



# CASCADE TOWNSHIP RESIDENTIAL WELLS SAMPLING PROJECT UPDATE

## SUMMARY

Michigan Department of Environment, Great Lakes, and Energy (EGLE) testing has found per- and polyfluoroalkyl substances (PFAS) contamination in many Cascade Township drinking water wells near Trout Creek. This project update provides background, maps, frequently asked questions (FAQs) and a summary of EGLE's past, current and future project actions.

**If you received a request from EGLE to sample your drinking water well, and have not yet responded, please complete the questionnaire as instructed in the request. If you have lost the paperwork, contact Aaron Assmann (see contact information box).**

**If you would like to participate, it is not too late, however, the next phase is likely to be the last sampling phase EGLE will perform as part of this project.**

## BACKGROUND

In April 2018, EGLE learned of releases of Aqueous Film Forming Foam (AFFF), containing PFAS, that occurred overtime at the Gerald R. Ford International Airport (GFIA) for training, equipment testing and emergency response activities. GFIA ceased training activities with AFFF on GFIA property in the mid-1990s and ceased emergency equipment testing with AFFF in 2019. Therefore, releases of PFAS containing AFFF are not ongoing and GFIA would now only use AFFF in the event of an emergency response.

When contacted by EGLE regarding the AFFF releases, GFIA immediately began an on-site investigation sampling soil and groundwater and analyzing those samples for PFAS. Data and other information generated from the on-site investigation was shared with EGLE. Gathered information showed the releases occurred uphill (upgradient) of the Whispering Brook and Forest Ridge neighborhoods. GFIA sampled 28 residential drinking water wells in Forest Ridge and most results did not detect, or find, PFAS. After further analysis of the investigation data, EGLE recommended additional residential drinking water well tests in Whispering Brook along the tributary commonly referred to as "Trout Creek." GFIA did not act on EGLE's recommendation.

Since March 2019, EGLE has used state funds, in four phases, to collect and analyze (for PFAS) a total of 254 residential drinking water well samples south of 28<sup>th</sup> St, east of the 36<sup>th</sup> St exit off I-96, north of the M-6 exit off I-96 and west of the Thornapple River (Figures 1 and 2). All results are below the United States Environmental Protection Agency (USEPA) drinking water lifetime health-advisory level (LHA) of 70 parts per trillion (ppt) for PFOA+PFOS. However, PFAS was detected in 186 samples (Table 1). Of those, results for 38 samples are above one or more of the proposed EGLE drinking water maximum contaminant levels (MCLs) (chart in the attached Frequently Asked Questions document attached).

## CONTACT INFORMATION:

### TECHNICAL OR GENERAL QUESTIONS:

EGLE Grand Rapids District  
Aaron Assmann  
AssmanA@michigan.gov  
616-430-5275

### HEALTH-RELATED QUESTIONS:

Kent County Health Department  
616-632-7100

MDHHS  
800-648-6942

## PAST EGLE ACTIVITIES

Between March and November 2019, EGLE sampled 254 residential drinking water wells over four phases. PFAS was not detected in 68 samples and was detected in 186 samples. Zero results were above the EPA drinking water LHA of 70 parts per trillion (ppt) PFOA+PFOS. 38 results are above a proposed EGLE drinking water MCL (see chart in the attached Frequently Asked Questions document). Table 1 below summarizes EGLE's results.

Kent County Health Department (KCHD) offered point-of-use filters, certified to reduce PFAS, to any household where PFAS was detected in the sample collected from their drinking water well.

Throughout, EGLE has collaborated with GFIA, KCHD, the Michigan Department of Health and Human Services (MDHHS), and Cascade Township.

**Table 1. Sampling Results**

Timeframe (2019)	Phase #	# Collected Samples	# Results Non-detect	# Results with PFAS	# Results above 70 ppt (PFOA + PFOS)	# Results above Proposed EGLE MCL
March	1	33	15	18	0	5
May	2	49	16	33	0	10
August	3	74	14	60	0	15
November	4	98	23	75	0	8
<b>Totals</b>	-	<b>254</b>	<b>68</b>	<b>186</b>	<b>0</b>	<b>38</b>

## FUTURE ACTIONS

For Phase 5, EGLE has requested to sample 200 additional residential drinking water wells. EGLE planned to collect Phase 5 samples in April 2020. Because of the circumstances presented by coronavirus and the State of Michigan's response, Phase 5 sampling has been postponed. EGLE will perform this sampling as soon as possible.

