



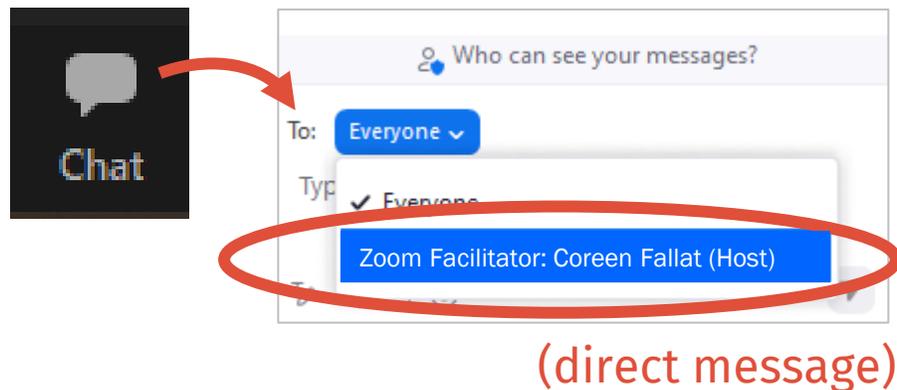
# Back to Basics: Applying for Closure

DNR Remediation and Redevelopment Program

# Meeting Logistics

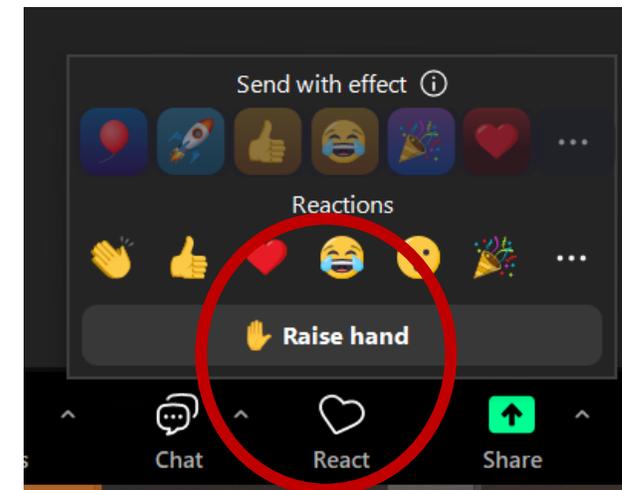
## Written Comments/Questions

- Use **chat** and select Zoom facilitator in the “To” dropdown
- Remarks will be read out loud by facilitator



## Verbal Comments/Questions

- **In-Person:** Raise hand and in-person moderator will help manage
- **By Zoom:** Select React to Raise hand to request a turn to talk (\* 9 on phone)
- Please unmute when your name is called (\*6 on phone)



# Objectives



**Know** the requirements and process to apply for site closure.



**Understand** how continuing obligations can affect closure and **recognize** when and how to notify affected parties.



**Apply** best practices for preparing a site and supporting materials to improve the likelihood of closure approval.



Menu » Administrative Rules Related » Administrative Code » Department of Natural Resources (NR)  
» Chs. NR 700-799; Environmental Protection – Investigation and Remediation of Environmental Contamination

**Chapter NR 700** (PDF: ) - General Requirements

**Chapter NR 702** (PDF: ) - Contingency Planning For Hazardous Substance Discharge Response By State Agencies

**Chapter NR 704** (PDF: ) - Contingency Planning For Abandoned Container Response

**Chapter NR 706** (PDF: ) - Hazardous Substance Discharge Notification And Source Confirmation Requirements

**Chapter NR 708** (PDF: ) - Immediate And Interim Actions

**Chapter NR 712** (PDF: ) - Personnel Qualifications For Conducting Environmental Response Actions

**Chapter NR 714** (PDF: ) - Public Participation And Notification

**Chapter NR 716** (PDF: ) - Site Investigations

**Chapter NR 718** (PDF: ) - Management Of Contaminated Soil Or Solid Wastes Excavated During Response Actions

**Chapter NR 720** (PDF: ) - Soil Cleanup Standards

**Chapter NR 722** (PDF: ) - Standards For Selecting Remedial Actions

**Chapter NR 724** (PDF: ) - Remedial And Interim Action Design, Implementation, Operation, Maintenance And Monitoring

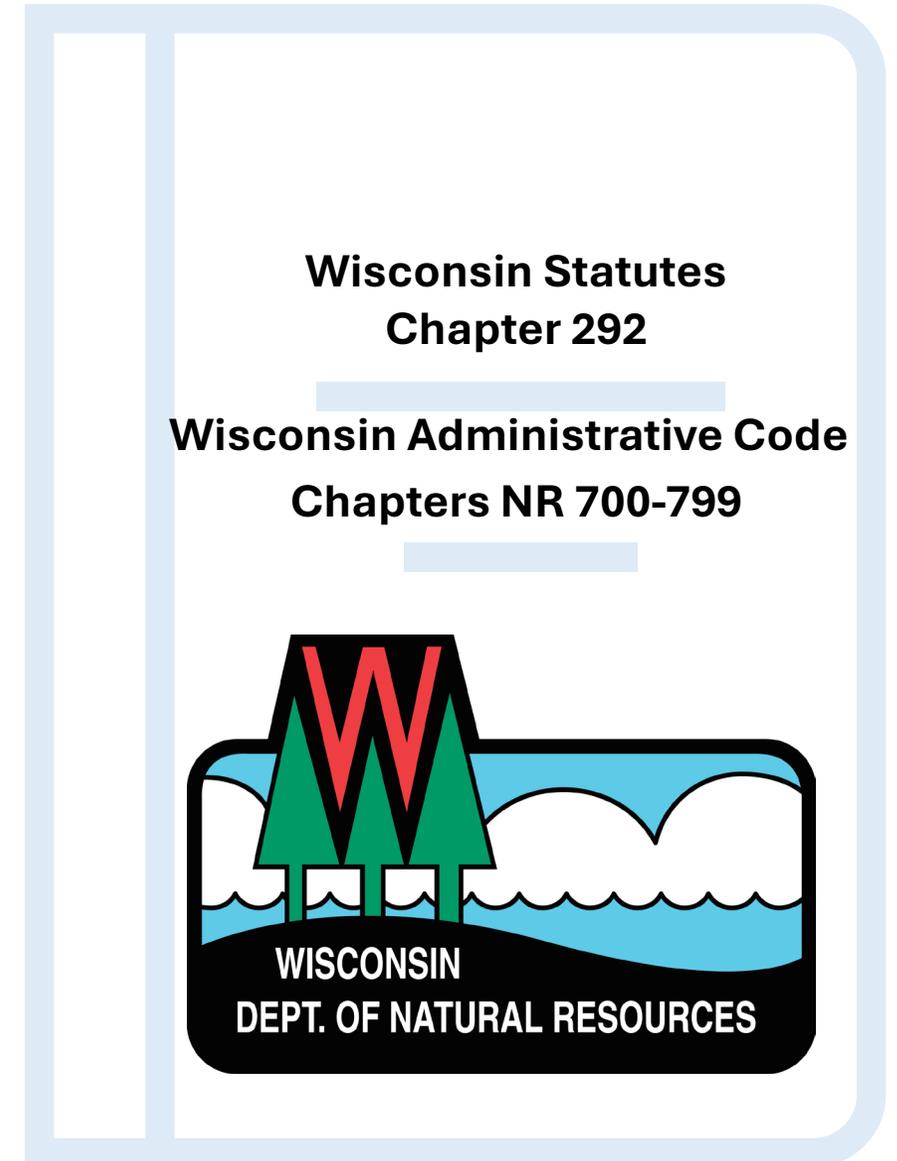
**Chapter NR 725** (PDF: ) - Notification Requirements For Residual Contamination And Continuing Obligations

# NR 700 Process Overview

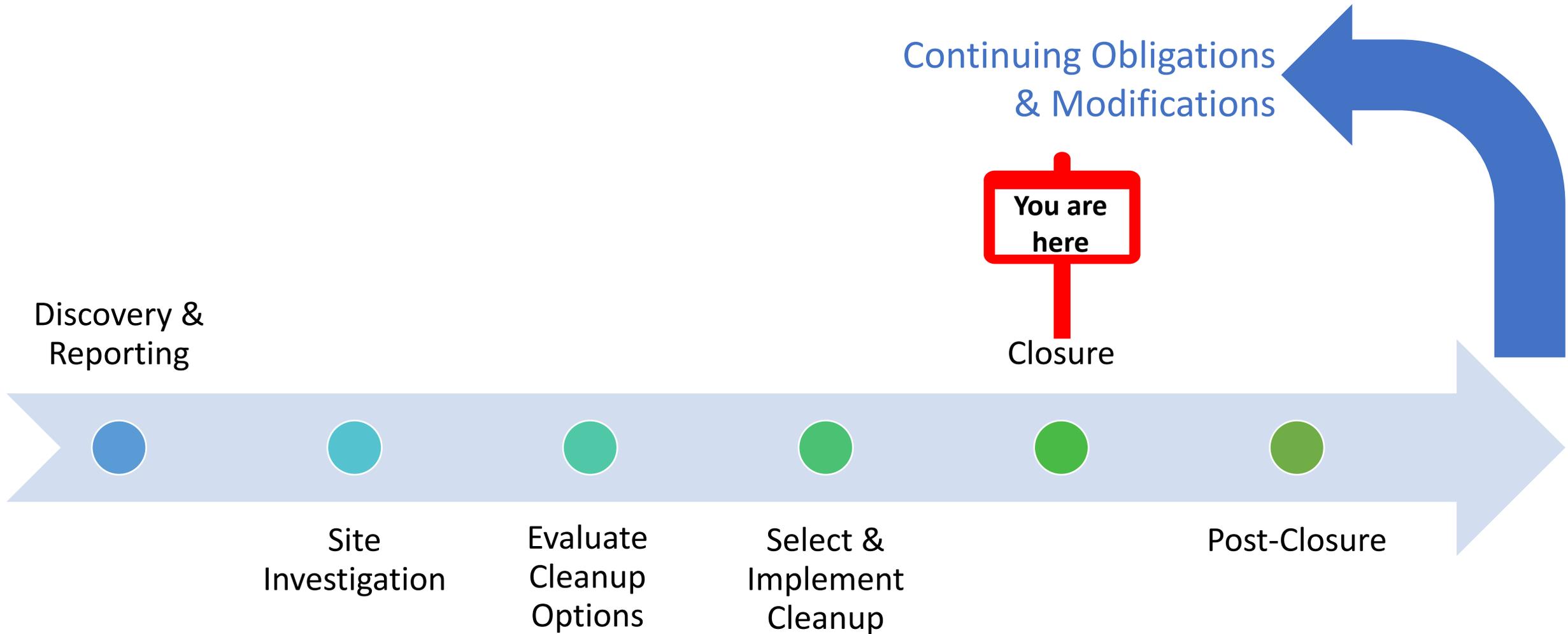
Jodie Thistle, PG  
RR Program

# WI Regulatory Framework

- Self-implementing, *responsible party* follows the steps
- Timelines
- DNR approvals
- Request technical review from DNR



# Wis. Admin. Code NR 700 - 799



# Applying for Case Closure

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Matt Thompson, DNR

# Are you ready to apply for case closure?

- ✓ Required reports and documents submitted to DNR
- ✓ NR 726 cleanup objectives met
- ✓ Notifications of continuing obligations sent to affected parties
- ✓ Case Closure Request Form 4400-202 (with fee) submitted



# NR 700 Submittal Requirements



Site  
Investigation  
Report  
NR 716



Remedial  
Actions Options  
Report (RAOR)  
NR 722



Remedial Action  
Plan  
NR 724



Documentation  
NR 724.15



Monitoring  
NR 724.17

# NR 726 Cleanup Objectives

- ✓ Restore the environment to the extent *practicable*
- ✓ *Address the source of the contamination*
- ✓ Reasonable period of time
- ✓ Minimize the harmful effects of the contamination to air, land or waters of the state
- ✓ Address exposure pathways



# Continuing Obligations

Legal requirements that may be imposed on the property due to residual contamination from soil, groundwater or vapor

# Case Closure Request Form 4400-202

- ✓ Form accurately completed
- ✓ Signatures/certifications included
  - Professional Engineer
  - Hydrogeologist - Professional Geologist/Hydrologist
- ✓ Fees submitted
  - Closure Fee \$1050
  - Groundwater Database Fee \$350
  - Soil Database Fee \$300
- ✓ 30-day notification period completed

Clear Data Save... Print... **Note:** In order to fill and save this form electronically, it must be opened using Adobe Reader or Acrobat software. Save a copy of the file, open Adobe Reader, select File > Open and browse for the file you saved.

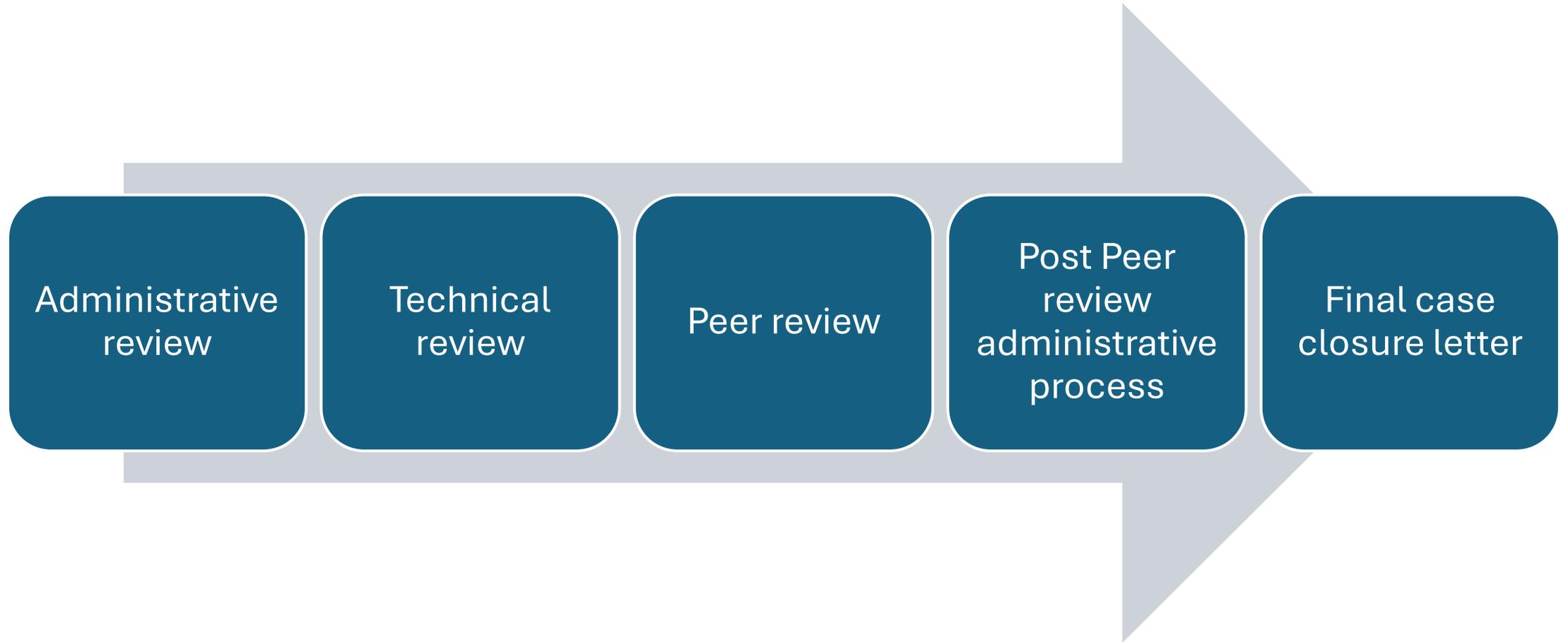
State of Wisconsin  
Department of Natural Resources  
PO Box 7921, Madison WI 53707-7921  
[dnr.wi.gov](http://dnr.wi.gov)

**Case Closure**  
Form 4400-202 (R 07/23) Page 1 of 11

**Notice:** Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

Site Information			
BRRTS No.		VPLE No.	
Parcel ID No.			
FID No.		WTM Coordinates	
		X	Y
BRRTS Activity (Site) Name		WTM Coordinates Represent:	
		<input type="checkbox"/> Source Area	<input type="checkbox"/> Parcel Center
Site Address		City	State ZIP Code
			WI
Acres Ready For Use			
Responsible Party (RP) Name			
Company Name			

# After Closure Submittal

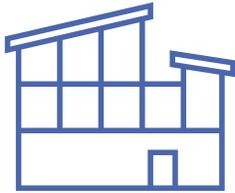


# Wisconsin and Continuing Obligations

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Judy Fassbender, DNR

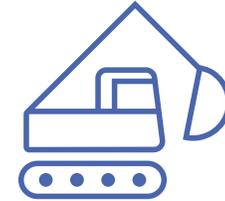
# Wisconsin Continuing Obligations (COs)



Tied to property



Property owners are legally responsible, even after ownership changes



Include both engineered controls and institutional controls

# Authority for Continuing Obligations

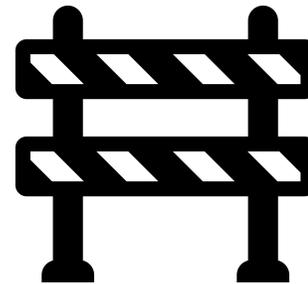


## Wisconsin Statutes

- § 292.12 (1): Definitions
- § 292.12 (2): Agency Authority
- § 292.12 (3): Database
- § 292.12 (4): Notification of Residual Contamination
- § 292.12 (5) Compliance with Requirements and Limitations and Prohibition on Interference
- § 292.12(5m) Compliance with Requirements and Limitations Related to Contaminated Sediment and Prohibition on Interference
- § 292.12(6) Modification of Requirements

# Purpose of a CO

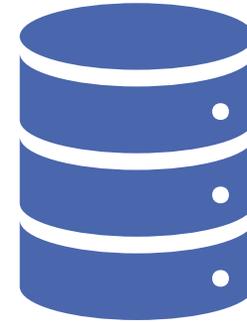
- Minimize potential for exposure to remaining contamination by:
  - limiting land or resource use
  - requiring physical barriers/controls
- Protect the integrity of the remedy by putting provisions in place not to disturb and to ensure appropriate maintenance.



# Continuing Obligations Require...



An Enforceable Document  
(DNR Approval Letter)



Listing on DNR Database

**REMEDICATION AND REDEVELOPMENT DATABASE AND GIS MAPPING:** <https://dnr.wisconsin.gov/topic/Brownfields/RRData.html>



## Effective Continuing Obligations Also Require...

- An understanding of the residual contamination
- An understanding of the physical location of residual contamination and surrounding areas
- Description and maps of the area(s) subject to restrictions
- Clear description of the restrictions or obligations
- Description of required monitoring and maintenance (Long-Term Stewardship Plans)

# Types of Continuing Obligations

## Engineering controls

- Caps to prevent direct contact or groundwater infiltration
- Vapor mitigation to prevent indoor air contamination

## Property restrictions

- Land use
- Occupancy
- Building layout

## Other future obligations

- Abandoning lost monitoring wells
- DNR approval for new well construction
- Wastewater permits for dewatering
- Managing contaminated soil

# Other Options



“Limitations or other conditions related to property, **in accordance with rules promulgated by the department**” to ensure protectiveness and promote economic development.

Wis. Stat. § 292.12(2)(c).

