

From: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Sent: Monday, April 11, 2022 2:01 PM
To: Gielniewski, Margaret <gielniewski.margaret@epa.gov>
(gielniewski.margaret@epa.gov)
Cc: Krueger, Sarah E - DNR; Marcus Byker (Marcus.Byker@ramboll.com); Abigail Small (ASMALL@ramboll.com); 'adrienne.korpela@jacobs.com'; jennifer.seaman@jacobs.com
Subject: Marinette - USEPA Meeting Minutes_4/7/22
Attachments: Conceptual Alternative Figures.pdf; Conceptual Revised Alternatives Array Table.pdf; Marinette - USEPA March 2022 Update Slidedeck.pdf; WPSC-USEPA March 2022 Meeting Minutes - 04072022.pdf

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Hi Margaret,

Attached for your records is the slide deck, figures, tables and minutes from our teleconference of 4/7/22. Please let us know within 5 business days if you may have any questions or comments on the minutes.

Thanks,

Frank Dombrowski
Principal Environmental Consultant

WEC Energy Group - Business Services
Environmental Dept. - Land Quality Group
333 W. Everett St., A231
Milwaukee, WI 53203
Office: (414) 221-2156
Cell: (414) 587-4467
Fax: (414) 221-2022

Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities, Minnesota Energy Resources, Peoples Gas and North Shore Gas

From: Marcus D Byker <Marcus.Byker@ramboll.com>
Sent: Monday, April 11, 2022 1:49 PM
To: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Subject: RE: Marinette - USEPA Meeting Minutes

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Frank,

See attached for the finalized pdfs.

Marcus D. Byker, PE
Managing Engineer

M 616-340-8982
marcus.byker@ramboll.com

From: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Sent: Monday, April 11, 2022 2:30 PM
To: Marcus D Byker <Marcus.Byker@ramboll.com>
Subject: RE: Marinette - USEPA Meeting Minutes

No I think it was factual and objective. And yes, we covered a lot of ground and it's probably a good idea to document all of that so we don't forget the gist of the conversation and who committed to do what. In general I'd rather have more detail than less, it's easier to remove stuff than add.

Thanks,

Frank Dombrowski
Principal Environmental Consultant

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Environmental Dept. - Land Quality Group
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Milwaukee, WI 53203
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From: Marcus D Byker <Marcus.Byker@ramboll.com>
Sent: Monday, April 11, 2022 1:28 PM
To: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Subject: RE: Marinette - USEPA Meeting Minutes

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Will do. – Just to confirm, you did not have any concerns with the level of detail in the meeting minutes? It's a bit more detailed than typical, but seemed leaned in this direction to better document our discussion.

Marcus D. Byker, PE
Managing Engineer

M 616-340-8982
marcus.byker@ramboll.com

From: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Sent: Monday, April 11, 2022 2:16 PM
To: Marcus D Byker <Marcus.Byker@ramboll.com>
Subject: RE: Marinette - USEPA Meeting Minutes

Thanks Marcus, please make them all pdfs and I'll send over to the EPA et al.

Thanks,

Frank Dombrowski
Principal Environmental Consultant

WEC Energy Group - Business Services
Environmental Dept. - Land Quality Group
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Minnesota Energy Resources, Peoples Gas and North Shore Gas*

From: Marcus D Byker <Marcus.Byker@ramboll.com>
Sent: Monday, April 11, 2022 12:58 PM
To: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Subject: Marinette - USEPA Meeting Minutes

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Frank,

Attached are the following items from our meeting with USEPA.

- Slide Deck
- Draft Meeting Minutes
- Conceptual Alternative Figures

Can you please review and provide any comments so we can push these off to USEPA.

Thanks!

