From: Gielniewski, Margaret < gielniewski.margaret@epa.gov>

Sent: Tuesday, May 10, 2022 3:10 PM

To: Dombrowski, Frank J

Cc: Krueger, Sarah E - DNR; Korpela, Adrienne/MKE; Gielniewski, Margaret;

Marcus Byker (Marcus.Byker@ramboll.com)

Subject: FW: Marinette - USEPA Meeting Minutes_4/7/22

Attachments: Conceptual Revised Alternatives Array Table_JSS.pdf; Conceptual Alternative

Figures JSS.pdf

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Hello Frank,

EPA, DNR and Jacobs reviewed WEC Energy's updated alternatives and have attached our comments informally as PDF markups. Included are specific suggestions for modifications to the updated alternatives that we would like to discuss (you're on the right track and we would like to discuss technical details).

We also wanted to provide input regarding the Treatability Testing and Principal Threat Waste (PTW) discussion. Based on discussions with Jacobs' Subject Matter Expert, it would be best if WEC Energy could first have the vendor perform a "proof-of-concept" bench-scale test using NAPL collected from the site. The purpose of this chemical reactivity testing would be to ensure that the reagent would adequately react with the NAPL and to determine what the end reaction material would be. It would be a quick "beaker test" where they would mix some NAPL samples with a few different dosages of reagent. It would be important to see if the reaction end products are stable or not (if reaction even occurs). Assuming that the test results are positive and demonstrate proof-of-concept, then they could proceed will a full-scale treatability study in parallel with the Feasibility Study, which they would use to refine the results, optimize conceptual design, and determine dosages, etc. The results of this testing could be included with Revision 1 of the FS.

Regarding the subject of whether or not the NAPL would remain a principal threat waste (PTW) after treating it with ISGS, the answer is "it depends." The answer to this question would largely depend on what the end products of the reaction are. The proof-of-concept testing could help answer this question as well. If the NAPL, when it reacts with the ISGS reagent(s), forms a very stable and immobile material, then you could say it is adequately treated and is no longer a PTW. However, if it is unstable, then this may not be the case — it may still be considered a PTW if it is still mobile or has the potential to easily revert back into a mobile state.

Let me know if you have any questions or would like discuss further. I look forward to the planned discussion coming up, and we are willing to meet more than once to discuss further.

Kind regards,

Margaret

From: Dombrowski, Frank J < frank.dombrowski@wecenergygroup.com>

Sent: Monday, April 11, 2022 2:01 PM

To: Gielniewski, Margaret < gielniewski.margaret@epa.gov >

Cc: 'sarah.krueger@wisconsin.gov' <<u>sarah.krueger@wisconsin.gov</u>>; Marcus Byker

(<u>Marcus.Byker@ramboll.com</u>) < <u>Marcus.Byker@ramboll.com</u>>; Abigail Small (<u>ASMALL@ramboll.com</u>)

<<u>ASMALL@ramboll.com</u>>; Korpela, Adrienne/MKE <<u>Adrienne.Korpela@jacobs.com</u>>; Seaman,

Jennifer/CHC < Jennifer/CHC < Jennifer.Seaman@jacobs.com>

Subject: [EXTERNAL] Marinette - USEPA Meeting Minutes_4/7/22

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 < <u>Marcus.Byker@ramboll.com</u>> **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

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 1:28 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 < <u>Marcus.Byker@ramboll.com</u>> **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 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 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

