

# **Online Public Meeting**

## **Wolverine's Draft Groundwater-Surface Water (GSI) Interface Response Activity Plan**

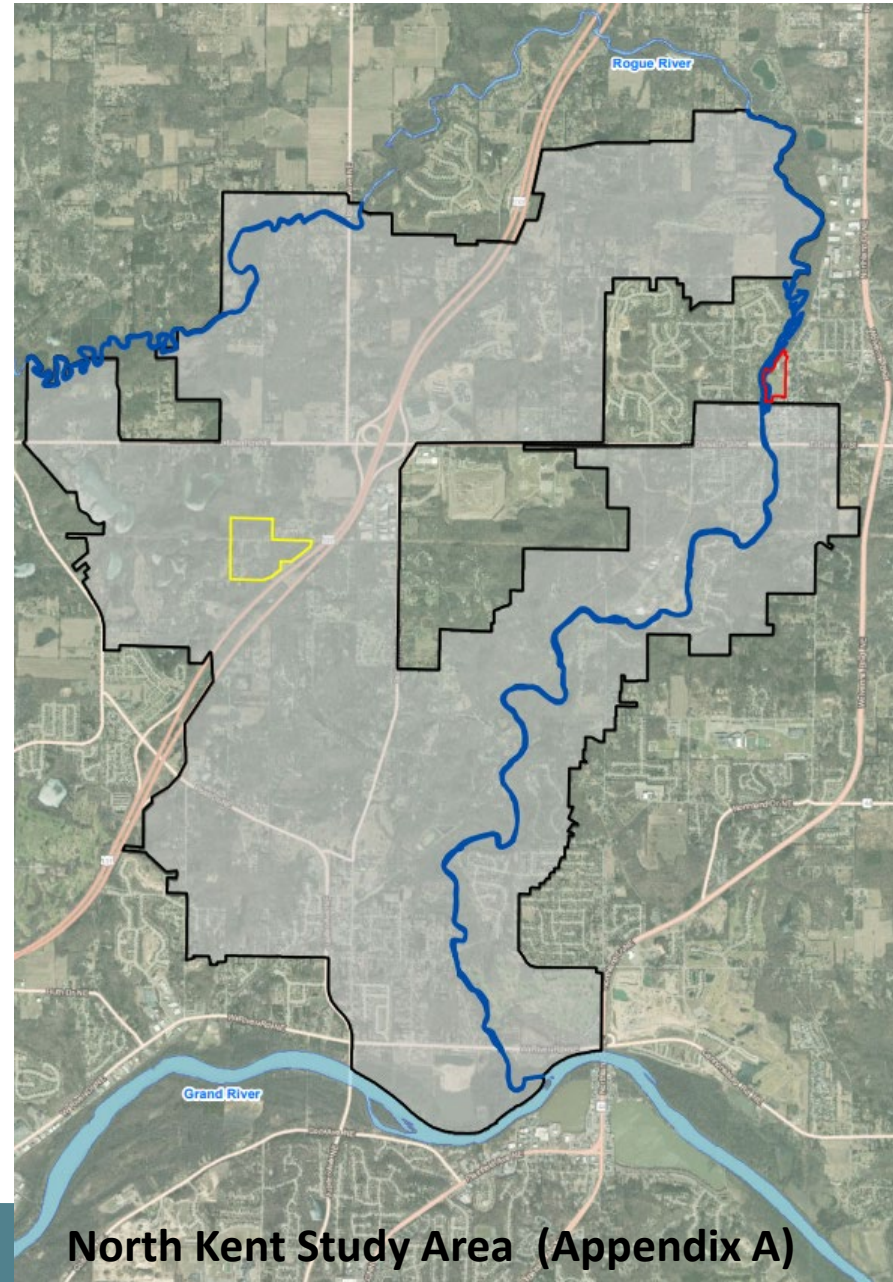
**Wednesday, May 27, 2020  
6:00 – 7:00pm**



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

# February 19, 2020 Consent Decree

- Consent Decree between the State of Michigan (Plaintiff), Plainfield and Algoma Townships (Intervening Plaintiffs) and Wolverine (Defendant) became effective on Feb. 19, 2020 ([www.Michigan.gov/Belmont](http://www.Michigan.gov/Belmont))
- Serves as the framework for all future PFAS response activities performed by Wolverine in the “North Kent Study Area”
- Wolverine will conduct these activities under EGLE oversight