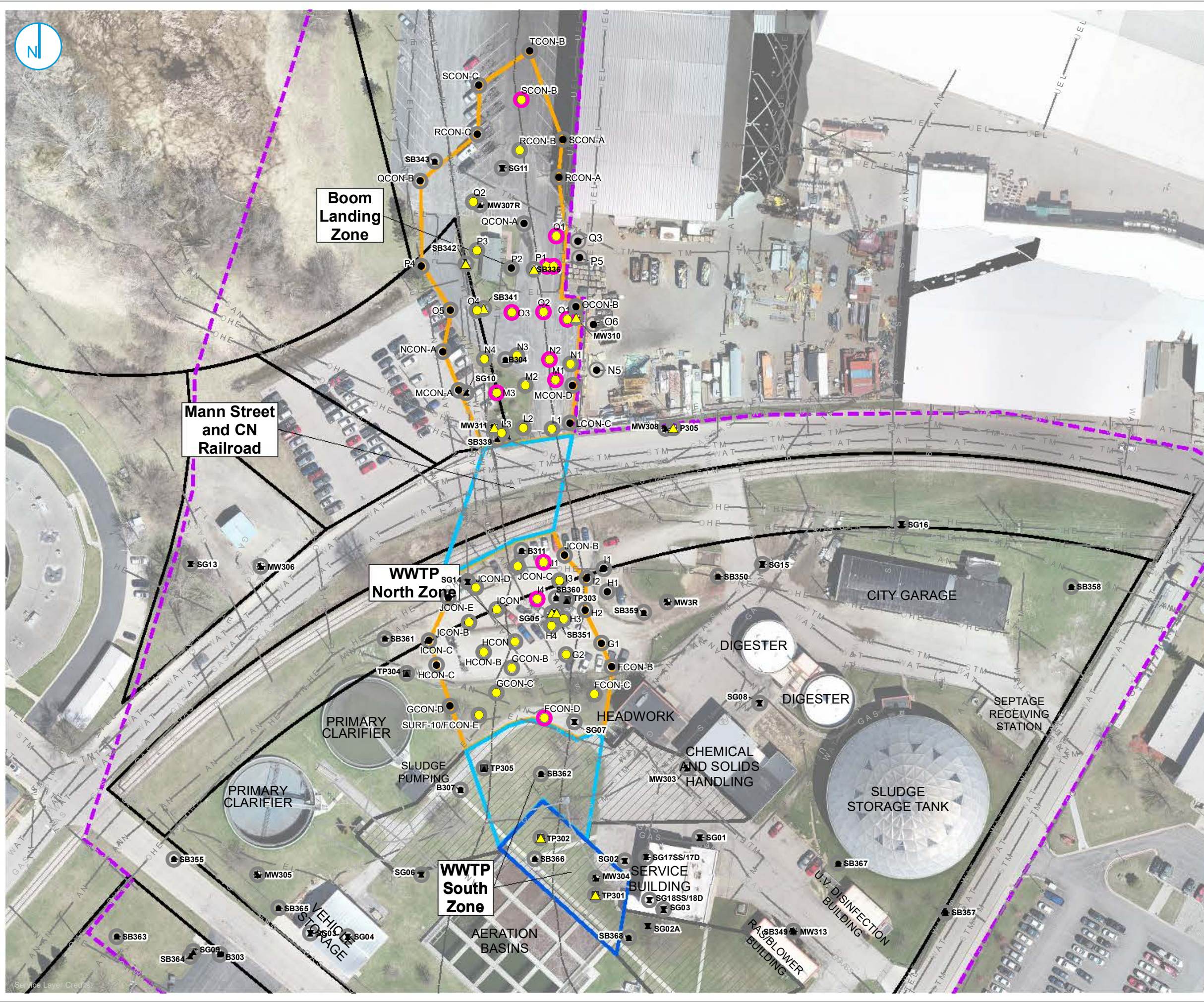
Marcus D. Byker, PE

Managing Engineer

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Connect with us  

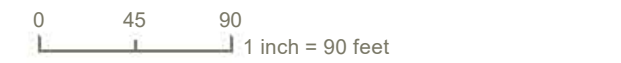
Ramboll
333 West Wacker Drive
Suite 2700
Chicago, IL 60606
USA
<https://ramboll.com>



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- ACCESSIBLE SOURCE MATERIAL
- AREA INACCESSIBLE TO INVESTIGATION - MAY CONTAIN SOURCE MATERIAL BASED ON POST PDI CONCEPTUAL SITE MODEL
- INACCESSIBLE SOURCE MATERIAL
- PROCESS PIPING CORRIDOR
- APPROXIMATE EXTENT OF UPLAND SITE
- PARCEL BOUNDARY

Notes:
 CR - CANCER RISK
 HI - HAZARD INDEX
 PDI - PRELIMINARY DESIGN INVESTIGATION
 WWTP - WASTEWATER TREATMENT PLAN UTILITIES FROM TERRATEC ENGINEERING LLC, WPS MARINETTE FORMER MGP SITE PLAT OF SURVEY DATED 09/17/2020