# Implementing Continuing Obligations

---

1

Select the appropriate CO

2

Notify affected off-site property owners

3

DNR approval (enforceable document)

4

Add to database

# Notify Affected Parties

<p>Who Receives Notification?</p>	<p>Affected property owners, occupants and right of way holders</p>
<p>Why is notification important?</p>	<p>Provides basic information regarding restrictions/obligations related to residual contamination and how it affects the property</p> <p>Provides opportunity to contact the DNR with concerns</p>
<p>Notification Tools</p>	<p>Template 4400-286 Notification of Continuing Obligations and Residual Contamination</p> <p>Wisconsin's Template Letter—and-the Wisconsin Form 4400-288 “Notification of Residual Contamination”</p>

# Enforceable Document



Formal written communication from DNR required to impose a Continuing Obligation



Consists of closure letter or approval of a remedial action

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
3911 Fish Hatchery Road  
Fitchburg WI 53711-5397

Tony Evers, Governor  
Karen Hyun, Ph.D., Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



July 30, 2025

Chicago IL 60607  
Via Electronic Mail Only to [irving@trinitasventures.com](mailto:irving@trinitasventures.com)

**KEEP THIS LEGAL DOCUMENT WITH YOUR PROPERTY RECORDS**

SUBJECT: Case Closure with Continuing Obligations  
Regent Street Development, 700 and 740 Regent Street, Madison, Wisconsin  
BRRTS #02-13-589771  
Parcel # 251/0709-232-3008-4

# Continuing Obligation Letters

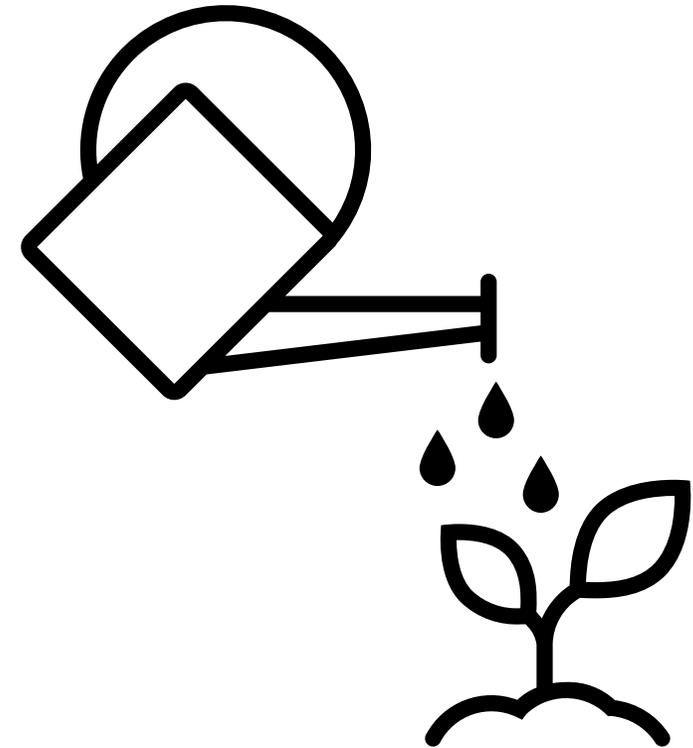
- Sent by the DNR
- Received by source, affected property owners, occupants and right of way holders
- Establish obligations of ALL current and future property owners to comply with COs

-02-584692 Superior Petrol LLC Case Closure  
BRRTS No. Activity (Site) Name Form 4400-202 (R 07/23) Page 15 of 16

Notifications to Owners of Affected Properties (Attachment G)						Reasons Notification Letter Sent:												
Press the space bar or click in the box to check a box under "Letter Sent To" or "Reasons Letter Sent" columns.						Residual Groundwater Contamination = or > ES	Residual Soil Contamination Exceeds RCLs	Monitoring Wells: Not Abandoned	Monitoring Wells: Continued Monitoring	Cover/Barrier/Engineered Control	Structural Impediment	Industrial RCLs Met/Applied	Vapor Mitigation System (VMS)	Dewatering System Needed for VMS	Compounds of Concern in Use	Commercial/Industrial Vapor Exposure Assumptions Applied	Residual Volatile Contamination Poses Future Risk of Vapor Intrusion	Site Specification Situation
Address of Affected Property	Parcel ID No.	Date of Receipt of Letter	Type of Property Owner	WTMX	WTMY													
Chebomnic Road / Fort Road R-O-W	N/A	03/06/2023	ROWH	459905	700896	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reference Parcel - NE corner of Main Street/ Middle Road intersection	014-00436-0500	10/30/2024	APO	459914	700923	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
County Highway H R-O-W	N/A	09/16/2024	ROWH	459905	700896	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Unit 108/109 La Pointe Condominiums	014-00436-0571	09/20/2024	APO	459922	700925	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
256-260 Main Street (Unit 105-107 La Pointe Condominiums)	014-00436-0550 thru 0570	10/16/2024	APO	459914	700918	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Long-Term Stewardship (LTS)

- Applies to sites where long-term management of contaminated environmental media is necessary to protect human health and the environment.
- Maintenance Requirements
- Communication Plans
  - Entity Responsible for Reporting
  - Events and Activities to be Reported
  - Reporting Procedures
  - Reporting Frequency
- Contingency Plans



# Your Continuing Obligations

- Are engineering controls or institutional controls (aka continuing obligations) needed to protect public health or the environment? Examples:
  - Asphalt cap (or building foundation)
  - Vapor mitigation system
- What kind of maintenance is needed?
- Who is responsible for maintenance?
- Does Maintenance Plan include the above information?



# Case Study - Preparing a Site for Closure

---

Cory Katzban  
The Sigma Group

Cory Katzban, P.E.  
Geosciences Engineer  
The Sigma Group, Inc.  
13 Years

### Areas of Experience (and relative confidence)

- ✓ Environmental Assessments & Investigations
- ✓ Environmental Risk
- ✓ Sampling & Analysis
- ✓ Soil Management
- ✓ Brownfield Remediation and Redevelopment
- ✓ Chapter NR 700 Series
- ✓ Site Investigation Reports
- ✓ Remedial Action Plans
- ✓ Case Closure



### Certifications

"I, Cory C. Katzban, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Cory C. Katzban, P.E.  
Senior Engineer



Date and Stamp

# Preparing a Site for Closure

- Challenges
- Basics
- Closure Preparation Tips from the Field
  - Case Study – Former Brownfield to Car Wash (private owner)
  - Case Study – Former Industrial to Park (public owner)
- Wrap Up

# Preparing a Site for Closure

## General Challenges

- Complexity – multi-media, active remediation, large data sets, multi-parcel or unique land uses
- Long investigation and remediation history
- Owner / Responsible Party changes
- Consultant changes
- DNR / DNR PM – changes over time, unfamiliar faces, styles, expectations etc.
- Remediation in concert with redevelopment, pre/post site conditions
- Legal boundary changes, descriptions
- Off-site affected properties
- COs undefined / unclear (Section / Table 5!)
- Off-site Notifications

# Preparing a Site for Closure

## Basics

- Criteria for Case Closure are met...."closure is a formality"
- Up-to-date drawings, documentation, and site photographs (as-builts, aerials, remedial investigation documentation, recent photos, etc.)
- Correct and complete contact information (RP, owner, off-site notifications)
- Correct and complete legal documents
- Backup documentation is complete and organized
- Off-site affected properties considered, addressed
- COs defined, Maintenance Plans considered, prepared, RP/Owner understands
- Complete Closure Package, fees too!  
(admin review kickback is annoying, but easy to avoid, don't get lazy)
- Bonus: DNR PM advance notice - friendly heads up!

GATHER INGREDIENTS - > FOLLOW RECIPE - > SET THE PLATE

**ATTENTION TO DETAIL**

# Preparing a Site for Closure

## Basics (cont'd)

- **WDNR PM Communication**

- Not required, but a touchpoint with the PM can help them prepare for the Closure review and get potential hang-ups addressed and questions answered early

- **Preparation and Report**

- Review project and site closure conditions, execute time-sensitive issues (off-site notifications) and define COs early
- Answer the whole question, complete the section, avoid extraneous commentary and text
- Organize coherently for reviewer (chronological vs activity vs location, etc.)
- Reference prior submittals and use previous content to your advantage (copy/paste, summarizing, "plagiarism" are professional skills, not a careless practice)
- Proofread and review

ATTENTION TO DETAIL

# Preparing a Site for Closure

## Basics (cont'd)

- **Data Tables**
  - Pre- vs Post-Remediation data, clearly identifiable
  - Differentiate areas on-site, off-site, remedial areas, etc. This also helps supplement figure review and navigation.
  - Formatting – visual clarity
- **Figures**
  - Simplicity, should visually aid, not visually confuse
  - Closure is prescribed, but flexible, meet the minimum, add as needed to shape and complete the story
  - Content -> Accuracy -> Visual Clarity -> Production Quality
- **Attachments**
  - Table of Contents for Attachments – quick reference, efficient admin. review
  - Label attachments per Closure report (Ex. F.1. – Deed)
  - Organize and do not forget backup documentation – cumulative PAH, documentation, photos, investigative waste disposal, etc.
- **Off-Site Notifications**
  - Define contacts, communicate early
  - Use cover letters for clarity – forms can be clunky ☺
  - Certified mail – guarantee documented delivery

ATTENTION TO DETAIL

# Preparing a Site for Closure

## Case Studies

### **Jilly's Car Wash – Glendale, Wisconsin**

Vacant Brownfield to Car Wash Facility

Opened 1997

Closed 2024

Southeast Region

### **Melvina Park – Milwaukee, Wisconsin**

Historic Residential, Commercial, Industrial to Park

Opened 2012

Closed – Not yet! In Progress

Southeast Region



Jilly's  
CAR WASH

5100

LET'S GIVE YOUR CAR  
EXTRA PROTECTION  
FOR YOUR PEACE OF MIND

# Jilly's Car Wash – Glendale, WI

**5100 N. Port Washington Rd  
Glendale, WI**

**BRRTS #02-41-183154  
1997 – 2024**

## LICENSED LANDFILL OR HISTORICAL WASTE SITE

A DNR licensed landfill operated or unlicensed historical waste was placed at the property. Building, excavation and other construction activities may require DNR approval. DNR approval is required prior to constructing or reconstructing a water supply well.

## \*\*\* CONTINUING OBLIGATIONS APPLY \*\*\*

Contamination associated with this cleanup site remains on one or more properties. Continuing obligations are legal requirements or restrictions, which may include engineering controls and institutional controls, that are assigned to a property to protect human health and the environment from the contamination. DNR approval may be required prior to constructing or reconstructing a water supply well. Changes to property use and construction activities may require prior DNR approval. Additional information is in the documents associated with the activity.

- **Maintain Cap Over Contaminated Area**
- **Residual Soil Contamination**
- **Residual GW Contamination**
- **Vapor Intrusion Response**
  - **(E) Future Redevelopment of Property – Vapor Control Technology Required for Construction** - DNR requires notification prior to new building construction or building modifications. Potential for vapor intrusion exists due to residual contamination. Vapor control technologies are required to be installed or modified and verified protective unless a vapor evaluation is accepted by DNR.

## CONTAMINATED VAPOR MAY MOVE INTO INDOOR AIR

Contamination at this property may move into indoor air as contaminated vapor. Additional information may be available in the Actions and Documents section.

## AFFECTED ANOTHER PROPERTY OR RIGHT-OF-WAY

Contamination from this property moved beyond the property line to other properties or rights-of-way (ROW). Additional information may be available in the Relationships to Other Activities and Actions and Documents sections.

## 02-41-183154 OFFICE MAX/JILLY'S PROPOSED

Activity Type	Status	Jurisdiction	DNR Region	County
ERP	CLOSED	DNR RR	SOUTHEAST	MILWAUKEE
Location Name	LOCATION DETAILS		Address	Municipality
OFFICE MAX (PROPOSED)			5100 N PORT WASHINGTON RD	GLENDALE
PLSS Description	Latitude (WGS84)	Longitude (WGS84)	GOOGLE MAPS	RR SITES MAP
NW 1/4 of the SE 1/4 of Sec 32, T08N, R22E	43.1091958	-87.9159644		

# Jilly's Car Wash – Glendale, WI

## **Site Characteristics**

- Commercial Property
- 1 parcel, 2 acres
- Historically split off from neighboring ERP site
- Historic fill site, historic solvent impacts (no evident source)
- Commercial / industrial to the north, east
- Former railroad now bike path ROW to south, then commercial and residential property
- Road, highway, and golf course to the west
- MIS – deep tunnel along southern border (receptor?)
- Private owner / developer
- Brownfield redevelopment
- Car Wash (unique use)

# Jilly's Car Wash – Glendale, WI

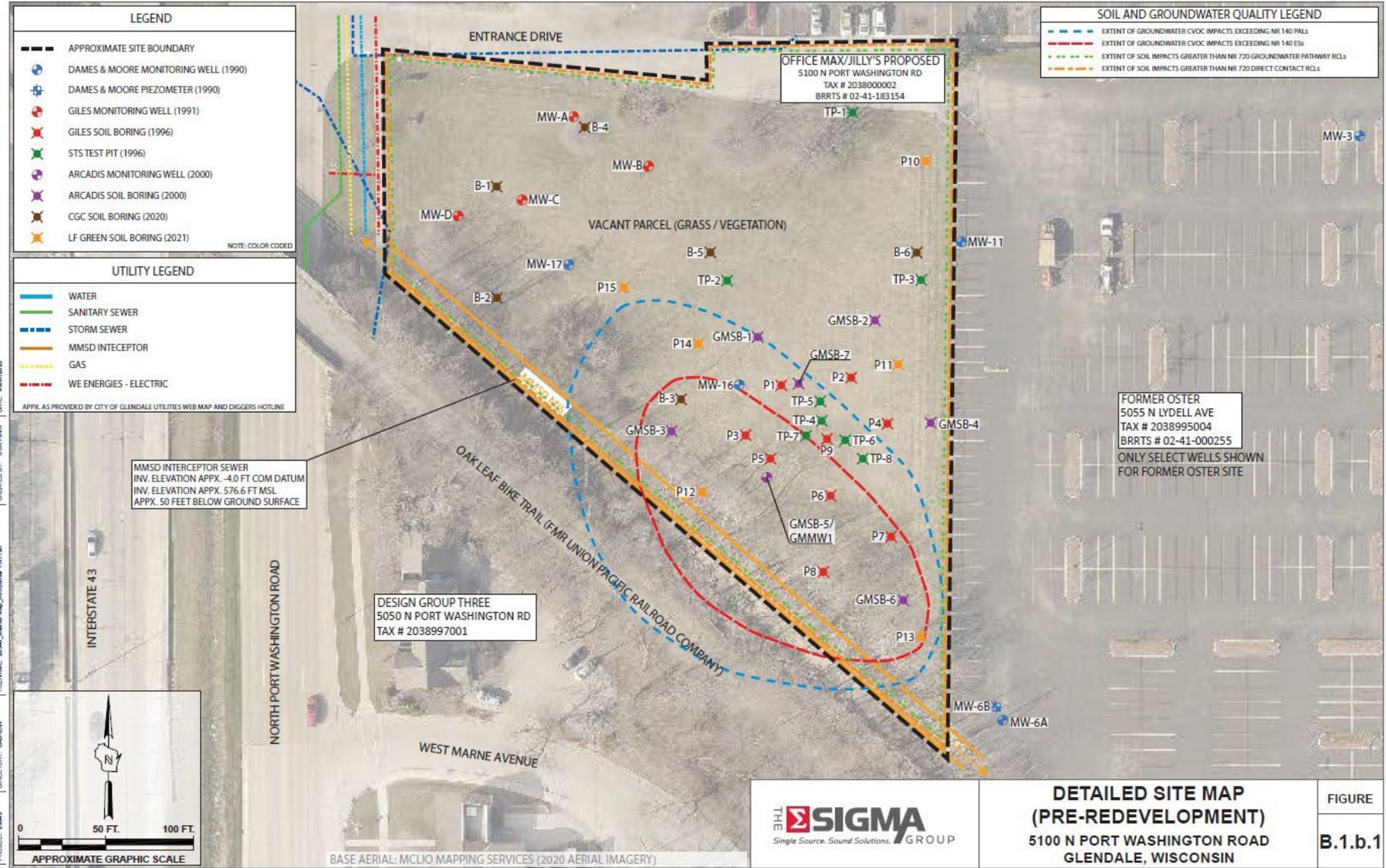
## Site Characteristics (cont'd)

- Historic fill / reworked soil over native sand (plume) and clay (vertical barrier)
- Groundwater 10 to 15 feet below ground, northwest flow
- Soil Impacts
  - Fill-related PAHs, metals – site-wide
  - Waste-related, hotspot chlorinated VOCs – southeast portion of site
- Groundwater Impacts
  - CVOCs – on-site and off-site, and from neighbor
  - Post-Construction RNA selected groundwater remedy
- Vapor Impacts
  - On-site CVOCs, VMS installed, maintenance plan
  - Off-site CVOCs, sealed sump at neighbor to the south
  - Post-construction vapor sampling
- Methane – limited and low-level, but historic detections



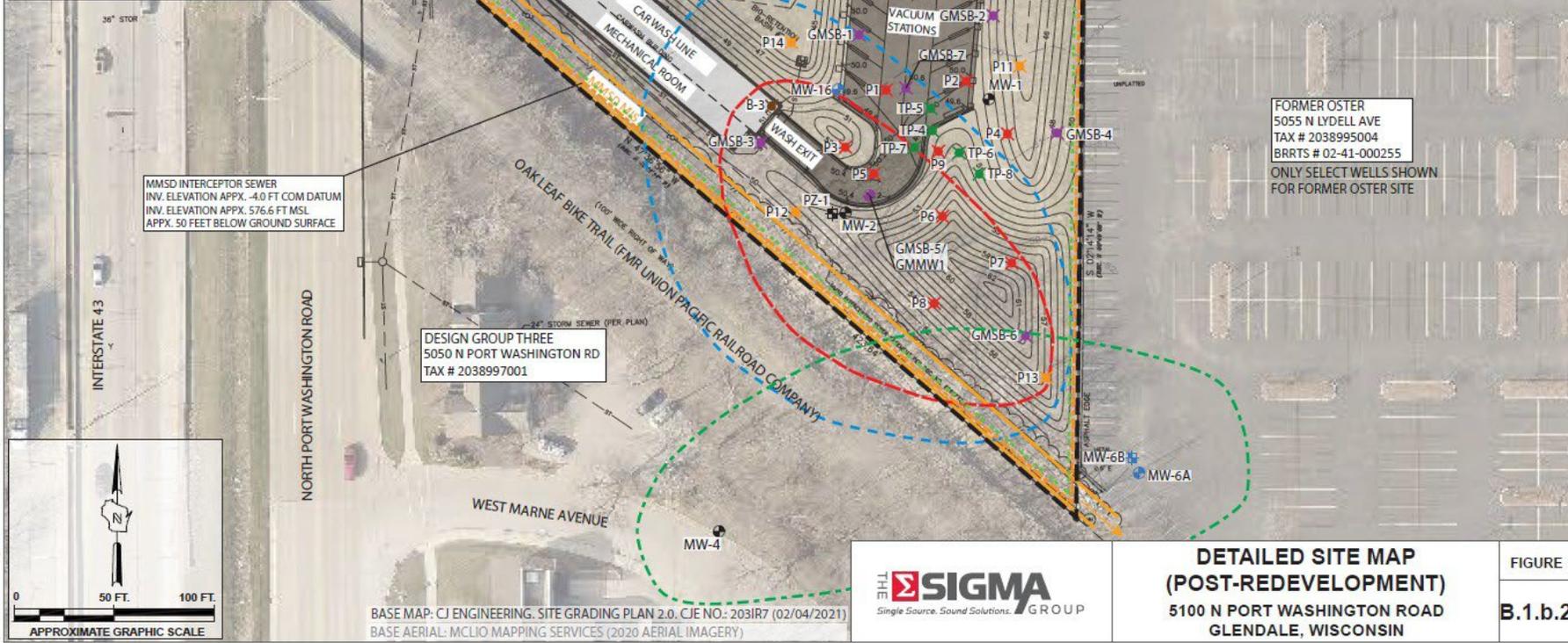
Year 2024





- LEGEND**
- APPROXIMATE SITE BOUNDARY
  - ⊕ DAMES & MOORE MONITORING WELL (1990)
  - ⊕ DAMES & MOORE PIEZOMETER (1990)
  - ⊕ GILES MONITORING WELL (1991)
  - ⊕ GILES SOIL BORING (1996)
  - ⊕ STS TEST PIT (1996)
  - ⊕ ARCADIS MONITORING WELL (2000)
  - ⊕ ARCADIS SOIL BORING (2000)
  - ⊕ CGC SOIL BORING (2020)
  - ⊕ LF GREEN SOIL BORING (2021)
  - ⊕ MONITORING WELL (2021) - POST REDEVELOPMENT
  - ⊕ PIEZOMETER (2021) - POST REDEVELOPMENT
- NOTE: COLOR CODED