North Kent Study Area (Appendix A)

# Requirements of Consent Decree

General actions Wolverine must take under the Consent Decree:

- Municipal Water Expansion (Section 6.0)
- Filter Operation & Maintenance (Section 7.5)
- Residential Drinking Water Well Sampling (Section 7.6)
- Tannery Site Source Control (Section 7.7)
- House Street Disposal Site Source Control (Section 7.8)
- Groundwater Investigations (Section 7.9)

➤ **Groundwater-Surface Water Interface (GSI) Investigation** (Section 7.10 and Appendix S)



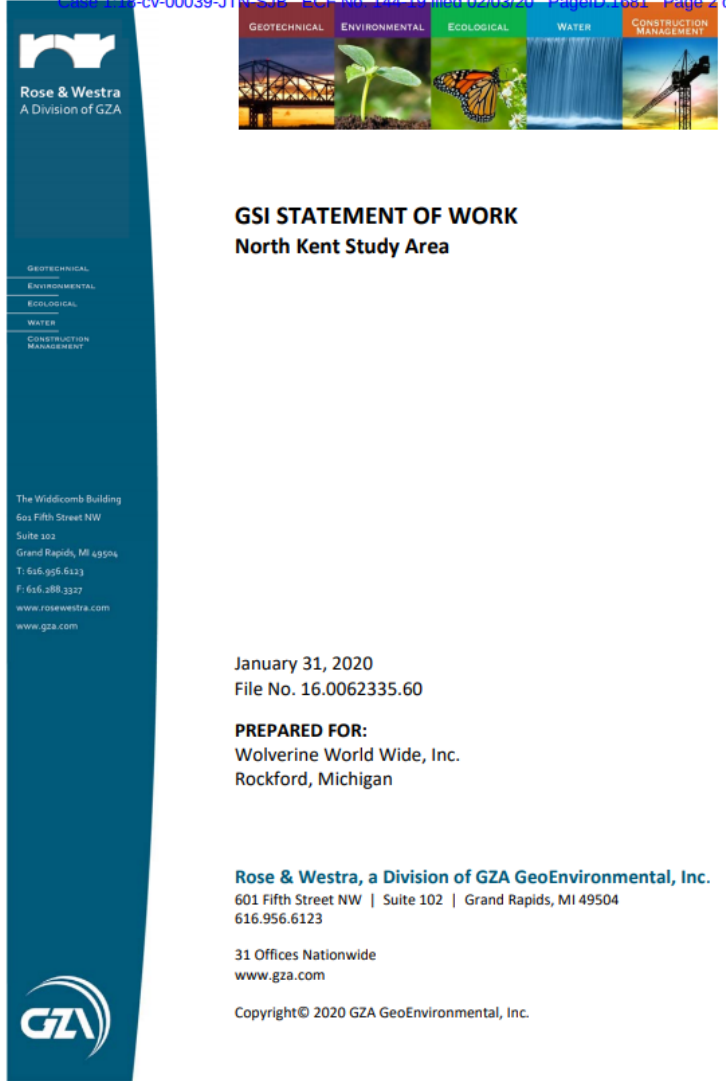
Groundwater-Surface Water  
Response Activity Plan

# Consent Decree: Appendix S

## Groundwater-Surface Water Interface (GSI) Statement of Work

- Appendix S contains a Statement of Work (SOW) which proposed the general approach and rationale for Wolverine's groundwater-surface water interface (GSI) investigation of the Rogue River
- This SOW was publicly noticed and approved as part of the Consent Decree

Case 1:18-cv-00039-JTN-SJB ECF No. 144-10 filed 02/02/20 PageID.1681 Page 2 of 10



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**GSI STATEMENT OF WORK**  
North Kent Study Area

January 31, 2020  
File No. 16.0062335.60

**PREPARED FOR:**  
Wolverine World Wide, Inc.  
Rockford, Michigan

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## **Appendix S:**

General outline for the first phase of Wolverine's GSI investigation

- Investigation approach
  - Piezometers
  - Staff gauges
  - Pore water sampling
- Investigation locations along the Rogue River



## **GSI Response Activity Plan:**

Contains details regarding the work that was outlined in Appendix S.

This GSI plan was submitted for EGLE review and is open to public comment before EGLE completes its review.