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

Connect with us in

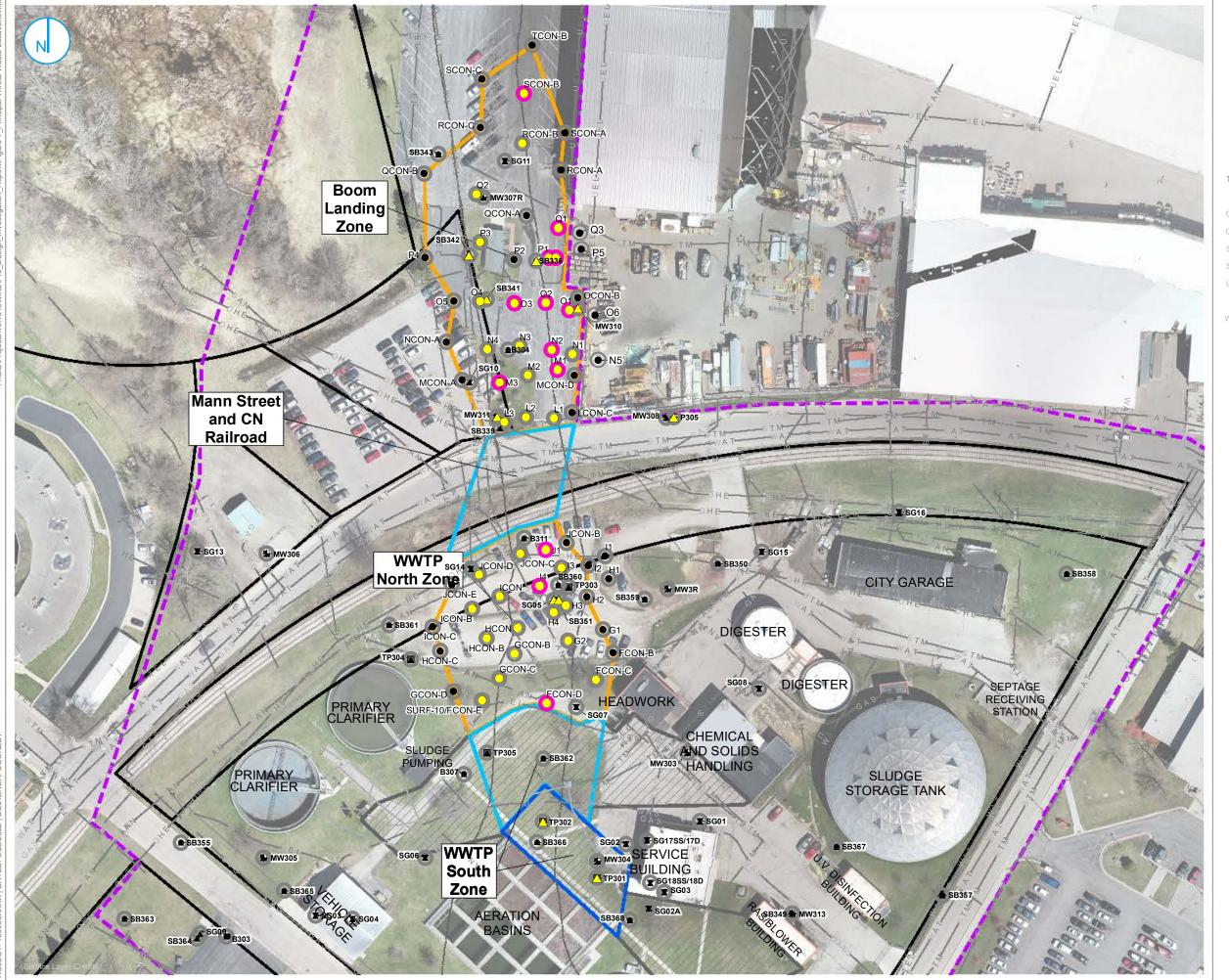




333 West Wacker Drive Suite 2700 Chicago, IL 60606

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PDI LOCATION - NO OIL - WETTED/OC PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL PDI LOCATION - NO OIL-WETTED/OIL COATED MATERIAL HISTORICAL LOCATION WITH OIL-WETTED/OIL-COATED MATERIAL HISTORICAL LOCATION WITH NO OBSERVATION OF OIL-WETTED/OIL-COATED MATERIAL HI>10 OR CR>1E-3 HI<10 AND CR<1E-3 TEL-COMMUNICATIONS FO FIBER OPTIC GAS GAS OHE-OVERHEAD ELECTRIC SAN-SANITARY SEWER S T M-STORM SEWER UE L-UNDERGROUND ELECTRIC ---- UNDERGROUND PIPELINE WATER ---- FORMER SLOUGH/ LOG RUN 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, WPSC MARINETTE FORMER MGP SITE PLAT OF SURVERY DATED 09/17/2020