- SOIL AND GROUNDWATER QUALITY LEGEND**
- EXTENT OF GROUNDWATER CVOC IMPACTS EXCEEDING NR 140 PALS
  - EXTENT OF GROUNDWATER CVOC IMPACTS EXCEEDING NR 140 ESs
  - EXTENT OF SOIL IMPACTS GREATER THAN NR 720 GROUNDWATER PATHWAY RCLs
  - EXTENT OF SOIL IMPACTS GREATER THAN NR 720 DIRECT CONTACT RCLs
  - ESTIMATED EXTENT OF OFF-SITE GROUNDWATER/VOL. CHLORIDE IMPACTS EXCEEDING NR 140 ES (FROM FORMER OSTER PROPERTY) - BASED ON SAMPLING ACTIVE WELLS MW-6A, MW-6B, AND MW-4



MMSD INTERCEPTOR SEWER  
INV. ELEVATION APPX. -4.0 FT COM DATUM  
INV. ELEVATION APPX. 576.6 FT MSL  
APPX. 50 FEET BELOW GROUND SURFACE

DESIGN GROUP THREE  
5050 N PORT WASHINGTON RD  
TAX # 2038997001

OFFICE MAX/JILLY'S PROPOSED  
5100 N PORT WASHINGTON RD  
TAX # 203800002  
BRRTS # 02-41-183154

FORMER OSTER  
5055 N LYDELL AVE  
TAX # 2038995004  
BRRTS # 02-41-000255  
ONLY SELECT WELLS SHOWN  
FOR FORMER OSTER SITE

**THE SIGMA GROUP**  
Single Source. Sound Solutions.

**DETAILED SITE MAP  
(POST-REDEVELOPMENT)**  
5100 N PORT WASHINGTON ROAD  
GLENDALE, WISCONSIN

FIGURE  
**B.1.b.2**

BASE MAP: CJ ENGINEERING, SITE GRADING PLAN 2.0, CJE NO.: 2031R7 (02/04/2021)  
BASE AERIAL: MCLIO MAPPING SERVICES (2020 AERIAL IMAGERY)

# Jilly's Car Wash – Glendale, WI

## **Challenges – Pre-Closure and Closure**

- Long history – 1990-2024 (early geotech thru final monitoring)
- Electronic files via BOTW mostly complete, but fragmented (once included the neighbor's investigation)
- Organizing and documenting work completed by others
- Multiple investigations and periods of no action
- Multiple consultants
- Multiple owners, current owner in middle of RE transaction
- Multiple DNR reviewers / reviews (letters with relevant/irrelevant past information)
- Brownfield redevelopment – site completely changes
  - NR 718 soil management, off-site landfilling, capping, vapor mitigation, VMS commissioning, post-construction vapor sampling and groundwater monitoring

# Jilly's Car Wash – Glendale, WI

## **Challenges – Pre-Closure and Closure (cont'd)**

- VMS designed, installed, initially tested by contractor
- Residual CVOCs in soil, no targeted excavation during redevelopment.  
Monitored RNA the preferred strategy – plausible?...don't want to dig up a brand-new site!
- Off-site impacts, off-site expanded investigation
- Off-site notification letters
  - Source Owner vs RP, off-site private, off-site ROW
- Maintenance Plans – cap and vapor mitigation
  - On-site and off-site

# Hey DNR, heads up!

**Cory Katzban, P.E.**

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**From:** Cory Katzban, P.E.  
**Sent:** Thursday, August 18, 2022 10:33 AM  
**To:** Drews, Mark D - DNR  
**Subject:** RE: Jilly's Car Wash - BRRTS Site 02-41-183154  
**Attachments:** 20343 Fig 1 - Site Plan Map\_JillysWells.pdf; Table 1 - GW Analytical Data\_Jillys.pdf; Jillys SSV Layout Figure.pdf; Table 4 - Sub-slab Vapor Analytical Data\_Jillys.pdf

Good Morning Mark,

We would like to get a meeting on the schedule with you and Jilly's to discuss the latest groundwater sampling results and implications moving toward case closure. Are you available next week Thursday or Friday, or the following week?

Ended up being a year before closure report preparation, additional work was necessary. A brief conversation though helped set the stage and lay a foundation for more efficient review later.

# Closure Report

Answer the question

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**E. Describe the type(s) and source(s) or suspected source(s) of contamination.**

The site impacts consist of VOCs, PAHs, and RCRA metals in soil and VOC impacts in groundwater associated with site-wide historic fill material (soil and/or solid waste), including chlorinated VOC-impacted material. The site filling activities date back as early as 1937 or before based on review of historic aerial photographs. Low-level subsurface methane gas was also measured at the site in 1991 may be associated with buried historic fill material (slag, foundry material, construction debris) and/or underlying layers of peat (organic material). The VOCs impacts primarily include CVOCs (notably

# Closure Report

## Summarizing...

### 3. Site Investigation Summary

#### A. General

- i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

The following is a summary of site investigation, remediation, and regulatory related documents and associated activities for the site:

\* Geo-Environmental Property Survey, Proposed Kentucky Fried Chicken Restaurant, North Port Washington Road, Glendale, Wisconsin by Giles (dated August 21, 1990)

- 1990: Preliminary geotechnical investigation by Giles - nine soil borings - no environmental sampling, photoionization detector (PID) screening of soil boring samples

\* Remedial Investigation/Feasibility Study, Oster Facility, 5055 North Lydell Avenue, Milwaukee, Wisconsin by Dames & Moore (dated December 1990) - associated with Oster site (BRRTS #02-41-000255)

- 1990: Two monitoring wells installed by Dames & Moore on the Jilly's site as part of groundwater investigation of the Oster site to the east

\* Preliminary Hazardous Substance Presence Study and Methane Presence Evaluation, Proposed Kentucky Fried Chicken Restaurant, North Port Washington Road, Glendale, Wisconsin by Giles (dated June 10, 1991)

- 1991: Additional subsurface investigation by Giles - four soil borings, four monitoring wells, groundwater sampling and methane monitoring

\* Potential Liability of a Landowner in a Situation Where the Groundwater on the Property Has Been Contaminated by an Off-Site Source by the WDNR (dated December 26, 1995)

- WDNR letter correspondence indicating that the WDNR will not require the property owners of the property located at 5100 North Port Washington Road (the site), to take action relative to the chlorinated solvent contamination in the groundwater which appears to be the result of migration from the property at 5055 N. Lydell Avenue (Oster property).

\* Subsurface Exploration, Proposed Office Max Site, 5000 North Port Washington Road, Glendale, Wisconsin by STS Consultants Ltd. (dated April 8, 1996)

- 1996: Test pit investigation by STS - eight test pits, PID screening, soil sampling

\* Limited Phase II Environmental Site Assessment, Proposed Development, 5000 North Port Washington Road, Glendale, Wisconsin by Giles (dated August 22, 1996)

- 1996: Soil boring investigation by Giles - nine soil borings in vicinity of STS test pits, soil sampling

[Save...](#)

# Report

## Summarizing...

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- \* Supplemental Subsurface Investigation and Remedial Action Plan, Marcus Corporation Property by Arcadis (Geraghty & Miller) (dated June 7, 2000)
    - 2000: Soil boring investigation by Arcadis - seven soil borings, PID screening, soil sampling, groundwater sampling
  - \* Proposed Office Max, 5100 North Port, Washington Road, Glendale, WI by the WDNR (dated August 29, 2000)
    - WDNR letter stating that Supplemental Subsurface Investigation and Remedial Action Plan report by Arcadis (above) is incomplete, and additional site investigation is needed
  - \* Revised Supplemental Subsurface Investigation and Remedial Action Plan by Arcadis (dated October 2000)
    - Revised report by Arcadis addressing the WDNR's concerns in the above June 2000 report by Arcadis
  - \* Revised Supplemental Inv. Report and RAP, 5100 North Port Washington Road, Milwaukee by the WDNR (dated February 2, 2001)
    - WDNR letter approving the site investigation report and RAP submitted by Arcadis (with conditions)
  - \* Property Located at 5100 North Port Washington Road, Glendale, WI by WDNR (dated July 22, 2010)
    - WDNR letter to Marcus Consid, LLC requesting a site status update
  - \* Application for Exemption for Development at a Historic Fill Site, Vacant Property by Giles (dated January 20, 2012)
    - Historic Fill Exemption request by Giles to the WDNR, no specific development noted, general request
  - \* Planned Development, Application for Exemption for Development at a Historic Fill Site by B&G Realty, LLC (dated March 23, 2021)
    - Brief status / update letter from B&G Realty to the WDNR
  - \* Suggested Pathway to Site Closure for the Property Located at 5100 North Port Washington Road Glendale, WI by the WDNR (dated May 10, 2012)
    - WDNR letter response to B&G Realty with recommended actions ("pathway") to closure
  - \* 5100 North Port Washington Road, BRRTS # 07-41-558273 by WDNR (dated September 25, 2012)
    - WDNR letter not approving Exemption to Build at a Historic Fill Site request by Giles in January 2012
  - \* Property Located at 5100 North Port Washington Road, Glendale, WI by WDNR (dated July 22, 2014)
    - WDNR letter to Marcus Consid, LLC requesting a site status update

# Report

## Summarizing...

- \* Vacant Commercial Property letter by Giles (dated August 11, 2014)
  - Brief status update letter from Giles to the WDNR
  
- \* Environmental Site Assessment, Proposed Commercial Development, 5100 N. Port Washington Road, Glendale, Wisconsin by LF Green (dated September 2020)
  - Letter report from LF Green to the WDNR summarizing recent subsurface investigation activities completed by LF Green in association with a geotechnical investigation completed by CGC, Inc. (CGC) in anticipation of redevelopment
  - 2020: Geotechnical investigation by CGC - six soil borings, soil samples collected for analysis by LF Green, LF Green conducts methane monitoring at historic well locations
  
- \* Request for Technical Assistance letter by LF Green (dated October 5, 2020)
  - Letter from LF Green to the WDNR requesting technical assistance, based on previously submitted information and reports, from the WDNR and WDNR concurrence regarding the planned redevelopment of the site into a Jilly's Car Wash facility
  
- \* Request for Technical Assistance response letter by the WDNR (dated October 20, 2020)
  - Letter from the WDNR to Jilly's providing technical assistance and feedback regarding Jilly's responsibilities as the owner and responsible party for the contamination at the site, and general requirements to meet for approval to redevelop the site and obtain case closure
  
- \* Development at Historic Fill Site or Licensed Landfill Exemption Application by LF Green (dated December 15, 2020)
  - Historic Fill Exemption request document from LF Green to the WDNR for approval to construct a car wash facility
  
- \* Site Investigation Report, Proposed Jilly's Car Wash, 5100 N. Port Washington Road, Glendale, Wisconsin, BRRTS #02-41-183154 by LF Green (dated February 8, 2021)
  - SIR by LF Green to complete the site investigation and supporting documentation for Historic Fill Exemption
  - 2021: Reported activities included additional soil boring investigation by LF Green - six soil borings, PID screening, soil sampling
  - An evaluation regarding the potential use of emerging contaminants at the site, including perfluoroalkyl/

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polyfluoroalkyl substances (PFAS) and 1,4-dioxane was provided within the above-noted SIR by LF Green. The WDNR concurred that no sampling for PFAS, 1,4-dioxane, or other emerging contaminants was necessary

\* Remedial Action Plan and NR 718 Exemption Request, Proposed Jilly's Car Wash, 5100 N. Port Washington Road, Glendale, Wisconsin, BRRTS #02-41-183154 by LF Green (dated February 8, 2021)

- Remedial Action Plan and NR 718 Exemption Request (soil management plan / reuse on site) by LF Green to provide RAP to the WDNR and request WDNR approval to manage impacted soil on-site during redevelopment

\* Addendum to Remedial Action Plan and NR 718 Exemption Request, Proposed Jilly's Car Wash, 5100 N. Port Washington Road, Glendale, Wisconsin, BRRTS #02-41-183154 by LF Green (dated March 5, 2021)

- Letter report from LF Green to the WDNR providing additional details regarding the NR 718 soil management areas on-site and construction details of the proposed vapor mitigation system

\* Approval to Manage Contaminated Soil and Solid Waste under Wis. Admin. Code NR 718.12 and NR 718.15 On Site letter by the WDNR (dated March 17, 2021)

- WDNR approval letter and requirements for reuse of soil on-site during redevelopment

\* Building on a Historic Fill Site Exemption Approval letter by the WDNR (dated March 24, 2021)

- WDNR approval letter and requirements for exemption to build on a historic fill site for the car wash redevelopment

\* Site Investigation and Remedial Action Plan Reports letter by the WDNR (dated March 24, 2021)

- WDNR approval letter and request for additional soil information, groundwater investigation/monitoring, and vapor investigation/monitoring during and/or following redevelopment

The site investigation activities and results completed at the site from initial activities in 1990 through LF Green's work in 2021 are summarized in detail in LF Green's 2021 Site Investigation Report, as well as the Remedial Action Plan and NR 718 Exemption Request, and Addendum to Remedial Action Plan and NR 718 Exemption Request reports.

LF Green proposed additional soil, groundwater, and vapor investigation and monitoring activities in response to the WDNR's approval letters detailed above:

\* Groundwater Monitoring Work Plan, Office Max/Jilly's-Proposed, 5100 North Port Washington Rd., Glendale, WI, DNR BRRTS Activity #02-41-183154 / FID #:241954350 by LF Green (dated May 21, 2021)

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## Summarizing...

\* Amended Groundwater Monitoring Work Plan, Office Max/Jilly's-Proposed, 5100 North Port Washington Rd., Glendale, WI, DNR BRRTS Activity #02-41-183154 / FID #:241954350 by LF Green (dated July 20, 2021)

\* Groundwater Monitoring Plan and Amended Groundwater Monitoring Work Plan letter by the WDNR (dated July 26, 2021)

- WDNR approval letter and requirements for post-construction groundwater monitoring and path to closure

Redevelopment of the site into the existing Jilly's Car Wash facility occurred between 2020 and 2021. During that time, LF Green and Sigma implemented remedial action documentation activities, post-construction groundwater monitoring activities, post-construction vapor mitigation system commissioning, and post-construction sub-slab vapor sampling activities at the site. A summary of the activities and results is included within the following report:

\* Remedial Action Documentation, Vapor Mitigation System Commissioning and Post-Remediation Groundwater Monitoring Report, Jilly's Car Wash, 5100 N Port Washington Rd, Glendale, Wisconsin, WDNR FID #241954350, WDNR BRRTS #02-41-183154 by The Sigma Group, Inc. (dated November 21, 2022)

The report discusses the following activities:

- Completed NR 718 soil management activities
- Completed site engineered barrier installation activities
- Vapor mitigation system (VMS) construction details
- Completed VMS commissioning within the Jilly's building
- Vapor sampling: Sigma collected post-construction sub-slab vapor samples from the Jilly's building Vapor Pins for analysis of compounds of concern (i.e., CVOCs)
- Well abandonment: LF Green abandoned historic monitoring wells prior to mass grading and construction of Jilly's
- Post-construction well installation: LF Green installed three post-construction monitoring wells MW-1, MW-2, MW-3 on-site as part of the proposed post-construction groundwater natural attenuation monitoring needed to obtain case closure. Sigma installed two additional post-construction monitoring wells, MW-4 (off-site to the south), and PZ-1 (source area piezometer adjacent to source area well MW-2)
- Well development: Sigma developed each new well and historic Oster wells MW-6A and MW-6B
- Groundwater monitoring: Sigma conducted post-construction quarterly groundwater monitoring of on-site monitoring wells MW-1, MW-2, MW-3, MW-4, PZ-1, and off-site monitoring wells MW-6A and MW-6B, which are located on the Oster property and are associated with the Oster site investigation. Groundwater monitoring generally

# Report

## Summarizing...and adding new information

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included water level measurements, sampling for VOCs and dissolved gases, and in situ natural attenuation parameter measurements.

- Off-site vapor intrusion risk assessment: The report included a vapor intrusion risk assessment for off-site property Design Group Three (south of Jilly's) with respect to the soil, groundwater, and vapor CVOC impacts on the Jilly's property.

Sigma's Remedial Action Documentation report above provided a comprehensive summary and details regarding the completion of construction related remedial activities and post-construction sampling/monitoring required by the WDNR.

\* Review of "Remedial Action Documentation, Vapor Mitigation System Commissioning and Post Remediation Groundwater Monitoring Report" letter by the WDNR (dated February 6, 2023)

- WDNR review and response letter to Sigma's November 2022 Remedial Action Documentation report, generally approving the completed activities presented within the report

- WDNR requested additional quarterly sampling of monitoring well MW-2 to demonstrate stable or decreasing CVOC concentrations

- WDNR requested additional investigation actions to evaluate the vapor intrusion risk at the Design Group Three building located south of Jilly's at 5050 N. Port Washington Rd., Glendale, Wisconsin.

Sigma conducted the following site investigation activities to address the comments and requests by the WDNR in their February 2023 response letter.

Off-site vapor investigation at Design Group Three:

- Sub-slab: In February 2023, Sigma conducted sub-slab vapor sampling activities within the Design Group Three building, including the installation of two sub-slab Vapor Pins, SSV-1 and SSV-2. Sub-slab vapor pin SSV-1 was installed within the slab-on-grade garage floor slab on the north end of the building (nearest Jilly's), and SSV-2 was installed within the basement level stairwell floor slab (lowest level). A basement level sump crock (initially open air) located in the Design Group Three basement level mechanical room was sealed with plastic sheeting and Stego vapor tape in preparation for collecting a sump air sample. The sump was dry (contained no water for water sampling, historically completely dry as reported by the Design Group Three property Owner).