Parts of this plan that would be subject to this comment period include (but not limited to):

- Conceptual site model
- Figures, tables, cross-sections
- Sampling procedures/protocols
- Schedule



# What is the Goal of this Study?

**STUDY OBJECTIVE:** Investigate if PFAS contaminated groundwater is venting into the Rogue River at concentrations above applicable criteria.

[Part 201 GSI Criteria= 12,000 ppt for PFOA and 12 ppt for PFOS]

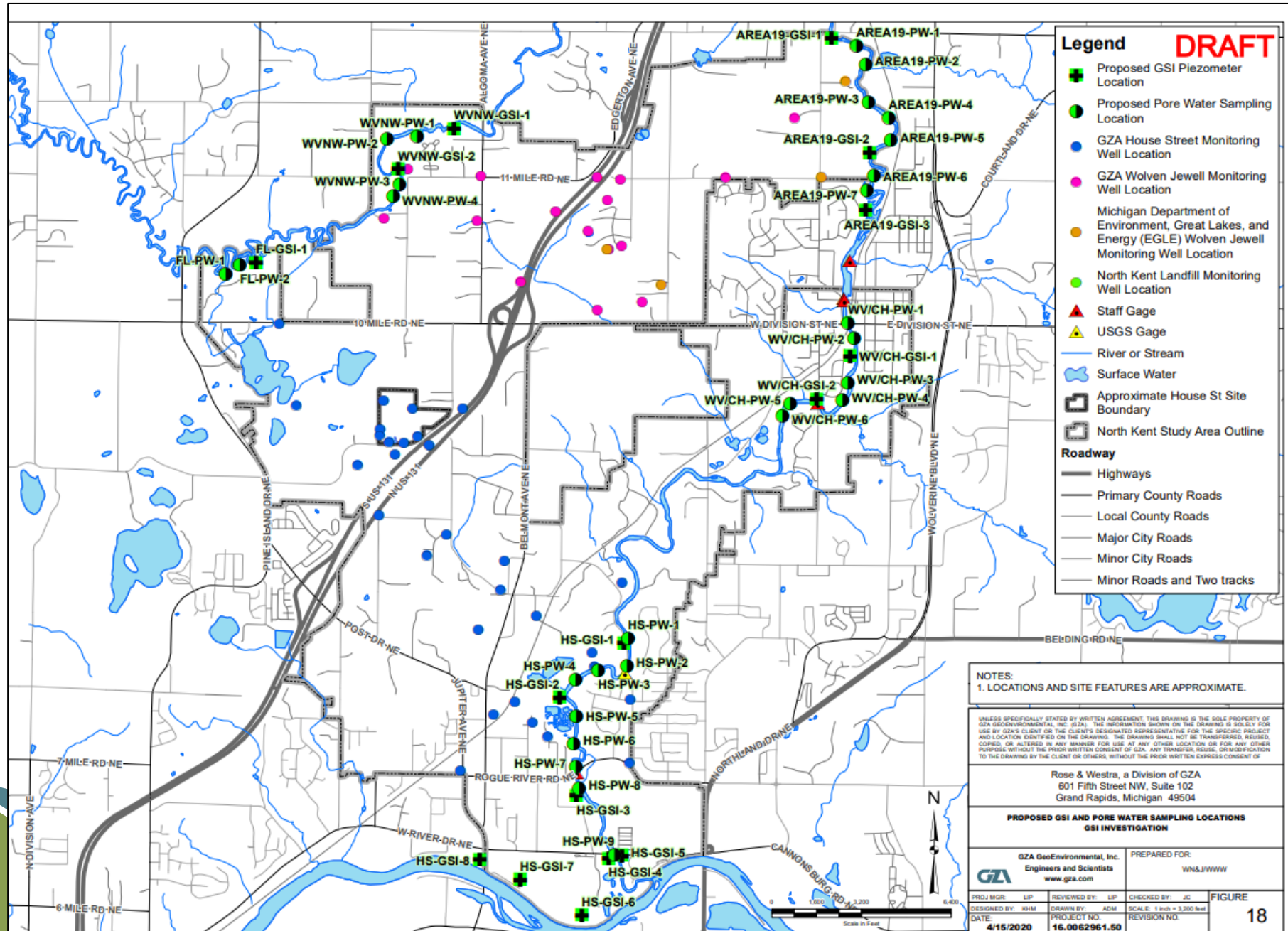
## THIS STUDY IS COMPRISED OF:

1. Installation of piezometers (standpipes driven into the ground of the riverbank) to demonstrate that groundwater is flowing to the river;
2. Measurement of water levels on existing staff gauges located within the Rogue River;
3. Collection of pore water samples from within the river bottom (from 12-18 inches and 18-24 inches below the river sediment) for PFAS analysis.



