

Tyco Fire Products LP  
1400 Pennview Parkway  
Lansdale, Pennsylvania 19446



March 8, 2018

Mr. David Neste  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
2984 Schwano Avenue  
Green Bay, Wisconsin 54313-6727  
dave.neste@wisconsin.gov

RE: Site Investigation Work Plan  
Tyco Fire Technology Center – PFAS; BRRTS Activity No. 02-38-580694

Dear Mr. Neste:

Tyco Fire Products LP (Tyco) is in receipt of the Wisconsin Department of Natural Resources' (WDNR) correspondence dated January 16, 2018. The letter required the following of Tyco:

*Within 60 days, by March 12, 2018, you must submit a work plan for completing the investigation. The work plan must comply with the requirements in the NR 700 Wis. Adm. Code rule series and should adhere to current WDNR technical guidance documents.*

In response, Arcadis, on behalf of Tyco, has generated the attached Site Investigation Work Plan. Tyco requests that the WDNR complete formal review of the attached plan. In accordance with ch. NR 749 of the Wisconsin Administrative Code, attached is a payment of \$700 to cover the fees associated with review of this plan.

Tyco understands that the WDNR will require time to review and provide comment. Tyco requests that the WDNR expedite review of this plan, to the extent possible, so that investigation may begin as early as possible following spring thaw.

Mr. David Neste  
March 8, 2018

Tyco appreciates the WDNRs attention to this matter and looks forward to our continued cooperation. If you have any questions regarding this submission, please contact me at 215.393.0240 or at [richard.mator@jci.com](mailto:richard.mator@jci.com).

Sincerely,

Richard Mator  
Sr. EHS Manager – Environmental Remediation

cc: Roxanne Chronert – WDNR  
Michael Bedard – Arcadis

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

### Definitions

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

### Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do **not** use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

### Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 2 of 6

## Section 1. Contact and Recipient Information

### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Mator	First Richard	MI L	Organization/ Business Name Tyco Fire Products, LP
Mailing Address 1400 Pennbrook Parkway			City Lansdale
			State PA
			ZIP Code 19446
Phone # (include area code) (215) 393-0240	Fax # (include area code)	Email richard.mator@jci.com	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

### Contact information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Verburg	First Ben	MI	Organization/ Business Name Arcadis U.S. Inc
Mailing Address 126 N Jefferson Street, Suite 400			City Milwaukee
			State WI
			ZIP Code 53202
Phone # (include area code) (414) 276-7742	Fax # (include area code) (414) 276-7603	Email ben.verburg@arcadis.com	

### Environmental Consultant (if applicable)

Contact Last Name Verburg	First Ben	MI	Organization/ Business Name Arcadis U.S. Inc
Mailing Address 126 N Jefferson Street, Suite 400			City Milwaukee
			State WI
			ZIP Code 53202
Phone # (include area code) (414) 276-7742	Fax # (include area code) (414) 276-7603	Email ben.verburg@arcadis.com	

## Section 2. Property Information

Property Name Ansul Fire Technology Center	FID No. (if known) 438005590
BRRTS No. (if known) 02-38-580694	Parcel Identification Number 251-00616.000
Street Address 2700 Industrial Parkway South	City Marinette
State WI	ZIP Code 54143
County Marinette	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Marinette
Property is composed of: <input type="radio"/> Single tax Parcel <input checked="" type="radio"/> Multiple tax parcels	Property Size Acres 380

**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

Page 3 of 6

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

- No  Yes

Date requested by: \_\_\_\_\_

Reason:

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

- No. **Include the fee that is required for your request in Section 3, 4 or 5.**  
 Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

**Section 3. Request for Technical Assistance or Post-Closure Modification**

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
- Include a fee of \$300 for sites with residual soil contamination; and
- Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 4 of 6

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/lgu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/lgu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ Include a fee of \$700, and the information listed below:

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf)).

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ Include a fee of \$700, and the information listed below:

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf)).

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ Include a fee of \$1400, and the information listed below:

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

**Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.**

Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_

Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - Describe: \_\_\_\_\_

Date of Collection: \_\_\_\_\_

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: Site Investigation Work Plan

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): \_\_\_\_\_

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at: [dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

Page 5 of 6

**Section 7. Certification by the Person who completed this form**

I am the person submitting this request (requester)

I prepared this request for: Tyco Fire Products LP

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

  
Signature

3-7-2018  
Date Signed

Principal Engineer  
Title

414-216-7742  
Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 6 of 6

## Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

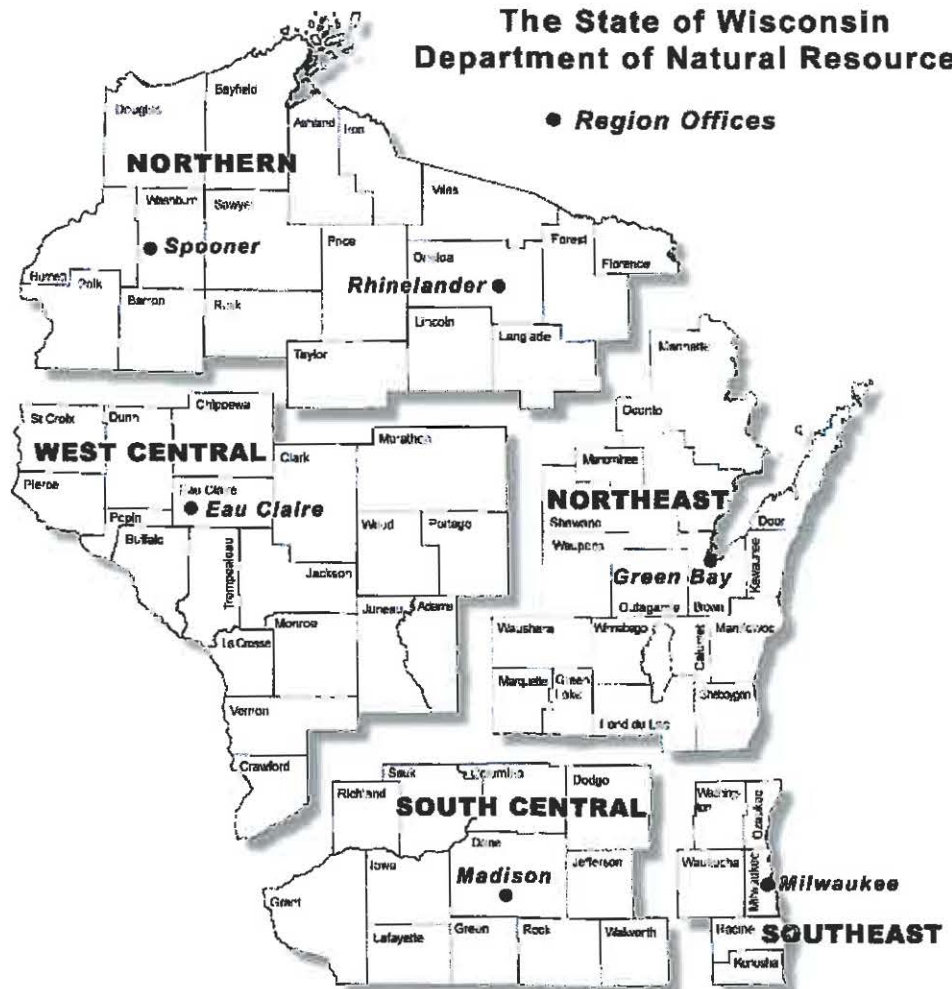
**DNR NORTHERN REGION**  
 Attn: RR Program Assistant  
 Department of Natural Resources  
 223 E Steinfest Rd Antigo, WI 54409