# Report

## Summarizing...and adding new information

- Sub-slab vapor samples were collected from each Vapor Pin on February 23 and May 10, 2023. Vapor samples were also collected from the sealed sump on February 24 and May 10, 2023. The vapor samples from each Vapor Pin and the sump location were collected using a laboratory certified, flow-regulated six-liter or 1.4-liter SUMMA canister with 30-minute (6-liter) or 15-minute (1.4-liter) flow control valves. The Vapor Pins and sump were purged with a PID for 5 minutes prior to sampling. A shut-in test was performed on the sample train to ensure no leakage of ambient air into the tubing or canister. To perform the shut-in test, the flow controller was connected to the canister at one end and sealed shut at the other end. The canister was opened for 10 to 15 seconds to equilibrate with the air volume within the flow regulator and then closed. Once the canister was closed, the pressure meter on the flow regulator was observed for three to five minutes to note any change in pressure. A change in pressure would indicate a loose fitting or leakage. An appropriate length of tubing was then connected and sealed to the canister valve and a shut-in test was performed on the tubing with a hand vacuum pump. A pressure of 25 inches of mercury was held for two minutes, indicating the sample train was sealed and no leaks were present. Following the shut-in leak testing, the sub-slab vapor and sump air samples were collected and submitted under chain of custody (COC) to Wisconsin certified laboratories for laboratory analysis of CVOCs (short-list) by EPA Method TO-15.

- Indoor air: Sigma conducted indoor air sampling activities within the Design Group Three building following the detection of select CVOCs within the sump air sample. On March 24, 2023 two indoor air samples, IA-1 and IA-2, were collected within the building. Indoor air sample IA-1 was collected at the basement level (in the breathing zone) with a 6-liter SUMMA canister with an 8-hour (work day) flow control valve. Indoor air sample IA-2 was collected on the first floor (in the breathing zone) with a 6-liter SUMMA canister with an 8-hour (work day) flow control valve. The samples were collected from areas most occupied by Design Group Three staff and/or building tenants, and at basement level where vapors were detected within the sump. An outdoor background air sample, OA-1, was collected outside of the east side of the building to determine background air concentrations. In addition to the active indoor air samples, a passive indoor air sample, IA-1R, was collected in the basement level near active indoor air sample IA-1 over the course of approximately seven days. IA-1R was collected via passive diffusive adsorption, Radiello 130 sampler. The indoor and outdoor air samples were collected and submitted under COC to Wisconsin certified laboratories for laboratory analysis of CVOCs (short-list) by EPA Method TO-15.

The off-site vapor and indoor air sampling activities conducted at Design Group Three were completed in May 2023. The activities and results provided adequate information to evaluate vapor intrusion risks at the Design Group Three site relative to the residual soil, groundwater, and vapor CVOC impacts at the Jilly's site.

Additional Groundwater Sampling (MW-2):

- In addition to the quarterly groundwater monitoring conducted at monitoring wells MW-1, MW-2, MW-3, MW-4, PZ-1, MW-6A, and MW-6B between August 2021 and July 2022 (summarized in the aforementioned Remedial Action

# Report

## Summarizing...and adding new information

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Documentation report by Sigma), and as requested by the WDNR, Sigma collected two additional quarterly rounds of groundwater samples from monitoring well MW-2 in February 2023 and May 2023. The additional groundwater sampling was conducted to obtain results which demonstrate stable to decreasing trends in groundwater CVOC concentrations at monitoring well location MW-2 (source area). The well was purged prior to sample collection during each sampling event. Groundwater samples were collected via new rope and disposable bailer, and submitted for laboratory analysis of VOCs (contaminants of concern) and dissolved gases ethane, ethene, and methane (for natural attenuation monitoring). Depth to water measurements and in situ parameters were also measured from monitoring wells MW-1, MW-3, MW-4, PZ-1, MW-6A, and MW-6B during the additional groundwater sampling activities. Purge water was containerized in 55-gallon steel DOT approved drums and transported to Port Washington Waste Water Treatment for treatment and disposal.

Sigma prepared an email update to the WDNR project manager, Mark Drews, and vapor technical support for the project, Joe Martinez, summarizing the results of the off-site vapor intrusion investigation and additional groundwater sampling activities conducted since the WDNR response letter in February 2023.

In addition to email correspondence from Sigma entitled "BRRTS 02-41-183154 - Jilly's-Glendale Env Update and Meeting Request" (dated June 19, 2023), multiple Site Investigation Sample Results notifications were provided in accordance with NR 716.14 throughout the course of the off-site vapor investigation and additional groundwater monitoring:

- \* Site Investigation Sample Results Notification (Form 4400-249) by The Sigma Group, Inc. (dated March 14, 2023)
- \* Site Investigation Sample Results Notification (Form 4400-249) by The Sigma Group, Inc. (dated March 22, 2023)
- \* Site Investigation Sample Results Notification (Form 4400-249) by The Sigma Group, Inc. (dated April 5, 2023)
- \* Site Investigation Sample Results Notification (Form 4400-249) by The Sigma Group, Inc. (dated May 23, 2023)
- \* Site Investigation Sample Results Notification (Form 4400-249) by The Sigma Group, Inc. (dated June 9, 2023)

# Report

## Short, but strong conclusion

In a June 28, 2023 email, the WDNR concurred with Sigma's conclusions from the June 19, 2023 update email that off-site vapor sampling and additional groundwater monitoring activities were complete. The WDNR recommended preparation of a case closure request.

On- and off-site site investigation and monitoring activities conducted at the Jilly's site since 1990, and following redevelopment in 2021, have defined the degree and extent of subsurface impacts, identified risks, and provided sufficient data to suggest the groundwater plume is stable and concentrations will naturally attenuate over time.

Site investigation documentation was previously provided to the WDNR in the aforementioned reports. Additional site investigation documentation not previously submitted to the WDNR is provided as Attachment C.1.

Soil, groundwater, and vapor analytical data are summarized in tables included as Attachment A. Site investigation information and data are visually presented in maps and figures provided as Attachment B.

ii Identify whether contamination extends beyond the current project boundary, and if so, describe the media affected.

# Report

## COs table

**5. Continuing Obligations: Includes all affected properties and rights-of-way (ROWs). In certain situations, maintenance plans are also required, and must be included in Attachment D.**

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation (database fees will apply, ii. - xiv.)	Maintenance Plan Required	
Property Type:					
Source Property	Affected Property (Off-Source)	ROW			
i.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None of the following situations apply to this case closure request.	NA
ii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residual groundwater contamination exceeds ch. NR 140 ESSs.	NA
iii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.				Monitoring Wells Remain:	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Not Abandoned (filled and sealed)	NA
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Continued Monitoring (requested or required)	Yes
v.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Commercial/industrial exposure assumptions used.	NA
xiii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site-specific situation: (e. g., fencing, methane monitoring, other) <i>(discuss with project manager before submitting the closure request)</i>	Site specific

# Data Tables

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**BRRTS #02-41-183154, FID #241954350**

## **Attachment A – Data Tables**

**A.1. – Groundwater Analytical Table**

**A.2. – Soil Analytical Results Table**

**A.3. – Residual Soil Contamination Table**

**A.4. – Vapor Analytical Table**

A.5. – Other Media of Concern – No attachment is included because no sediment, surface water, or other media were sampled as part of the site investigation.

**A.6. – Water Level Elevations**

**A.7. – Other**

- A.7.1. – Groundwater In Situ Measurements – Natural Attenuation Data
- A.7.2. – Vertical Gradient Calculations
- A.7.3. – Sub-Slab Depressurization Pressure Field Extension Measurements

# Data Tables

**Table A.1.**  
**Groundwater Analytical Table - Historic & Pre-Remediation**  
**Jilly's Car Wash - 5100 Port Washington Rd, Glendale, Wisconsin**  
**Sigma Project No. 20343**

	MW-6B (Off-site)				MW-11 (Off-site)	
1/30/95	10/16/90	2/16/95	11/30/95	1/29/97	10/15/90	2/16/95

**Table A.1.**  
**Groundwater Analytical Table (Post-Remediation)**  
**Jilly's Car Wash - 5100 N Port Washington Rd, Glendale, Wisconsin**  
**Sigma Project No. 20343**

	MW-2				
	On-site				
21	2/1/22	5/5/22	7/21/22	2/28/23	

**Table A.4.**  
**Vapor Analytical Table - Onsite Subslab Vapor Samples**  
**Jilly's Car Wash - 5100 N Port Washington Road, Glendale, Wisconsin**  
**Project #20343**

**Table A.4.**  
**Vapor Analytical Table - Off-site Subslab Vapor Samples**  
**Site: Jilly's Car Wash - 5100 N Port Washington Road, Glendale, Wisconsin (SMALL COMMERCIAL)**  
**Off-site: Design Group Three - 5050 N Port Washington Road, Glendale, Wisconsin (SMALL COMMERCIAL)**  
**Project #20343**

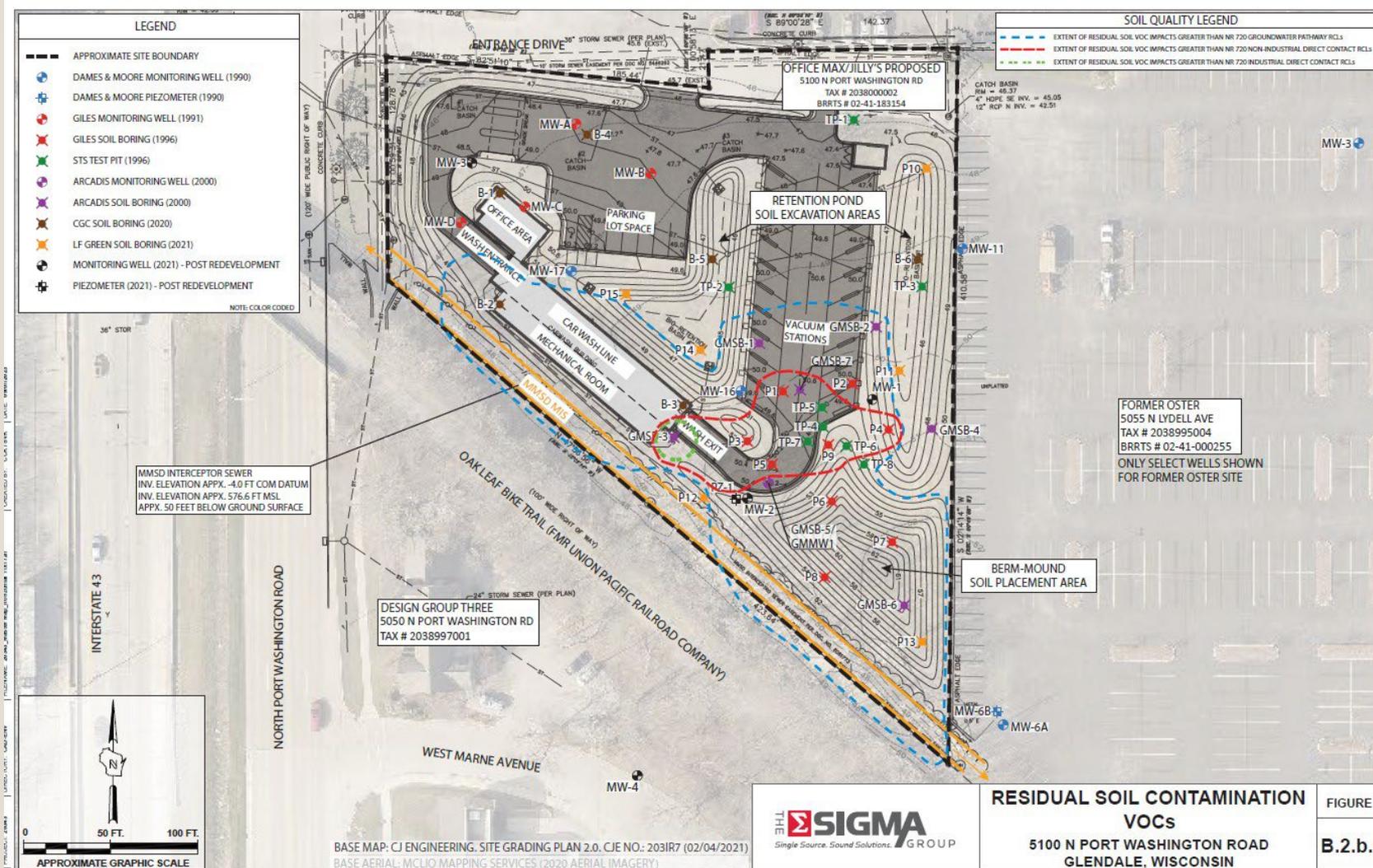
Subslab Air Samples		Re

**Table A.6.**  
**Water Level Elevations - Pre-Remediation Historic Data**  
**Jilly's Car Wash - 5100 N Port Washington Rd, Glendale, Wisconsin**  
**Sigma Project No. 20343**

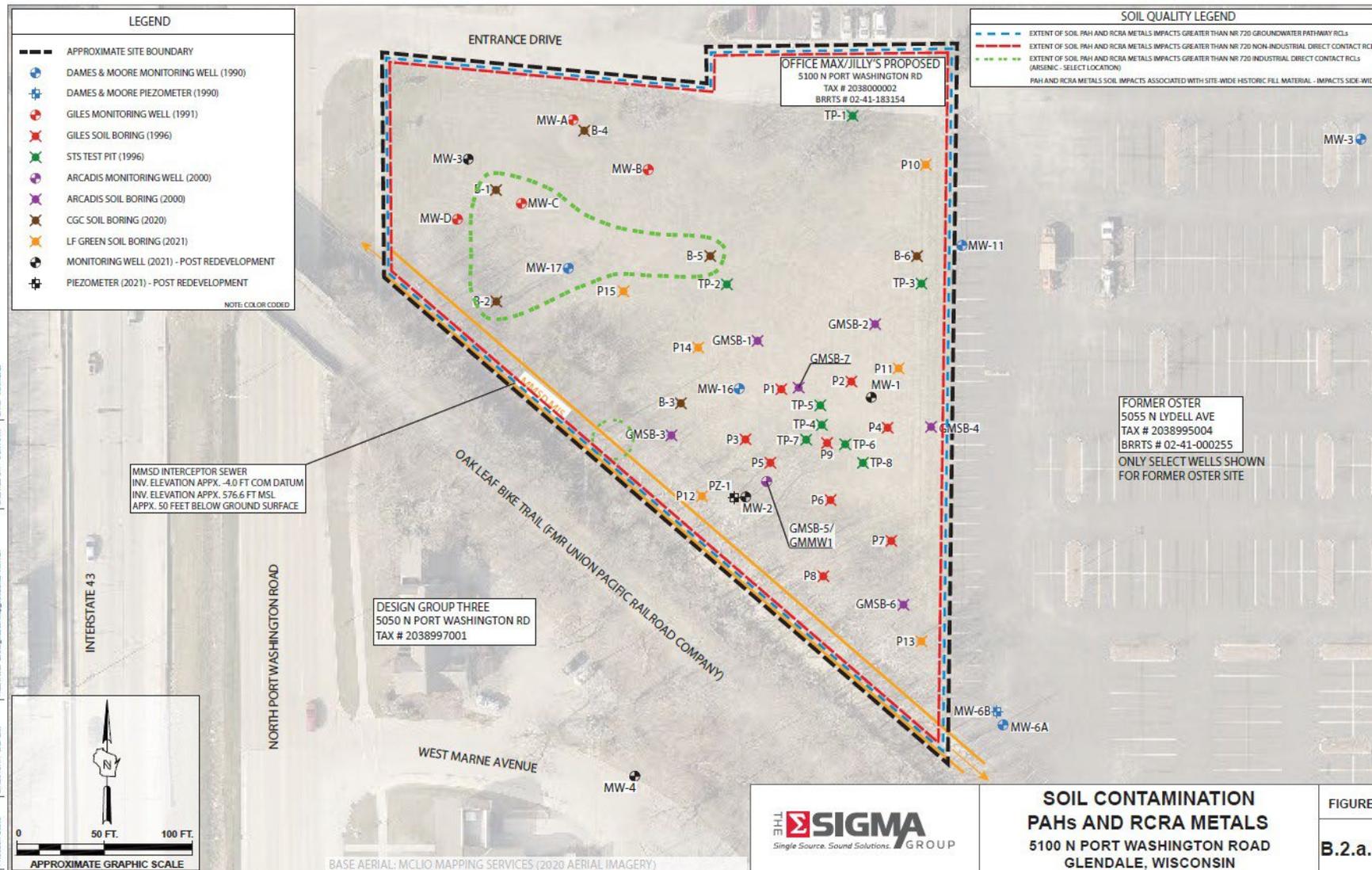
**Table A.6.**  
**Water Level Elevations - Post-Remediation**  
**Jilly's Car Wash - 5100 N Port Washington Rd, Glendale, Wisconsin**  
**Sigma Project No. 20343**