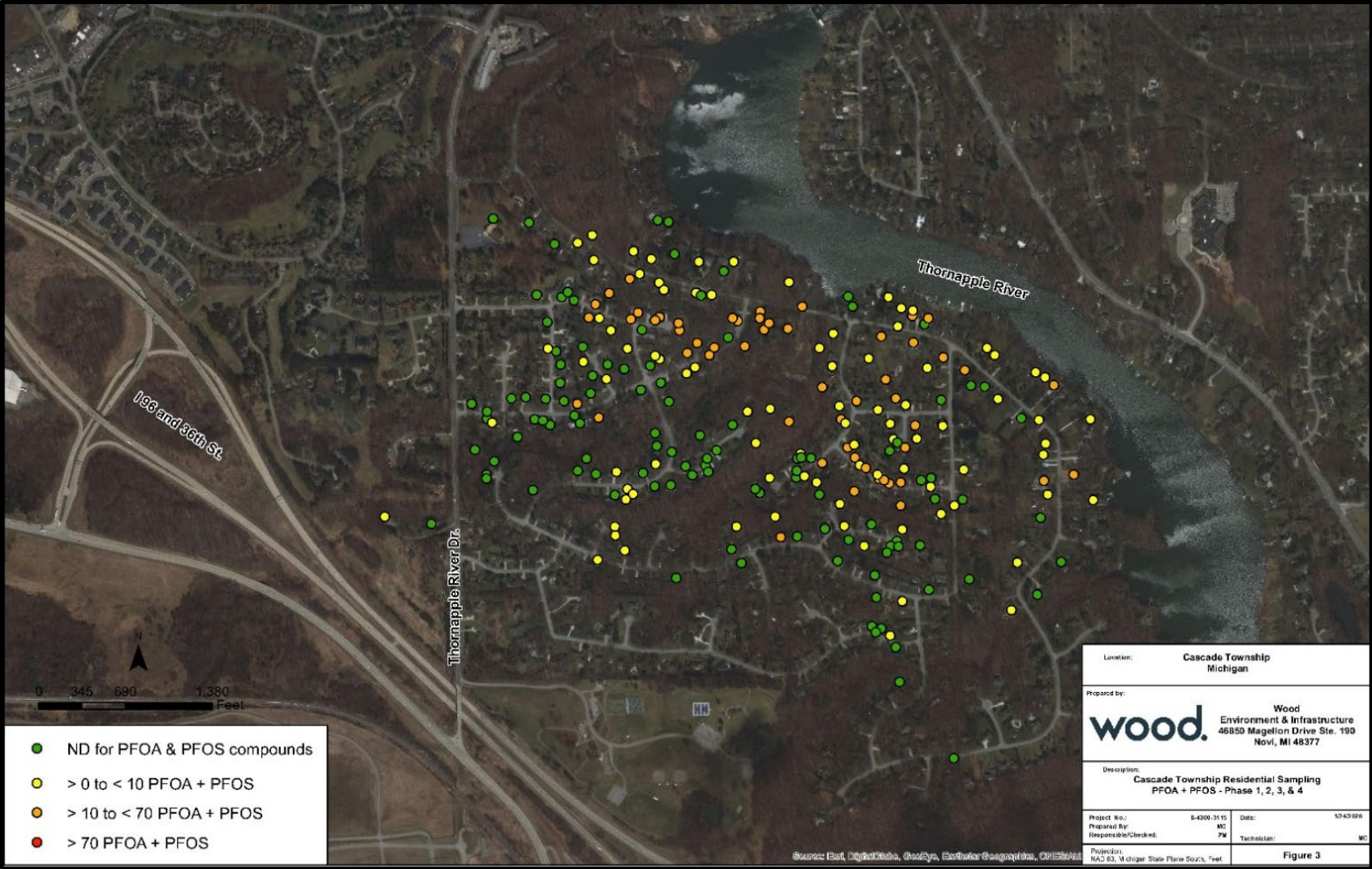
**Phase 5 is likely to be the last sampling phase EGLE will perform as part of this project.**

EGLE will continue to collaborate with GFIA, KCHD, DHHS, and Cascade Township.

EGLE intends to hold a public meeting to provide the community with a more informative update. The timeframe and details of that public meeting are to-be-determined.