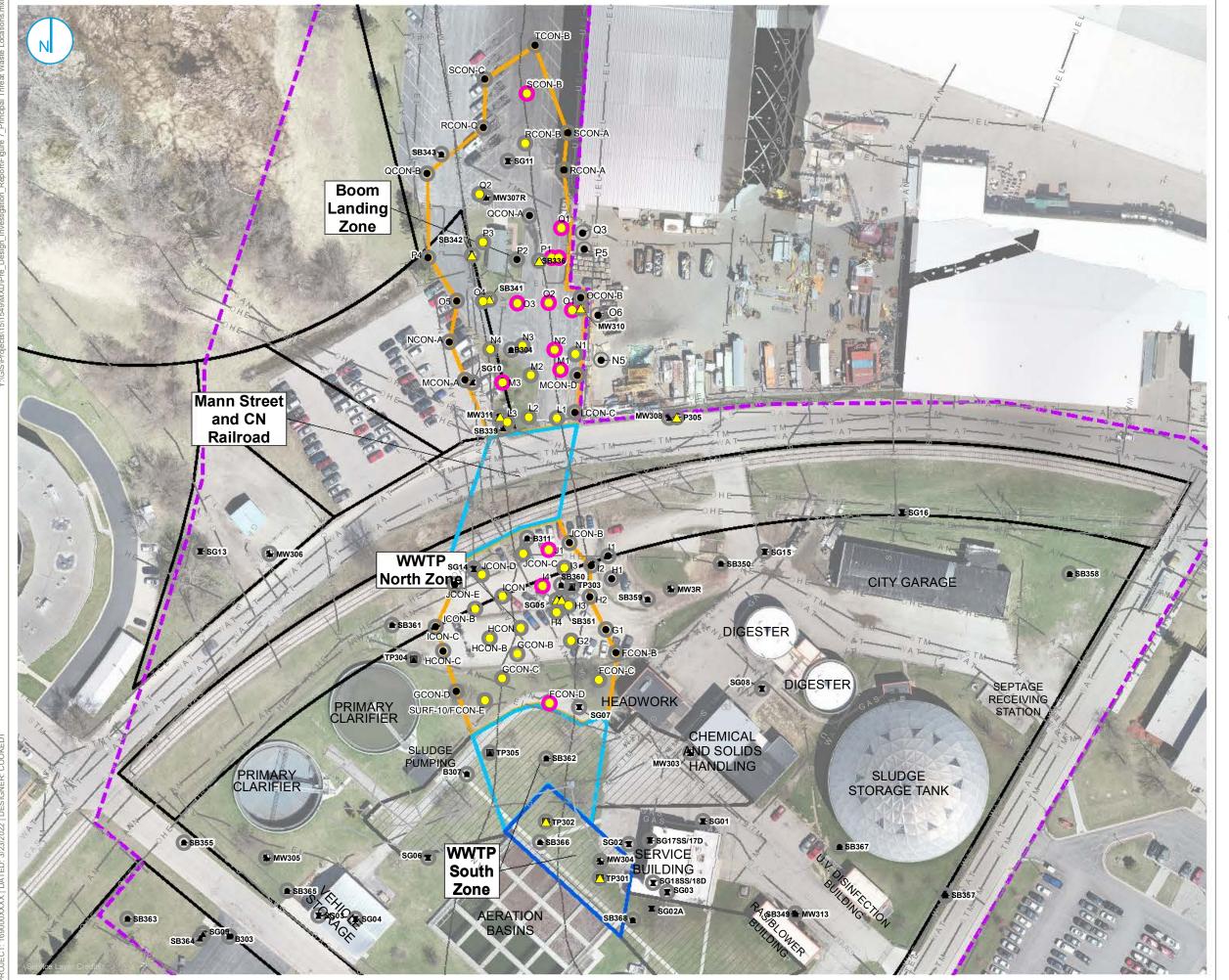
1 inch = 90 feet

WWTP NORTH - ALT 2

PDI EVALUATION REPORT WPSC MARINETTE FORMER MGP SITE MARINETTE, WISCONSIN

FIGURE A





PDI LOCATION - NO OIL - WETTED/OC PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL PDI LOCATION - NO OIL-WETTED/OIL COATED MATERIAL HISTORICAL LOCATION WITH OIL-WETTED/OIL-COATED MATERIAL HISTORICAL LOCATION WITH NO OBSERVATION OF OIL-WETTED/OIL-COATED MATERIAL HI>10 OR CR>1E-3 HI<10 AND CR<1E-3 TEL-COMMUNICATIONS FO FIBER OPTIC GAS GAS OHE OVERHEAD ELECTRIC SAN-SANITARY SEWER S T M-STORM SEWER UE L-UNDERGROUND ELECTRIC ---- UNDERGROUND PIPELINE WATER ---- FORMER SLOUGH/ LOG RUN 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, WPSC MARINETTE FORMER MGP SITE PLAT OF SURVERY DATED 09/17/2020