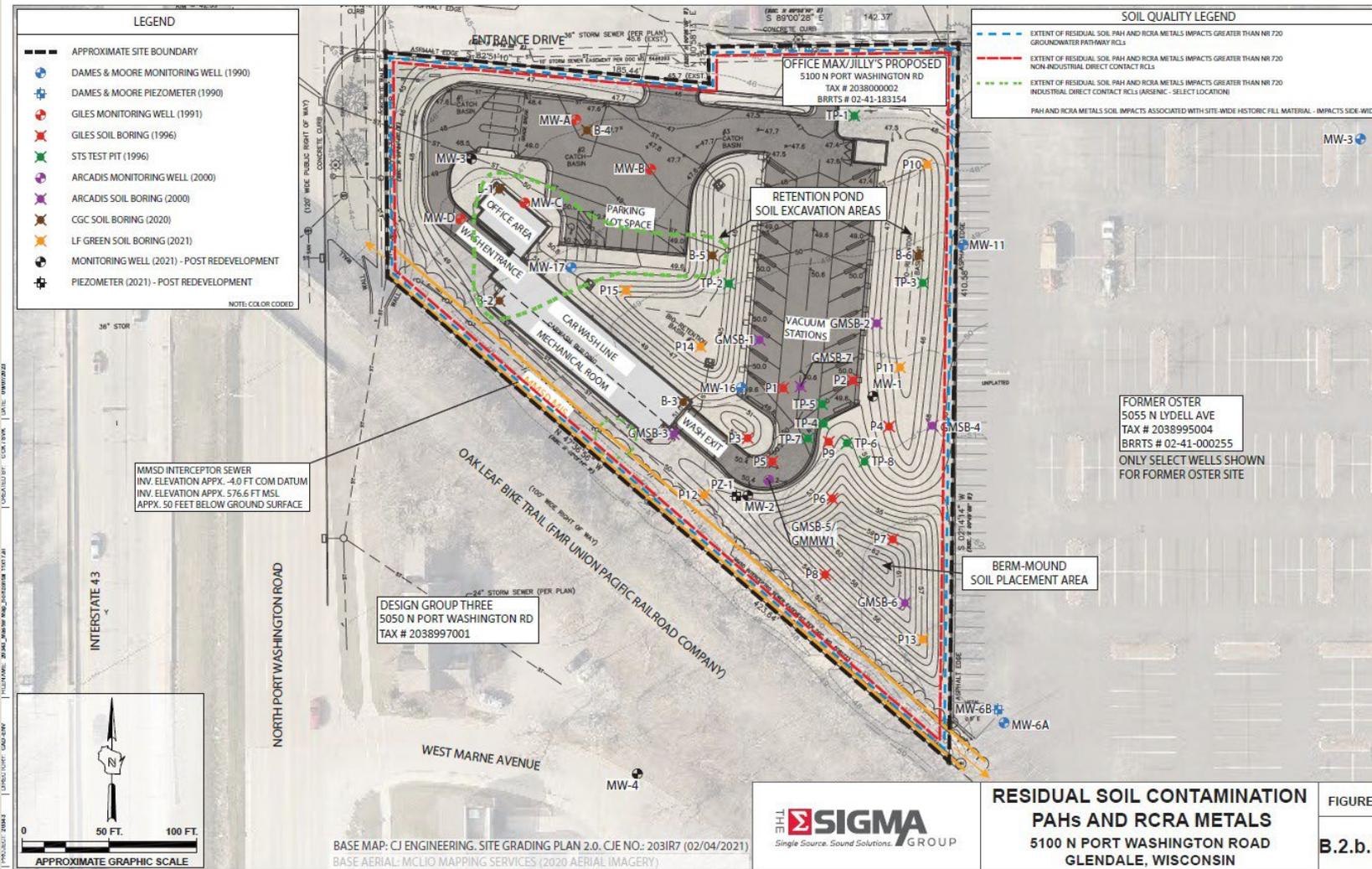
# Figures



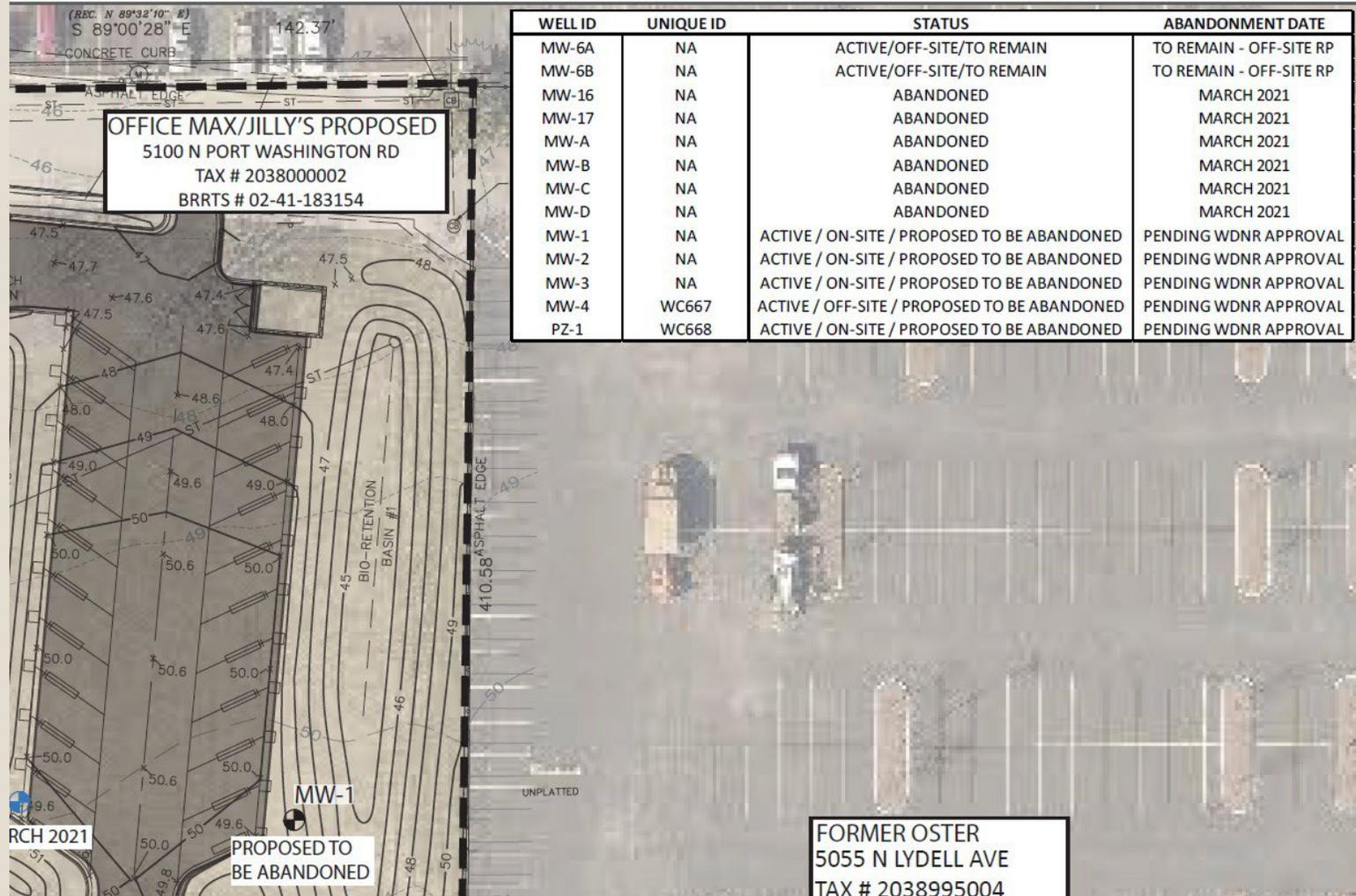
# Figures



# Figures



# Figures



# Attachments

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### Attachment B – Maps, Figures and Photos

#### B.1. – Location Maps

- B.1.a. – Location Map
- B.1.b.1 – Detailed Site Map (Pre-Redevelopment)
- B.1.b.2 – Detailed Site Map (Post-Redevelopment)
- B.1.c. – RR Sites Map

#### B.2. – Soil Figures

- B.2.a.i – Soil Contamination VOCs
- B.2.a.ii – Soil Contamination PAHs and RCRA Metals
- B.2.b.i – Residual Soil Contamination VOCs
- B.2.b.ii – Residual Soil Contamination PAHs and RCRA Metals

#### B.3. – Groundwater Figures

- B.3.a.i. – Geologic Cross-Section Location Map
- B.3.a.ii. – Geologic Cross-Section A-A'
- B.3.b. – Groundwater Isoconcentration
- B.3.c.i – Groundwater Flow Direction (05/05/2022)
- B.3.c.ii – Groundwater Flow Direction (07/21/2022)
- B.3.c.iii – Groundwater Flow Direction (02/28/2023)
- B.3.c.iv – Groundwater Flow Direction (05/17/2023)
- B.3.d. – Monitoring Wells

#### B.4. – Vapor Maps and Other Media

- B.4.a.i – Vapor Intrusion Map – Jilly's Car Wash – On-Site
- B.4.a.ii – Vapor Intrusion Map – Design Group Three – Off-Site (Basement L)
- B.4.a.iii – Vapor Intrusion Map – Design Group Three – Off-Site (First Floor)

OFFICE MAX/JILLY'S PROPOSED  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

B.5. – S  
features

### Attachment F – Source Legal Documents

#### F.1. – Deed

F.2. – Certified Survey Map – Certified Survey Map No. 7636 and ALTA Survey (June 25, 2020).

F.3. – Verification of Zoning - According to the City of Glendale Zoning Map, the Site is zoned PD for Planned Unit Development. The adjacent land to the north and east is B-1 Business and Commercial District (commercial properties), to the south B-1 and R-7 Residence District (single and multi-family homes and apartments), and to the west C-1 Conservancy District (park and golf course). A City of Glendale Zoning Map is included as Attachment F.3.

F.4. – Signed Statement – Includes the signed statement by the Responsible Party regarding the accuracy of the legal description for the source property.

OFFICE MAX/JILLY'S PROPOSED  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment C – Documentation of Remedial Action

C.1. – Site Investigation Documentation – Site investigation documentation submitted to the WDNR with the following reports and correspondence:

- Site Investigation Report, Proposed Jilly's Car Wash, 5100 N. Port Washin Wisconsin, BRRTS #02-41-183154 by LF Green (dated February 8, 2021)

- Remedial Action Documentation, Washington Road, 5100 N Port Washington Rd, Glendale, WI 53217, BRRTS #02-41-183154, FID #241954350

- Addendum to Re 5100 N. Port Washington Road, Glendale, WI 53217, dated March 5, 2021

- Groundwater Monitoring Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated May 21, 2021

- Amended Groundwater Monitoring Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated July 21, 2021

- Remedial Action Documentation, Groundwater Monitoring Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated November 21, 2021

- Site Investigation Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated March 14, 2023

- Site Investigation Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated March 22, 2023

- Site Investigation Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated March 22, 2023

OFFICE MAX/JILLY'S PROPOSED  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment C – Documentation of Remedial

An evaluation regarding the potential for perfluoroalkyl/polyfluoroalkyl substances (PFAS) at the above-noted Site Investigation Report by LF Green

C.2. – Investigative Waste – Investigative waste submitted to the WDNR with the following reports:

- Site Investigation Report by LF Green
- Remedial Action Documentation, Vapor Intrusion Monitoring Report, 5100 N. Port Washington Rd., Glendale, WI 53217, dated November 21, 2021

Purge water generated during groundwater monitoring in February 2023 was containerized in 55-gallon DOT approved containers and transported to the Port Washington Wastewater Treatment Plant (PWWT) in Port Washington, WI for disposal.

OFFICE MAX/JILLY'S PROPOSED  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment G – Notifications to Owners of Affected Properties

Residual soil, groundwater, and/or vapor impacts have affected the following properties:

#### Affected Property



Vapor intrusion from source property – sealed sump in basement required Continuing Obligation.

#### Affected Right-of-Way Holder



Residual soil contamination greater than ch. NR 720 RCLs; residual groundwater contamination greater than ch. NR 140 PALs and ESs; residual volatile contamination poses future risk of vapor intrusion.

#### Source Property – Owner is Different Than Responsible Party



Residual soil contamination greater than ch. NR 720 RCLs; residual groundwater contamination greater than ch. NR 140 PALs and ESs; Vapor Mitigation System required for vapor contamination; residual volatile contamination poses future risk of vapor intrusion (future construction on the property).

OFFICE MAX/JILLY'S PROPOSED  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment H – Documentation of Remedial Action

Document provided to the responsible party regarding the accuracy of the legal description for the source property.

C.5. – Decree of Conveyance for the Car Wash, 5100 N. Port Washington Rd., Glendale, WI 53217, dated at 5050 N. Port Washington Rd., Glendale, WI 53217, following the completion of the remedial action. The remainder of the page is left blank.

C.6. – Other – No other relevant documentation to include.

# Attachments

## Table of Contents

**OFFICE MAX/JILLY'S PROPOSED**  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment F – Source Legal Documents

#### **F.1. – Deed**

**F.2. – Certified Survey Map** – Certified Survey Map No. 7636 and A

**F.3. – Verification of Zoning** - According to the City of Glendale Planned Unit Development. The adjacent land to the north and District (commercial properties), to the south B-1 and R-7 Resid homes and apartments), and to the west C-1 Conservancy Dist Glendale Zoning Map is included as Attachment F.3.

**F.4. – Signed Statement** – Includes the signed statement by accuracy of the legal description for the source property.

**OFFICE MAX/JILLY'S PROPOSED**  
5100 N Port Washington Rd, Glendale, WI 53217  
BRRTS #02-41-183154, FID #241954350

### Attachment G – Notifications to Owners of Affected Properties

Residual soil, groundwater, and/or vapor impacts have affected the following properties:

#### **Affected Property**

[REDACTED]

Vapor intrusion from source property – sealed sump in basement re

#### **Affected Right-of-Way Holder**

[REDACTED]

Residual soil contamination greater than ch. NR 720 RCLs; residual than ch. NR 140 PALs and ES; residual volatile contamination poses

#### **Source Property – Owner is Different Than Responsible Party**

[REDACTED]

Residual soil contamination greater than ch. NR 720 RCLs; residual than ch. NR 140 PALs and ES; Vapor Mitigation System requires volatile contamination poses future risk of vapor intrusion (future cc...

**OFFICE MAX/JILLY'S PROPOSED**  
5100 N Port Washington Rd, Glendale, WI 53217  
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#### **G.1. – Deed**

- No Deed provided for [REDACTED] property, refer to Parcel Report (G.2.) within letter.
- No Deed for Milwaukee County Right-of-Way bike trail property, refer to Parcel Report (G.2.) within letter.
- Jilly's property Deed provided as Attachment F.1.

#### **G.2. – Certified Survey Map**

- Refer to Parcel Report (G.2.) for [REDACTED] within letter.
- Refer to Parcel Report (G.2.) for Milwaukee County Right-of-Way bike trail property within letter.
- Jilly's CSM provided as Attachment F.2. and G.2. within letter.

#### **G.3. – Verification of Zoning**

- Refer to Attachment G.3. for [REDACTED] within letter.
- Refer to Attachment G.3. for Milwaukee County Right-of-Way bike trail property within letter.
- Jilly's Verification of Zoning provided as Attachment F.3. and G.3. within letter.

#### **G.4. – Signed Statement**

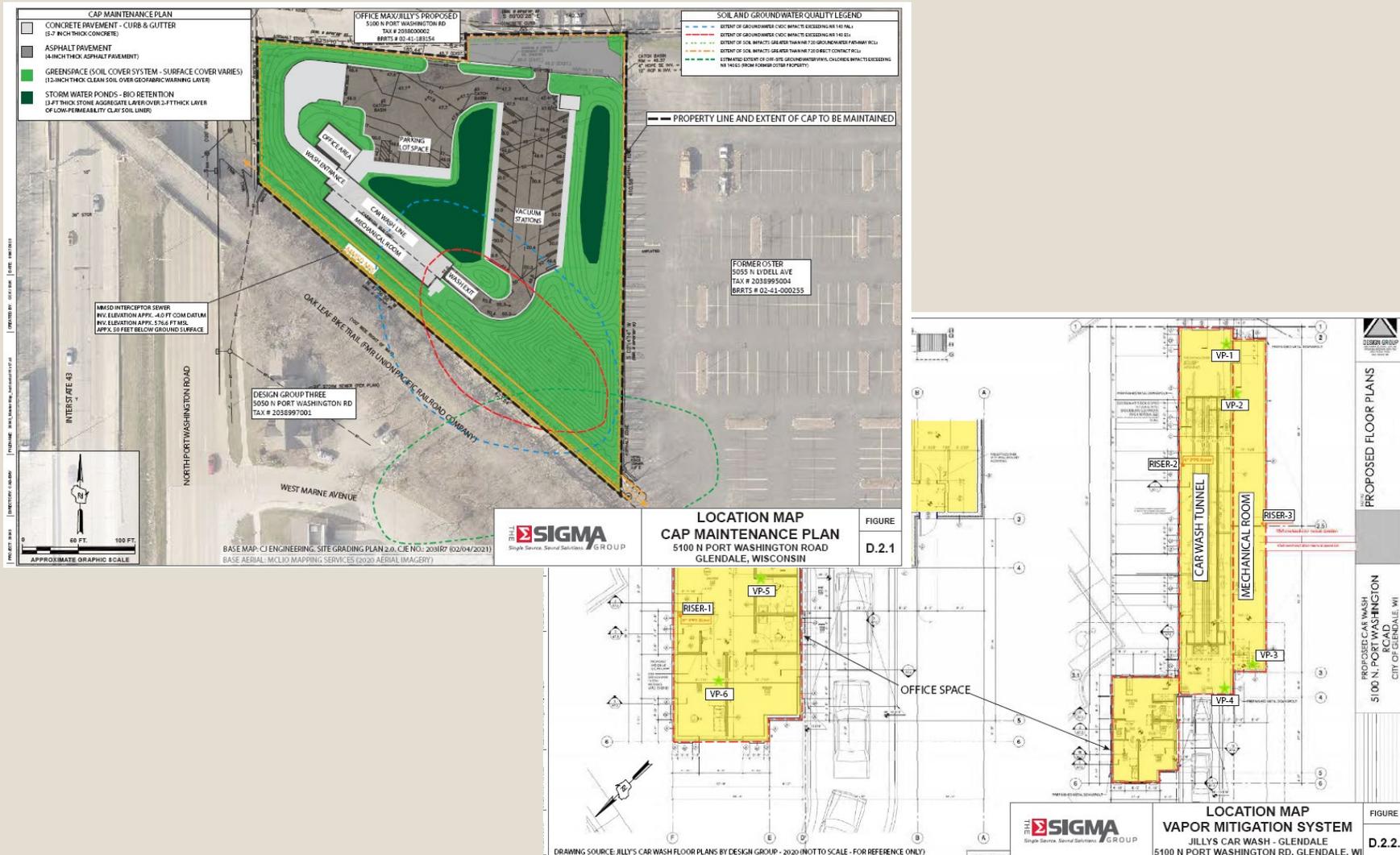
# Jilly's Car Wash – Glendale, WI

## **Maintenance Plans – Cap, on-site VMS, Off-site Vapor (sealed sump)**

- Site Information
- Description of Impacts
- Description of Cap or System to be Maintained
- Inspection Requirements
  - Define frequency with DNR PM for unique circumstances like playgrounds, parks, or higher risk VI mitigation situations
- Prohibited Activities (w/o prior authorization)
- Amendment or Withdrawal Process
- Contact Information
- Log with initial inspection complete (for future use / comparison)
- Baseline

# Jilly's Car Wash – Glendale, WI

## Maintenance Plan Figures – simple...



# Jilly's Car Wash – Glendale, WI

## **Off-site Notifications**

- Off-site Private Property Owner
  - Residual Groundwater Contamination
  - Vapor COs
- Off-site Public ROW
  - Residual Soil Contamination
  - Residual Groundwater Contamination
  - Future Vapor
- Source Property Owner not RP

Establish contact information (client relationship, public information, etc)

Cover letter, email, and/or phone calls

Discuss situation and expectations

Certified mail

Get written waiver if desirable and off-site party is amenable

# Melvina Park – Milwaukee, WI

3010 W Hopkins Street  
Milwaukee, WI

BRRTS #02-41-559369  
#03-41-558362

**\*\*\* CONTINUING OBLIGATIONS APPLY \*\*\***

Contamination associated with this cleanup site remains on one or more properties. Continuing obligations are legal requirements or restrictions, which may include engineering controls and institutional controls, that are assigned to a property to protect human health and the environment from the contamination. DNR approval may be required prior to constructing or reconstructing a water supply well. Changes to property use and construction activities may require prior DNR approval. Additional information is in the documents associated with the activity.