**DNR NORTHEAST REGION**  
 Attn: RR Program Assistant  
 Department of Natural Resources  
 2984 Shawano Avenue  
 Green Bay WI 54313

**DNR SOUTH CENTRAL REGION**  
 Attn: RR Program Assistant  
 Department of Natural Resources  
 3911 Fish Hatchery Road  
 Fitchburg WI 53711

**DNR SOUTHEAST REGION**  
 Attn: RR Program Assistant  
 Department of Natural Resources  
 2300 North Martin Luther King Drive  
 Milwaukee WI 53212

**DNR WEST CENTRAL REGION**  
 Attn: RR Program Assistant  
 Department of Natural Resources  
 1300 Clairemont Ave.  
 Eau Claire WI 54702



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		



Tyco Fire Products, LP

## **SITE INVESTIGATION WORK PLAN**

Tyco Fire Technology Center  
Marinette, Wisconsin

BRRTS No. 02-38-580694

March 2018

A large orange geometric shape, resembling a right-angled triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles: a larger one with its hypotenuse from the bottom-left to the top-right, and a smaller one nested within it, also with its hypotenuse from the bottom-left to the top-right. A thin white line runs horizontally across the page, intersecting the orange shape.

## SITE INVESTIGATION WORK PLAN

Tyco Fire Technology Center  
Marinette, Wisconsin

Prepared for:

Tyco Fire Products LP  
2700 Industrial Parkway South  
Marinette, Wisconsin 54143

Prepared by:

Arcadis U.S., Inc.  
126 North Jefferson Street  
Suite 400  
Milwaukee  
Wisconsin 53202  
Tel 414 276 7742  
Fax 414 276 7603

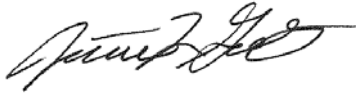
Our Ref.:

WI001605

Date:

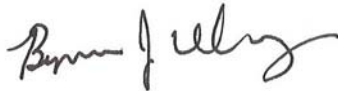
March 8, 2018

*This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.*



---

Jessica Geurts  
Staff Environmental Engineer



---

Benjamin J. Verburg, PE  
Principal Engineer



---

Michael F. Bedard  
Project Lead/Associate Vice President

## CONTENTS

Acronyms and Abbreviations.....	iii
1 Introduction .....	1
2 Site Background.....	1
2.1 Site Description and History .....	1
2.2 Geology and Hydrogeology .....	1
2.3 Recent Investigation Work.....	2
2.4 Natural and Cultural Resources.....	3
2.4.1 Ecoregion .....	3
2.4.2 Soils.....	3
2.4.3 Hydrology .....	3
2.4.4 Wetlands.....	4
2.4.5 Natural Heritage Inventory .....	4
2.4.6 Cultural Resources Records Review.....	5
3 General Field Activities .....	9
3.1 Utility Clearance.....	9
3.2 Surveying .....	9
3.3 Investigation Derived Waste .....	9
4 Groundwater Investigation Activities.....	9
4.1 Sand Unit VAP.....	9
4.2 Confining Unit VAP .....	10
4.3 Shallow and Intermediate Monitoring Well Installation and Development.....	11
4.4 Bedrock Investigation .....	12
4.4.1 Drilling.....	12
4.4.2 Production Well Test Preparation.....	13
4.4.3 Geophysics.....	13
4.4.4 Packer Testing.....	13
4.4.5 Well Installation and Development.....	14
5 Soil Investigation Activities.....	14
6 Ditch Investigation Activities .....	15

## SITE INVESTIGATION WORK PLAN

6.1	Ditch Survey and Wetland Delineation .....	15
6.2	Ditch Surface Water .....	15
6.3	Stormwater .....	16
6.4	Surface Water and Groundwater Elevations .....	16
6.5	Sediment .....	16
6.6	Ditch Water Hydrodynamics .....	17
7	Quality Assurance and Quality Control .....	17
7.1	Special Considerations for PFAS Sampling .....	17
7.2	Laboratory Methods and Analysis .....	18
8	Reporting .....	19
9	Anticipated Schedule .....	19
10	NR 712 Certification .....	20
11	References .....	21

## TABLES

Table 1.	Laboratory Methods and QA/QC Frequency .....	18
----------	--	----

## FIGURES

Figure 1.	Site Location
Figure 2.	Outdoor Testing/Training Area
Figure 3.	Proposed VAP Investigation Locations
Figure 4.	Proposed Monitoring Well Locations
Figure 5.	Proposed Soil Investigation Locations
Figure 6.	Proposed Surface Water and Sediment Investigation Locations
Figure 7.	Proposed Stormwater Investigation Locations

## APPENDICES

Appendix A	Natural Resources Desktop Evaluation Data
Appendix B	Cultural Resources Desktop Evaluation Data

## ACRONYMS AND ABBREVIATIONS

AFFF	aqueous film-forming foams
ASI	Archaeological Site Inventory
bgs	below ground surface
ft	feet
FTC	Fire Technology Center
gpm	gallons per minute
NAD	North American Datum
NAVD	North American Vertical Datum
ng/L	nanograms per liter
NHI	Natural Heritage Inventory
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OTA	Outdoor Testing/Training Area
PAHS	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PFAS	per- and poly-fluorinated alkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PID	photoionization detector
R&D	Research and Development
RQD	rock quality designation
TOC	Total Organic Carbon
TSS	Total Suspended Solids
VAP	vertical aquifer profiling
VOC	volatile organic compound
WDNR	Wisconsin Department of Natural Resources
WHPD	Wisconsin Historic Preservation Database
WISPHO	Wisconsin State Historic Preservation Office
WWI	Wisconsin Wetlands Inventory

## 1 INTRODUCTION

On behalf of Tyco Fire Products LP, Arcadis US, Inc. (Arcadis) has prepared this Site Investigation Work Plan (work plan) to continue investigation of the nature and extent of per- and poly-fluoroalkyl substances (PFAS) related to the Ansul Fire Technology Center (Site) located at 2700 Industrial Parkway South, Marinette, Wisconsin (Figure 1). This investigation will meet the requirement outlined by the Wisconsin Department of Natural Resources (WDNR) in the January 16, 2018 letter stating that additional investigation of PFAS must be completed in the area of the Fire Technology Center (FTC).

Investigation activities included in this work plan will consist of groundwater, soil, stormwater and ditch sampling activities. Objectives of this investigation include further delineation of the nature and extent of PFAS in media on the Site and extending from the Site. This will include evaluations of deeper portions of the aquifer and bedrock properties. For the purposes of this work plan, the term stormwater is used to mean all precipitation (e.g., rain, snow, hail, etc.). Characterization of the stormwater ditches and connecting stream(s) in the vicinity of the Site also will be performed to evaluate the potential presence of PFAS in surface waters.

Activities described in this work plan are part of an ongoing process to identify the nature and extent of PFAS in soil, groundwater, surface water and sediments due to historical operations at the Site. After completion of the work described below, additional investigation and evaluation work will likely be necessary, and that additional work will be described in subsequent work plans prior to execution.

