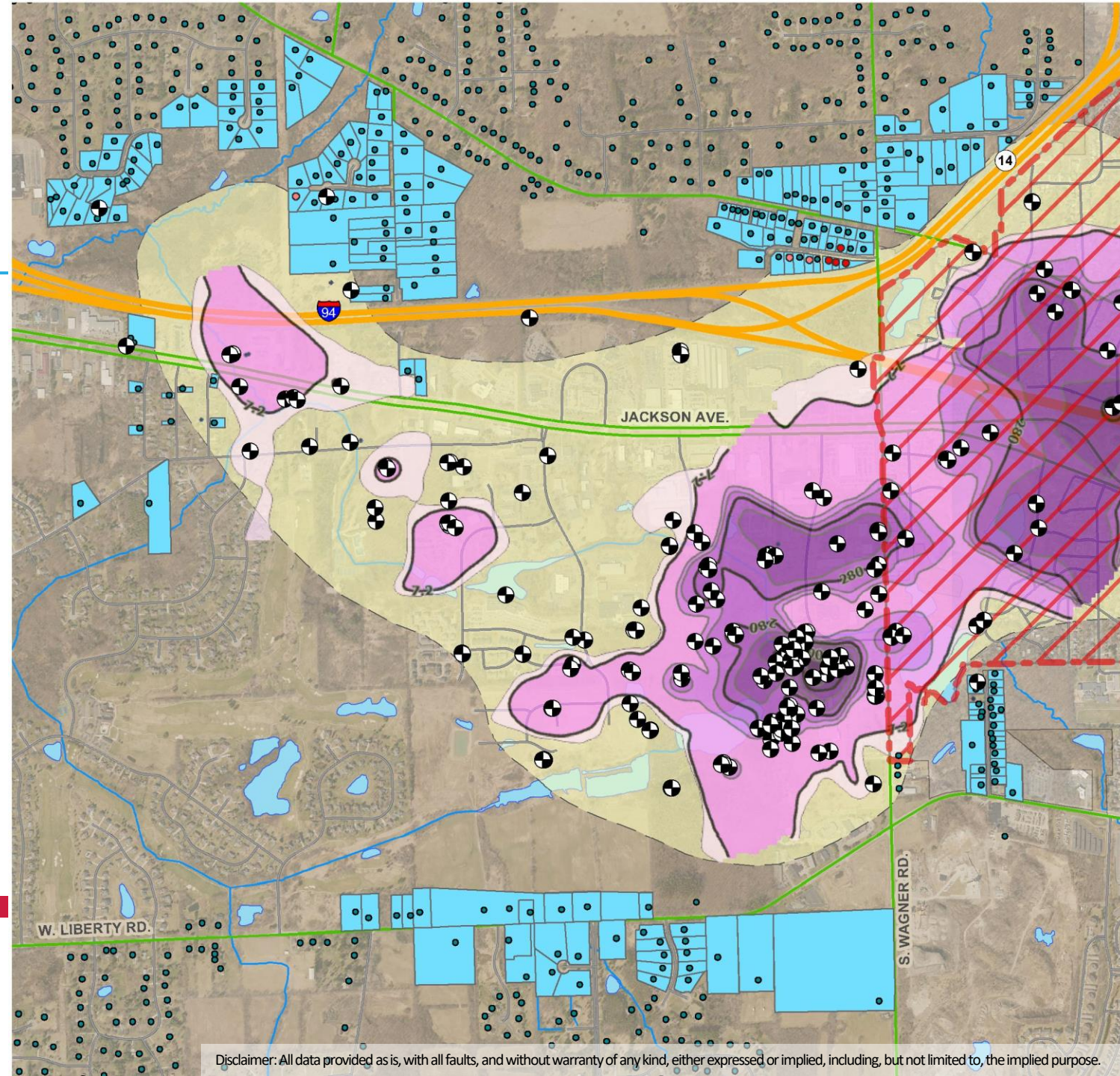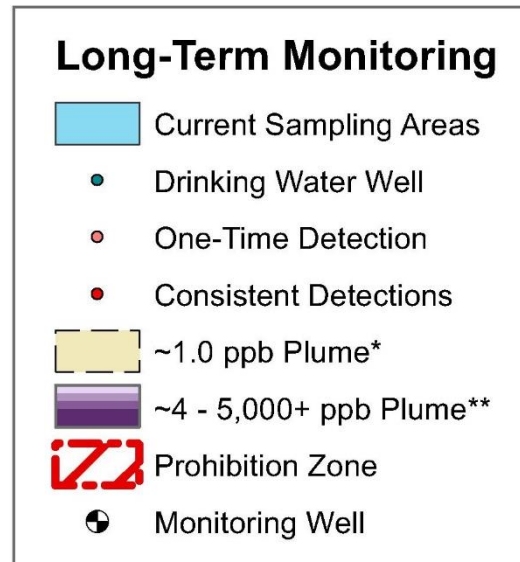| April 2022	June 2022
21 wells	**165 wells**
Elizabeth Rd.	N. Wagner and Rose Dr.
Day Care (Dexter-Ann Arbor Rd.)	Dexter-Ann Arbor Rd.
	Lakeview Ave
	Jackson Ave area
	W. Delhi and Breezewood
	Scio Meadows and Halcyon
	Christine Dr.

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Long-Term Monitoring Detections

- In total, 7 of the 252 wells sampled since 2014 have had a detection of 1,4-dioxane.
  - 4 wells on Elizabeth with consistent detections of 2.0 ppb (highest 4 ppb in 2006)
  - 1 well on Breezewood Ct. with 1-time detection of 1.0 ppb in 2019
  - 2 wells on Elizabeth with 1-time only detections of 1.0 ppb in 2007 and 3.0 ppb in 2013

- There are currently no NSF-certified residential-use treatment devices.

- Washtenaw County and EGLE work together to determine sampling areas and will review the Scio Township samples to see what changes may be needed in fiscal year 2023.

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Plume Area

Disclaimer: All data provided as is, with all faults, and without warranty of any kind, either expressed or implied, including, but not limited to, the implied purpose.

Long-Term Monitoring

- Current Sampling Areas
- Drinking Water Well
- One-Time Detection
- Consistent Detections
- ~1.0 ppb Plume*
- ~4 - 5,000+ ppb Plume**
- Prohibition Zone
- Monitoring Well

Remediation and Redevelopment Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE); The Mannik and Smith Group; Rockware

Sampling Areas

Long-Term Monitoring

- Current Sampling Areas
- Drinking Water Well
- One-Time Detection
- Consistent Detections
- ~1.0 ppb Plume*
- ~4 - 5,000+ ppb Plume**
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* 2021 1.0 ppb plume from Washtenaw County Health Department, Environmental Health Division (Sources MiGDL, EGLE, Washtenaw County GIS)

** 2020 Plume from Remediation and Redevelopment Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE), The Mannik and Smith Group, Rockware

Questions? Please contact:

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1,4-Dioxane Webpage:

www.washtenaw.org/dioxane

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