- **Maintain Cap Over Contaminated Area**
- **Residual Soil Contamination**

**02-41-559369 2900, 3010-3024 W HOPKINS ST - SHALLOW SOIL**

Activity Type	Status	Jurisdiction	DNR Region	County	
ERP	OPEN	DNR RR	SOUTHEAST	MILWAUKEE	
Location Name	Address		Municipality		
3010 - 3024 WEST HOPKINS STREET PROPERTY	3010 - 3024 W HOPKINS ST		MILWAUKEE		
PLSS Description		Latitude (WGS84)	Longitude (WGS84)		
NE 1/4 of the NE 1/4 of Sec 12, T07N, R21E		43.0877367	-87.9509077		
Acres	Facility ID	PECFA Number	EPA ID	Start Date	End Date
2	341233960	NONE		2012-09-07	

[LOCATION DETAILS](#) [GOOGLE MAPS](#) [RR SITES MAP](#)

**03-41-558362 2900 W HOPKINS ST UST SYSTEM**

Activity Type	Status	Jurisdiction	DNR Region	County	
LUST	OPEN	DNR RR	SOUTHEAST	MILWAUKEE	
Location Name	Address		Municipality		
2900 W HOPKINS ST	2900 W HOPKINS ST		MILWAUKEE		
PLSS Description		Latitude (WGS84)	Longitude (WGS84)		
NE 1/4 of the NE 1/4 of Sec 12, T07N, R21E		43.0870763	-87.9500643		
Additional Location Description					
3010 W HOPKINS ST					
Acres	Facility ID	PECFA Number	EPA ID	Start Date	End Date
2	341179190	NONE		2012-02-06	

[LOCATION DETAILS](#) [GOOGLE MAPS](#) [RR SITES MAP](#)

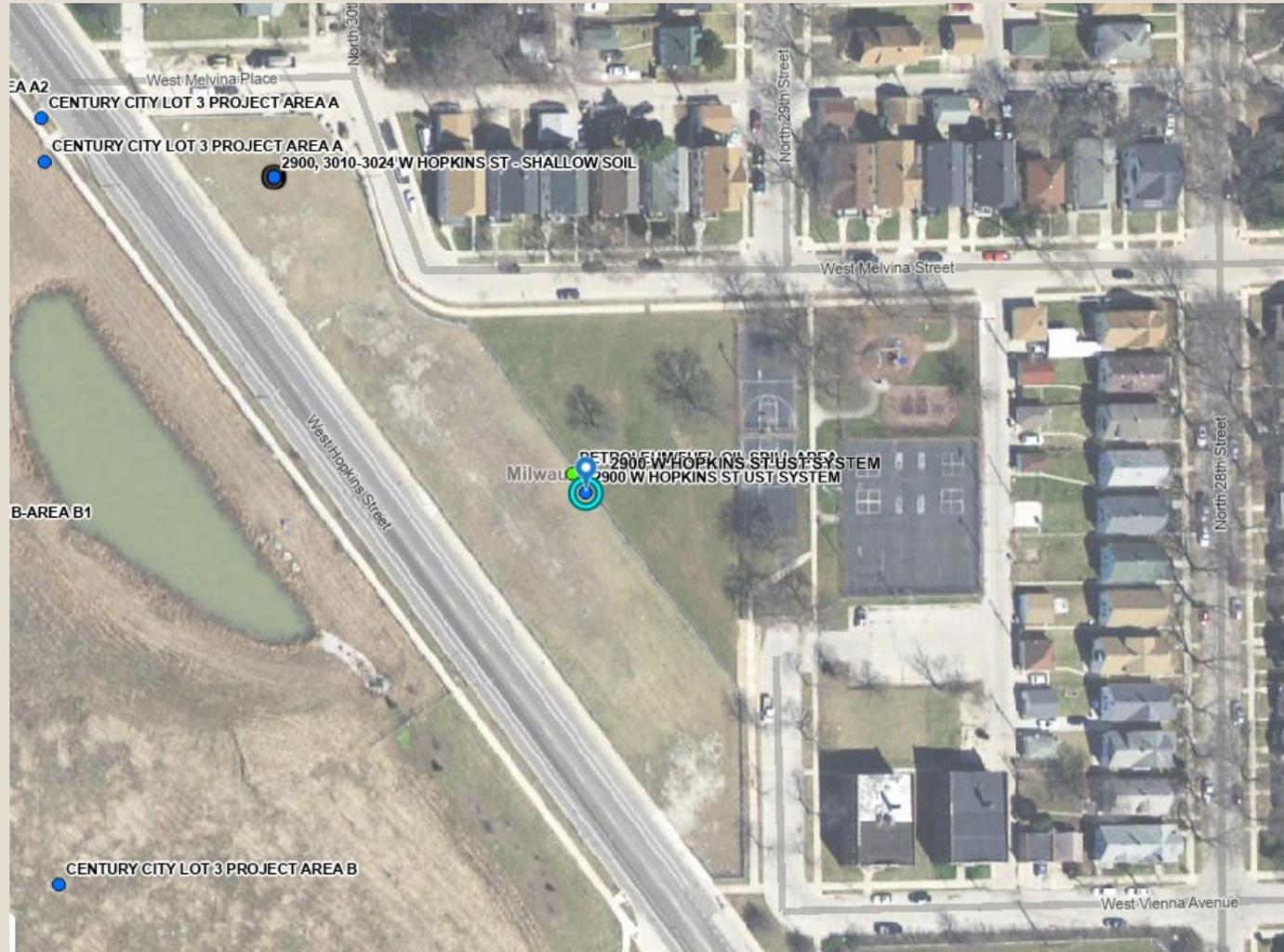
# Melvina Park – Milwaukee, WI

## **Challenges in preparing for closure**

- Preparing two closure reports simultaneously, on same property
- Site-wide fill closure overlaps historic LUST closure case
- Source Property expanding – adding adjacent parcels, combining
- Address updates
- WTM coordinates updates
- Significant changes to property use, configuration, covers
- Investigation and remedial action documentation
- Defining COs – Cap for fill, no Cap for LUST

# Melvina Park – Milwaukee, WI

## One Property – Three Sites – One NFA, Two Closures

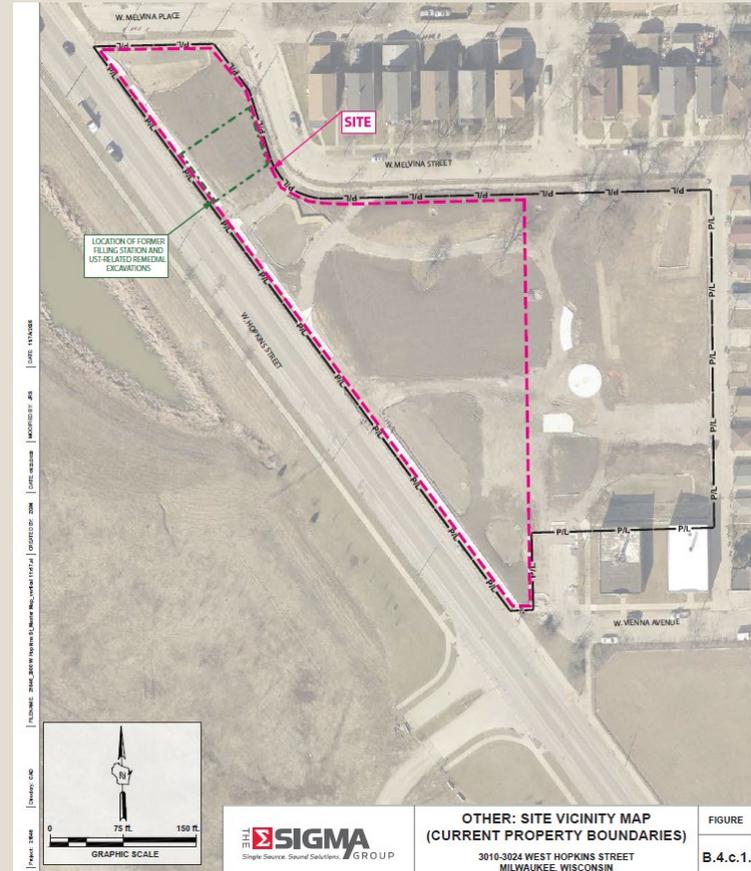
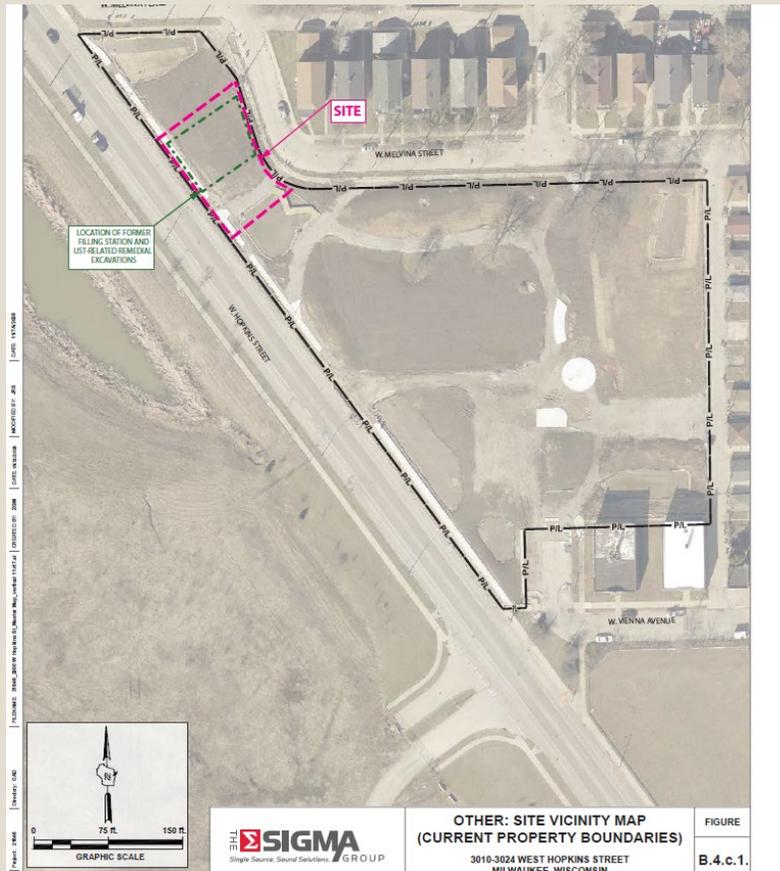




# Melvina Park – Milwaukee, WI

## One Property – Three Sites – One NFA, Two Closures

### Identifying Sites Areas – Current Property Boundaries



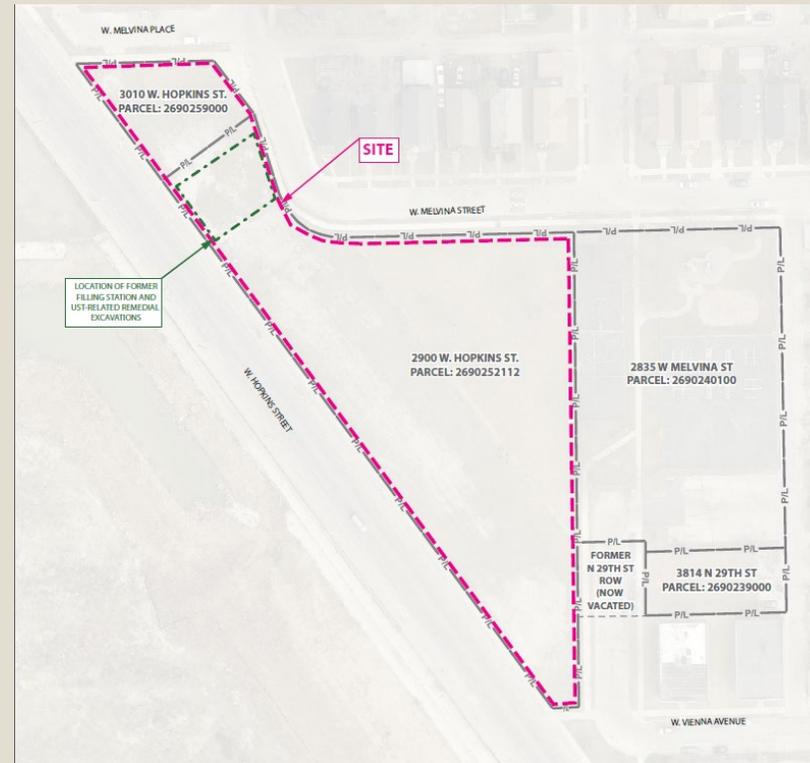
# Melvina Park – Milwaukee, WI

## One Property – Three Sites – One NFA, Two Closures

### Identifying Sites Areas – Historic Property Boundaries



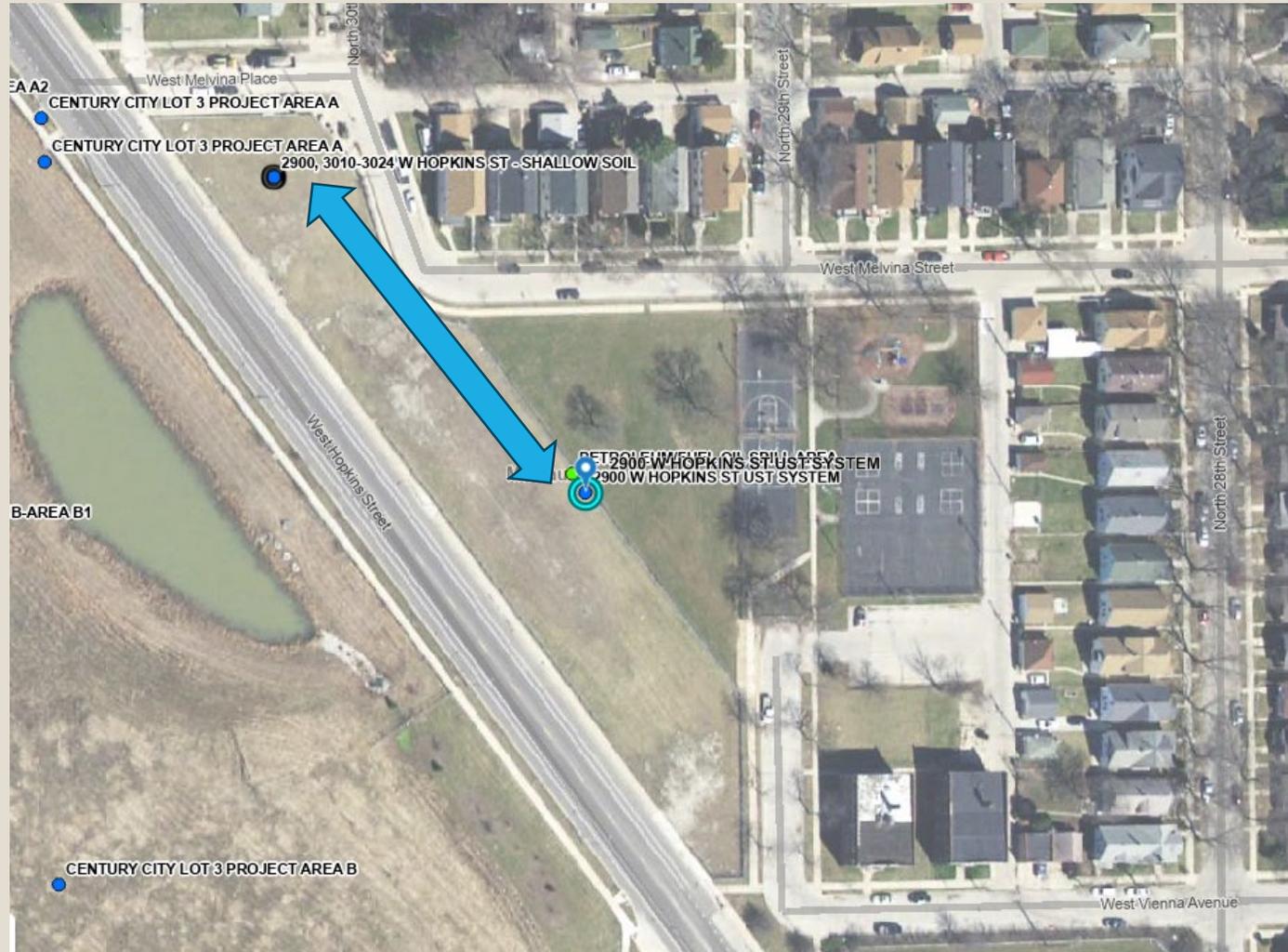
Historic LUST Closure



Historic Fill Closure

# Melvina Park – Milwaukee, WI

## WTM Coordinates – Address in Report



# Melvina Park – Milwaukee, WI

**Address Change – Provide Details in Closure Report**



# Melvina Park – Milwaukee, WI

## Figures – Tell Story - Organize

### Attachment B Maps, Figures and Photos Table of Contents

#### B.1. - Location Maps

- B.1.a. – Location Map
- B.1.b. – Detailed Site Map
- B.1.c. – RR Sites Map

#### B.2. - Soil Figures

- B.2.a.1. - Soil Contamination (Pre-Remedial Conditions) – full Site
- B.2.a.2. - Soil Contamination (Pre-Remedial Conditions) – view of northwest corner
- B.2.a.3. - Soil Contamination (Post-Excavations: 2012 and 2018) - full Site
- B.2.a.4. - Soil Contamination (Post-Excavations: 2012 and 2018) - view of northwest corner
- B.2.b.1. - Residual Soil Contamination - full Site
- B.2.b.2. - Residual Soil Contamination - view of northwest corner

#### B.3. - Groundwater Figures

- B.3.a.1. – Geologic Cross Section Figures Location Map
- B.3.a.2. – Geologic Cross Section Figures A-A'
- B.3.a.3. – Geologic Cross Section Figures B-B'
- B.3.b. - Groundwater Isoconcentration – Not included because groundwater impacts do not exceed Chapter NR 140 Preventative Action Limits (PALs) or Enforcement Standards (ESs)
- B.3.c.1. - Groundwater Flow Direction (October 27, 2009)
- B.3.c.2. - Groundwater Flow Direction (May 8, 2023)
- B.3.d. - Monitoring Wells

#### B.4. - Vapor Maps and Other Media

B.4.a. - Vapor Intrusion Map - Not included / not necessary. An evaluation of vapor intrusion risk screening criteria conducted in accordance with WDNR guidance document PUB-RR-800 indicates that vapor intrusion is not considered a viable risk pathway for the Site, and vapor sampling was not conducted.

B.4.b. - Other Media of Concern - Not included / not necessary.