(Credit: SANDRA BALDWIN, Woods Hole Coastal and Marine Science Center. Public domain.)

# FIGURE 18 – Proposed Piezometer and Pore Water Sampling Locations



Wolven/Jewell N.W.

Wolven N.E.  
/ Area 19

Northwest of  
House Street

Southeast of  
House Street

Wolven/Jewell  
Source Area

Wolven/Childsdale Area

Legend

DRAFT

- Proposed GSI Piezometer Location
- Proposed Pore Water Sampling Location
- GZA House Street Monitoring Well Location
- GZA Wolven Jewell Monitoring Well Location
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wolven Jewell Monitoring Well Location
- North Kent Landfill Monitoring Well Location
- Staff Gage
- USGS Gage
- River or Stream
- Surface Water
- Approximate House St Site Boundary
- North Kent Study Area Outline
- Roadway**
  - Highways
  - Primary County Roads
  - Local County Roads
  - Major City Roads
  - Minor City Roads
  - Minor Roads and Two tracks

NOTES:

1. LOCATIONS AND SITE FEATURES ARE APPROXIMATE.

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PROPOSED GSI AND PORE WATER SAMPLING LOCATIONS  
GSI INVESTIGATION

GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: WN&J/WWW	
PROJ MGR: LIP	REVIEWED BY: LIP	CHECKED BY: JC	FIGURE
DESIGNED BY: KHM	DRAWN BY: ADM	SCALE: 1 inch = 3,200 feet	
DATE: 4/15/2020	PROJECT NO: 16.006296.1.50	REVISION NO:	



