

Online Public Meeting

Wolverine's Draft Tannery Interceptor System Response Activity Plan Addendum

**Tuesday, January 10, 2023
6:00 – 7:30pm**



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Meeting Agenda

- 2020 Consent Decree and Tannery Property Location
- Wolverine's Final Tannery Interceptor Submittal
- Wolverine's Draft Addendum
- Next Steps & Public Comment Period
- Questions

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 (Section 7.8)
- Groundwater Investigations (Section 7.9)
- Groundwater-Surface Water Interface (GSI) Investigation (Section 7.10)

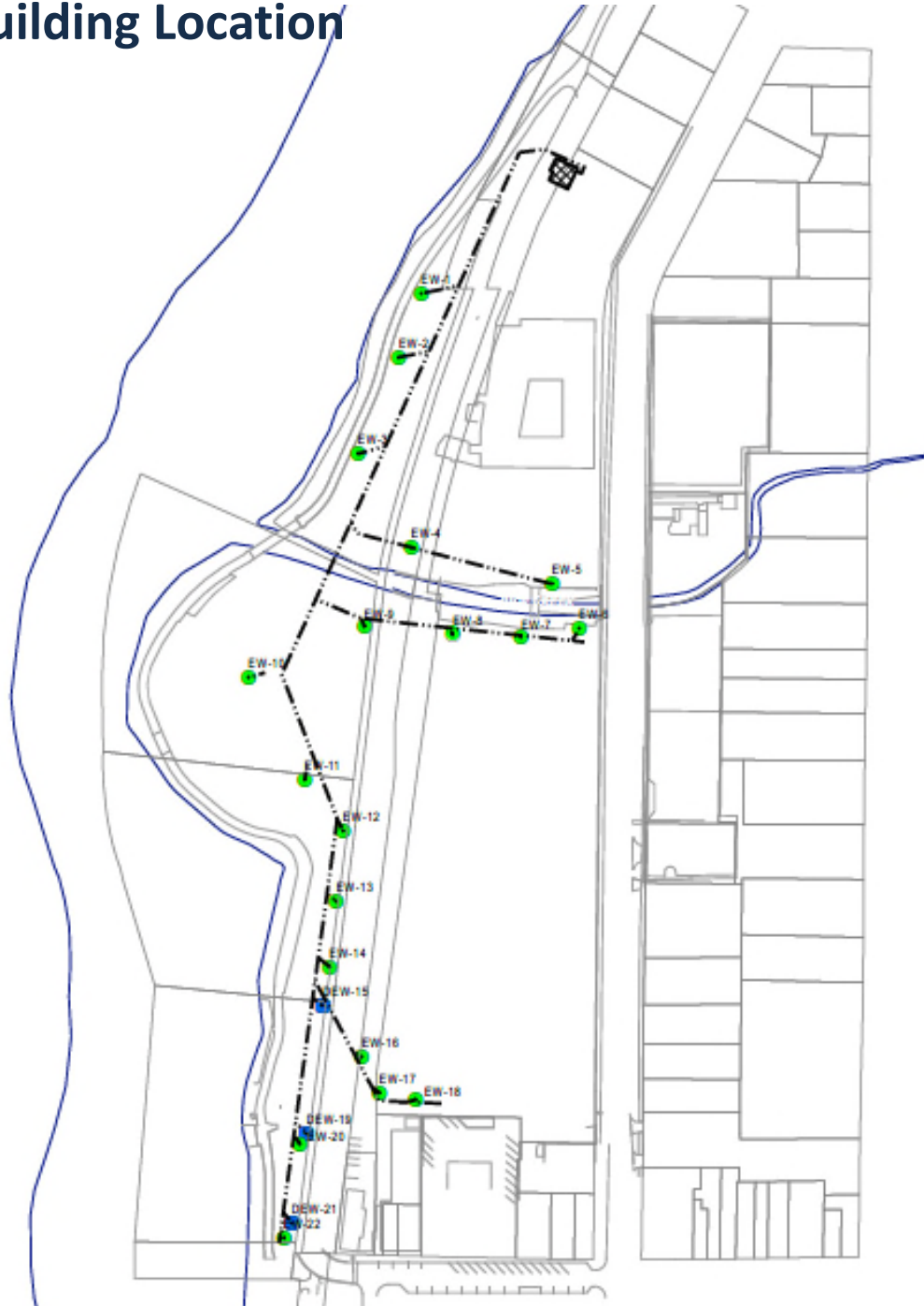
Tannery Interceptor System Plan

Tannery Property Location



Wolverine's Final Tannery Interceptor System Plan

Sheet 9 – Proposed Extraction Well Layout, Piping Run and Treatment Building Location