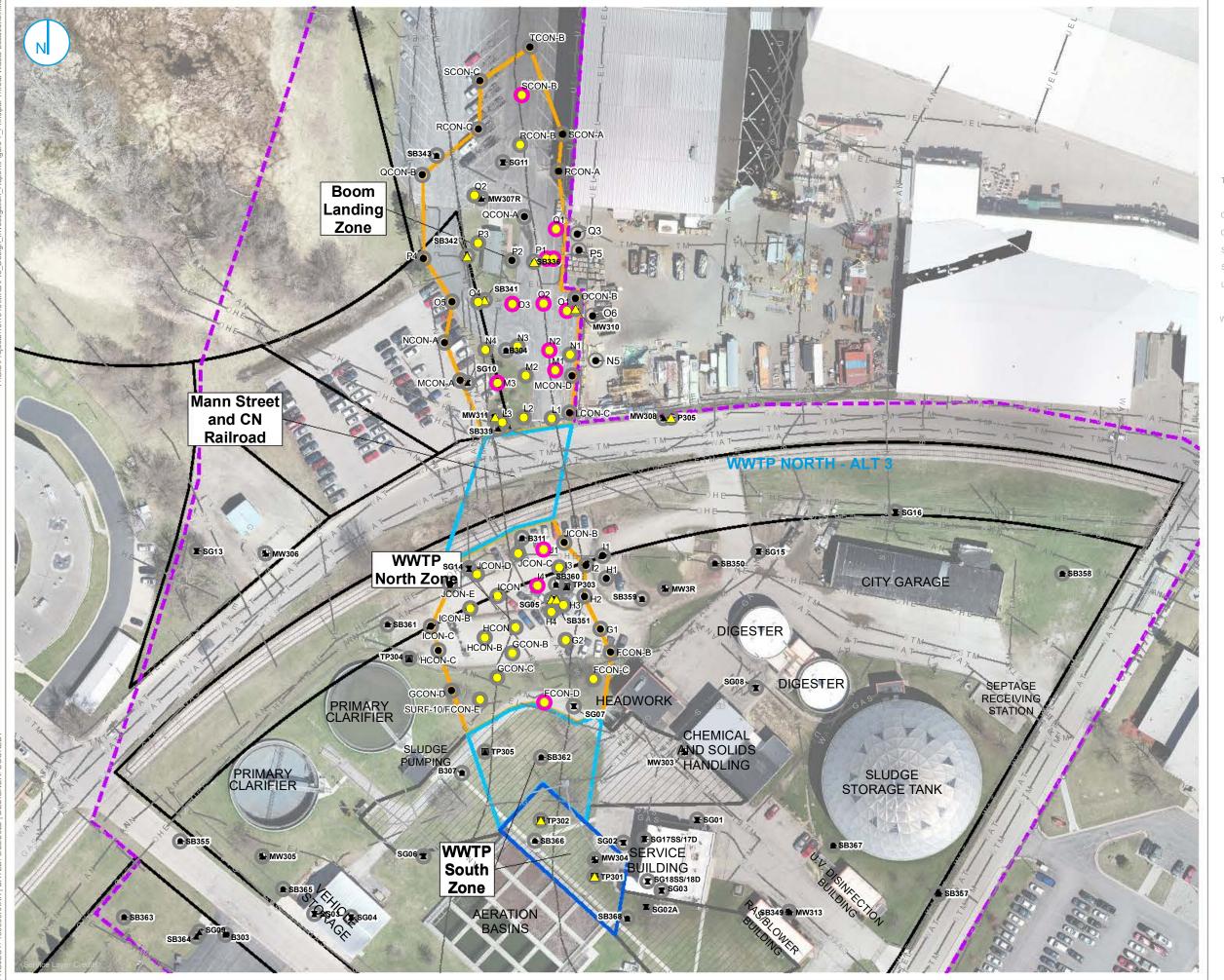
0 45 90 1 inch = 90 feet

WWTP NORTH - ALT 3

PDI EVALUATION REPORT
WPSC MARINETTE FORMER MGP SITE
MARINETTE, WISCONSIN

FIGURE B





PDI LOCATION - NO OIL - WETTED/OC PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL PDI LOCATION - NO OIL-WETTED/OIL COATED MATERIAL HISTORICAL LOCATION WITH OIL-WETTED/OIL-COATED MATERIAL HISTORICAL LOCATION WITH NO OBSERVATION OF OIL-WETTED/OIL-COATED MATERIAL HI>10 OR CR>1E-3 HI<10 AND CR<1E-3 TEL-COMMUNICATIONS