# Areas Northwest of House Street and Wolven/Jewell





## Northwest of House Street:

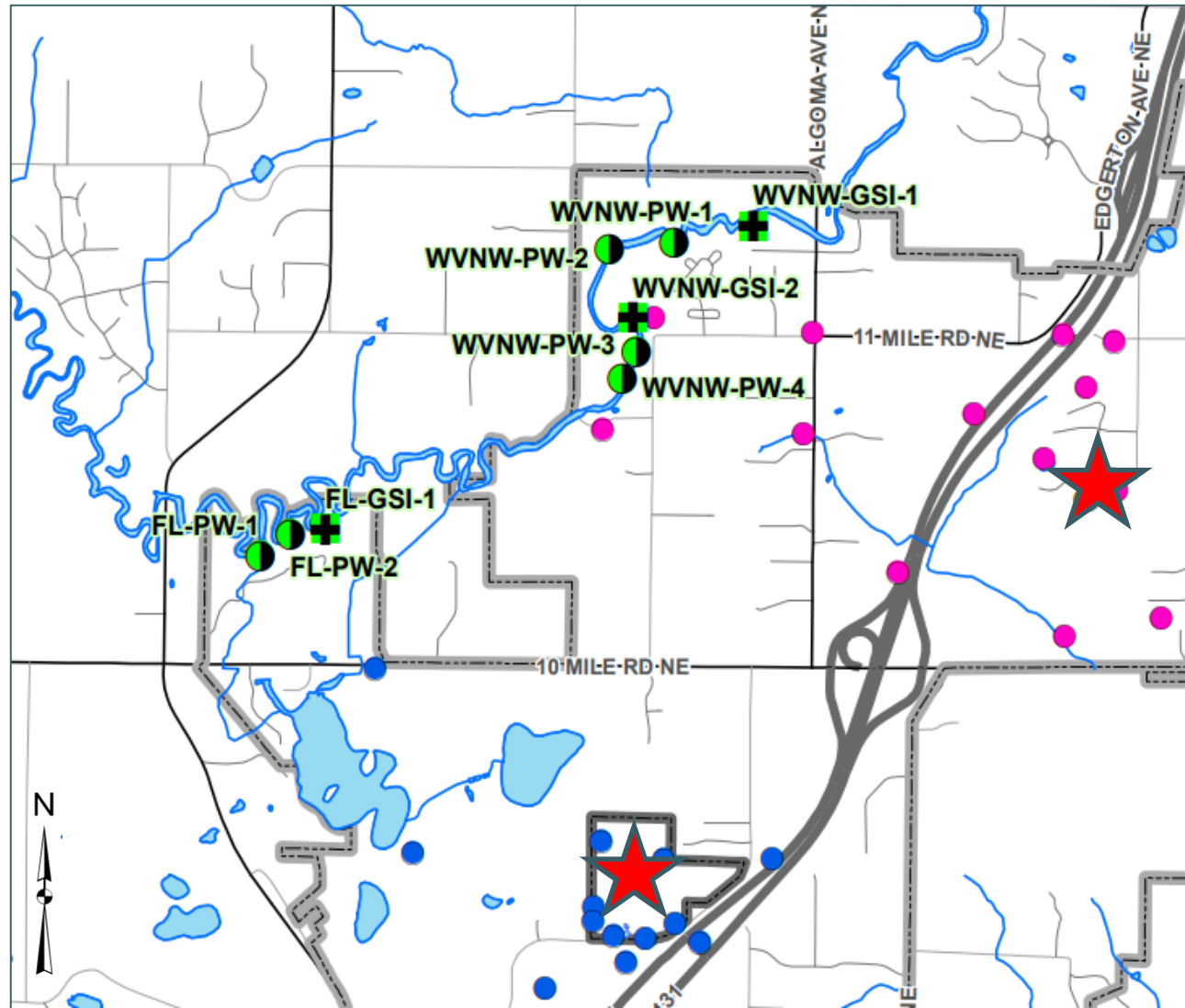
- 1 piezometer
- 2 pore water locations

## Northwest Wolven/Jewell Area

- 2 piezometers
- 4 pore water locations

### Legend

-  Proposed GSI Piezometer Location
-  Proposed Pore Water Sampling Location