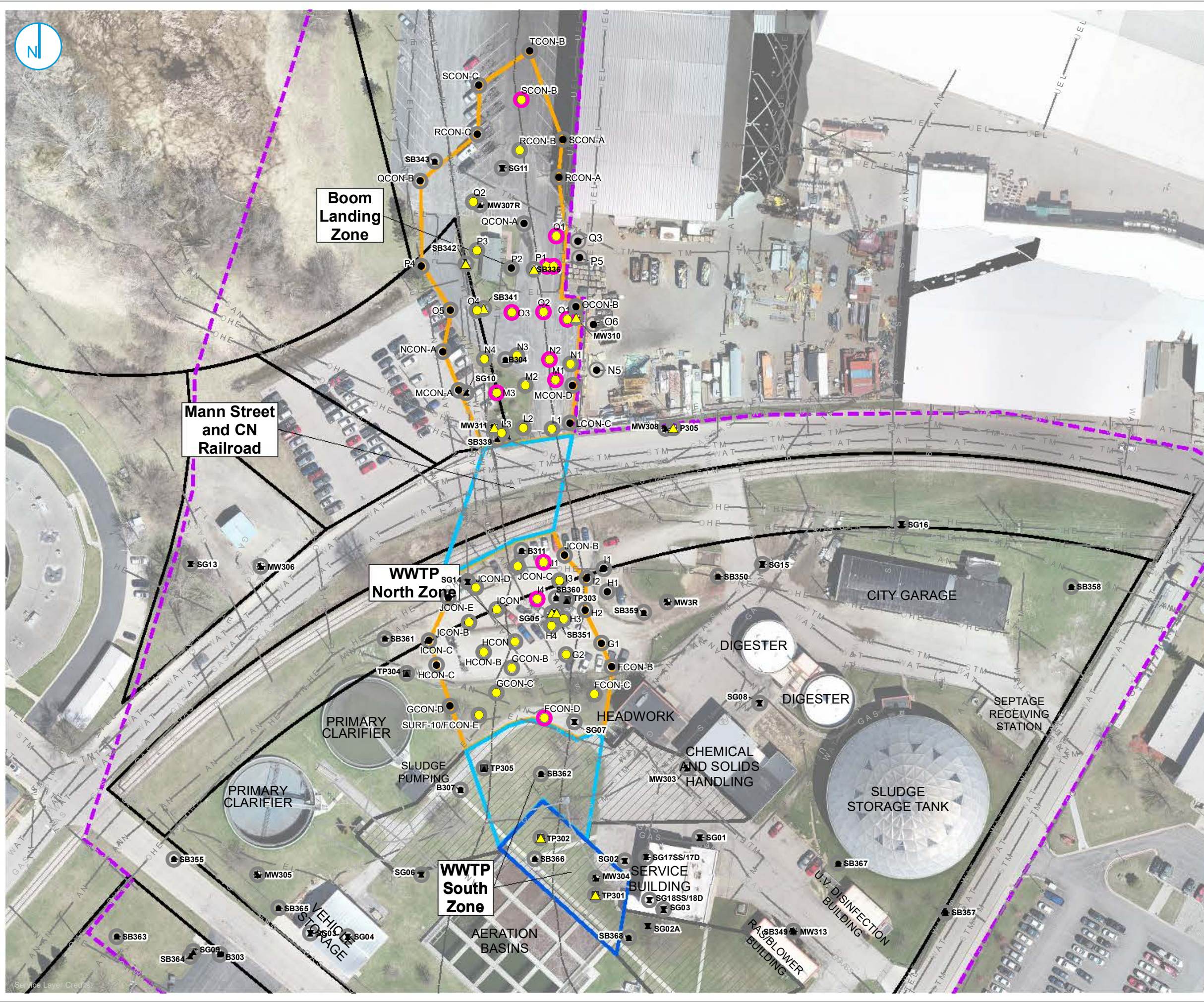


WWTP NORTH - ALT 2

PDI EVALUATION REPORT
 WPS MARINETTE FORMER MGP SITE
 MARINETTE, WISCONSIN

FIGURE A





- PDI LOCATION - NO OIL - WETTED/OC
- PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL
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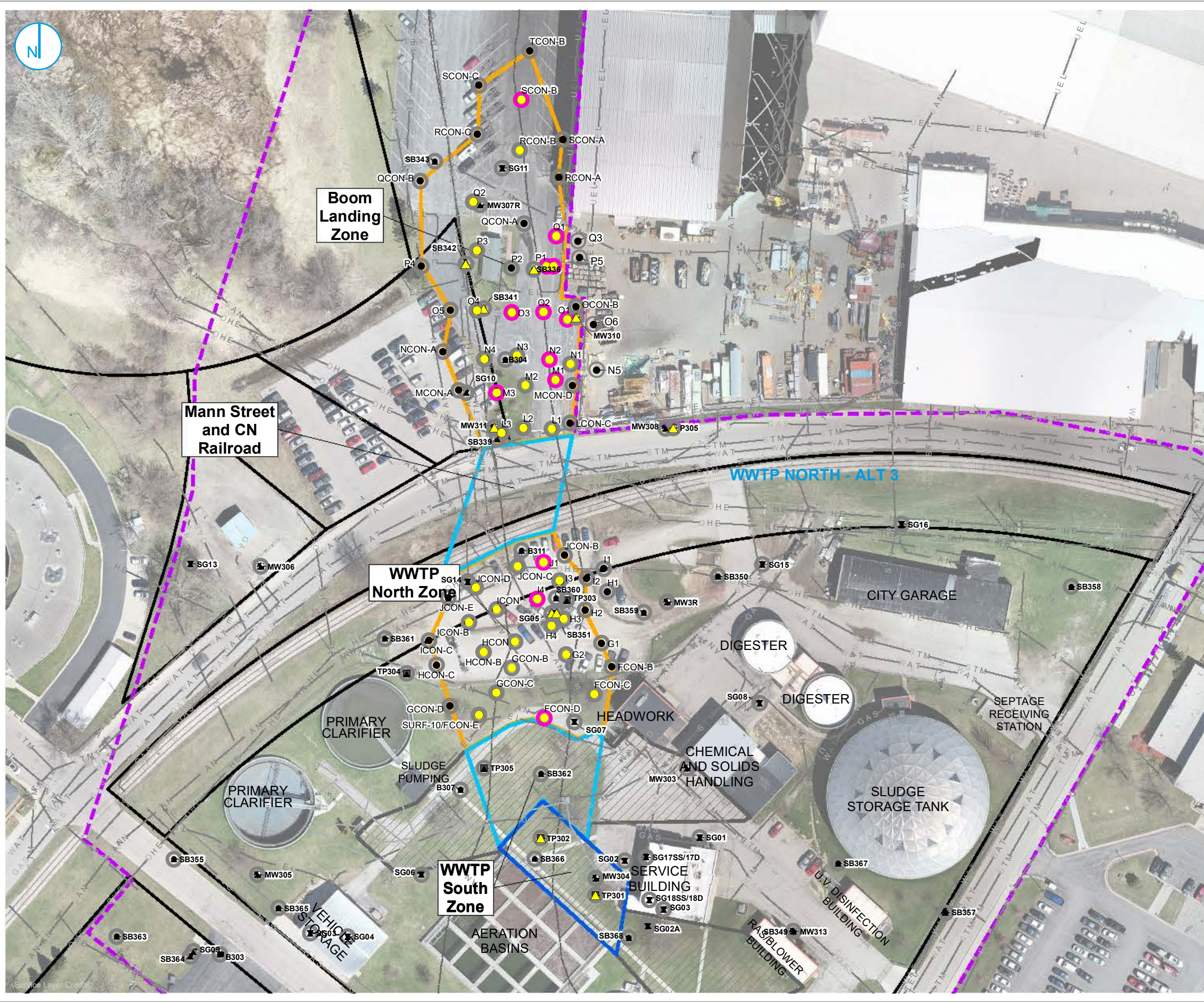