FO FIBER OPTIC GAS GAS OHE OVERHEAD ELECTRIC SAN-SANITARY SEWER S T M-STORM SEWER UE L-UNDERGROUND ELECTRIC ---- UNDERGROUND PIPELINE WATER ---- FORMER SLOUGH/ LOG RUN 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

CR - CANCER RISK HI - HAZARD INDEX

DATED 09/17/2020

Notes:

WWTP NORTH - ALT 4

1 inch = 90 feet

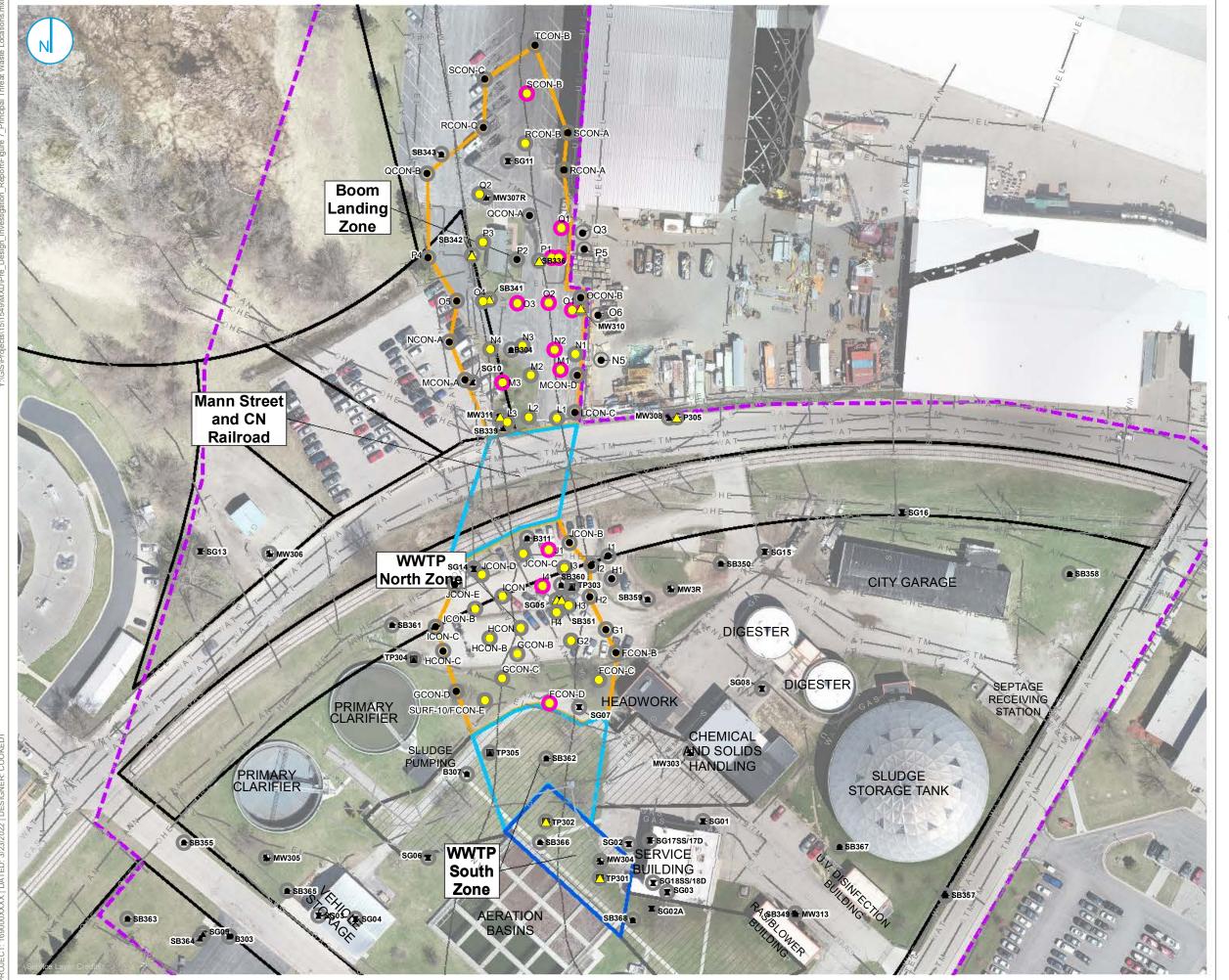
WWTP - WASTEWATER TREATMENT PLAN UTILITIES FROM TERRATEC ENGINEERING LLC, WPSC MARINETTE FORMER MGP SITE PLAT OF SURVERY