Legend

PROPOSED EXTRACTION WELL

- Deep Extraction Well
- Shallow Extraction Well

PROPOSED PIPING RUN

PROPOSED TREATMENT BUILDING LOCATION

0 75 150 300
Scale in Feet

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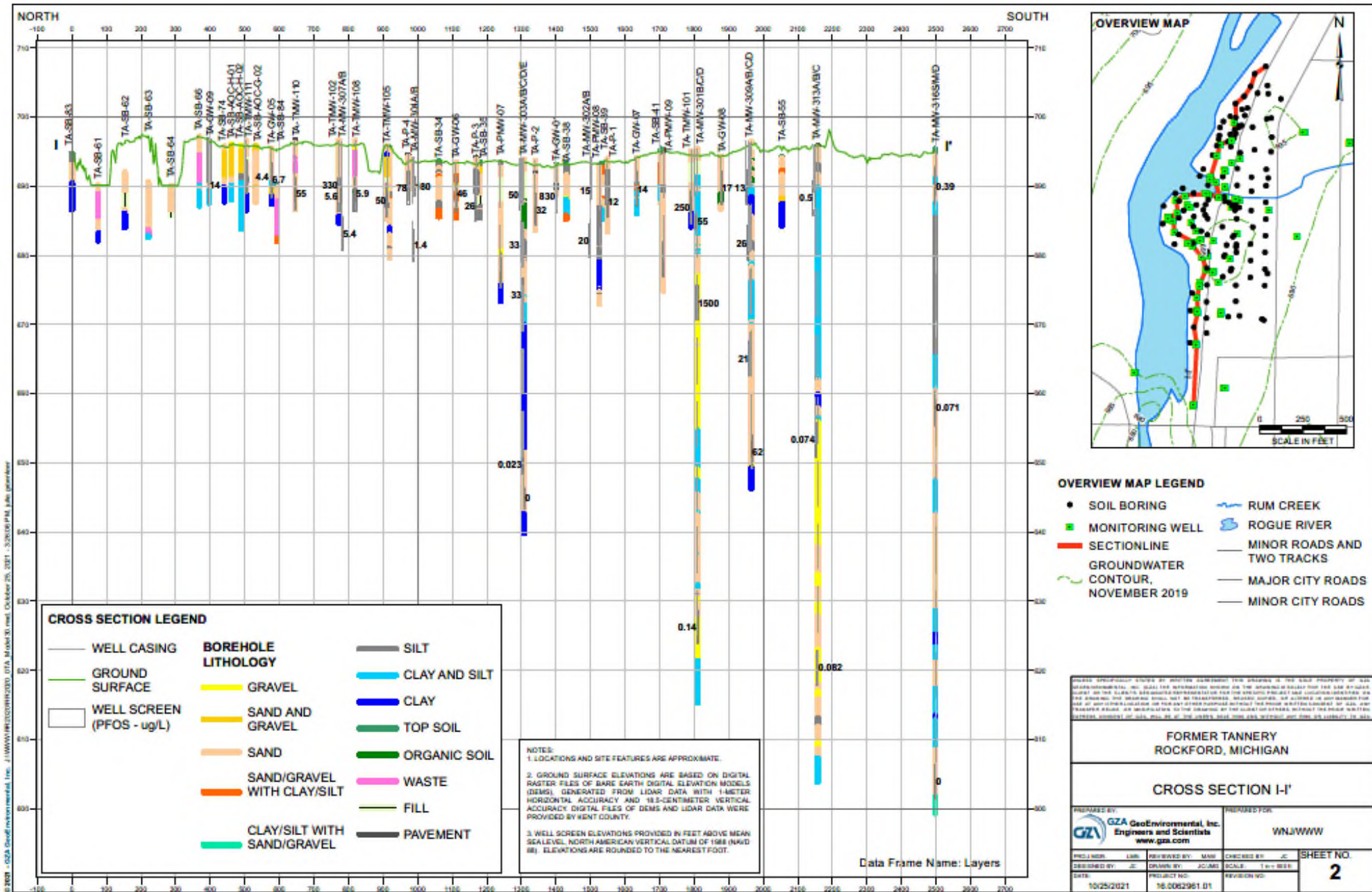
Rose & Westra, a Division of GZA
801 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