WWTP NORTH - ALT 3

PDI EVALUATION REPORT
 WSPC MARINETTE FORMER MGP SITE
 MARINETTE, WISCONSIN

FIGURE B





● PDI LOCATION - NO OIL - WETTED/OC
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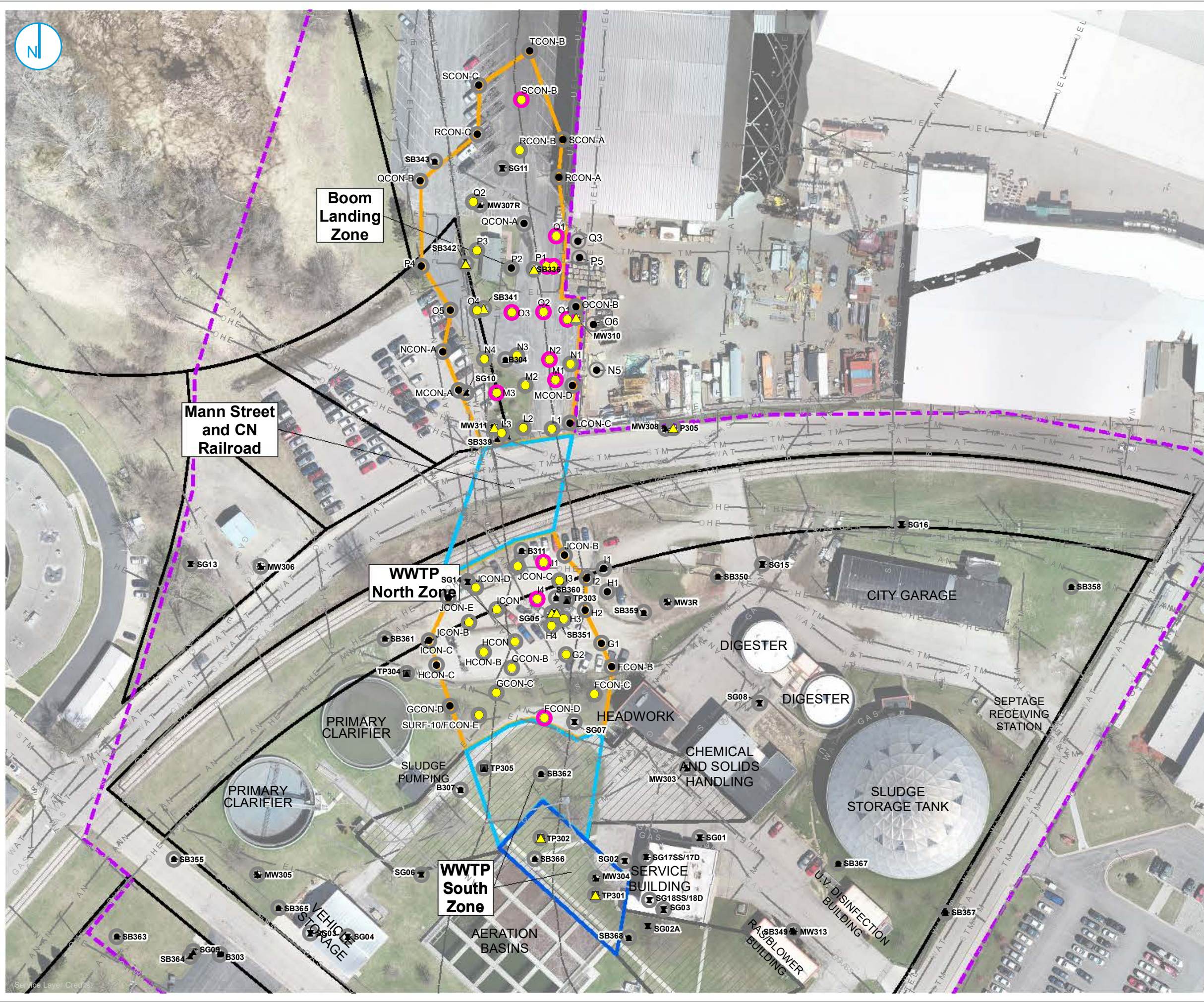
0 45 90 1 inch = 90 feet