- B.4.c.1. – Other: Site Vicinity Map (Current Property Boundaries).
- B.4.c.2. – Other: Site Vicinity Map (Historical Property Boundaries)
- B.4.c.3. – Other: Sanborn Figure Insurance Maps, 1910 (1961 Revision) – North Half of Property
- B.4.c.4. – Other: Sanborn Figure Insurance Maps, 1910 (1961 Revision) – South Half of Property
- B.4.c.5. – Other: 2018 Remedial Excavation Map

2012 Remediation

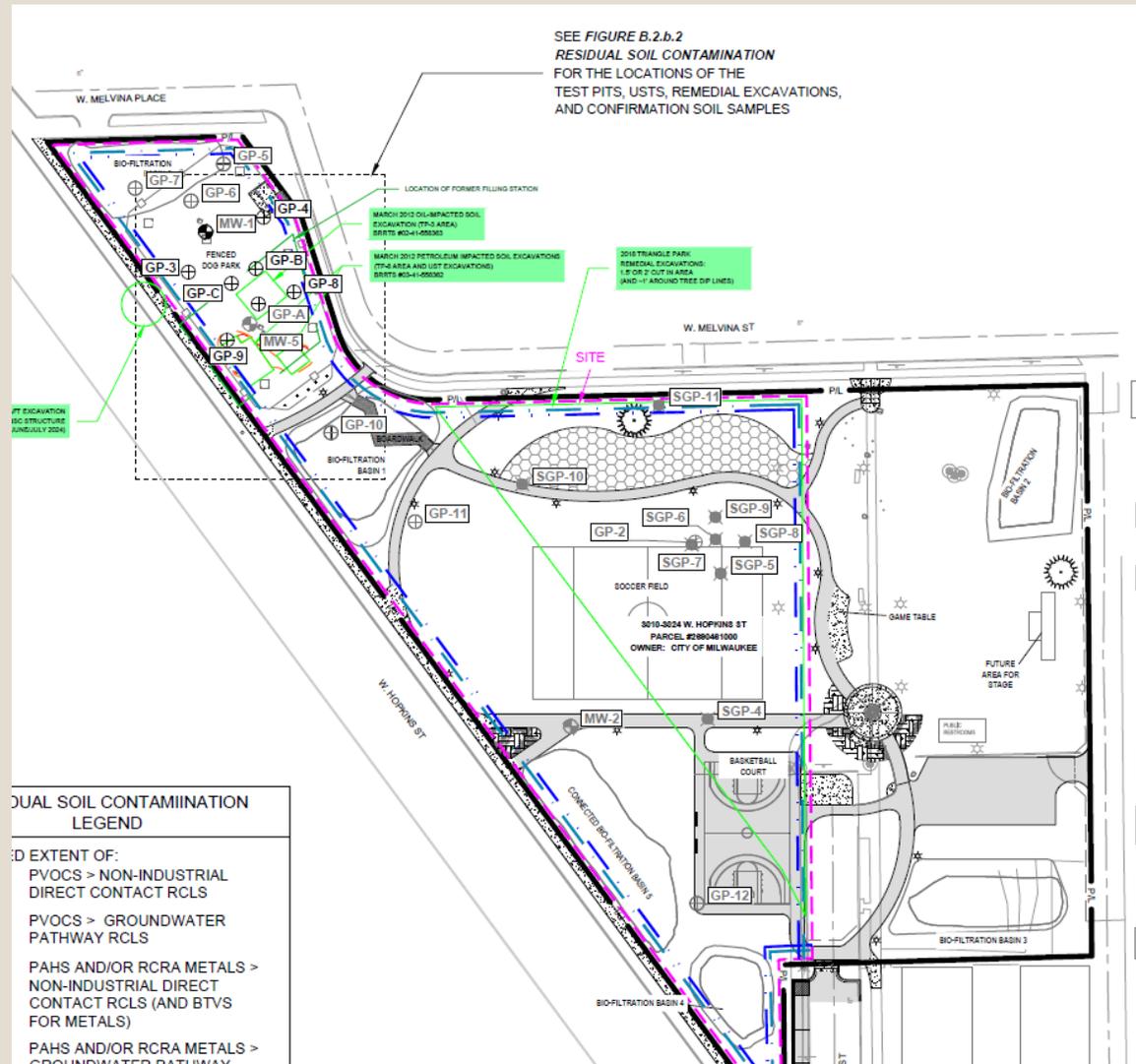
2018 Remediation

2023-2024 Redevelopment

(soil mgmt. + capping)

# Melvina Park – Milwaukee, WI

## Figures – Tell Story



# Melvina Park – Milwaukee, WI

## Data Tables – Additional Information

Table A.3  
Residual Soil Contamination Tables  
2900, 3010-3024 W HOPKINS ST - SHALLOW SOIL (BRRTS #02-41-539369)  
3010-3024 W Hopkins Street  
Milwaukee, Wisconsin 53216  
Sigma Project No. 21546

Soil Sample Location:	GP-3	GP-4	GP-6	GP-7	GP-8		GP-10	GP-10	GP-11	GP-12		MW-1		MW-2		MW-3		Groundwater Pathway RCL <sup>4</sup>	Non-Industrial Direct Contact RCL <sup>7</sup>	Industrial Direct Contact RCL <sup>8</sup>	Background Threshold Value <sup>9</sup>				
Historical Sample Depth (feet bgs):	2-4	2-4	2-4	2-4	2-4	14-16	2-4	14-16	0-2	0-2	10-12	0-2	14-16	0-2	12-14	4-6	14-16								
Current Sample Depth <sup>1,2</sup> (feet bgs):	3.4-5.4	1.6-3.6	1.5-2.3	1.3-2.7	3.7-5.7	15.7-17.7	REMOVED RE-USED UNDER CAP IN DOG PARK & NE PART OF SITE	12.1-14.1	1.5-1.8	1-1.4	9.4-11.4	2.1-2.6	14.6-16.6	1.5-1.8	11.8-13.8	6.9-8.9	16.9-19.9								
Sample Collection Date:	09/29/09	09/29/09	09/29/09	09/29/09	09/29/09	09/29/09	09/30/09	09/30/09	09/30/09	09/30/09	09/30/09	09/30/09	09/30/09	09/30/09	09/30/09	10/02/09	10/02/09								
Sample collected within limits of material to be managed under NR 716:	NO	NO	YES	YES	NO	NO	NO	NO	YES	YES	NO	YES	NO	YES	NO	NO	NO								
RE-USE LOCATION:	NA	NA	DOG PARK	DOG PARK	NA	NA	DOG PARK & NE PART OF SITE	NA	DOG PARK & NE PART OF SITE	NE PART OF SITE	NA	DOG PARK	NA	NE PART OF SITE	NA	NA	NA								
Historical Depth to Groundwater (feet bgs):	~14'	~11'	~11'	~15'	~4'	~4'	~4'	~15'	~11'	~12'	~13'	~15'													
Native Soil (N) or Fill / Reworked Soil (F):	F	F	FIN	N	F	N	F	N	F	N	N	F	N	F	N	F	N								
Unsaturated/Meas Zone (U) or Saturated (S):	U	U	U	U	U	S	U	S	U	U	U/S	U	S	U	U/S	F	N								
Photoionization Detector	ppm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NS	NS	NS	NS				
Gasoline Range Organics	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS	NS				
Diesel Range Organics	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS	NS				
VOCs																									
Benzene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.136	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.005	1.6	7.07	NS				
1,2,4-Trimethylbenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	1.65	<0.020	<0.020	<0.020	0.049 J	<0.020	<0.020	<0.020	<0.020	0.0252 J	<0.020	0.137	NS	219	219	NS				
1,3,5-Trimethylbenzene	mg/kg	<0.024	<0.024	<0.024	<0.024	0.334	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	0.038 J	NS	182	182	NS				
Trimethylbenzenes (total)	mg/kg	<0.044	<0.044	<0.044	<0.044	1.984	<0.044	<0.044	<0.044	0.049 J	<0.044	<0.044	<0.044	<0.044	0.0252 J	<0.044	0.175 J	NS	NS	NS	NS				
Vinyl Chloride	mg/kg	<0.017	<0.017	<0.017	<0.017	0.384	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	0.00014	0.067	2.08	NS				
Xylenes (total)	mg/kg	<0.048	<0.048	<0.048	<0.048	0.861	<0.048	<0.048	<0.048	0.055 J	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	0.162 J	4	260	260	NS				
PAHs																									
Acenaphthene	mg/kg	<0.016	<0.016	0.35	<0.016	0.0314 J	<0.016	0.049 J	<0.016	0.191	<0.016	<0.016	<0.016	<0.016	0.0224 J	<0.016	<0.016	NS	NS	3,568	45,200	NS			
Acenaphthylene	mg/kg	0.0276 J	<0.011	0.079	0.084	<0.011	0.0227 J	<0.011	0.06	0.0226 J	<0.011	0.0159 J	<0.011	0.039	<0.011	0.011 J	<0.011	NS	NS	NS	NS				
Anthracene	mg/kg	0.0245 J	0.032 J	2.11	0.084	0.104	<0.016	0.58	0.068	<3.2	<0.016	0.068	<0.016	0.076	<0.016	0.0203 J	<0.016	197	17,900	100,000	NS				
Benzo(a)anthracene	mg/kg	0.057	0.064	(4.8)	0.236	0.104	<0.016	0.58	<0.016	(1.54)	0.064	<0.016	0.178	<0.016	0.214	<0.016	0.033 J	NS	1.14	20.8	NS				
Benzo(a)pyrene	mg/kg	0.066 J	0.054 J	(14.8)	(0.263)	(0.128)	<0.025	(0.7)	<0.025	(1.96)	0.084	<0.025	(0.214)	<0.025	(0.271)	<0.025	0.048 J	0.47	0.115	2.11	NS				
Benzo(b)fluoranthene	mg/kg	0.089	0.08	(6.0)	0.313	0.153	<0.016	0.88	<0.016	(2.76)	0.114	<0.016	0.297	<0.016	0.37	<0.016	0.065	<0.016	0.48	1.15	21.1	NS			
Benzo(g)hperylene	mg/kg	0.056	0.039 J	3.0	0.189	0.102	<0.016	0.49	<0.016	1.53	0.066	<0.016	0.185	<0.016	0.189	<0.016	0.042 J	NS	NS	NS	NS				
Benzo(k)fluoranthene	mg/kg	0.033 J	0.0207 J	1.99	0.145	0.083	<0.016	0.32	<0.016	0.81	0.046 J	<0.016	0.114	<0.016	0.151	<0.016	0.0298 J	NS	11.5	211	NS				
Chrysene	mg/kg	0.084	0.067	4.7	0.241	0.127	<0.016	0.68	<0.016	1.95	0.076	<0.016	0.233	<0.016	0.294	<0.016	0.048 J	NS	0.14	115	2,110	NS			
Dibenz(a,h)anthracene	mg/kg	<0.022	<0.022	(0.67)	0.0299 J	0.0299 J	<0.022	0.107	<0.022	(0.36)	<0.022	<0.022	0.0304 J	<0.022	0.037 J	<0.022	0.037 J	NS	0.115	2.11	NS				
Fluoranthene	mg/kg	0.093	0.146	10.3	0.38	0.253	<0.013	1.38	<0.013	3.3	0.131	<0.013	0.4	<0.013	0.54	<0.013	0.055	<0.013	89	2,360	30,100	NS			
Fluorene	mg/kg	<0.0083	<0.0083	0.34	0.0086 J	0.054	<0.0083	0.028	<0.0083	0.286	<0.0083	0.0113 J	<0.0083	0.0299	<0.0083	0.0299	<0.0083	15	2,360	30,100	NS				
Indeno(1,2,3-cd)pyrene	mg/kg	0.048	0.04	(3.4)	0.203	0.104	<0.012	0.54	<0.012	(1.62)	0.072	<0.012	0.169	<0.012	0.205	<0.012	0.045	NS	1.15	21.1	NS				
1-Methylnaphthalene	mg/kg	<0.015	<0.015	0.033 J	<0.015	0.126	<0.015	<0.015	0.104	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	NS	0.265	1.11	NS				
2-Methylnaphthalene	mg/kg	<0.017	<0.017	<0.034	<0.017	0.224	<0.017	<0.017	0.115	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	NS	239	3,010	NS				
Naphthalene	mg/kg	<0.013	<0.013	0.048 J	<0.013	0.35	<0.013	<0.013	0.081	<0.013	<0.013	<0.013	<0.013	0.0194 J	<0.013	<0.013	<0.013	0.66	2.40	10.2	NS				
Phenanthrene	mg/kg	0.039 J	<0.014	5.2	0.152	0.211	<0.014	0.7	<0.014	2.21	0.040 J	<0.014	0.17	<0.014	0.271	<0.014	0.037 J	NS	NS	NS	NS				
Pyrene	mg/kg	0.089	0.114	8.4	0.36	0.194	<0.015	1.14	<0.015	2.73	0.114	<0.015	0.312	<0.015	0.43	<0.015	0.05	<0.015	55	1,760	22,600	NS			
Hazard Index (Non-Industrial) <sup>14</sup>	Unitless	---	---	0.4038	0.0151	0.4658	---	0.0406	---	0.5068	---	---	0.0124	---	0.0158	---	---	Hazard Index > 1							
gPAH CCR (Non-Industrial) <sup>14</sup>	Unitless	---	---	(6.02 E-05)	3.21E-06	1.60E-06	---	8.79E-06	---	(2.54 E-05)	---	---	2.70E-06	---	3.38E-06	---	---	gPAH CCR > CCR > 1 x 10 <sup>-6</sup>							
Hazard Index (Industrial) <sup>15</sup>	Unitless	---	---	0.0521	---	---	---	---	---	---	---	---	---	---	---	---	---	Hazard Index > 1							
gPAH CCR (Industrial) <sup>15</sup>	Unitless	---	---	3.28E-06	---	---	---	---	---	1.36E-06	---	---	---	---	---	---	---	gPAH CCR > CCR > 1 x 10 <sup>-6</sup>							

# Melvina Park – Milwaukee, WI

## **Attachment C – Documentation**

- cPAH calculations
- Well abandonment forms
- Redevelopment plans
- Photographs – soil management and engineered barriers
- Soil cap warning layer material data sheet
- Imported clean soil cover source review and documentation
- Imported topsoil source review and documentation

# Melvina Park – Milwaukee, WI

## Attachment C – Documentation

- cPAH calculations

Wis. Admin. Code ch. NR 720 Industrial Direct Contact RCLs derived from EPA's RSL Calculator, Composite Worker Scenario ([https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl\\_search](https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search))

Notes:

1.00E-06

1. Basis: nc = noncancer, ca = cancer, max = ceiling limit (100,000 mg/kg) exceeded, Csat = Csat exceeded; BTv = background threshold value.

2. The seven carcinogenic PAHs in the calculator are those that have risk levels assessed using the "Relative Potency Factor (RPF) approach" that compares toxicity relative to that of Benzo[a]pyrene (BaP). The calculator sums the HI using all PAHs but only sums the CCR risk for the 7 cPAHs.

### SOIL SAMPLE SGP-11 (0-1)

Chemical	CAS No.	Noncancer RCL (mg/kg)	Cancer RCL (mg/kg)	Default Industrial DC RCL (mg/kg)	Basis <sup>1</sup>	Input Site Data (mg/kg)	Site Data Comparison to RCLs	Individual Target Hazard Quotient HQ = 1	Individual Target Cancer Risk (CR) 1 x 10 <sup>-6</sup>
							Flag E = Individual Exceedance	Site Hazard Quotient (Noncancer)	Site Cancer Risk
Acenaphthene	83-32-9	45,200.		45,200.	nc	0.23		0.	
Anthracene	120-12-7	226,000.		100,000.	max	1.03		0.	
Benzo[a]anthracene <sup>2</sup>	56-55-3		20.8	20.8	ca	3.2			1.54E-07
Benzo[a]pyrene <sup>2</sup>	50-32-8	222.	2.11	2.11	ca	2.62	E	0.0118	1.24E-06
Benzo[b]fluoranthene <sup>2</sup>	205-99-2		21.1	21.1	ca	3.4			1.61E-07
Benzo[k]fluoranthene <sup>2</sup>	207-08-9		211.	211.	ca	1.15			5.45E-09
Chrysene <sup>2</sup>	218-01-9		2,110.	2,110.	ca	2.74			1.30E-09
Dibenz[a,h]anthracene <sup>2</sup>	53-70-3		2.11	2.11	ca	0.53			2.51E-07
Fluoranthene	206-44-0	30,100.		30,100.	nc	5.4		0.0002	
Fluorene	86-73-7	30,100.		30,100.	nc	0.265		0.	
Indeno[1,2,3-cd]pyrene <sup>2</sup>	193-39-5		21.1	21.1	ca	1.7			8.06E-08
Methylnaphthalene, 1-	90-12-0	1.11	41.4	1.11	nc	0.046		0.0414	1.11E-09
Methylnaphthalene, 2-	91-57-6	3,010.		3,010.	nc	0.035		0.	
Naphthalene	91-20-3	830.	10.2	10.2	ca	0.032		0.	3.14E-09
Pyrene	129-00-0	22,600.		22,600.	nc	4.7		0.0002	
<b>Hazard Index and Cumulative Cancer Risk</b>								<b>0.0537</b>	<b>1.90E-06</b>

HI > 1 Exceeds	CCR > 1 x 10 <sup>-5</sup> Exceeds
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# Melvina Park – Milwaukee, WI

## Attachment C – Documentation

- Photographs – soil management and engineered barriers



Photo 1: View of site at beginning of construction. View to northwest; photograph taken by drone on May 9, 2023.

# Melvina Park – Milwaukee, WI

## Attachment C – Documentation

- Photographs – soil management and engineered barriers



Photo 6: Area with intermediate cap removed in northeastern portion of the Site (Triangle Park). View to northwest; photograph taken on May 19, 2023.

# Melvina Park – Milwaukee, WI

## Attachment C – Documentation

- Photographs – soil management and engineered barriers



Photo 14: View of southern portion of Site, with bio basins excavated and area partially filled. Trees remained in Triangle Park portion of Site (northeastern portion of Site). View to north; photograph taken by drone on June 23, 2023.

# Melvina Park – Milwaukee, WI

## Attachment C – Documentation

- Photographs – soil management and engineered barriers



Photo 55: Current conditions. View to east; photograph taken by drone on September 8, 2025.

# Melvina Park – Milwaukee, WI

## Table 5 / Attachment D – COs and Maintenance Plans

**5. Continuing Obligations: Includes all affected properties and rights-of-way (ROWs). In certain situations, maintenance plans are also required, and must be included in Attachment D.**  
 Directions: For each of the 3 property types below, check all situations that apply to this closure request.  
 (NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation (database fees will apply, ii. - xiv.)	Maintenance Plan Required	
Property Type:					
Source Property	Affected Property (Off-Source)	ROW			
i.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None of the following situations apply to this case closure request.	NA
ii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual groundwater contamination exceeds ch. NR 140 ESSs.	NA
iii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.	Monitoring Wells Remain:				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Not Abandoned (filled and sealed)	NA
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Continued Monitoring (requested or required)	Yes
v.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Commercial/Industrial exposure assumptions used.	NA
xiii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request)	Site specific

**5. Continuing Obligations: Includes all affected properties and rights-of-way (ROWs). In certain situations, maintenance plans are also required, and must be included in Attachment D.**  
 Directions: For each of the 3 property types below, check all situations that apply to this closure request.  
 (NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation (database fees will apply, ii. - xiv.)	Maintenance Plan Required	
Property Type:					
Source Property	Affected Property (Off-Source)	ROW			
i.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None of the following situations apply to this case closure request.	NA
ii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual groundwater contamination exceeds ch. NR 140 ESSs.	NA
iii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.	Monitoring Wells Remain:				
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Not Abandoned (filled and sealed)	NA
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Continued Monitoring (requested or required)	Yes
v.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Commercial/Industrial exposure assumptions used.	NA
xiii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request)	Site specific

# Melvina Park – Milwaukee, WI

## Attachment D – Cap Location Map – define extents clearly



# Melvina Park – Milwaukee, WI

## Attachment D – Cap Location Map – define extents clearly



Photo 1: Asphalt pavement, landscaped covers, and biobasins in completed Melvina Park. View to northwest; photograph taken by drone flight on September 8, 2025.

# Melvina Park – Milwaukee, WI

## Attachment F – Source Legal Documents

F.1. – Deed - see attachment F.2.2. Certified Survey Map for visual reference.

- Former 3010-3024 W. Hopkins Street and former 2900 W. Hopkins Street parcel
  - Warranty Deed (Document #09827162, Recorded at the Milwaukee County Register of Deeds on 12/21/2009)– reference *Parcel B* and *Parcel D* on page 2 – Acquisition by RACM from Industrial Trade Center, LLC
  - Quit Claim Deed (recorded as Document ##112253139 on 6/3/2022 - Documents a land transfer from the RACM to the City of Milwaukee
- Former 3840 N. 29th Street parcel
  - Warranty Deed (Document # 4504759, Recorded at the Milwaukee County Register Of Deeds on 12/31/1969) - for the former 3840 N. 29<sup>th</sup> Street parcel – on page 1.
- Former 3814 N. 29th Street parcel
  - *In the Matter of the Foreclosure of Tax Liens pursuant to Section 75.521, Wisconsin Statutes, by the City of Milwaukee, a Municipal Corporation, Judgment Case No. 90CV006958, List of Tax Liens For 1990* (Document #645495, Filed in the State of Wisconsin, Circuit Court, Milwaukee County on 2/4/1991) – acquisition by foreclosure – reference on page 3.
- For an additional vacated portion of the N. 29<sup>th</sup> Street ROW
  - *Certified Resolution for Public Way Vacation, File No. 212002* (Recorded at the Milwaukee County Register Of Deeds on 12/5/2022)

F.2.1. - Certified Survey Map – Certified Survey Map No. 9513 (July 28, 2023). This is the current legal description.