PROPOSED EXTRACTION WELL LAYOUT, PIPING RUN AND TREATMENT BUILDING LOCATION

GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: WOLVERINE WORLD WIDE, INC.	
PROJECT NO. LHM	DESIGNED BY LHM	CHECKED BY LJP	SHEET NO. 9
DATE: 10/10/2018	DRAWN BY JMS	SCALE: 1" = 175'	REVISION NO.

Wolverine's Final Tannery Interceptor System Plan

Sheet 2 – Cross Section I-I'



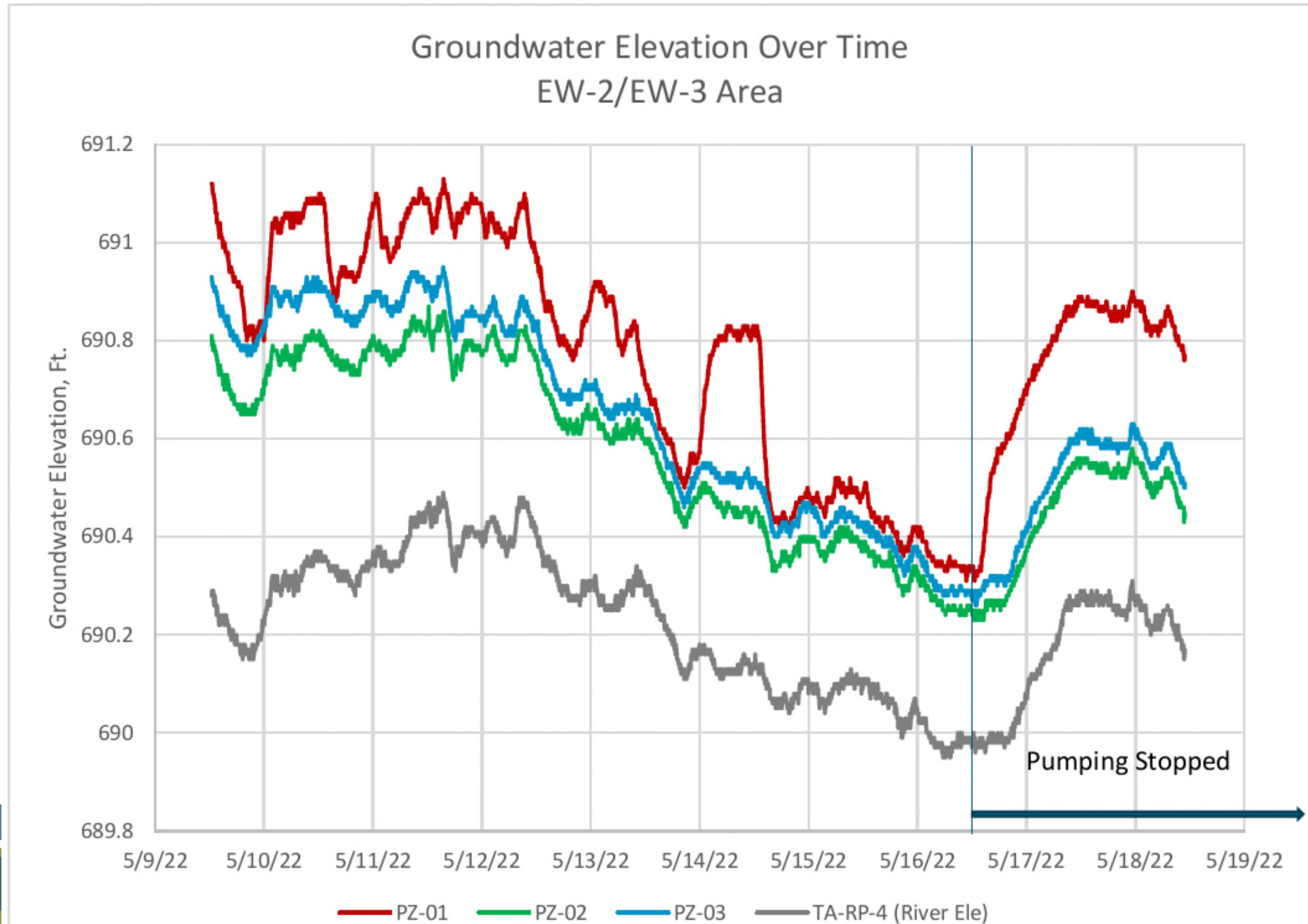
Wolverine's Tannery Interceptor System Addendum