## 2 SITE BACKGROUND

### 2.1 Site Description and History

The Ansul Fire Technology Center is a fire suppressant training, testing, research, and development facility. The Site encompasses approximately 380 acres with approximately 9 acres used as the Outdoor Testing/Training Area (OTA). The remaining area of the Site is used for manufacturing, warehousing, office, classroom, parking or is undeveloped. The location of the OTA is presented on Figure 2.

The Site is bordered by industrial and commercial properties to the west, and industrial, commercial, and Marinette School District property to the north. Agricultural land, a cemetery, a community center under construction, and undeveloped land owned by the University of Wisconsin Board of Regents and private owners, border the Site to the east and south.

Aqueous film-forming foams (AFFF) manufactured by Tyco and/or others have been used at the Site as part of R&D, quality and firefighting training activities. While the presence of multiple PFAS compounds will be included in the laboratory analyses for samples collected under this work plan, the primary focus for the investigation and evaluation work will be on perfluorooctanoic acid (PFOA) and/or perfluorooctanesulfonic acid (PFOS), which have been present in various formulations of these foams.

### 2.2 Geology and Hydrogeology

The surficial geology in the Marinette area has been mapped as glacial lake deposits, consisting

## SITE INVESTIGATION WORK PLAN

mainly of clay, silt, and sand, overlying Ordovician dolomite bedrock (Oakes et al., 1973). Previous site investigations have found a generally consistent sequence in shallow soils; including:

- A sand unit, consisting of brown fine to medium sand interbedded with silt or silty-sand, extending from the surface to between 30 and 50 feet below ground surface (ft bgs).
- A confining unit, consisting of lake-deposited silt and clay, above areas of glacial till, typically comprising silt, sand and gravel. The confining is as little as 12 feet thick at the Site, but thickens eastward

Site data and publicly available construction reports for wells located in the area show that the bedrock surface slopes southeastward toward Green Bay. Bedrock may be as shallow as 35 ft bgs beneath portions of the Site but deepens to around 100 ft bgs along the Green Bay shore.

The regional groundwater flow direction in the Marinette area is generally east toward Green Bay (Oakes et al., 1973). The water table depth in the area is typically shallow; at the Site the depth-to-water is normally less than 5 ft bgs. Water-levels measured in the Site monitoring well network, which is focused in the central and northeast portion of the Site, predict flow toward the east or northeast.

The Site is located in a low-relief plane bounded by Green Bay, the Peshtigo River, and the Menominee River. The area near the Site is drained by ditches, which may be in hydraulic connection with groundwater. An on-Site ditch is present primarily on the west side of the OTA and is oriented generally north to south through the Site. Stormwater runoff from the OTA that does not infiltrate appears to flow south, then through a series of connecting streams, then east to Green Bay. Historically, the on-Site ditch may have flowed north from the Site to connecting ditches, then east to Green Bay.

### 2.3 Recent Investigation Work

The most recent investigation activities began in 2016 to delineate the extent of volatile organic compound (VOC) constituents present in soil and groundwater above applicable Wisconsin regulatory criteria. While the investigation focused on VOCs, a subset of samples was analyzed for PFAS. PFAS analysis of 38 groundwater samples from vertical aquifer profiling (VAP) boring locations at the Site indicated the presence of these compounds. PFAS analysis of 16 shallow soil samples in the OTA also indicated the presence of these compounds. Groundwater and soil data from these investigation activities were submitted to WDNR in November 2016 (Arcadis. 2016).

Investigation of PFAS in off-Site groundwater began in 2017. This sampling identified PFAS in groundwater extending southeast, east and northeast from the Site. The groundwater data collected to date suggest that PFAS concentrations detected in off-Site groundwater may be due to PFAS transport through groundwater and historical stormwater runoff to the on-Site and off-Site ditches. Investigation of off-Site groundwater has included the sampling of approximately 140 private wells located predominantly to the southeast of the Site. This work plan describes additional investigation activities that will be conducted on the present distribution of PFAS in the on-Site soil, groundwater, stormwater runoff, ditch sediments and ditch water, as well as off-Site groundwater, ditch sediments and ditch water. This work will be conducted to better understand the nature and extent of PFAS in groundwater and soil near the OTA, as well as evaluate the potential transport of PFAS through groundwater and surface water

## 2.4 Natural and Cultural Resources

A natural and cultural resources desktop review was conducted for the Site and the expanded study area shown on Figure 1 and 2 of Appendix A by evaluating relevant and available data.

### 2.4.1 Ecoregion

The Site and study area are located within the Wisconsin/Michigan Pine and Oak Barrens Ecoregion (U.S. Environmental Protection Agency Level IV Ecoregion 50k). Irregular outwash plains and moraines, sandy and sandy-loam soils over outwash, sandy and loamy till, and peat deposits in depressions characterize this ecoregion. Land use within this ecoregion is predominantly woodland, although some mixed agriculture is found. More frost-free days occur in this ecoregion than in adjacent ecoregions, due to the ameliorating effect of Lake Michigan and Green Bay, contributing to the greater agricultural component of the land cover and land use. In addition, this ecoregion has more shallow bedrock than surrounding regions, with areas of exposed Precambrian basalt and granite (Omernik et al. 2008).

### 2.4.2 Soils

According to the U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS) Web Soil Survey, the Rousseau, Shawano, Udorthents, and Wainola soil series (detailed below) are located in the direct vicinity of the Site and multiple more are located within the study area. Figure 3 of Appendix A depicts the distribution of NRCS soil map units in relation to the Site and study area (NRCS 2017).

### 2.4.3 Hydrology

The Site is located within the Lower Peshtigo River watershed (10-digit hydrologic unit code 0403010505). The study area spans the Lower Peshtigo River watershed and the Menominee River watershed (10-digit hydrologic unit code 0403010809) (Figure 4 of Appendix A).

As noted above, a ditch is present primarily on the west side of the OTA and is oriented generally north to south through the Site. This ditch has intermittent flows and connects to an unnamed tributary to the Little River, and ultimately to Green Bay. Several unnamed waterways flow generally northwest to southeast through the study area and ultimately drain to Green Bay. The study area is bounded by the Menominee River to the north, Green Bay to the east, and the Little River to the south (Figure 5 of Appendix A).

Federal Emergency Management Agency floodplain data is not available in digital format for Marinette County, Wisconsin. Using geographic information system software, the floodplain in the general vicinity of the Site was digitized using the federal insurance rate map (Figure 5 of Appendix A). As depicted in the figure, the Site is not located within the floodplain, but there are floodplains associated with waterways in the study area. It should be noted that the floodplain was not digitized for the entire study area.

The nearest waterbodies on Wisconsin's 303(d) list of impaired waters include the Menominee River, Green Bay (Great Lakes shoreline), and Green Bay (Lower Menominee River area of concern) (Figure 6 of Appendix A). The Menominee River is listed for arsenic, mercury, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs). Green Bay (Great Lakes shoreline) is listed for PCBs. Green Bay (Lower Menominee River area of concern) is listed for arsenic and PAHs.



## SITE INVESTIGATION WORK PLAN

There are no outstanding resource waters or exceptional resource waters located within the study area. There is an unnamed tributary to the Little River that flows generally northwest to southeast through the study area that is classified by the WDNR as a priority navigable waterway because it is a class 3 trout stream (Figure 6 of Appendix A). Class 3 trout streams provide marginal trout habitat with no naturally-occurring reproduction. They require annual stocking to provide trout fishing.