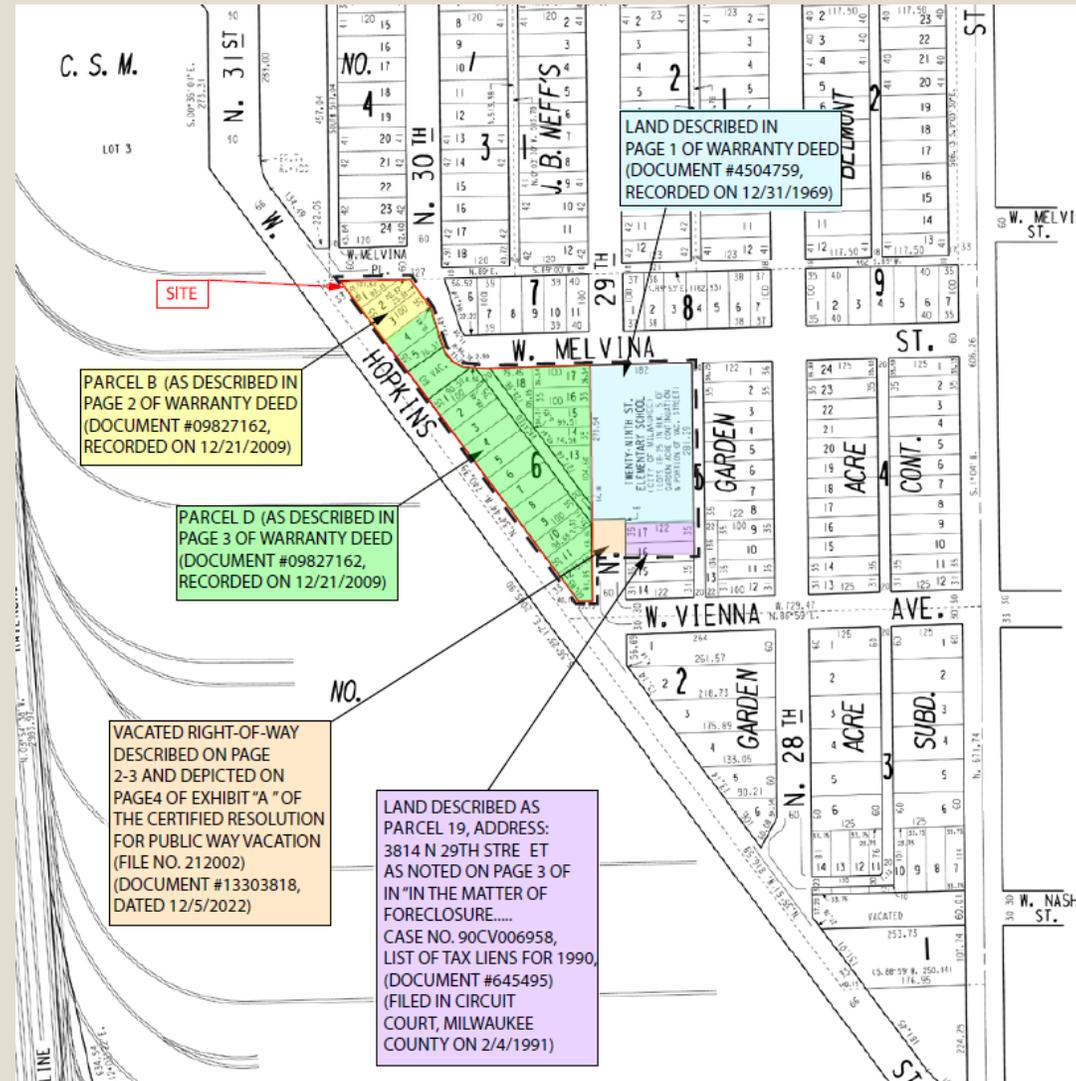
F.2.2. - Certified Survey Map – Quarter Section Map (N.E. ¼, Section 12, T.7N., R21. E) highlighted with the relevant legal descriptions provided in Section F.1.

F.3. - Verification of Zoning – Verification of the source property zoning designation of *PK – Park* was obtained by the City of Milwaukee’s GIS viewer (Map Milwaukee: ZONING). A PDF export of the online map (as accessed by Sigma on April 28, 2025) is provided.

F.4. - Signed Statement – Includes the signed statement by the Responsible Party regarding the accuracy of the legal description for the source property.

# Melvina Park – Milwaukee, WI

## Attachment F – Source Legal Documents



# Case Closure

## **Final Remarks – from the field**

- Think ahead at remedial action stage
- Verify closure criteria are met and request is defensible
- DNR Project Manager communication
- Review data and figures first, define continuing obligations
- Determine need for notifications and/or maintenance plans
- Prepare backup documentation and organize diligently
- Complete the sections, tables, figures or attachments completely, check appropriate boxes, admin review should be simple
- Figures – Content -> Accuracy -> Visual Clarity -> Production Quality
- Identify all Closure components affected by revisions
  - Ex: Narrative change? Table, Figure, CMP affected?
- Adjust your process based on regulatory feedback

# Tips, Tricks and Examples

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Issac Ross, DNR

# What goes into a Closure Request?

## Chapter 726

NR 726.01	Purpose.
NR 726.02	Applicability.
NR 726.03	Definitions.
NR 726.05	General requirements for case closure.
NR 726.07	Department database requirements.
NR 726.09	Closure documentation requirements.
NR 726.11	Department database documentation requirements.
NR 726.13	Authority and approvals for case closure.
NR 726.15	Closure letters and continuing obligations.

## Resources

### CASE CLOSURE REQUEST FORMS

The following case closure request forms should be used for all case closures, pursuant to ch. NR 726, Wis. Adm. Code.

- [Case Closure Request \(Form 4400-202\)](#) [PDF] - **Note:** The submittal of both an electronic and paper copy are required in accordance with s. NR 726.09(1), Wis. Adm. Code. Electronic files can be submitted through the [RR Submittal Portal](#). Once submitted, you will receive a confirmation with directions on where to send your paper copy. When changes to the original closure request are necessary, consultants should work with the DNR project manager assigned to their site to determine whether a final, complete electronic and paper file are necessary, or if only revised or updated pages or figures need to be submitted.
- [Notification of Continuing Obligations and Residual Contamination \(Form 4400-286\)](#) [PDF] - **Note:** This form is fillable. If you get a popup box when opening the form that says you cannot save a completed copy of this form with Adobe 9 or later, please ignore the message and close the popup box.

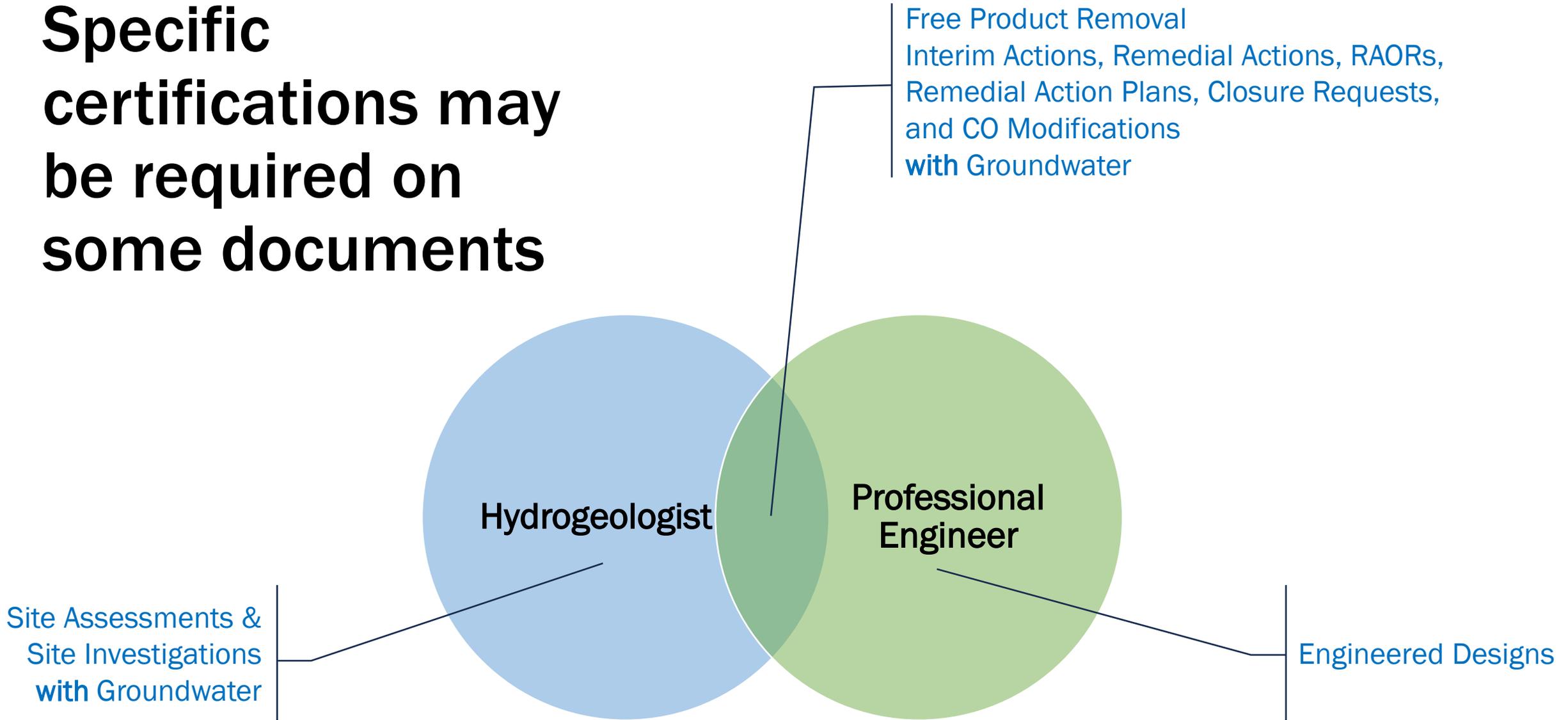
# What goes into a Closure Review?



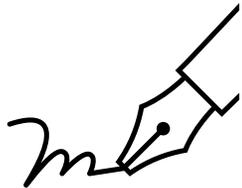
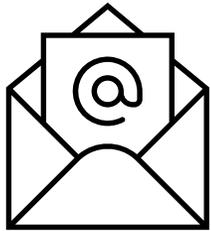
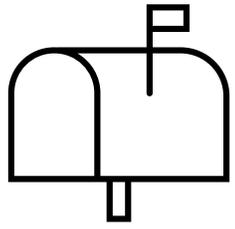
# Certifications & *Signatures*

Who must supervise work and certify the submittal?				
Submittal	Professional Engineer (PE)	Hydrogeologist	Professional Engineer and Hydrogeologist	PE, Hydrogeologist or Scientist
Phase I and Phase II Environ. Site Assessment <sup>1</sup>		With GW <sup>2</sup>		Without GW
Wis. Adm. Code § NR 708.11 (4) Interim Action	Without GW		With GW	
Wis. Adm. Code § NR 708.13 Free Product Removal			With GW	
Wis. Adm. Code ch. NR 716 Site Investigation Submittals		With GW		Without GW
Wis. Adm. Code § NR 718.12(1) Immediate Action	Wis. Adm. Code § NR 712.05(2) sampling and fieldwork requirements apply <sup>3</sup>			
Wis. Adm. Code § NR 718.12 (1) and (2) (Interim or Remedial Action)	Without GW		With GW	
Wis. Adm. Code ch. NR 720 Submittals		With GW		Without GW
Wis. Adm. Code ch. NR 722 Remedial Action Options report	Without GW		With GW	
Wis. Adm. Code ch. NR 724 Submittals	Without GW		With GW	
Wis. Adm. Code ch. NR 726 Closure Request	Without GW		With GW	
Wis. Adm. Code ch. NR 727 Request to Modify Continuing Obligations	Without GW		With GW	

# Specific certifications may be required on some documents



# Common Regulatory Requests – Property Info

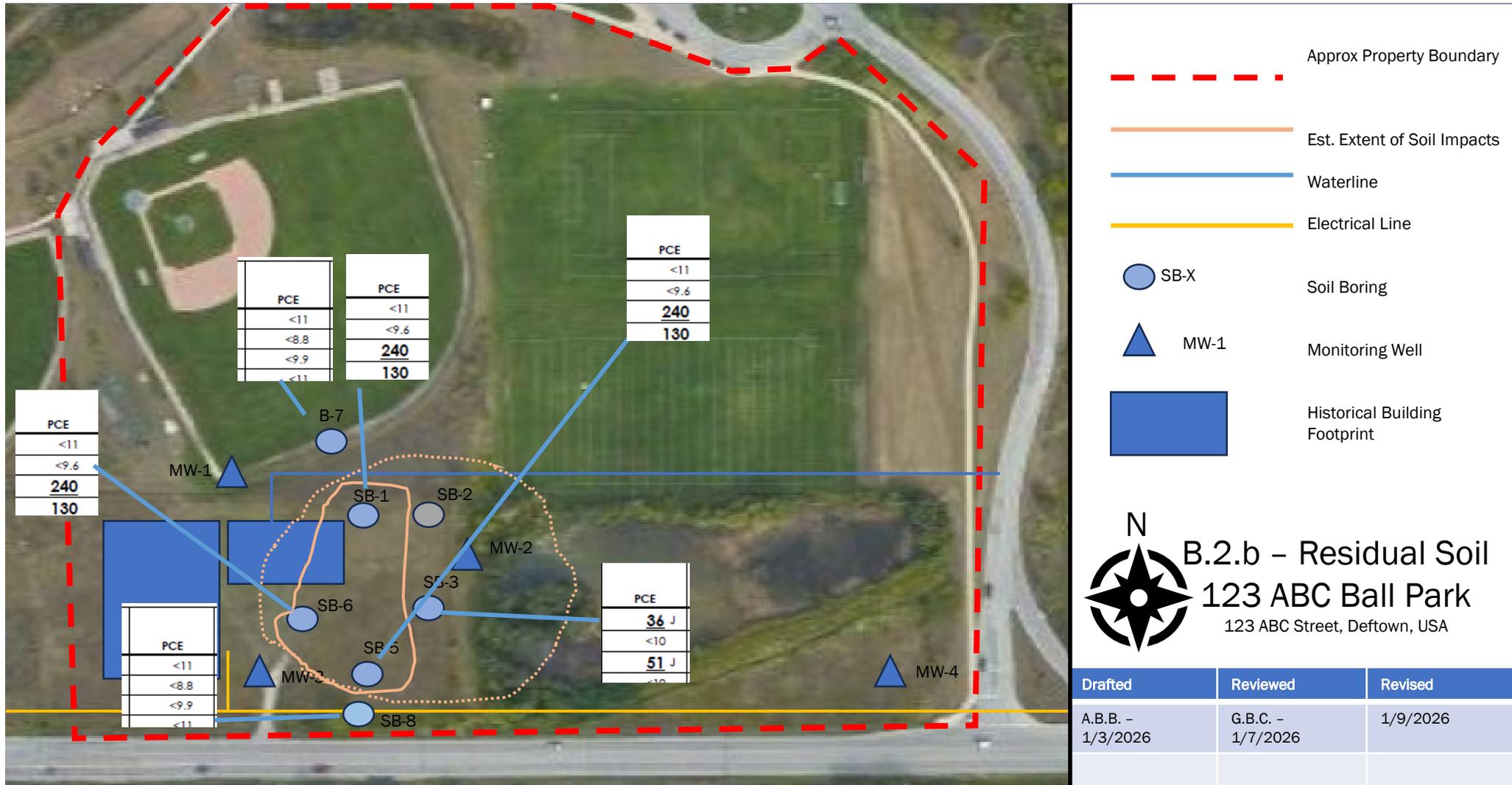


## F.4. Signed Statement





# Submit Clear and Accurate Information



# Questions?





# Moderated Panel Discussion

Bill Nelson,  
Godfrey & Kahn

# Reminder: Continuing Education Requirements



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Professional Geologists (P.G.s):  
**24 contact hours per biennium**

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Professional Hydrologists (P.H.s):  
**4 contact hours per biennium**

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Current licensed professionals must complete the contact hours before the **August 2028** biennium renewal.

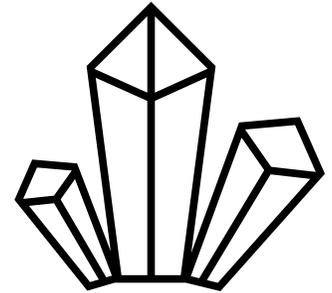
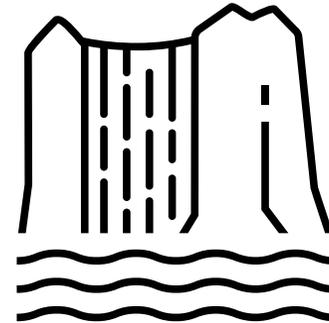
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New applicants/licenses must meet the requirements when the first full biennium renewal is due.

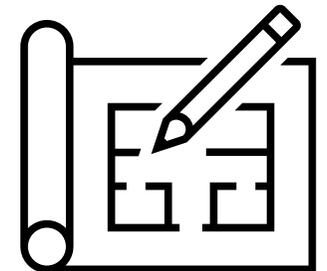
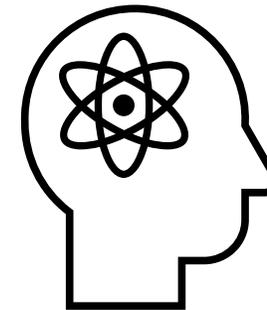
# Qualified Environmental Consultants



Consultants must be qualified and certify documents  
(Wis. Admin. Code ch. NR 712)



Wisconsin PG or PH licensure is part of the requirement to meet definition of **hydrogeologist**  
(Wis. Admin. Code § NR 712.03(1))



# Final Back to Basics Session

## Notifying Affected Parties and the Public

- April 21, 2026
- Madison & Milwaukee

## Resources Available

### RR PROGRAM PRESENTATIONS & TRAINING LIBRARY

The Remediation and Redevelopment Program is committed to providing timely, quality trainings and presentations to our customers and colleagues. Recordings of previous presentations, webinars and teleconferences are available below.

**Chrome and Edge are the recommended browsers for watching DNR webinar videos.**

A list of upcoming presentations and trainings is available on the [RR Program presentations & trainings](#) webpage. If there is a topic you would like addressed in a future webinar, please contact [Jodie Thistle](#).

Issues and Trends +

Back to Basics +

Consultants' Day +

Local Government Days +

Brownfields Fundamentals +

<https://dnr.wisconsin.gov/topic/Brownfields/TrainingLibrary.html>

# CONNECT WITH US

## Jodie Thistle, PG

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"WILD WISCONSIN:  
OFF THE RECORD"