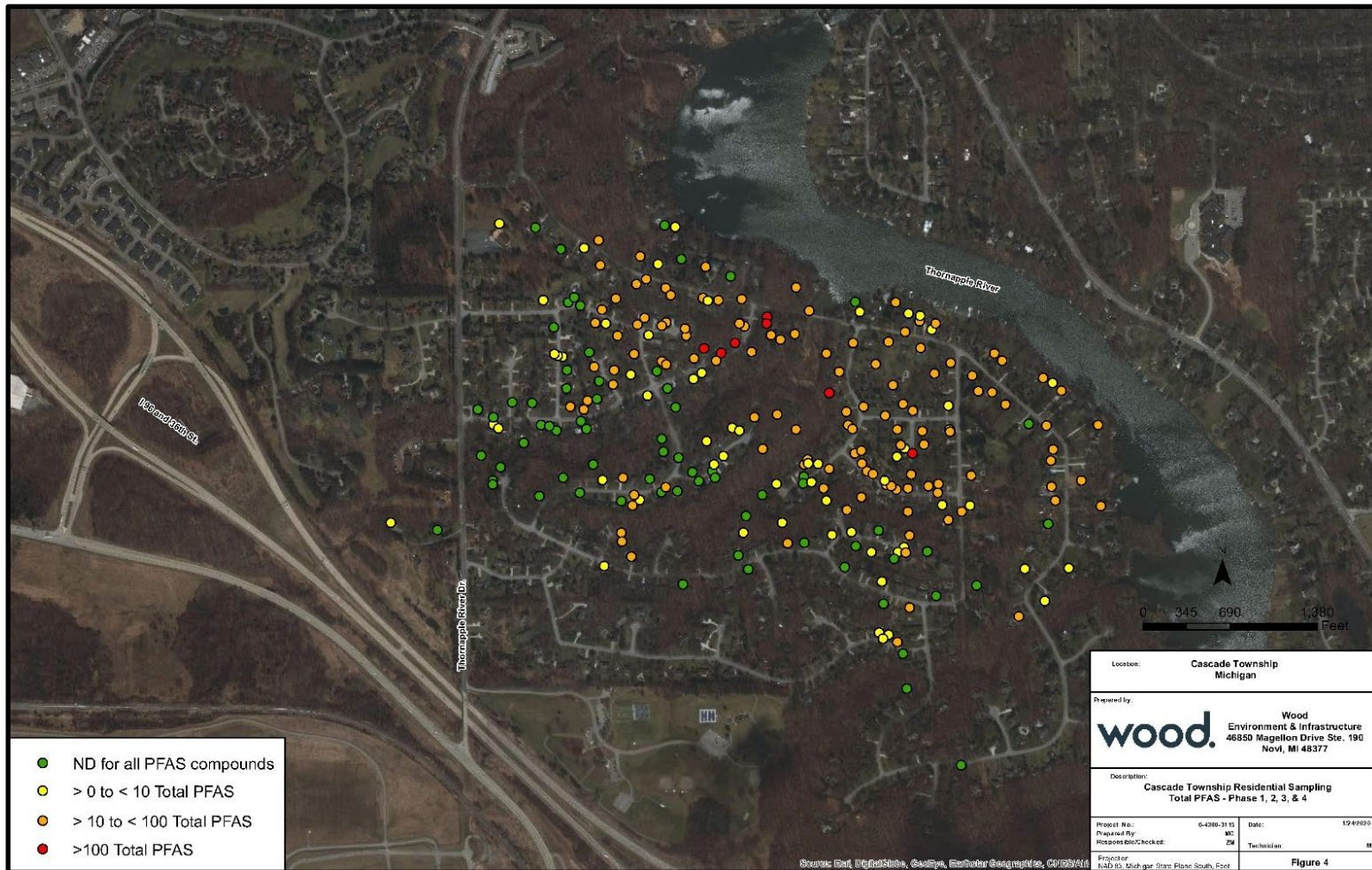
# STUDY AREA

Figure 1: Sample Results - PFOA + PFOS (Phase 1 – 4)





**Figure 2: Sample Results – Total PFAS (Phase 1 – 4)**



## ATTACHMENT

### Cascade Township Residential Wells Sampling Frequently Asked Questions

Michigan’s Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan’s residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making.

Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.

EGLT does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.

## Frequently Asked Questions

### Residential Well Sampling Cascade Township, Kent County, Michigan

#### Where can I find up-to-date information about residential sampling project in Cascade Township and other PFAS sites?

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) regularly provides project-specific updates at [Michigan.gov/PFASresponse](https://Michigan.gov/PFASresponse). The Cascade Township Residential Wells project web page is [bit.ly/cascadetwpwells1](https://bit.ly/cascadetwpwells1). The Gerald R. Ford International Airport PFAS investigation web page is [bit.ly/grairport](https://bit.ly/grairport).

EGLE provides project-specific email updates to those who have signed up to receive the emails, including summaries of sampling results, public meeting details, and other announcements. Sign up to receive email updates for the sampling project at [bit.ly/cascadeupdates](https://bit.ly/cascadeupdates).