The Menominee River is also classified as a priority navigable waterway by the WDNR because it is known to support self-sustaining populations of muskellunge (*Esox masquinongy*) and lake sturgeon (*Acipenser fulvescens*) (Figure 6 of Appendix A).

### 2.4.4 Wetlands

Figure 7 of Appendix A provides a depiction of the Wisconsin Wetlands Inventory (WWI) and wetland indicators in relation to the Site and the study area. The WWI provides graphic representations of the type, size, and location of potential wetlands in Wisconsin, as prepared through the analysis of high altitude imagery in conjunction with soil surveys, topographic maps, previous wetland inventories, and field work. The WWI does not attempt to define the limits of jurisdiction of any federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies.

According to the WWI, there is a mixture of emergent/wet meadow wetlands, scrub/shrub wetlands, forested wetlands, wetlands too small to delineate, and excavated ponds within the vicinity of the Site. Wetland indicators include NRCS soils that are classified as somewhat poorly drained, poorly drained, and very poorly drained. Soils mapped with these drainage classes are soil types typically found within areas designated as wetlands. There have been no field wetland determinations or delineations conducted at the Site.

Figure 8 of Appendix A depicts features classified as WDNR areas of special natural resource interest, including high quality coastal Lake Michigan wetlands and the waterways that are hydrologically connected to those wetlands.

### 2.4.5 Natural Heritage Inventory

Wisconsin's Natural Heritage Inventory (NHI) program maintains data on the locations and status of rare species, natural communities, and natural features throughout the state. According to the NHI database, the following resources may potentially occur within the study area:

Group Name	Common Name	State Status	Federal Status
Beetle	Hairy-Necked Tiger Beetle	Endangered	NA
Bird	Black Tern	Endangered	Species of Concern
Bird	Black-Crowned Night-Heron	Special Concern	NA
Bird	Great Egret	Threatened	NA
Bird	Peregrine Falcon	Endangered	NA

## SITE INVESTIGATION WORK PLAN

Bird	Piping Plover	Endangered	Endangered
Community	Great Lakes Beach	NA	NA
Community	Great Lakes Beach	NA	NA
Community	Emergent Marsh	NA	NA
Community	Northern Dry Forest	NA	NA
Fish	Lake Sturgeon	Special Concern	NA
Mussel	Elktoe	Special Concern	NA
Mussel	Purple Wartyback	Endangered	NA
Other	Bald Eagle Nest	NA	NA
Other	Bird Rookery	Special Concern	NA
Plant	American Sea-Rocket	Special Concern	NA
Plant	American Sea-Rocket	Special Concern	NA
Plant	Few-Flowered Spike-Rush	Special Concern	NA
Plant	Northern Wild-Raisin	Special Concern	NA
Plant	Seaside Spurge	Special Concern	NA

### 2.4.6 Cultural Resources Records Review

Pursuant to NR 716.07(8)(d), persons identified under sub. NR 716.02(1) shall conduct a site investigation that includes “potential for impact to [...] sites or facilities of historical or archaeological significance.” Arcadis U.S., Inc. archaeologists Dr. Eugene Boesch R.P.A. and Ashley Bombeck (staff scientist) requested access to the State Historic Preservation Office—Wisconsin Historical Society’s Wisconsin Historic Preservation Database (WHPD) to determine whether known archaeological, historical, or architectural resources were present in the project study area as defined in February 2018. The Wisconsin State Historic Preservation Office (WISHPO) is the official state repository for collecting, managing, and preserving information about historic buildings, archaeological sites, burial sites, and archaeological surveys in Wisconsin. The query results include data from the Archaeological Report Inventory (ARI), Archaeological Sites Inventory (ASI), and the Architecture and History Inventory (AHI). WHPD results were received on February 19, 2018 and are summarized in the following sections.

No project area has been defined to date. As such, a study area was developed to include all areas of potential direct effect at the time of this reporting.

#### ***Archaeological Report Inventory Results***

## SITE INVESTIGATION WORK PLAN

According to the ARI, 27 previous cultural resource surveys have been conducted within the study area between 1999 and 2017. Summary information of the available ARI reports was obtained via attribute data from the WHPD-provided Geographic Information Systems (GIS) shapefiles and is found in Table 1 of Appendix B and Figure 1 of Appendix B. The previous surveys consisted of monitoring and Phase I level investigations for a variety of linear and block size development project areas conducted by university-affiliated archaeologists and private cultural resource consultants.

### ***Archaeological Sites Inventory Results***

According to the ASI, 30 previously recorded archaeological sites are located in the project study area. Of these, none are situated within or immediately adjacent to the Tyco Fire Products, LP property boundary. ASI information was obtained via attribute data from the WHPD-provided Geographic Information Systems (GIS) shapefiles and a summary of the ASI records is provided below and in Table 2 of Appendix B.

- One Historic Euro-American and Historic Indian cabin/homestead and trading/fur post (the Old Farnsworth Trading Post) and one Historic Euro-American trading/fur post (Chappiere Trade Post);
- Thirteen campsites/villages identified as having Late Paleo-Indian, Early Archaic, Middle Archaic, Late Archaic, Early Woodland, Late Woodland, Oneota, Historic Euro-American, Historic Indian, and unknown/unknown historic components;
- Nine Historic Euro-American cemeteries/burials including two that are associated with Historic Native American components including a reported lithic scatter;
- One Church/Mission site (Mission of St. Michael);
- One industrial resource (Granite Works Site) and one industrial and transportation resource (Marinette Standard Oil);
- One Historic Euro-American shipwreck (City of Grand Haven 1872); and
- Two unknown Pre-Contact and Historic Native American isolated finds.

Of the 30 previously recorded archaeological resources on record for the project area, none have been evaluated for eligibility for listing in the National Register of Historic Places (NRHP). With the exception of Euro-American cemeteries, the known archaeological sites are generally clustered along the Menominee River and along the Green Bay shoreline. However, it is important to note that the majority of the project area has not been surveyed for archaeological resources and an absence of known sites does not necessarily indicate that undiscovered sites are not present. Pre-Contact sites tend to be situated on high ground near reliable water sources. According the NHPA Section 304 (16 U.S.C. 470w-3(a)) and pursuant to the WHPD Data Use Agreement, the disclosure of sensitive site information is restricted. As such, locations of known archaeological resources are not disclosed on Figure 1 of Appendix B.

