

PFAS Remediation

Public Water Extension Project



Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

EGLE



PFAS ALLIANCE

S & VE Silver & Van Essen PC
Litigation & Counseling

FOSTER
SWIFT
ATTORNEYS

Welcome & Introductions

- ▶ Grace Lesperance - Cascade Township Supervisor
- ▶ Citizens PFAS Committee
 - ▶ Patti Baldwin, Kris White, Chris Noordyke, John Lipford, Ben Greemann
- ▶ Cascade Township
 - ▶ Ben Swayze - Township Manager
- ▶ City of Grand Rapids
 - ▶ Wayne Jernberg - Water System Manager
- ▶ Department of Environment, Great Lakes and Energy
 - ▶ Aaron Assmann - Environmental Quality Analyst
- ▶ Prein & Newhof
 - ▶ Brian Vilmont - Project Manager
 - ▶ Kevin Koster - Project Engineer
- ▶ Silver Van Essen -
 - ▶ Doug Van Essen - Township Special Counsel
- ▶ Foster Swift
 - ▶ Chuck Barbieri - Township Counsel

Community Forum Agenda

1. Current PFAS Water Project Information
 - a. Area of Potential Impact
 - b. Existing Water System
 - c. Installation Action Plan
 - d. Current Funding Sources
 - e. Overall Project Timeline
2. Identify Attendee Concerns
3. Project Engineering
 - a. Water Main - Where, When & How
 - b. Service Connections & Well Abandonments
 - c. Restoration
 - d. Phase 1 - Project Schedule
4. Township Policies
 - a. Communication Platforms
 - b. Connection Requirement
 - c. Well Abandonment & Irrigation
 - d. Interim Water Resources
5. City of Grand Rapids Policies
 - a. Billing
 - b. Water Cost/Value
 - c. Maintenance
6. Attendee Questions
7. One - on -One Discussions

End at 8:00pm

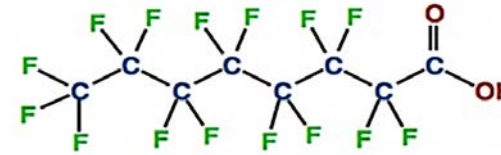
Area of Interest



PFAS Background in Cascade Twp.

- Per- and Polyfluoroalkyl Substances (PFAS)

- Strong Carbon-Fluorine bonds
- Don't break down in environment



PFOA - perfluorooctanoic acid

- Burger-Goodwood neighborhood drinking water wells sampled (2019-2020)