PDI - PRELIMINARY DESIGN INVESTIGATION

PDI EVALUATION REPORT WPSC MARINETTE FORMER MGP SITE MARINETTE, WISCONSIN

FIGURE C





PDI LOCATION - NO OIL - WETTED/OC PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL PDI LOCATION - NO OIL-WETTED/OIL COATED MATERIAL HISTORICAL LOCATION WITH OIL-WETTED/OIL-COATED MATERIAL HISTORICAL LOCATION WITH NO OBSERVATION OF OIL-WETTED/OIL-COATED MATERIAL HI>10 OR CR>1E-3 HI<10 AND CR<1E-3 TEL-COMMUNICATIONS FO FIBER OPTIC GAS GAS OHE-OVERHEAD ELECTRIC SAN-SANITARY SEWER S T M-STORM SEWER UE L-UNDERGROUND ELECTRIC ---- UNDERGROUND PIPELINE WATER ---- FORMER SLOUGH/ LOG RUN 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

______1 inch = 90 feet

DATED 09/17/2020

PDI - PRELIMINARY DESIGN INVESTIGATION

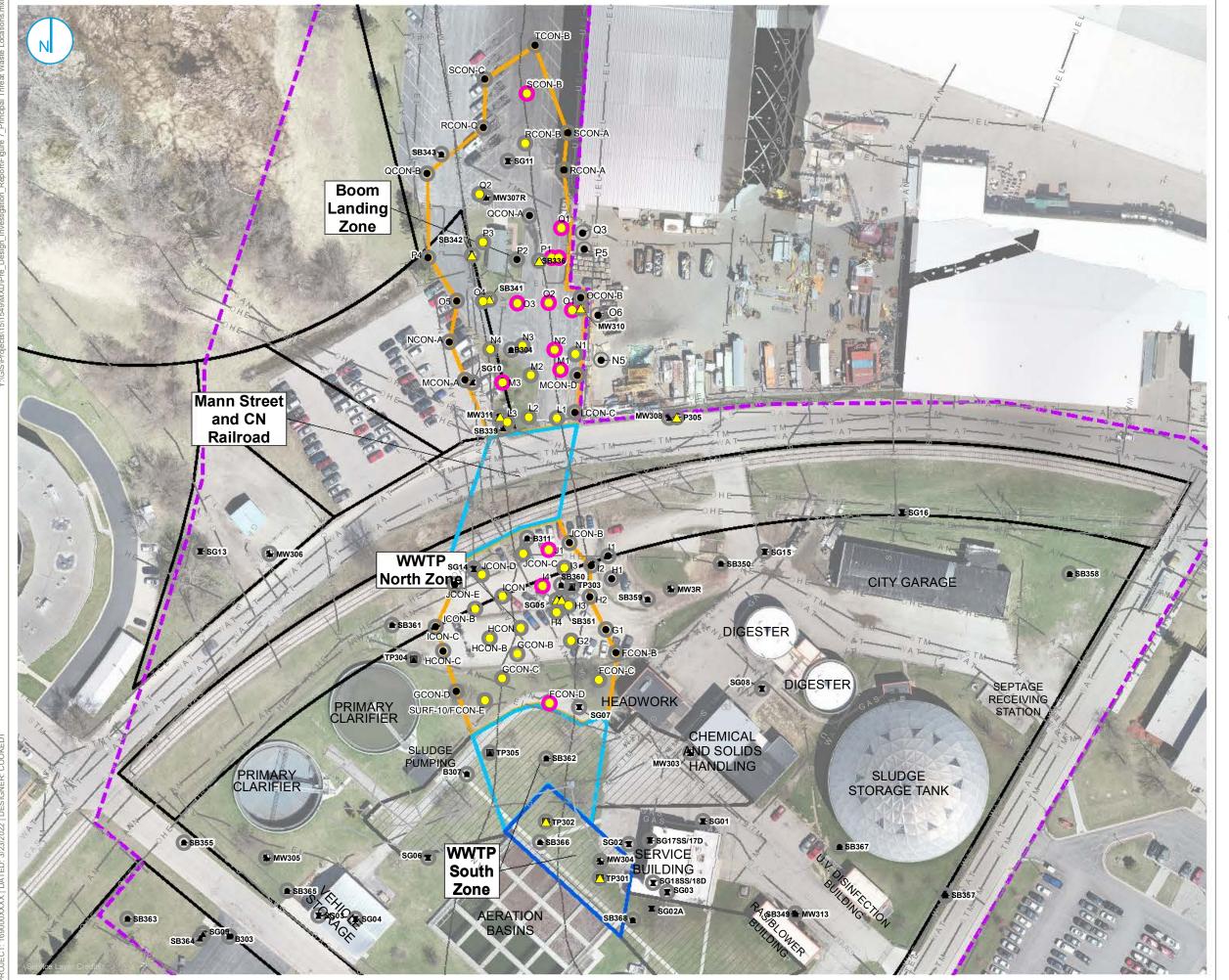
WWTP - WASTEWATER TREATMENT PLAN UTILITIES FROM TERRATEC ENGINEERING LLC, WPSC MARINETTE FORMER MGP SITE PLAT OF SURVERY