### ***Architecture and History Inventory***

There are 611 structures listed on the AHI for the project area. These resources are generally residential and community structures located within the city of Marinette and along the Menominee River. Details of these 611 sites were obtained via attribute data from the WHPD-provided Geographic Information Systems (GIS) shapefiles and available in Table 3 of Appendix B and are summarized below:

## SITE INVESTIGATION WORK PLAN

- **NRHP Eligibility:** Of the 611 sites, 8 are listed on the NRHP, 4 have been determined eligible for the NRHP, 118 were recommended as potentially eligible for NRHP listing, 298 were recommended not eligible for listing, and 183 are unevaluated for the NRHP.
- **NRHP Listed Properties:** the above 8 NRHP-listed properties include:
  - Lauerman Brothers Department Store (1884),
  - Lauerman's Department Store (1904),
  - Dunlap Square Building (1890),
  - Milwaukee Road Depot of the Escanaba and Lake Superior Railroad (1903),
  - Independent Order of Odd Fellows-Lodge #189 (1899),
  - Bijou Theatre (1905) and
  - F.J. Lauerman House (1901).
- **Historic Uses and Styles:** The historic uses and counts of the 611 resources include
  - Bridges (2),
  - Apartments or condominiums (4),
  - Armories (1),
  - Automobile showrooms (1),
  - Bank/financial institutions (2),
  - Barns (5),
  - Carriage houses (5),
  - Cemeteries (2),
  - Churches (16),
  - Courthouses (1),
  - Dams (1),
  - Department stores (2),
  - Depots (2),
  - Dining halls (1),
  - Duplexes (3),
  - Elementary/middle/junior high/high schools (8),
  - Garages (6),
  - Gas or service stations (2),
  - Hospitals (1),

## SITE INVESTIGATION WORK PLAN

- Hotel/motels (2),
- Houses (451),
- Industrial buildings (6),
- Libraries (1),
- Lumber yard/mills (2),
- Meeting halls (3),
- Mills (1),
- Monastery/convent/religious retreats (1),
- Monuments (2),
- Other/uncategorized (4),
- Privies (1),
- Recreational buildings/gymnasiums (1),
- Rectory/parsonages (3),
- Restaurants (2),
- Retail buildings (36),
- Small animal buildings (1),
- Small office building (12),
- Stadium/arenas (1),
- Statue/sculptures (1),
- Steel beam or plate girder bridges (2),
- Storage buildings (1),
- Tavern/bars (3),
- Walls (1),
- Warehouses (5) and
- Water utilities (1).

### **Summary of Results**

A total of 30 previously recorded archaeological sites and 611 architectural or historical sites have been recorded for the study area. Pursuant to NR 716.07(8)(d), persons identified under sub. NR 716.02(1) shall conduct a site investigation that assesses the “potential for impact to [...] sites or facilities of historical or archaeological significance” as a result of a project’s implementation. To assess the potential impacts to archaeological or historical resources as a result of the project, the area of potential effect (APE) must be established. The APE is defined as the geographic area or areas within which an undertaking may directly or indirectly impact a known cultural resource that has been listed or determined

## SITE INVESTIGATION WORK PLAN

eligible for listing in the NRHP or a yet unidentified cultural resource. The APE can be influenced by the existing physical, physiographic, visual, auditory, and atmospheric characteristics of the proposed location and scale/nature of an undertaking. Projects can have both adverse direct (i.e. physical including access roads and staging/laydown areas) and indirect (i.e. visual, auditory, increased access, among others) effects on historic properties.

Data collected as part of this work plan to define the degree and extent of PFAS contamination will be used to establish an APE to evaluate the potential for contamination to affect cultural resources. Upon establishment of the APE, the potential for impacts to resources of historical or archaeological significance can be further assessed.

### 3 GENERAL FIELD ACTIVITIES

The following field activities apply to all investigation events described in this work plan.

#### 3.1 Utility Clearance

Prior to mobilization, Wisconsin One Call (i.e., Diggers Hotline) will be contacted. In accordance with Arcadis standard policies, at minimum, three lines of evidence will be utilized for locating subsurface utilities. The anticipated lines of evidence include contracting a private utility locating service, conducting an inspection of each location, reviewing available utility drawings, and interviewing knowledgeable facility personnel. An air knife or hand auger may also be used to clear soil boring areas, if needed.

#### 3.2 Surveying

All sample locations will be marked with a flag or stake and surveyed. Additionally, all new monitoring wells, piezometers, and stilling wells will be surveyed following installation activities. The ground surface elevation of each location will be referenced to the North American Vertical Datum of 1988 (NAVD 88) system and the horizontal coordinates will be reported in the Wisconsin State Plane North American Datum 1983 (NAD 83) – Wisconsin Central 4802 Zone system as part of the survey work.

#### 3.3 Investigation Derived Waste

Purgewater, soil, drilling fluid, and rock cuttings generated during investigation activities will be containerized (e.g., 55-gallon steel drums) and staged on-Site, pending characterization. Waste disposal options will be assessed following waste characterization.

### 4 GROUNDWATER INVESTIGATION ACTIVITIES

#### 4.1 Sand Unit VAP

Groundwater delineation activities will be conducted northeast and southeast of the Site using VAP sampling. Utilizing the VAP sampling technique will allow for assessment of vertical variations in constituent concentrations, as multiple groundwater samples will be collected from discrete vertical intervals at each VAP location. In addition, further lateral delineation will be accomplished by placing VAP

## SITE INVESTIGATION WORK PLAN

locations outward from 2017 VAP locations with PFOA concentrations greater than 50 nanograms per liter (ng/L). The proposed VAP sample locations, as well as previous VAP sample locations, are shown on Figure 3.

Direct push drilling techniques will be used to advance eight borings to an anticipated total depth of 40 to 50 feet below ground surface (ft bgs). VAP sampling will be completed at each boring location using a “top-down” approach; groundwater samples will be collected every 10 feet starting at the top of the saturated zone and extending downward to refusal or until low-permeability, fine grained soils are encountered.

Sampling will be completed using drill rods with a well screen covered by a retractable sheath fixed at the base. Once the target sampling depth is reached, the sheath will be pulled up with a string to expose the well screen to the subsurface formation. This “temporary well” will then be purged using a peristaltic pump for a maximum of 20 minutes. A sample will only be collected if a minimum of two gallons of water can be purged. If a sample cannot be collected from an interval (i.e., two gallons of water could not be purged within 20 minutes), the drill rod will be pushed five feet deeper and another attempt to collect a sample will be conducted. After sample collection, drill rods will be removed from the subsurface and decontaminated before being advanced to the next sample interval.

Samples will be collected for PFAS analysis following the QA/QC and sampling handling procedures described in Section 7.

### 4.2 Confining Unit VAP

VAP groundwater sampling will be completed at five locations to evaluate the confining unit. The proposed locations include:

- Four locations south and southeast of the Site where previously completed (2017) direct-push VAP points identified the presence of PFAS in the sand unit.
- One location east of the Site, collocated with a new proposed sand unit VAP point (as discussed in Section 4.1). This boring is east of several previously completed sand unit VAP locations where PFAS was detected.

The proposed confining unit VAP sample locations are shown on Figure 3. These efforts will primarily be focused on assessing potential groundwater within the confining unit but will also evaluate groundwater from deep portions of the sand unit, if encountered, below the depth reached by previous direct-push borings. Note that two of the proposed confining unit VAP borings are collocated with proposed installation of bedrock monitoring wells (Section 4.4). At those locations, VAP sampling may be conducted in the same boring used to advance well casing to the bedrock surface.

Sonic drilling techniques will be used to advance five borings to the top of bedrock, which is anticipated to be encountered at between about 40 and 80 ft bgs, depending on location. Continuous soil cores will be collected and logged by an Arcadis field geologist. Soil descriptions will include soil type, grain size, moisture content, and color. Fine-grained soil descriptions will also include plasticity and consistency. Coarse-grained soil descriptions will include angularity and sorting.

Groundwater sampling will be completed at each boring location using a “top-down” approach starting from the base of the previously completed sand unit VAP boring at that location. VAP sampling will begin

## SITE INVESTIGATION WORK PLAN

within the sand unit if the lithology indicates that the sand continues deeper than the direct push VAP boring could penetrate.

