

Michigan Department of Environmental Quality
Summary of Recent Activities and Response Actions
Gelman Sciences Inc. Site
October 13, 2017

This document provides a brief update of recent activities and planned activities for the Gelman site for the remainder of 2017. Links to other historical information about the Gelman site are provided below.

Residential Well Sampling

In 2017, out of the 47 water supply wells sampled, 0 water supply wells exceeded the allowable level of 1,4-dioxane (Dioxane) in residential drinking water. Dioxane was detected in only 2 residential wells on Elizabeth Road at concentrations ranging from 1-2 parts per billion (ppb), well below the newly established 7.2 ppb criteria.

In collaboration with the Washtenaw County Public Health (WCPH), the Michigan Department of Environmental Quality (DEQ) initiated sampling of residential and business water supply wells within and around the known Dioxane groundwater contamination plume in the 1990's as part of the monitoring activities to evaluate and eliminate risk of exposure to the contamination. Both the DEQ and the WCPH annually review which water supply wells should be sampled. The wells are sampled by WCPH, usually once with specific wells sampled twice per year.

Results (identified by address) for water supply well samples collected since 1998 are posted on the DEQ "Gelman Sciences, Inc. Site of Contamination Information Page" under the "Recent Analytical Data" tab which can be accessed using the link provided below.

[Recent Analytical Data](#)

Future Residential Well Sampling

For 2018, a total of 104 water supply wells are proposed to be sampled as part of the ongoing residential and business water supply well sampling program. These include locations along Christine Drive (last sampled in 2014), Lakeview Drive (last sampled in 2016), and Rose Drive (last sampled in 2016).

Monitoring Well Sampling

Gelman currently conducts sampling and analysis of approximately 250 monitor wells (MWs) throughout the site and vicinity.

The MWs have been installed for the specific purpose of monitoring and evaluating the Dioxane contamination in groundwater. The water from these wells is not used for

drinking, irrigation or any other purpose. Specific MWs are sampled on a monthly, quarterly, semi-annual, annual, and biennial basis following DEQ approved monitoring plans for specific areas of the site identified as the Western Area, Eastern Area and the Little Lake Area. DEQ collects samples of selected MWs with Gelman (we call this “split sampling”), on a quarterly basis, as a check of the quality and accuracy of data submitted by Gelman.

From June through August 2017 Gelman sampled 209 MWs as identified below:

- June 63 MWs Sampled
- July 77 MWs Sampled
- August 69 MWs Sampled

In July 2017 DEQ collected split-samples at seven of the MW locations.

Results of monitoring well samples collected by both Gelman and DEQ are posted on the DEQ “Gelman Sciences, Inc. Site of Contamination Information Page” under the “Recent Analytical Data” tab. Historic data and results since 2003 are also posted.

A 2015 map which depicts the locations of the monitoring wells can also be found on the DEQ Gelman webpage under the Maps heading (See link below).

[Monitor Well Base Map](#)

Current Remediation Activities

Current remediation activities are performed by Gelman and involve the operation of groundwater extraction wells located at the former Gelman Plant site and elsewhere in Scio Township and the City of Ann Arbor. Gelman is currently removing a total of approximately 500 gallons per minute (GPM) of contaminated groundwater from extraction wells.

From June through August 2017 Gelman pumped and treated approximately 61,512,523 gallons of contaminated groundwater from extraction wells across the site as listed below:

	<u>Extraction Wells Operated</u>	<u>Volume of Groundwater Pumped</u>
June	13	18,550,047 gallons
July	12	21,549,136 gallons
August	10	21,413,340 gallons

Contaminated groundwater collected from the extraction wells is piped to the Gelman plant and treated using ozone and hydrogen peroxide. The treated groundwater is then discharged to a tributary of Honey Creek under a National Pollutant Discharge Elimination System (NPDES) permit issued by DEQ. The latest NPDES permit was

issued on January 26, 2016 and became effective on February 1, 2016. The NPDES permit identifies discharge limits for Dioxane and treatment chemicals and byproducts.