Section 2.0 – Performance Pumping Tests

- Three groundwater pump tests were performed by extracting groundwater from extraction wells EW-1, EW-2, and EW-3 north of Rum Creek in April and a longer week-long test was conducted at EW-2, EW-3, and TA-RW-1 in May
- Pressure transducers were placed in the extraction wells and nearby monitoring wells to measure water level changes before, during, and after the pumping
- Specific hydraulic properties of the onsite aquifer(s) were further evaluated in the groundwater model

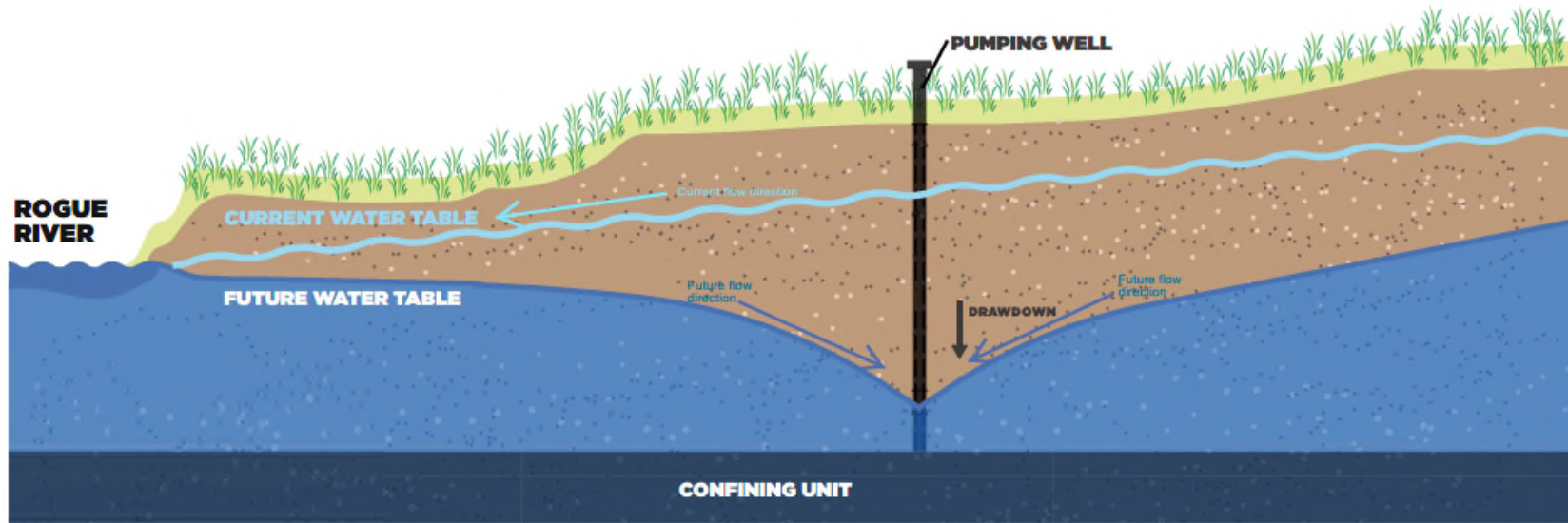
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Plot 4: Groundwater Elevations Over Time at EW-2/EW-3 Area



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Table 2-1: Summary of Initial Performance Pumping



Extraction Well	Screen Interval (ft bgs)	Pump Start	Pump Shutdown	Designed Flow Rate (GPM)	Sustained Flow Rate (GPM)
EW-1	4 to 14	NA	NA	3	<1
EW-2	13 to 23	4/12/2022 8:10 AM	4/14/2022 10:00 PM	3	1
EW-3	4 to 14	4/12/2022 8:10 AM	4/14/2022 10:00 PM	4	4