-  GZA House Street Monitoring Well Location
-  GZA Wolven Jewell Monitoring Well Location



# Northeast of Wolven/Jewell (Area 19) & Wolven/Childsdale Area







## Northeast of Wolven/Area 19:

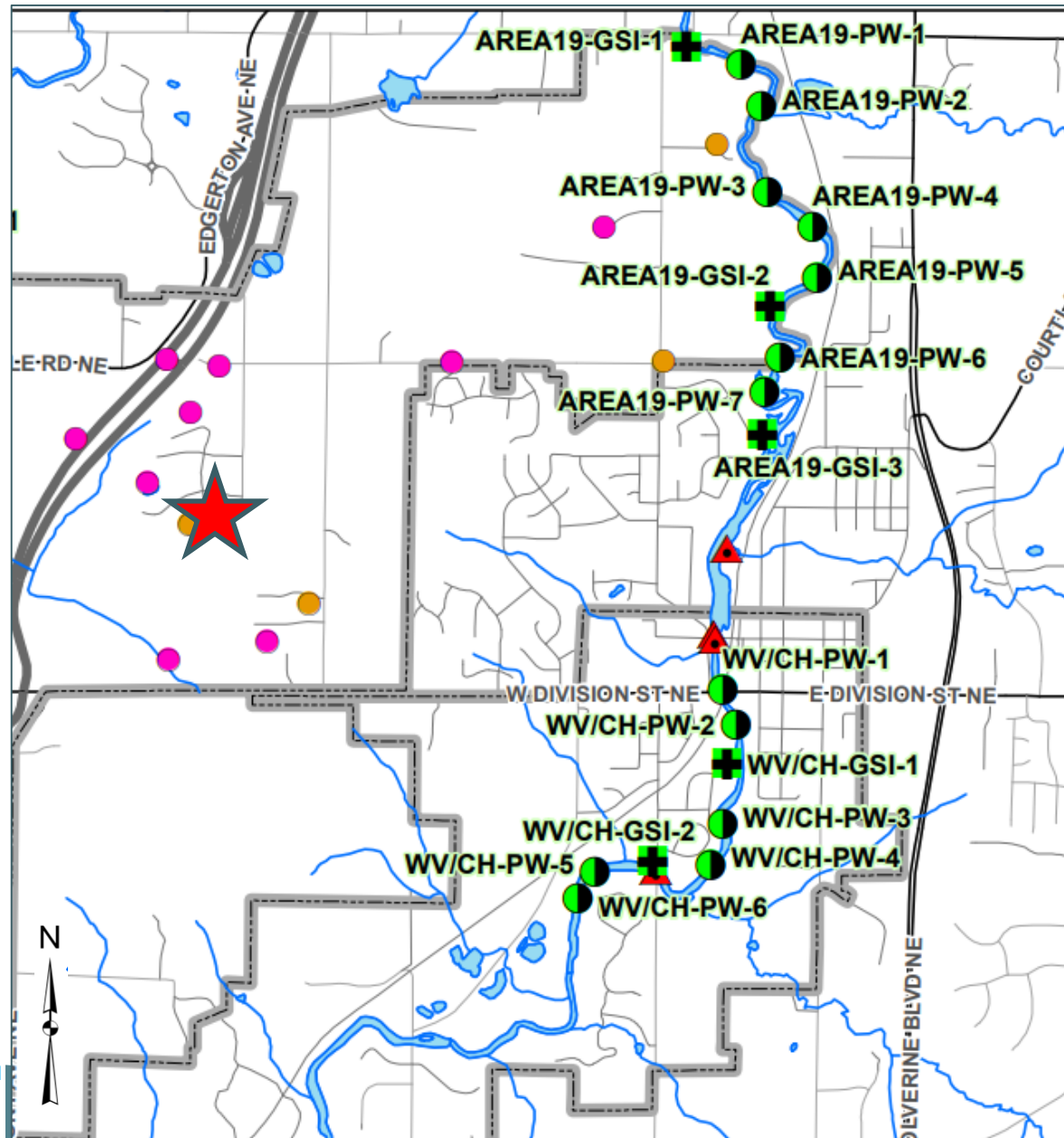
- 3 piezometers
- 7 pore water locations
- Sampling existing EGLE monitoring well