WWTP NORTH - ALT 4

PDI EVALUATION REPORT
 WSPC MARINETTE FORMER MGP SITE
 MARINETTE, WISCONSIN

FIGURE C

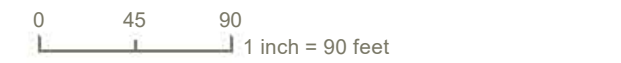




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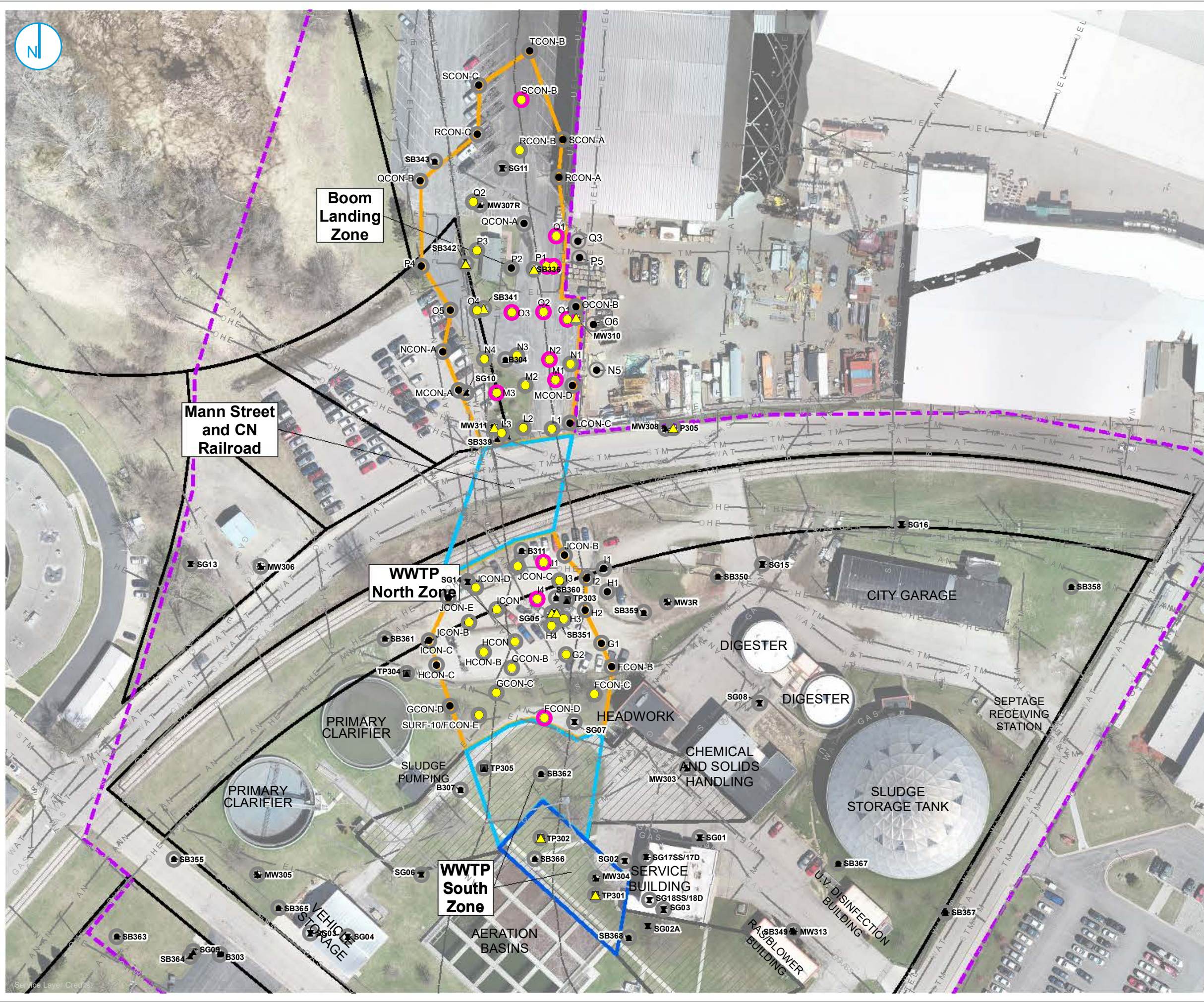


BOOM LANDING - ALT 2

PDI EVALUATION REPORT
 WSPC MARINETTE FORMER MGP SITE
 MARINETTE, WISCONSIN

FIGURE D





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BOOM LANDING - ALT 3

PDI EVALUATION REPORT
 WSPC MARINETTE FORMER MGP SITE
 MARINETTE, WISCONSIN

FIGURE E



**TABLE 4 - SUMMARY OF ASSEMBLED ALTERNATIVES
 FOCUSED ALTERNATIVES ARRAY TECHNICAL MEMORANDUM
 WISCONSIN PUBLIC SERVICE CORPORATION
 FORMER MARINETTE MANUFACTURED GAS PLANT
 BRRTS# 02-38-000047 USEPA# WIN00050995**

General Response Action	Remedial Technology	Retained Process Option	Alternative 1	Alternative 2
SOIL - Inaccessible Source Material (WWTP South Zone, CN Railroad and Mann Street Zone)				
No Action	None	No Additional Action	X	
Institutional Controls	Physical, Land Use, and/or Legislative Restrictions	Environmental Covenant and Deed Restrictions		X
Containment	Horizontal Engineered Surface Barrier	Soil, asphalt, concrete or geosynthetic covers		X

General Response Action	Remedial Technology	Retained Process Option	Alternative 1	Alternative 2	Alternative 3	Alternative 4
SOIL - Accessible Source Material - WWTP North Zone						
No Action	None	No Additional Action	X			
Institutional Controls	Physical, Land Use, and/or Legislative Restrictions	Environmental Covenant and Deed Restrictions		X	X	
In Situ Approaches	Chemical Oxidation	Geochemical Stabilization		X		
Ex Situ Approaches	Excavation	Offsite Disposal				X
In Situ Approaches	Physical/Chemical Treatment	In Situ Stabilization/Solidification			X	
Groundwater - Accessible Source Material - WWTP North Zone						
No Action	None	No Additional Action	X			
Institutional Controls	Physical, Land Use, and/or Legislative Restrictions	Environmental Covenant and Deed Restrictions		X	X	X
Physical	NAPL Recovery	Passive NAPL Recovery		X	X	X
In Situ Approaches	Barrier	Permeable Reactive Barrier (Contingent)		X	X	
In Situ Approaches	Chemical Oxidation	Amendment Addition in Excavation Backfill				X