Wolverine's Tannery Interceptor System Addendum

- 1.0 - Introduction
- 2.0 - Performance Pumping Tests
- 3.0 - Basis For Design Changes
- 4.0 - Groundwater Interceptor System Evaluation (Modification to RAP Section 8.0)
 - 4.1 – Interceptor System Design (Modification to RAP Section 8.1)
 - 4.2 – Capture Zone Evaluation (Modification to RAP Section 8.2)
 - 4.3 – Groundwater Interceptor Description (Modification to RAP Section 9.0)
 - 4.4 – Interceptor System (Modification to RAP Section 9.1)
- 5.0 – Schedule (Modification to RAP Section 11.0)
- 6.0 – Performance Monitoring Plan (Modification to RAP Section 13.0)
- 7.0 – Groundwater Sampling (Modification to RAP Section 15.0)
- 8.0 - Bibliography

**Modifications to
the
Approved Plan**

Wolverine's Draft Tannery Interceptor System Addendum

- Report posted online: www.Michigan.gov/rockfordtannery
- Printed copies available for review at Plainfield Twp, City of Rockford, and Algoma Township municipal offices

Basic Concept: Install a groundwater extraction network capable of capturing PFAS contaminated groundwater at the Tannery site before it enters the Rogue River

March 2022 RAP:	December 2022 Addendum:
14 shallow extraction wells and 3 deep extraction wells south of Rum Creek	7 shallow trenches, 2 shallow extraction wells, and 4 deep extraction wells south of Rum Creek
5 shallow extraction wells north of Rum Creek	2 shallow trenches north of Rum Creek
Pump rate of 48.5 gallons per minute	Pump rate of 77 gallons per minute

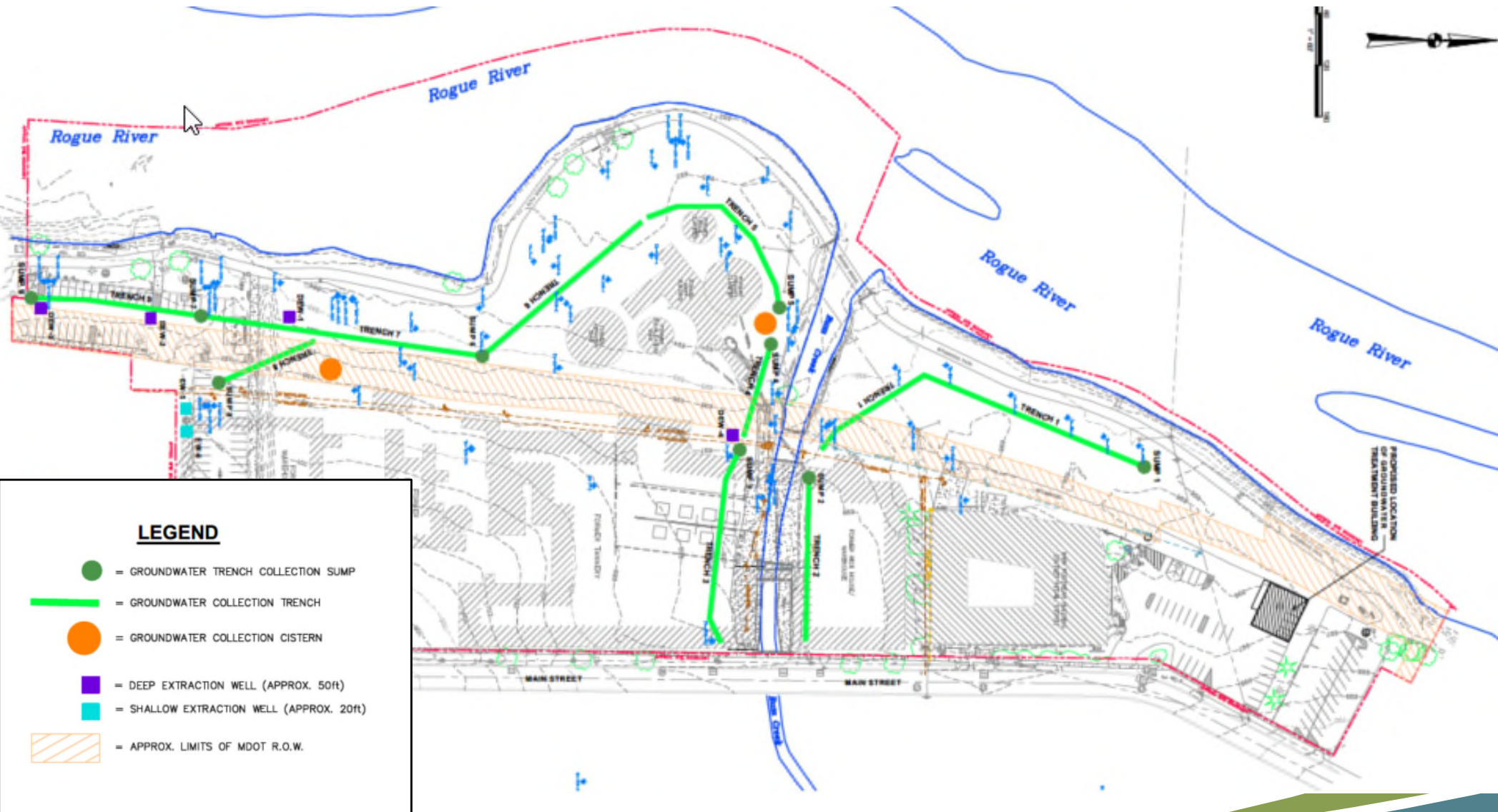
Wolverine's Draft Tannery Interceptor System Addendum