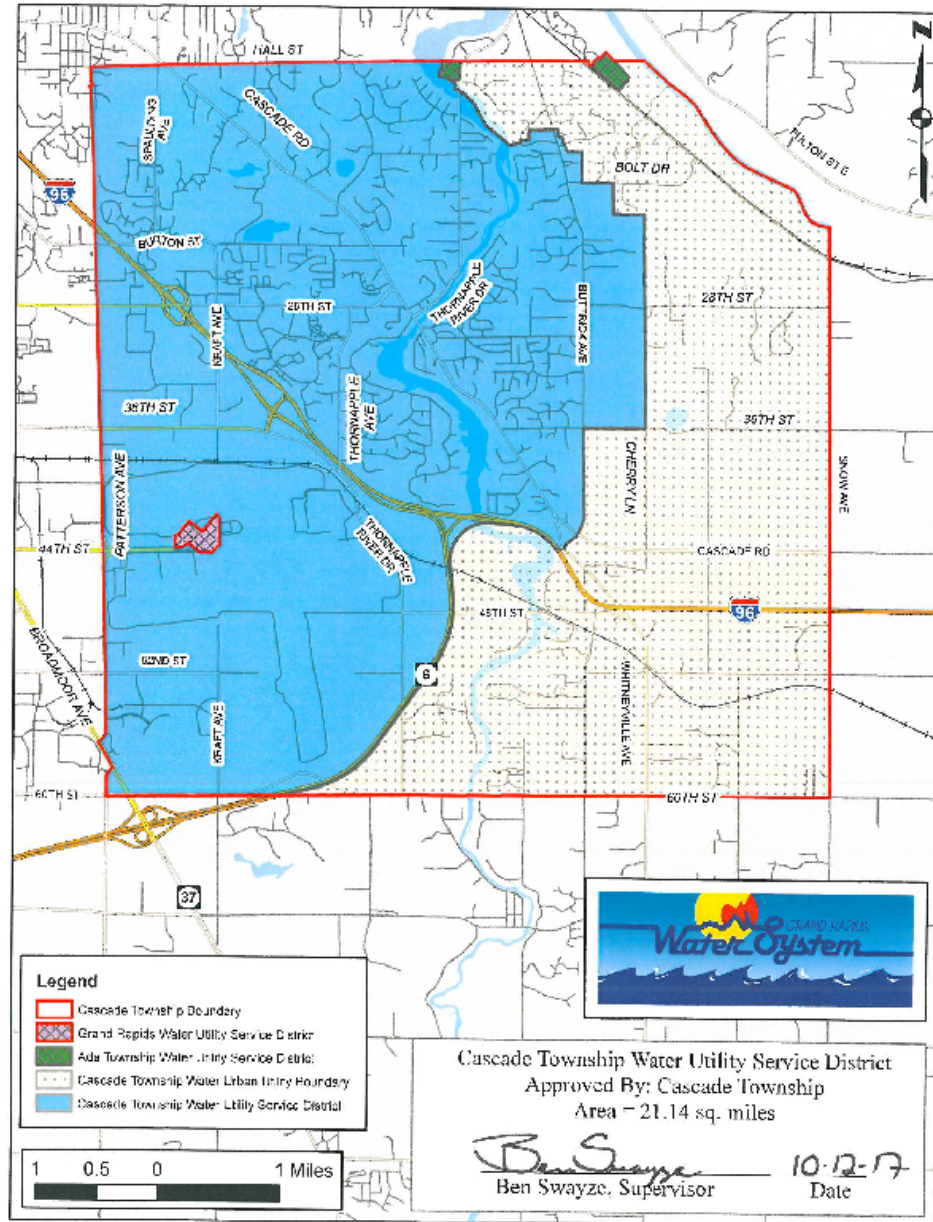
- Knowledge of PFAS contamination nearby
 - [PFAS Response - Kent County, Grand Rapids, Gerald R. Ford International Airport \(GFIA\) \(michigan.gov\)](#)
- 364 samples, PFAS detected in ~60%, 40 >EGLE drinking water criteria
 - [PFAS Response - Cascade Township Residential Wells, Cascade Township, Kent County \(michigan.gov\)](#)
- Data aided grant funding applications