General Response Action	Remedial Technology	Retained Process Option	Alternative 1	Alternative 2	Alternative 3
SOIL - Accessible Source Material - Boom Landing Zone					
No Action	None	No Additional Action	X		
Institutional Controls	Physical, Land Use, and/or Legislative Restrictions	Environmental Covenant and Deed Restrictions		X	
In Situ Approaches	Chemical Oxidation	Geochemical Stabilization			
Ex Situ Approaches	Excavation	Offsite Disposal			X
In Situ Approaches	Physical/Chemical Treatment	In Situ Stabilization/Solidification		X	
Groundwater - Accessible Source Material - Boom Landing Zone					

No Action	None	No Additional Action	X		
Institutional Controls	Physical, Land Use, and/or Legislative Restrictions	Environmental Covenant and Deed Restrictions		X	X
Physical	NAPL Recovery	Passive NAPL Recovery		X	X
In Situ Approaches	Barrier	Permeable Reactive Barrier (Contingent)		X	
In Situ Approaches	Chemical Oxidation	Amendment Addition in Excavation Backfill			X

Notes:

WWTP - wastewater treatment plant

WPSC MARINETTE MGP STATUS UPDATE – APRIL 2022



RAMBOLL

Bright Ideas. Sustainable change.

ROLL CALL

USEPA – Margaret Gielniewski

Jacobs – Adrienne Korpela, Jennifer Seaman

WDNR – Sarah Krueger

WPSC – Frank Dombrowski

Ramboll – Marcus Byker and Abby Small



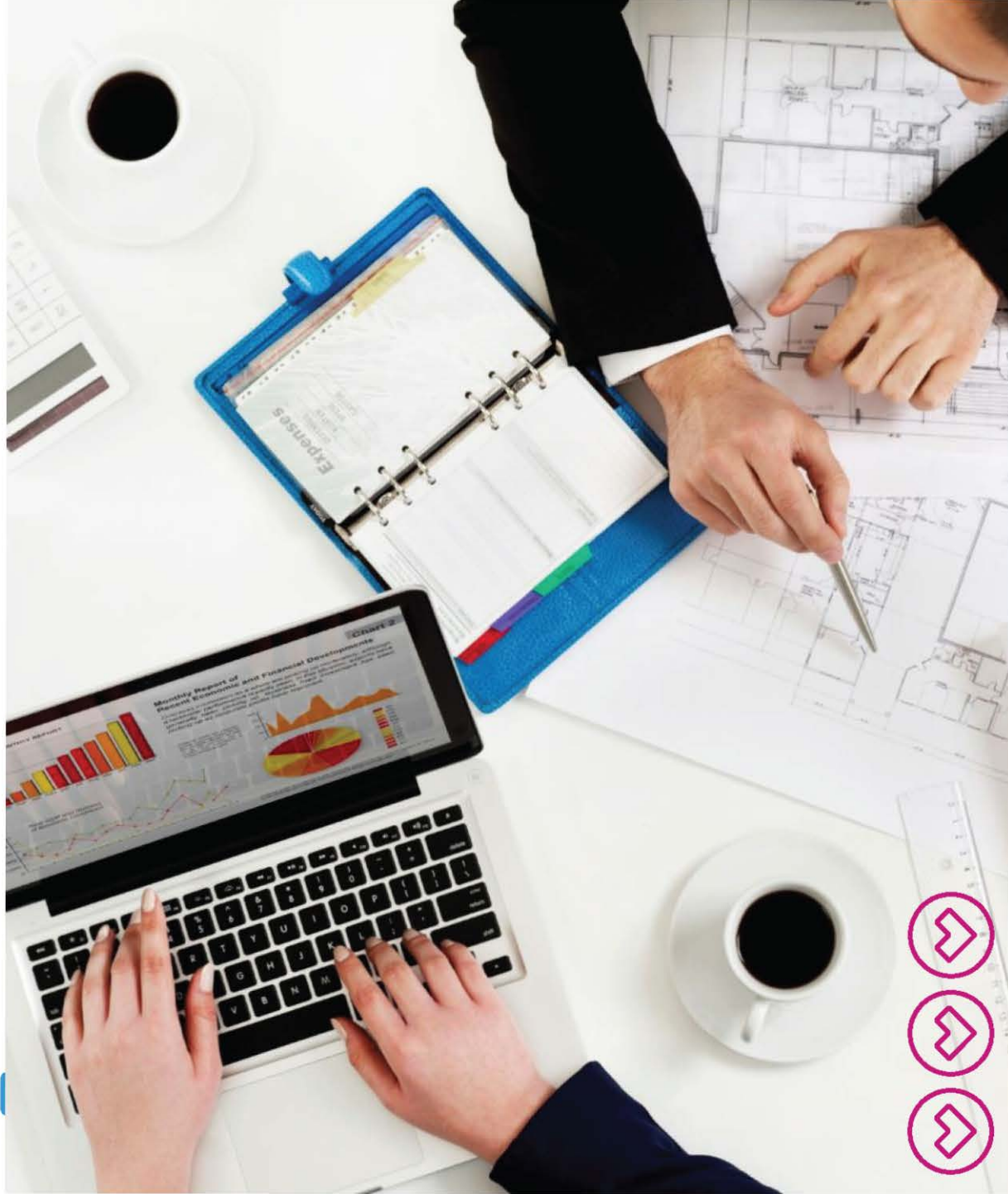
EXPECT THE UNEXPECTED

Overview

- Track is out of service
- Regardless, Ramboll was required to abide by flagging guidelines for work near rail
- Railcars were disconnected from train to complete service. This created a “run-away train” situation.
- Train derailed at Ramboll construction site, with no staff onsite due to holiday break.