Image Source:
dewindonepasstrenching.com

Wolverine's Draft Tannery Interceptor System Addendum

Sheet 2 – Proposed Groundwater Collection Trench, Extraction Wells & Treatment Building



Wolverine's Draft Tannery Interceptor System Addendum

Groundwater Treatment System (Section 4.4.8 Modifying Section 9.2 of the RAP)

Treatment System Highlights:

- The start-up and operation of the groundwater treatment system will be sequenced
- Initially, a temporary system will be used most likely with granular activated carbon (GAC)
- The results of the temporary system will be used to refine the final treatment system
- The treatment building will likely be located northwest of the retail store.
- Treated water will be discharged to surface water through a National Pollutant Discharge Elimination System (NPDES) permit issued by EGLE.



Image Source:
<https://www.h2ktech.com/liquid-phase-gac-vessels/>

Wolverine's Draft Tannery Interceptor System Addendum

Schedule (Section 5.0 Modifying Section 11.0 of the RAP)

- Wolverine indicates the schedule is contingent on agency approvals and permitting
 - Phase I – Construction of trenches and wells
 - Design will be finalized within 60 days of Addendum approval
 - Construction begins within 8 months of Addendum approval
 - Phase II – Temporary treatment will begin
 - Lakes & Streams Permit for outfall discharge - Anticipated Spring of 2024
 - Several weeks of testing for each trench and extraction well
 - Phase III – Full scale, permanent treatment system
 - Complete within 31 months of Addendum approval