After encountering the confining unit (e.g., a silt or clay bed at least 5 ft thick), drillers will set a temporary isolation casing to limit potential drag-down from the sand unit. At locations where bedrock wells will be installed, isolation casing will be 12-inch diameter to permit installation of steel casings grouted into the rock surface. At all other locations, isolation casing will be 10-inch or less, as needed, to permit continued soil sampling and VAP sampling to the bedrock surface. Drillers will use potable water with added fluorescein dye throughout the VAP drilling, so that sampling may evaluate the presence of dye as a marker for drilling water. The potable water source will be sampled for PFAS prior to use during drilling activities to ensure that it does not contain PFAS.

Within the confining unit, groundwater samples will be collected only where permeable units (e.g., interbedded sands) are encountered. If permeable zones are not encountered, groundwater samples will not be collected. VAP sampling may be attempted in zones of questionable yield; however, samples will not be collected if formation yield is insufficient to ensure representative samples, as discussed below.

VAP samples will be collected using a sampling assembly that includes a 5-foot screen and stand-pipe with an inflatable packer. The sampling assembly is deployed inside the sonic casing after a target interval has been identified by observation of soil cores. With the screen at the target depth, the override casing is withdrawn 5-feet to expose the screen, and the packer is inflated at the base of the override casing to isolate the sample zone.

VAP samples will be collected after purging a minimum target volume, based on the volume of the test interval, and an assessment of dye concentrations indicating that the purge water consists of at least 95% formation water (based on comparison to prepared visual standards). To reduce the potential for drag-down, purge rates will be limited by drawdown, not to exceed 10 feet within the test interval. Tests will be terminated without sampling if:

- Formation yield is insufficient to allow purging of two test-interval volumes within a 2-hour period without exceeding the 10 feet of drawdown
- Dye concentrations remain above the target concentration after 2-hours of purging.

Samples will be collected for PFAS analysis, following the QA/QC and sampling handling procedures described in Section 7.

### 4.3 Shallow and Intermediate Monitoring Well Installation and Development

Two sets of shallow and intermediate monitoring wells will be installed in proximity to 2017 sand unit VAP sampling locations, VAP-01 and VAP-02, where additional investigation of the confining unit and bedrock is planned (Section 4.2 and 4.4, respectively). Planned well locations are shown on Figure 4. These proposed monitoring well locations are south and southeast of the Site to improve understanding of groundwater quality and flow patterns in that area.

Shallow and intermediate wells will be installed using a sonic drill rig. The shallow wells will be screened at the water table (approximately 5 to 15 ft bgs); intermediate wells will be screened at the base of the sand unit at an approximate depth of 35 to 55 ft bgs. The final well depths will be determined based on



## SITE INVESTIGATION WORK PLAN

soil logging and VAP sample results from adjacent confining unit VAP borings (Section 4.2). Both the shallow and intermediate wells will be constructed with a 10-foot by 2-inch-diameter schedule 40 polyvinyl chloride (PVC) 10-slot screen and a 2-inch schedule 40 PVC riser to surface. Filter pack sand will be emplaced to two feet above the screen, with a filter pack seal (clean fine sand and bentonite or bentonite only based on the depth of the screened interval) to at least two feet above the filter pack. Once the bentonite has set (approximately one hour), the well will be grouted to surface.

Following well installation and passage of a minimum of 24 hours, wells will be developed via over-pumping and surging methods using a submersible pump to remove sediments from the well and surrounding filter pack. Groundwater parameters (pH, specific conductance, temperature, and turbidity) will be measured periodically, and well development activities will continue until up to 10 well volumes have been purged or turbidity has stabilized below 50 NTUs.

### 4.4 Bedrock Investigation

The bedrock investigation will be conducted to evaluate the hydrostratigraphic characteristics of shallow bedrock, and whether PFAS is present. The bedrock investigation will include:

- Borehole geophysics and packer testing of an existing on-Site bedrock production well.
- Completion of three new bedrock boreholes, completion of geophysics and packer testing in those boreholes, and then installation of monitoring wells.

Investigation locations, which correspond to proposed bedrock monitoring well locations, are shown on Figure 3. Two of the proposed borings will be located adjacent to the 2017 locations VAP-01 and VAP-02 and will be completed in conjunction with planned confining unit VAP borings described in Section 4.2 (Figure 3). The third boring will be located in the northeastern portion of the Site in proximity to existing shallow and intermediate monitoring wells.

#### 4.4.1 Drilling

Sonic drilling techniques will be used to advance each bedrock boring location. Soil logging will be performed as described in Section 4.2. After encountering the confining unit (e.g., silt or clay bed at least 5 ft thick), drillers will set a temporary 12-inch diameter isolation casing to limit potential drag-down from the sand unit.

Drilling will continue through the isolation casing until reaching the bedrock surface, and then an additional 10-feet below the bedrock surface to create a rock socket. The rock socket will be reamed to a 10-inch diameter. A six-inch diameter permanent steel casing will be installed and tremie-grouted to the surface. Once the grout has set a minimum of 24 hours, drilling will be continued to a total depth of 150 ft bgs.

Bedrock cores will be described by a field geologist and will include a description of the lithology and weathering observations. Because sonic drilling typically pulverizes core samples, detailed logging of fractures will not be performed. In bedrock, drillers will use un-dyed potable water as drilling fluid. Approximate fluid loss will be recorded for each core run. All drill cuttings and fluids will be containerized for characterization and disposal as described in Section 3.

#### 4.4.2 Production Well Test Preparation

Several steps will be completed before conducting geophysical logging and packer testing at the existing Site production well:

- With the existing well pump still in place, the well will be purged for approximately 15 minutes, after which, a water sample will be collected for PFAS analysis. This sample will provide a whole-well sample result. The sample will be analysed on a rush-turn-around. If the lab analyses detect no PFAS, packer testing will not be performed.
- A driller will disconnect and remove the existing well pump, so that geophysics and (potentially) packer testing may be performed.

At the completion of the testing, the driller will redeploy and reconnect the well pump, and then verify that the system is operating correctly.

#### 4.4.3 Geophysics

An Arcadis sub-contractor will conduct geophysical logging to evaluate the lithologic, structural and hydraulic characteristics of the bedrock. Logging will be performed at each of the three new bedrock boreholes, after completion of drilling to 150 feet bgs, and in the existing on-Site production well, after the pump has been removed. The logging suite will include:

- Natural gamma
- Three-arm caliper
- Acoustic and/or optical televiewer
- Fluid temperature and conductivity
- Vertical flow meter (heat-pulse or similar)

Flow meter logging will be performed under ambient and stressed conditions. For stressed logging, a pump will be used to purge at a rate adjusted to create steady drawdown of two-to-three feet, or greater. Flow logging depths will be selected based on review of preliminary televiewer results, to target depths above and below the suspected major fractures or water bearing features.

Geophysical logging will be performed at the three new drilling locations, as well as the at the existing on-Site production well (Figure 4). Geophysics of each borehole will be logged using optical and acoustic televewers, gamma ray meter, caliper and heat pulse flow meter.

#### 4.4.4 Packer Testing

Based on the results of core descriptions and geophysical testing, up to four packer testing intervals will be identified, targeting fractures or zones suspected of having groundwater yield. Packer testing will be conducted to confirm which zones produce groundwater, and evaluate screening-level groundwater quality, to support well design. The number of zones will be dependent on the length of bedrock borehole, and number of yielding zones.