Michigan Drinking Water Standards

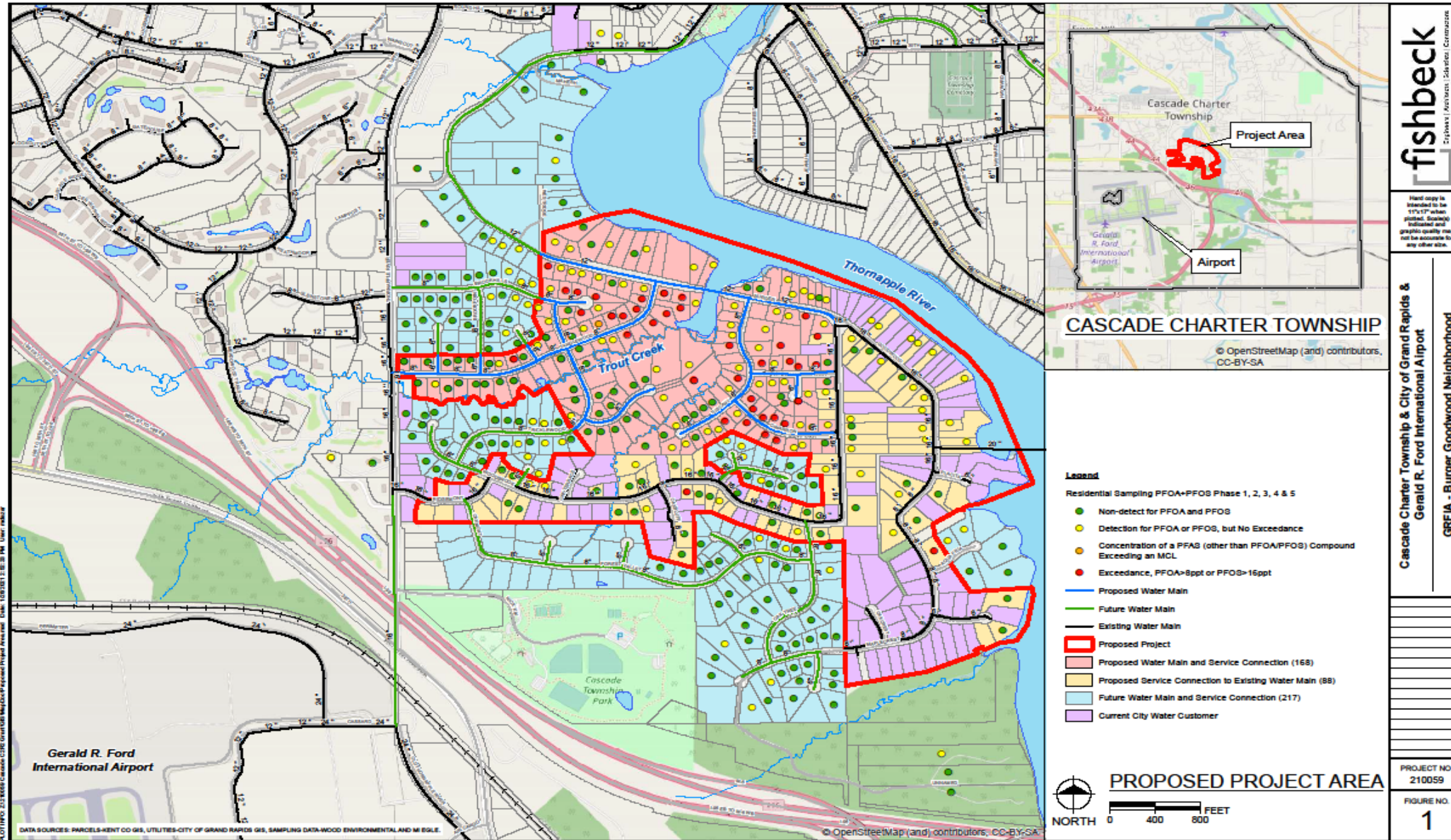
2700 public water
supplies regulated and
monitoring

Compound	Michigan Standards	EPA Recommendation
PFNA	6 ppt	NA
PFOA	8 ppt	70 ppt combined
PFOS	16 ppt	
PFHxS	51 ppt	NA
GenX (HFPO-DA)	370 ppt	NA
PFBS	420 ppt	NA
PFHxA	400,000 ppt	NA

Existing Water System Area



Installation Action Plan



Project Cost & Funding

Table 5 – Phase 1 Estimated Project Costs

Item	Unit	Quantity	Unit Cost	Total
Phase 1				
Water Main, 12-inch	Feet	5,100	\$165	\$841,500
Water Main, 12-inch Creek Crossing	Feet	400	\$300	\$120,000
Water Main, 8-inch	Feet	6,275	\$145	\$909,875
Water Main, 8-inch Creek Crossing	Feet	250	\$300	\$75,000
Water Service, Residential, 1-inch	Each	168	\$1,500	\$252,000
Water Service Connection to Home	Each	256	\$5,650	\$1,446,400
Well Abandonment	Each	256	\$750	\$192,000
Residential Pressure Reducing Valves	Each	120	\$500	\$60,000
Construction Sub-total				\$3,896,775
Contractor mobilization, overhead, and project costs (15%)				\$584,500
Construction and estimating contingency (20%)				\$779,350
Phase 1 Preliminary Construction Estimate				\$5,260,625
Survey, Engineering Des & CA (15%)				\$789,100
Phase 1 Estimated Project Cost				\$6,049,725