## Wolven/Childsdale Area

- 2 piezometers
- 6 pore water locations

### Legend

-  Staff Gage
-  USGS Gage
-  Proposed GSI Piezometer Location
-  Proposed Pore Water Sampling Location
-  GZA Wolven Jewell Monitoring Well Location
-  Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wolven Jewell Monitoring Well Location








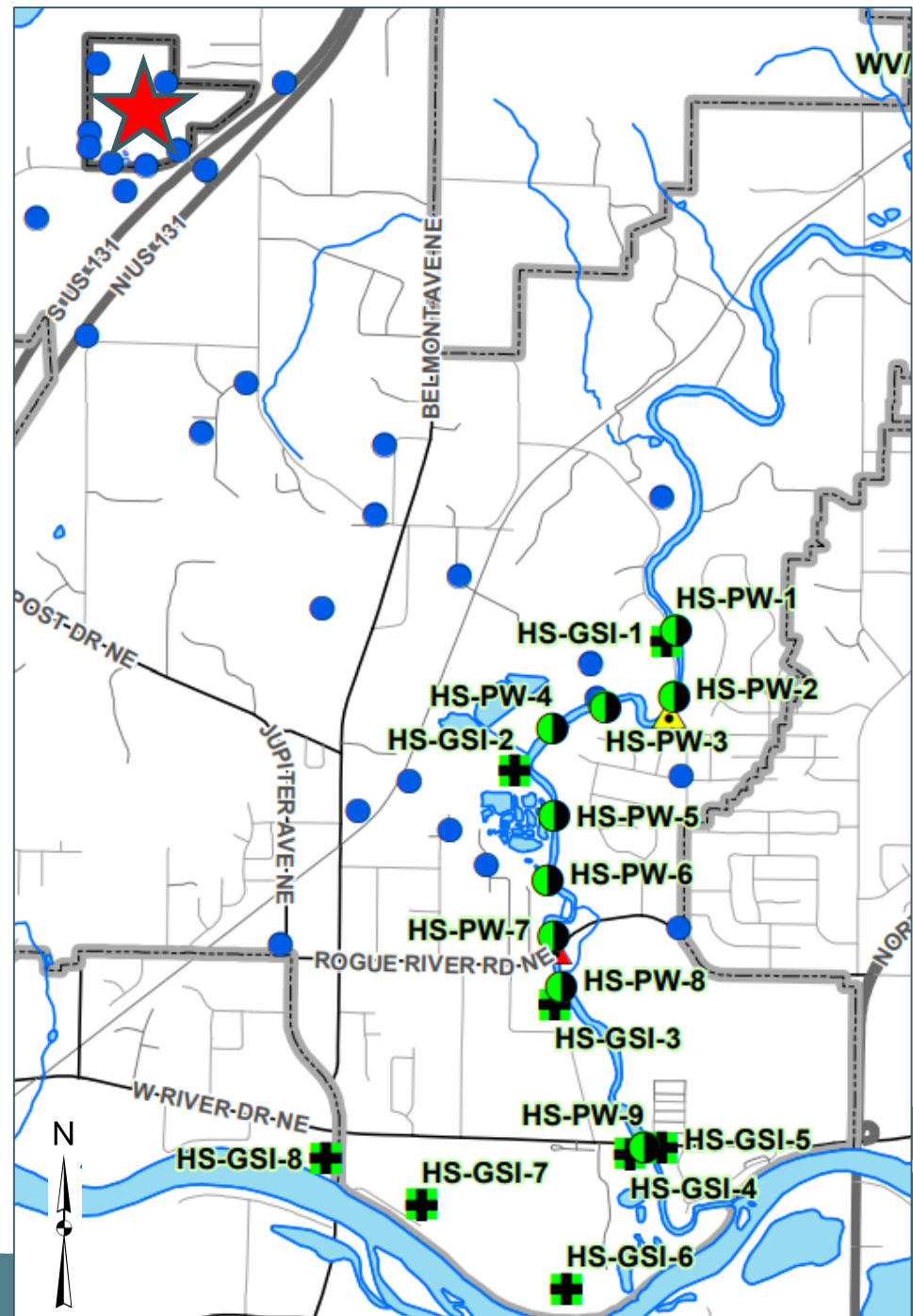
# Area Southeast of House Street

## Southeast of House Street:

- 8 piezometers
- 9 pore water locations
- Sampling two existing monitoring well locations

### Legend

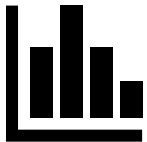
-  Proposed GSI Piezometer Location
-  Proposed Pore Water Sampling Location
-  GZA House Street Monitoring Well Location
-  Staff Gage
-  USGS Gage



# GSI Response Activity - Anticipated Schedule



- Wolverine's consultant anticipates collecting pore water samples during **fall 2020** low flow conditions (through early October), barring any access issues or COVID-19 impact.



- Within 90 days of receiving the analytical data from this investigation, Wolverine will summarize the results and findings and submit an additional work plan to EGLE for the installation of permanent GSI monitoring well locations.



- Wolverine requirements for GSI related work can be found in Section 7.10 of the Consent Decree.



# Report Review Next Steps

## Take Comments

EGLE will take written public comments:

[EGLE-RRD-Housestreet@michigan.gov](mailto:EGLE-RRD-Housestreet@michigan.gov)

through June 13, 2020.

## Prepare Response Document

EGLE will prepare a response document to summarize and address the public comments received.

This response document will be posted to [www.Michigan.gov/belmont](http://www.Michigan.gov/belmont)

## Respond to Wolverine

EGLE will complete its review of the GSI Plan and provide Wolverine a response regarding any edits/comments.

# Wolverine Response Activity Plan Due Dates:

Response Activity Plan	Due Date to EGLE	Public Meeting Date	Comment Period
Filter Operation and Maintenance (O&M)	4-6-2020	5-26-2020	5-14 to 6-13-2020
Groundwater Surface Water Interface (GSI)	4-20-2020	5-27-2020	5-14 to 6-13-2020
Residential Well Resampling	5-4-2020	TBD	30 days
Groundwater Investigation - Area 5	6-18-2020	TBD (1 meeting to discuss these plans together)	30 days
Groundwater Investigation - Area 6			
Groundwater Investigation - Area 11			
Groundwater Investigation - Area 12			
Groundwater Investigation - Area R-1 (19)			
Perimeter Wells	8-17-2020	TBD	30 days

TBD: To be determined

Consent Decree and Response Activity Plans are posted online at:  
[www.Michigan.gov/belmont](http://www.Michigan.gov/belmont)

# We want to hear from you!

You can continue to submit your written comments through **June 13, 2020** to:

**EGLE-RRD-Housestreet@michigan.gov**

Or by mail to:

**Karen Vorce**

**EGLE-RRD**

**350 Ottawa Avenue NW, Unit 10**

**Grand Rapids, MI 49503**

**Questions?**

**Karen's Contact Info:**

**Phone: 616-439-8008**

**Email: [vorcek@Michigan.gov](mailto:vorcek@Michigan.gov)**

When submitting comments, make sure to note which  
Response Activity Plan you are commenting on