Data and information about the remediation activities can be found in monthly NPDES monitoring reports and quarterly progress reports submitted by Gelman. Historic and current information on pumping rates of extraction wells can be found in the “Average Monthly Extraction Flow Rates” table updated and submitted quarterly by Gelman. The reports and table are posted to the DEQ Gelman web page under the “Selected Documents” tab (See link below).

[Selected Documents](#)

A 2015 map which depicts the locations of the extraction wells (purge wells) can also be found on the DEQ Gelman webpage under the Maps heading (See Monitor Well Base Map link on Page 2).

Surface Water and Seep Sampling

In 2017 the DEQ continued sampling of surface waters, including ponds, creeks, and drains in and around the site and vicinity. Dioxane was not detected in any of these samples, using a detection level of 1 ppb.

Surface water samples have been analyzed from:

- Allen Creek near Glendale Circle (two sampling events)
- First Sister Lake (two sampling events)
- Second Sister Lake (two sampling events)
- Honey Creek/Huron River Confluence

Future Surface Water and Seep Sampling

The DEQ will continue sampling surface waters, including ponds, creeks, and drains in and around the site and vicinity to identify any potential contamination,

DEQ is planning on collecting samples from the following water bodies in October 2017:

- Third Sister Lake
- Smith Ponds
- Little Lake
- Unnamed Tributary to Honey Creek near the Gelman discharge outfall
- Unnamed Tributary to Honey Creek near Park Rd
- Unnamed Tributary to Honey Creek near Jackson Rd

- Honey Creek near Dexter Rd
- Honey Creek/Huron River Confluence

Results of surface water and seep sampling collected by both Gelman and DEQ are posted on the DEQ Gelman web page under the “Recent Analytical Data” tab.

[Recent Analytical](#)

Recent Investigation(s)

No recent investigations have been conducted for the Gelman Site.

Other Recent Activities

DEQ attended and provided information and answered questions at three local meetings concerning the Gelman Site, so far, in 2017.

These meetings included:

- Town Hall Meeting on the Gelman Site, Ann Arbor Library, August 30, 2017 7-8:30 PM PM.
- Coalition for Action on Remediation of Dioxane (CARD) Quarterly Technical Meetings, Washtenaw County Western Service Center, August 16, 2017.
- DEQ & Washtenaw County “Disclosure Obligations Presentation” to the Ann Arbor Board of Realtors, August 31, 2017

Other Recent Response Actions

The DEQ proposed new drinking water cleanup criteria to protect public health from potential impacts of Dioxane contamination.

The DEQ proposed an amendment to the Cleanup Criteria Requirements for Response Activity Rules, commonly known as the Part 201 Rules, for a single hazardous substance: 1,4-dioxane. This rule amendment will modify the cleanup criterion for 1,4-dioxane for the residential drinking water pathway only in the generic criteria table and the associated footnotes (R 299.44 and R 299.49). The Department issued an Emergency Rule on October 27, 2016 that established the 1,4-dioxane cleanup criterion for the residential drinking water ingestion pathway at 7.2 parts per billion, with the expectation that a comprehensive update to the Part 201 Rules for over 300 hazardous substances would be completed before the Emergency Rule expired on October 27, 2017.

Due to the impending expiration of the Emergency Rule and the anticipated timeline for the comprehensive Part 201 Rule amendment package, the DEQ has decided to move forward with this 1,4-dioxane amendment to preserve our ability to use the best available scientific information regarding 1,4-dioxane for the residential drinking water pathway at sites throughout the state.

The proposed rule amendment for the comprehensive Part 201 Rule package is forthcoming and will go through the Administrative Rule promulgation process as well. The comprehensive package will update the physical-chemical properties, toxicity data, and exposure assumptions for over 300 hazardous substances.

For more on the history of the Gelman site, background information and details on changes to the Washtenaw County Court Consent Judgment over the duration of the project, see the historic Information Bulletins and Fact Sheets posted on the DEQ's Gelman information page.

[Gelman Information Page](#)