Table 6 - Future Phases Estimated Project Costs

Item	Unit	Quantity	Unit Cost	Total
Water Main, 12-inch	Feet	2,800	\$165	\$462,000
Water Main, 12-inch Creek Crossing	Feet	300	\$300	\$90,000
Water Main, 8-inch	Feet	14,950	\$145	\$2,167,750
System Pressure Reducing Valve	Each	1	\$125,000	\$125,000
Water Service, Residential, 1-inch	Each	217	\$1,500	\$325,500
Water Service Connection to Home	Each	217	\$5,725	\$1,242,325
Well Abandonment	Each	217	\$750	\$162,750
Residential Pressure Reducing Valves	Each	100	\$500	\$50,000
Construction Sub-total				\$4,625,325
Contractor mobilization, overhead, and project costs (15%)				\$693,800
Construction and estimating contingency (20%)				\$925,075
Future Phases Preliminary Construction Estimate				\$6,244,200
Survey, Engineering Des & CA (15%)				\$936,600
Future Phases Estimated Project Cost				\$7,180,800

Project Funding

C2R2 Grant - EGLE
\$5,000,000 - Secured

State of Michigan Budget Appropriation
\$1,650,000 - Secured

Additional Funding Sources
GRFIA

ARPA Funds (Federal, State, Local)
Federal Infrastructure Funds
System Financing through Grand Rapids
Water System (Interim)

*Project Designed With No Up Front
Cost To Homeowners*

*Average Value = \$20,000 +
(Front Footage, Connection Charge, Private
Plumbing)*

Identify Attendee Concerns

Brian Vilmont - Project Manager

Prein&Newhof
Engineers ▪ Surveyors ▪ Environmental ▪ Laboratory

Project Engineering

- ▶ Water Main - Where, When & How
- ▶ Service Connections & Well Abandonments
- ▶ Restoration
- ▶ Phase 1 - Project Schedule
- ▶ Phase 2 & Future Work

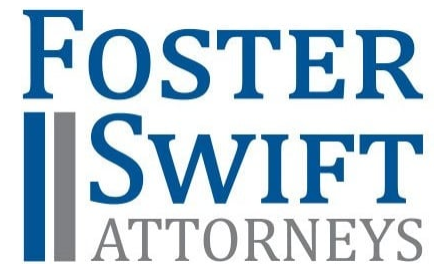
Project Communications

- ▶ Township will maintain a project webpage at www.cascadetwp.com
 - ▶ Under “Latest News” on Front page, or search “PFAS Remediation”
- ▶ Project will have an Email Newsletter with regular updates
 - ▶ Sign up tonight in lobby, or website will have sign-up section by end of next week
- ▶ Project will have email address for sending questions
 - ▶ Will be available on website by end of next week
- ▶ Once project is bid and contractors are selected, contact information will be posted on website
- ▶ Citizens PFAS Advisory Committee Meetings
 - ▶ First Thursday of each month - 4pm at Wisner Center
 - ▶ Check website for meeting changes
- ▶ *Safe Water For Cascade* group maintains a “Questions & Answers” Document that will be linked on the Twp webpage