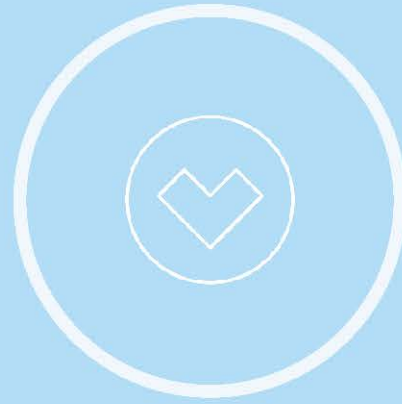
Lessons Learned

- Abide by all guidance, regardless of thoughts on relevance.
- Evaluate worst case safety scenario with each scope of work and plan accordingly.
- Be on high alert, particularly for monotonous tasks.
- Schedule regular Fresh Eyes Audit.



AGENDA

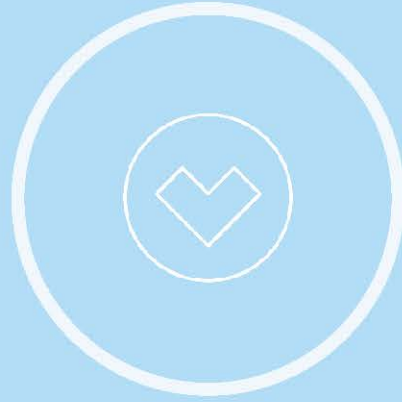
- **Review Site Status**
- **Discuss Notable Themes in Alt Array Comments**
 - Groundwater treatment process options to address downgradient plume
 - Revisions to RAOs that were formalized in the ROD
 - ISGS – Efficacy to address PTW and path forward
 - Evaluating Boom Land and WWTP Source Areas Independently
- **Discuss Next Steps**
- **Discuss Schedule**



STATUS

STATUS

- PDI Field Work is Completed
- Based on updated information gained during the PDI about the density of utility network and extent of source areas, and other site constraints, source area near WWTP Aeration Basin was determined to be impractical and alternate remedial technologies warranted consideration in remaining source areas.
- ISS Treatability Study is underway. LEAF testing underway on the 8% addition sample of 40% PC and 60% GGBFS.
- Alternatives Array Submitted in May 2021, USEPA comments received in October 2021. Initial conversation of Comments in November Monthly Call.



DISCUSS NOTABLE THEMES IN ALTERNATIVES ARRAY COMMENTS

GROUNDWATER TREATMENT PROCESS OPTIONS TO ADDRESS DOWNGRAIDENT PLUME

- *Original FS included amendment in source area excavation backfill to facilitate MNA*
- *This remains viable for excavation alternatives in focused FS*
- *This is not practical for ISS or ISGS alternatives in focused FS given that source area extent is greater than groundwater plume*

Potential Resolution

- *Incorporate passive NAPL recovery and contingent PRB upgradient of ISS or ISGS areas to protect against recontamination from inaccessible source areas.*

REVISIONS TO RAOS THAT WERE FORMALIZED IN THE ROD

Potential Resolution

- *Adjust RAO-1 to reference NAPL, rather than only DNAPL (consistent with ROD)*
- *Keep remaining RAOS consistent with ROD*

ISGS – EFFICACY TO ADDRESS PTW AND PATH FORWARD ROD

Originally conceived as an option on MMC, however no treatment required based on investigation

May have merit in WWTP North Source, where there are many constraints to ISS or Excavation

Discussion Topics

- *Is ISGS technically capable of treating impacts, such that PTW would permanently become a low-level threat waste.*
- *What is path forward for including ISGS in an alternatives array (when does the treatability study testing need to be performed?)*

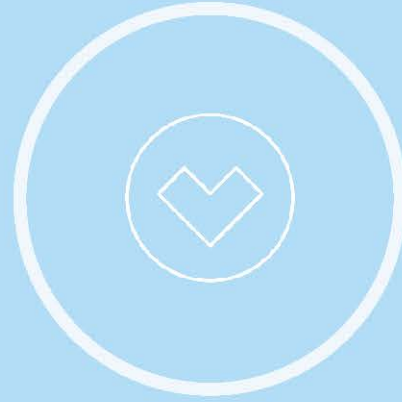
EVALUATING BOOM LANDING AND WWTP SOURCE AREAS INDEPENDENTLY

Originally conceived as an option on MMC, however no treatment required based on investigation

May have merit in WWTP North Source, where there are many constraints

Discussion Topics

- *Review New Array Concept*



DISCUSS NEXT STEPS AND SCHEDULE

NEXT STEPS AND SCHEDULE

- *Finalize Framework to resolving comments on Alternatives Array*
- *Develop and Submit Focused FS*
- *Receive Agency Comments on Focused FS*
- *Finalize Focused FS*
- *Proposed Plan/Record of Decision*