You can also contact EGLE project manager, Aaron Assmann at 616-430-5275 or [AssmannA@michigan.gov](mailto:AssmannA@michigan.gov).

#### Has a responsible (liable) party or parties been identified?

Overtime, releases of AFFF containing PFAS, have occurred at the Gerald R. Ford International Airport. EGLE's analysis of available information is that these releases have contributed to PFAS contamination found in Cascade Township residential drinking water wells associated with this project. Other confirmed releases of PFAS have not been identified.

#### What are the proposed Maximum Contaminant Levels (MCLs) and how might they impact this project?

All drinking water well results available to EGLE (254 EGLE collected samples and the 28 collected by GFIA) are below the 70 ppt (PFOA+PFOS) standard. The proposed EGLE MCLs, once effective, will impact the groundwater cleanup standards for PFOA and PFOS immediately by action of law, because EGLE already has groundwater cleanup criteria for PFOA and PFOS in place, and Michigan law requires adherence to a more restrictive MCL, if one is adopted. Additional action on criteria for five other PFAS compounds will be needed before the MCL values are enforceable as groundwater cleanup criteria.

The breakdown of the proposed MCLs are:

Specific PFAS	Proposed Drinking Water MCL – ppt (ng/L)	Current EPA LHA – ppt (ng/L)
PFNA	6	-
PFOA	8	-
PFHxA	400,000	-
PFOS	16	-
PFHxS	51	-
PFBS	420	-
GenX	370	-
PFOA + PFOS	-	70

The scope of what may be required of a liable party has yet to be determined, but we anticipate the scope to develop more quickly once the MCLs take effect.

**If city water is the long-term solution, will affected residences receive their hook-ups at no cost? Will residences with non-detect results for PFAS be expected to pay for city water connections?**

City water is a logical long-term solution because municipal water supply lines already exist near the impacted area/neighborhoods. Any long-term solution will consider “at-risk” drinking water wells. Determining which wells are “at-risk,” as well as how the long-term solution is funded are important questions that are still in the process of being answered. “At-risk” wells could range from only those that exceed drinking water criteria (i.e. proposed MCLs), to those wells along a certain street or streets, to all wells in the area. Key stakeholders (i.e. local and state health departments, EGLE, City of Grand Rapids, Cascade Township, liable party(ies)) will need to work together, along with residents of the community, to determine which residences are “at risk, what the best course of action is and to be part of the funding conversations.

**Could non-detect drinking water wells still be used for irrigation after the residence is hooked up to city water?**

Where drinking water wells are determined to be “at-risk,” the local health department would require that the “at-risk” drinking water well be abandoned once the well is no longer used for drinking water purposes. It is also possible that, if a water main is installed, Cascade Township may impose a local ordinance requiring residences fronting the main to connect.

**Why have there been so many phases of sampling? Isn’t there enough data right now to move forward with a long-term solution?**

There is already enough data to suggest that a long-term solution is needed and EGLE has been focusing on this need. The phased approach was used to most efficiently balance the use of state funds (taxpayer dollars), determine the extent of contamination in area drinking water wells and therefore, which residences may need to be a part of the long-term solution.

After each of the first four sampling phases, EGLE determined that additional sampling was warranted and, in each phase, has increased the size of the sampling area.

At the conclusion of each sampling phase, KCHD has offered point-of-use filters, certified to reduce PFAS, to each residence where PFAS was detected in the drinking water well as an immediate way to reduce exposure to PFAS.

**Has foam from the Thornapple River been sampled? Will more foam samples be collected?**

In June 2018, a foam sample was collected just downstream of the Cascade Dam. In March 2019, a foam sample was collected just downstream of the 84<sup>th</sup> Street Dam. A surface water sample was also collected at the same time and location. Each surface water result was below the EGLE water quality standards. While there are no standards for foam, results from the 2018 sampling event resulted in KCHD issuing a “do not eat the foam” health advisory that remains in effect for the Thornapple River. No additional Thornapple River foam sampling is planned.

Thornapple River PFAS Detection Summary (ppt)						
Location ID	Sample Type	Sample Date	Total PFAS	PFOA + PFOS	PFOA	PFOS
CASCADE DAM	Foam	6/6/2018	316.97	199.41	2.41	197.00
CASCADE DAM	Surface water	6/6/2018	18.10	9.60	1.33	8.27
84 <sup>th</sup> STREET BRIDGE	Foam	3/15/2019	17,545.40	14,851.00	851.00	14,000.00
84 <sup>th</sup> STREET BRIDGE	Surface Water	3/15/2019	7.52	2.14	ND	2.14

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