Connection Requirements Well Abandonment & Irrigation

Doug Van Essen - Township Special Legal Counsel

Chuck Barbieri - Township Legal Counsel



Interim Water Resources

- ▶ Kent County Health Department is providing point-of-use filters for any home with a PFAS detection
 - ▶ Drew Salisbury - 616-490-6467
- ▶ Cascade Township is providing whole house filtration system for those houses that have tested above any of the PFOS action levels
 - ▶ Letters were sent to known houses (40) in fall of 2021
 - ▶ If you did not receive a letter, or have an above action level test result that was not reported to EGLE, contact Ben Swayze at bswayze@cascadetwp.com or 616-949-1500
- ▶ Cascade Township will begin a program to provide bottled water service to any household with a PFAS detection
 - ▶ Notifications will be sent to homes with known detections next week
 - ▶ Information will be placed on website
 - ▶ Service provided up to availability of public water

City of Grand Rapids Water Operations

▶ Maintenance

▶ Grand Rapids staff operates and maintains the retail distribution system

- ▶ Watermains and service lines up to the curb stop
- ▶ Over 1,300 miles of watermain maintained

▶ 24/7 operational support

- ▶ Emergency after hours response for main breaks, service leaks or water isolation for private plumbing leaks
- ▶ 80,000+ accounts managed in City of Grand Rapids, Cascade Township, City of Kentwood, Grand Rapids Township, City of Walker and Tallmadge Township

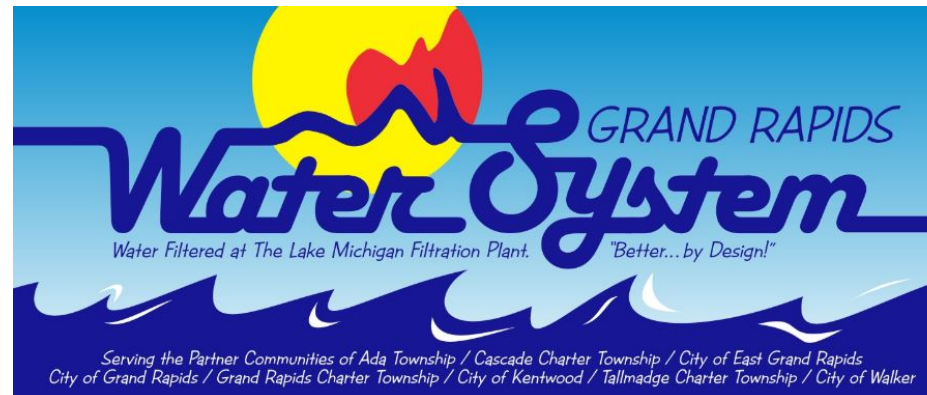
▶ Wholesale service

- ▶ Ada Township, East Grand Rapids and Ottawa County



City of Grand Rapids Water Operations

- ▶ Water Source and Testing
 - ▶ Lake Michigan
 - ▶ Treatment plant located in Grand Haven Township
 - ▶ 90 MGD per day of treatment and pumping capacity
 - ▶ Raw and finished water testing multiple times per day at treatment plant
 - ▶ Weekly tap sampling in the distribution system (38 locations)
 - ▶ Fire Station and Church in Cascade Township



City of Grand Rapids Water Operations

- ▶ Billing and Customer Service
 - ▶ 311 call center for billing and service questions/requests
 - ▶ Monthly or quarterly options
 - ▶ E-billing and payment options
 - ▶ Easy to understand bill statements
 - ▶ Approx. 3,800 customer accounts in Cascade
- ▶ Benefits of Municipal Water
 - ▶ Have access to clean, safe water 24/7 and even in a power outage
 - ▶ Public fire hydrant and protection



City of Grand Rapids Water Operations

- ▶ What about the cost to me???
- ▶ 2022 Cascade Water Rates
 - ▶ Readiness to serve - \$22.09 per month
 - ▶ Commodity rate - \$2.38 per unit (100 cubic feet = 748 gallons)
- ▶ Average monthly bill is based on 10 units/month
 - ▶ \$46.63 per month
- How does this compare to bottled water?
 - Meijer 24 pack (24 - 16.9 oz bottles) is \$2.99
 - \$0.94 per gallon
 - City tap water
 - \$0.00623 per gallon



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Questions?



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