BOOM LANDING - ALT 2

PDI EVALUATION REPORT WPSC MARINETTE FORMER MGP SITE MARINETTE, WISCONSIN

FIGURE D





PDI LOCATION - NO OIL - WETTED/OC PDI LOCATION - OIL-WETTED/OIL-COATED MATERIAL PDI LOCATION - NO OIL-WETTED/OIL COATED MATERIAL HISTORICAL LOCATION WITH OIL-WETTED/OIL-COATED MATERIAL HISTORICAL LOCATION WITH NO OBSERVATION OF OIL-WETTED/OIL-COATED MATERIAL HI>10 OR CR>1E-3 HI<10 AND CR<1E-3 TEL-COMMUNICATIONS FO FIBER OPTIC GAS GAS OHE-OVERHEAD ELECTRIC SAN-SANITARY SEWER S T M-STORM SEWER UE L-UNDERGROUND ELECTRIC ---- UNDERGROUND PIPELINE WATER ---- FORMER SLOUGH/ LOG RUN 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, WPSC MARINETTE FORMER MGP SITE PLAT OF SURVERY DATED 09/17/2020

1 inch = 90 feet

BOOM LANDING - ALT 3

PDI EVALUATION REPORT WPSC 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	1 , ,	Environmental Covenant and Deed Restrictions		Х			
Containment]	Soil, asphalt, concrete or geosynthetic covers		Х			

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		Х	Х		
In Situ Approaches	Chemical Oxidation	Geochemical Stabilization		X			
Ex Situ Approaches	Excavation	Offsite Disposal				Х	
In Situ Approaches	Physical/Chemical Treatment	In Situ Stabilization/Solidification			Х		
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		Х	Х	Х	
Physical	NAPL Recovery	Passive NAPL Recovery		Х	Х	Х	
In Situ Approaches	Barrier	Permeable Reactive Barrier (Contingent)		Х	Х		
In Situ Approaches	Chemical Oxidation	Amendment Addition in Excavation Backfill				Х	

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		Х			
In Situ Approaches	Chemical Oxidation	Geochemical Stabilization					
Ex Situ Approaches	Excavation	Offsite Disposal			Х		
In Situ Approaches	Physical/Chemical Treatment	In Situ Stabilization/Solidification		Х			
Groundwater - Accessible Source Material - Boom Landing Zone							

No Action	None	No Additional Action	Х		
Institutional Controls		Environmental Covenant and Deed Restrictions		X	Х
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