For each target test zone, drillers will deploy an inflatable straddle packer assembly set with 10- to 20-foot spacing. Drillers will inflate the packers using compressed air. A submersible, constant-rate pump and tubing will be inserted into the riser and at the top of the packer interval. Two pressure transducers will

## SITE INVESTIGATION WORK PLAN

then be deployed in the borehole—one inside the riser to monitor drawdown in the test interval, and the other outside the riser to evaluate potential packer leakage. Testing will begin after water-levels in the test interval have equilibrated.

Packer tests will be completed by purging each interval at the maximum rate feasible without creating excess drawdown than may induced leakage (preliminarily, 20 feet of drawdown). Packer tests will also be limited by a total purging duration of two hours, and a minimum purge volume of two volumes (packer test-interval plus riser). A test will be terminated if the target interval does not produce the minimum volume without exceeding the allowable drawdown within two hours. Preliminary drawdown and flow measurements may be used to calculate whether a test will meet these criteria, without purging the full period.

If a test interval's yield is sufficient, purging will continue until at least 3-volumes have been purged, or two hours have elapsed, whichever is less. Water-quality parameters will be monitored periodically during the test, but not used as a criterion for sampling. Samples will be collected for PFAS analysis, following the QA/QC and sampling handling procedures described in Section 7.

### 4.4.5 Well Installation and Development

Following packer testing, the bedrock monitoring wells will be installed in the three bedrock boreholes. The screen interval of each well will be determined based on the results of the packer testing analytical results, and borehole geophysics. At each location, the borehole will be backfilled with bentonite up to two feet below the target well base. The remaining two feet to the well base will be filled with filter pack sand. Wells will be constructed with a 10 to 20 foot long stainless steel 0.010-inch or 0.020-inch slotted screen and a two-inch diameter schedule 80 PVC riser to ground surface. Filter pack sand will be filled around each well up to two feet above the screen, with a filter pack seal (clean fine sand and bentonite) to at least two feet above the filter pack. Once the bentonite has hydrated, the well will be grouted to ground surface.

Following well installation and a minimum of 24 hours has passed, wells will be developed via over-pumping and surging methods using a submersible pump to remove sediments from the well and surrounding annulus. Groundwater parameters (pH, specific conductance, temperature, and turbidity) will be measured periodically, and well development activities will continue until up to 10 well volumes have been purged or turbidity has stabilized below 50 NTUs.

Within the same well installation mobilization, shallow and intermediate wells will also be installed and developed as described in Section 4.3 (Figure 4).

## 5 SOIL INVESTIGATION ACTIVITIES

Shallow soil sampling will be conducted via direct push drilling methods to assess soil conditions and delineate the horizontal nature and extent of PFAS north and east of the OTA. Approximately 15 on-Site soil borings, each with two sample depth intervals, will be advanced within and near the OTA. Sample interval depths will be determined based on field observations. The proposed soil boring locations are provided on Figure 5.

The soil investigation is anticipated to commence in spring 2018. Refer to Section 9 for the anticipated schedule for all proposed work associated with this Site investigation. If the results of the soil investigation indicate that delineation is incomplete as it relates to a potential remedy, additional sampling may be conducted during a future investigation phase.

## 6 DITCH INVESTIGATION ACTIVITIES

### 6.1 Ditch Survey and Wetland Delineation

A topographic survey will be performed in ditches on-Site (from Woelske Road to culvert at northwest end of the Site and south of the OTA) to evaluate ditch conditions, and slope of ditch. Sediment and ground surface elevations will be measured approximately every 50 feet along the ditch. Each measurement will include elevations at five locations in transect across the ditch. The five locations will consist of:

- Top of each bank
- Center of ditch
- Half way between each bank and center of the ditch.

Additional elevation measurements may be collected beyond top of bank to further characterize the Site slope and drainage conditions to the ditch. The necessity and locations of additional survey measurements will be determined after the assessment of current Site conditions.

A field survey will be conducted by a wetland scientist to delineate surface waters (including waterways and wetlands) within the Site boundaries during the growing season. Waterways will be identified by the presence of a defined bed and bank and evidence of an ordinary high-water mark. Wetlands will be delineated using the methodology outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual. These features will be recorded using a global positioning system unit capable of sub-meter accuracy.

### 6.2 Ditch Surface Water

Surface water samples will be collected from within the ditches on and near the Site to evaluate the extent of PFAS present in the ditch water. Data collected will be used to evaluate the nature and extent, and transport of PFAS in ditch water. Water samples will be collected from six locations on-Site, six locations north of the Site, and five locations south of the Site. Proposed sample locations are shown on Figure 6. Seasonal variability of concentrations will be assessed by collecting samples from all locations during three sampling events: snow melt (about March), spring rain (about May), and fall rain (about October).

Samples will be collected by hand using a clean beaker attached to a pole, then pouring the sample into appropriate lab-supplied containers. Sample locations will be accessed by walking or wading, as appropriate for field conditions. Samples located from the southern property boundary to Rader Road will be collected at public access points. All surface water samples will be analyzed for PFAS and Total Suspended Solids (TSS), following the QA/QC and sampling handling procedures described in Section 7.

### 6.3 Stormwater

A stormwater runoff evaluation will be conducted on the Site to evaluate stormwater runoff from the OTA. Data collected will be used to evaluate the effect of stormwater runoff on ditch hydraulics and the potential PFAS loading to the ditch from runoff. Stormwater runoff will be collected from four proposed locations on-Site, as shown on Figure 7.

At each stormwater collection location, a v-notch weir will be installed across the ditch to impound stormwater for sampling. Automatic samplers will be utilized to collect flow-weighted stormwater samples throughout a qualifying storm event. Stormwater volume will be measured using a flow meter. The auto-sampler and flow meter will be installed at each weir location and left in place through the fall sampling event. The sampler will be staged on-Site at the top of the ditch, in a locked box, filled with ice during the sampling event. All stormwater samples will be analyzed for PFAS and Total Suspended Solids (TSS), following the QA/QC and sampling handling procedures described in Section 7.

Seasonal variability of concentrations will be assessed by collecting samples from all locations during three sampling events: snow melt (about March), spring rain (about May), and fall rain (about October).

### 6.4 Surface Water and Groundwater Elevations

Stilling wells and piezometers will be installed to measure groundwater and surface water elevations. These data will be used to evaluate if groundwater is discharging to the ditch. Water elevation measurements will be collected at two locations on-Site and three locations south of the Site, as shown on Figure 6.

At each measurement location, a mini piezometer will be installed in the sediment and a stilling well will be installed in the ditch. The piezometers will be stainless steel wells installed in the ditch by hand to about 3 to 5 ft bgs, depending on the groundwater elevation at each location. The stilling wells will be slotted PVC pipe. Stilling wells will be installed within the ditch and mounted to culvert/overpass or other structures with the bottom of the pipe approximately 4-inches from the sediment surface. Pressure transducers will be installed in each of the piezometers and stilling wells and left in place for a period of 2 weeks to measure water elevations during each measurement event.

Seasonal variability of water elevations will be assessed by collecting measurements from all locations during four events: snow melt (about March), spring rain (about May), summer dry (about July), and fall rain (about October).