MEETING MINUTES

Date: 4/7/2022
Time: 10:00 AM CST
Location: Microsoft Teams Meeting
Facilitator: Marcus Byker
Subject: Former Marinette MGP Alternatives Array Comments and Catchup
Attendees: Margaret Gielniewski, USEPA
Sarah Krueger, WDNR
Frank Dombrowski, WPSC
Adrienne Korpela, Jacobs
Jennifer Seaman, Jacobs
Abby Small, Ramboll

NOTES

Safety share- South Plant Rail Incident Site Status Update

1. Pre-design Investigation (PDI) fieldwork complete in October 2021
2. In-situ Stabilization/Solidification (ISS) Treatability is underway
 - a. Mix design has been optimized with 8% addition of 40% Portland cement and 60% Ground-granulated blast-furnace slag (lowest mix design percentage indicating material is generally amenable to ISS).
 - b. Leach study is underway
3. Ramboll's proposed path forward is to agree on what the revised alternatives table will look like with agency and not resubmit the Alternatives Array. Would provide a formal response to comments (RTC) and fold the responses to comments into the Focused Feasibility Study Revision 0.

Agency Comments on Groundwater Remedy

1. Original Record of Decision included placement of amendment in backfill with excavation. Based on current groundwater monitoring data, groundwater RG exceedances do not extend beyond source area, so it is not prudent to apply downgradient treatment. However, there are concerns about potential recontamination of newly-remediated areas by inaccessible upgradient of source areas.
2. WPSC Proposes to incorporate passive Nonaqueous phase liquid (NAPL) recovery and contingent Permeable Reactive Barrier (PRB) (following monitoring) which would be more likely to address actual risk at the site.
 - a. For ISS, this concept would include some type of groundwater relief vent through the ISS monolith so that contaminated groundwater would flow through the monolith and not around monolith into unimpacted areas. Would also prevent mounding on third-party property. Following monitoring, could include contingent groundwater treatment such as PRB.
 - b. For excavation, this concept would include a upgradient passive NAPL recovery (such as a French drain) along with contingent PRB

3. Marcus raised the administrative considerations of contingent groundwater action. Margaret responded that there have been post-ROD actions, however in this situation if delayed implementation of groundwater action following monitoring may be agreeable.

Agency Comments on Editorial Changes to Remedial Action Objectives (RAOs)

1. Acknowledged that there was an error in the NAPL RAO-1 which will be updated to match the ROD.
2. Frank and Marcus indicated that hope was to change the existing ROD as little as possible and just address the changed conditions based on the PDI. As such, not anticipating fundamentally rethinking RAOs.
3. Margaret and Jenifer indicated that comments on RAOs may have come out of alternatives array discussion with USEPA headquarters. Margaret will re-look at comments and get back to WPCSC.

In-situ Geochemical Stabilization (ISGS) Discussion

1. ISGS was initially considered because of MMC property. No source material identified on MMC property but continue to think there is a potential advantage to using approach in WWTP North Area due to dense utility network/railroad.
2. Marcus raised the question – is ISGS capable of treating coal tar impacts such that the agencies would no longer consider them Principal Threat Waste (PTW)? If the agencies are not going to agree that technology is sufficient, WPCSC does not want to pursue.
3. Vendor (Peroxychem Evonik) has developed a generic Treatability Study (TS) workplan with USEPA's Jim Cummings. Vendor has agreed that if we provided them material, they would perform a TS (following the TS workplan developed in accordance with USEPA) for no cost. Vendor is looking for material to perform proof of concept given growing interest in using ISGS to address coal tar impacts.
 - a. Margaret indicated that she needs further internal discussions to make a decision. However, she is in general agreement that given what is being offered, it seems promising.
4. Jennifer asks – aside from PTW classification, isn't one of the goals to treat groundwater? Marcus and Frank responded that it is a bit of a gray area and would generally improve subsurface conditions but perhaps not significantly better than existing conditions. Would not likely be as effective as ISS or excavation but could likely get closer to source material given logistical constraints and treat additional material.
5. Marcus asks – can we move forward with ISGS based on what we know now, or do we need to have TS complete to include in alternatives array which would likely delay the process 3-4 months? Proposes to move forward with TS and FS at the same time and incorporate results of TS into FS Rev 0.
 - a. Margaret and Jennifer generally like this approach given that ISGS is an unproven technology but need to further discuss internally before agreeing on a path forward.

Decoupling alternatives from different geographic areas

1. Marcus proposes to decouple geographic areas (north WWTP and Boom Landing) and add in actions to address upgradient groundwater. Marcus shares draft proposed alternatives.
2. Jennifer indicates she generally likes the updates but needs additional internal discussions and would like to see a figure mockup.
3. Discussion of administrative submittal process. Marcus proposes getting agreement on alternatives and further conversations on RAOs and ISGS. Then, Ramboll will submit a Focused Feasibility Study Rev 0 along with the RTC on the Alternative Array.

4. USEPA, WDNR generally agree to the decoupling approach and addressing upgradient groundwater impacts but would like to review the alternatives array table.

ACTION PLAN			
No.	Action Item	Owner	Deadline
1	Share Alternatives Array Table, Concept Figure, and Power Point with Meeting Attendees	Marcus	4.11.2022
2	Review Revised Alternatives Array and Provide Feedback as acceptable alternatives for the Focused Feasibility Study	USEPA	
3	Host internal discussions regarding Efficacy of ISGS to treat MGP source material, thoughts on ISGS TS Timing, and How to resolve comments with editorial revisions to ROD RAOs	USEPA	