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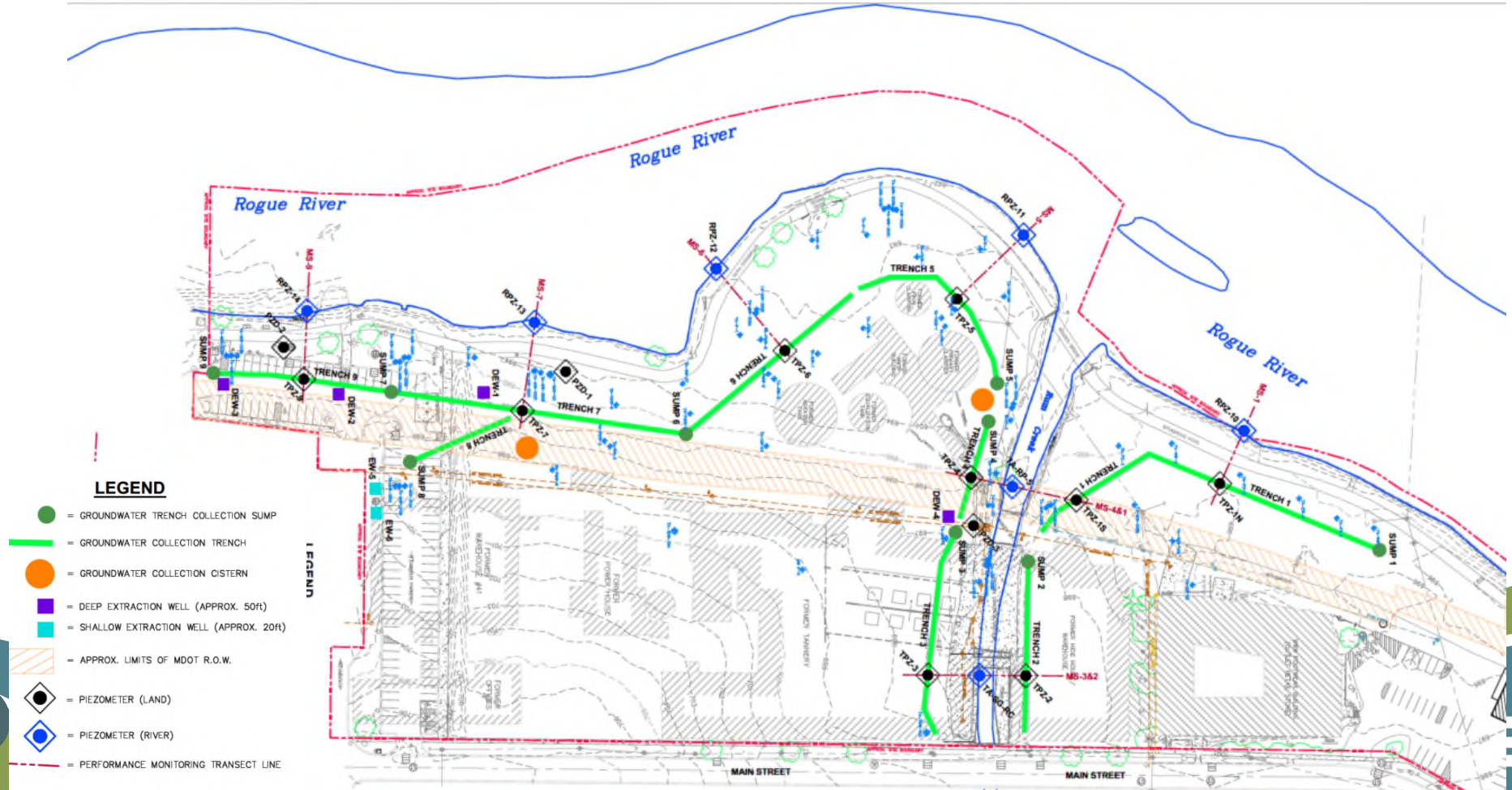
Schedule (Section 5.0 Modifying Section 11.0 of the RAP)

Tasks	March 31, 2022 RAP <u>Extraction Wells Only</u>	December 1 ,2022 RAP Addendum <u>Trench & Extraction Wells</u>
EGLE RAP approval	March 31, 2022	*Schedule based upon end of February 2023 Approval
NPDES Permit Approval	July 2023	Expected May 2023
Finalize Recovery System Design and Specifications	June 2022	April 2023
Recovery System Installation	Extraction Wells Only: September 2022 - March 2023	2,000 ft Trench & Extraction Wells: October 2023 - May 2024
Start Groundwater Treatment	October 2023 (Likely requiring system modification)	May 2024
Begin Performance Monitoring	October 2023	June 2024

Wolverine's Draft Tannery Interceptor System Addendum

Groundwater Monitoring Plan (Section 6.0 Modifying Section 13.0 of the RAP)

- Monthly measurements collected at:
 - 7 monitoring sections
 - 2 staff gauges in the Rouge River, one north of Rum Creek and the other south of Rum Creek



Report Review Next Steps

Take Comments

EGLE will take written public comments:

EGLE-RRD-Housestreet@michigan.gov

through January 27, 2023

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/rockfordtannery

Respond to Wolverine

EGLE will complete its review of the Tannery Interceptor Plan Addendum and provide comments back to Wolverine.

We want to hear from you!

You can continue to submit your written comments on the Tannery Interceptor System Plan through **January 27, 2023** to:

EGLE-RRD-Housestreet@michigan.gov

Or by mail to:

**Leah Gies
EGLE-RRD
350 Ottawa Avenue NW, Unit 10
Grand Rapids, MI 49503**

**Questions?
Leah's Contact Info:
Phone: 616-215-4781
Email: GiesL1@Michigan.gov**

(When submitting comments, make sure to note the Plan you are commenting on)