### 6.5 Sediment

Sediment samples will be collected in the ditch to evaluate if ditch sediment is a potential source of PFAS to ditch surface water. Data collected will be used to calculate leaching potential of sediments. Sediment samples will be collected from eight locations on the Site, six locations north of the Site, and five locations south of the Site. Sample locations are shown on Figure 6. At sediment sample locations where surface water samples will also be collected, the sediment sample will be collected from the center of the ditch. At three locations on-Site and one location on University Drive, only sediment samples will be collected (Figure 6). At these locations the ditch width will be measured, and samples collected from three locations across the ditch: the center of the ditch; and one on either side of center, halfway between the top of each

## SITE INVESTIGATION WORK PLAN

bank and the center of the ditch. All sample locations will be accessed by walking or wading, as appropriate for field conditions. Samples located from the southern property boundary to Rader Road will be collected at public access points within public rights-of-way.

Samples will be collected by hand using a Lexan plastic core pushed into the sediment to a depth of about 6 inches (a slide hammer may be used to push the core into stiffer sediments). The core tube will be capped at the top to create suction, then the core pulled out and capped at the bottom to capture the sediment sample. The sediment will be placed in a stainless steel bowl or pan, photographed, and described prior to filling lab supplied sample containers. Sediment descriptions will include soil type, grain size, moisture content, and color. Fine-grained soil descriptions will also include plasticity and consistency. Coarse-grained soil descriptions will include angularity and sorting. All sediment samples will be submitted for PFAS analysis, as well as Total Organic Carbon (TOC) and grain size testing, following the QA/QC and sampling handling procedures described in Section 7.

Sediment samples will be collected during the same mobilization as surface water samples. At locations where both sediment and surface water samples are to be collected, the surface water sample will be collected prior to sediment. Sediment samples will be collected starting at the furthest sampling location down gradient of the Site and progress in the upstream direction.

### 6.6 Ditch Water Hydrodynamics

Surface water hydrodynamics will be evaluated within the on-Site ditch to evaluate the sediment transport conditions of the ditch, and potential for sediment erosion. This evaluation will utilize data collected during other field activities, including ditch topography and vegetation data (see section 6.1), sediment grain size (see section 6.5), and water elevation (see section 6.4). During each surface water sampling event, flow measurements of the ditch surface water will be made. At each surface water measurement location, flow measurements will be made along a transect. At all locations, the ditch width that is inundated will be measured, and measurements will be collected from three locations across the ditch: the center of the ditch; and one on either side of center, halfway between the water's edge and the center of the ditch. Measurement locations will be accessed by walking or wading, as appropriate for field conditions. Samples located from the southern property boundary to Rader Road will be collected at public access points within public rights-of-way.

## 7 QUALITY ASSURANCE AND QUALITY CONTROL

### 7.1 Special Considerations for PFAS Sampling

The detection of PFAS compounds at very low concentrations can be influenced by common PFAS-containing materials that may be present at the sampling Site. Therefore, sampling protocols are to be strictly followed by the sampling personnel. To minimize the potential for cross-contamination, attention will be given to sampling materials (i.e. tubing), decontamination procedures, as well as clothing and personal care products used by sampling personnel.

Sampling for PFAS compounds will include the submission of one laboratory-supplied reagent field blank per day to analyze for the presence of ambient PFAS in the sampling area. PFAS-free water used for the

## SITE INVESTIGATION WORK PLAN

reagent field blank sample is brought to the Site in a laboratory-supplied bottle. Field staff will transfer the laboratory-supplied PFAS-free water into an empty sample bottle. This reagent field blank will be placed in the same cooler as other samples intended for PFAS analyses.

All equipment will be decontaminated between sample locations with PFAS-free water. Only Alconox, Liquinox, or methanol can be used as decontamination materials. To assess the adequacy of the decontamination process, a rinse blank will be collected every 20 samples or per day whichever is more frequent. To prepare a rinse blank, a sample of PFAS-free water will be poured over or through decontaminated field equipment prior to collection of environmental samples.

### 7.2 Laboratory Methods and Analysis

Samples will be placed in laboratory-supplied containers, stored and shipped on ice, and handled with chain of custody documentation. All samples will be sent to Test America or an equivalent lab that is accredited for PFAS analysis. Although the focus is on PFOA and PFOS, samples will be analyzed for the following six PFAS compounds using a modified version of United States Environmental Protection Agency (US EPA) Method 537:

- Perfluorobutanesulfonic acid (PFBS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)

As part of the internal QA/QC, one matrix spike (MS) sample and one matrix spike duplicate (MSD) sample will be collected for every 20 field samples collected for each media, as listed in Table 1. One field duplicate will be collected for every ten field samples for each media, as listed in Table 1.

Table 1. Laboratory Methods and QA/QC Frequency

Matrix	Parameter	Laboratory Method	MS/MSD Frequency	Field Duplicate Frequency
Water	PFAS	Modified EPA 537	1/20	1/10
Water	TSS	EPA 160.2	None	1/10
Soil or Sediment	PFAS	Modified EPA 537	1/20	1/10
Sediment	TOC	SW-846 9060A	None	1/10
Sediment	Grain Size	ASTM D422	None	None

Internal laboratory QA/QC should consist of one laboratory blank and one laboratory control sample (or blank spike) per batch of samples, and additional QA/QCs as indicated by the laboratory QA/QC

## SITE INVESTIGATION WORK PLAN

procedures. For potable water, the laboratory should follow the methodology of US EPA Method 537. Updated potable water analytical procedures may become available and may be considered at that time.

## 8 REPORTING

Field investigation information will be communicated to WDNR through data summaries, and a Site Investigation Report (SIR) will be submitted after completion of activities.

The SIR will be prepared per Chapter NR 716 of the Wisconsin Administrative Code and submitted to the WDNR following the conclusion of the majority of the sampling activities described in this work plan, with the exception of seasonal ditch sampling work that is scheduled for later in 2018. The SIR will include data obtained under this work plan as of approximately July 31, 2018, as well as data collected during the 2016 and 2017 characterization work. The SIR will include recommendations as to whether further characterization or monitoring work is needed. Additional ditch sampling/evaluation work described above that will occur in approximately August 2018 and beyond will be reported to WDNR in a SIR Addendum following data collection and evaluation.

## 9 ANTICIPATED SCHEDULE

The anticipated schedule for field investigation, data evaluation and SIR preparation is as follows:

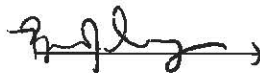
- Field sampling:
  - Ditch surface water, stormwater, surface water/groundwater elevations and sediment, ditch water hydrodynamics: initial work March-May 2018, with subsequent sampling June-November 2018
  - Groundwater VAP, monitoring well installation, geophysics and related work: April-July 2018
  - Soil sampling: April-May 2018
- Reporting:
  - Data summaries will be provided to WDNR after completion of significant investigation elements.
  - SIR submittal to WDNR: approximately September 2018

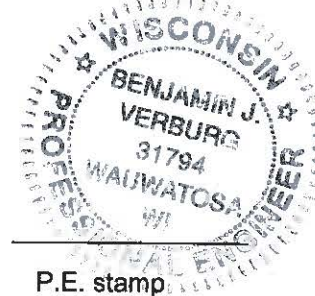
In the event the schedule is affected by weather, access or other factors, WDNR will be provided an updated schedule for the activities.



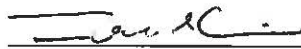
## 10 NR 712 CERTIFICATION

I, BENJAMIN J VERBURG, 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.

, Principal Engineer, 31794-006  
Signature, title and P.E. number



I, TIMOTHY G. ALESSI, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the 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.

, PROJECT GEOLOGIST, 1353-13  
Signature, title and P.G. number



## 11 REFERENCES

Arcadis 2016. 2016 Investigation Report. Ansul Fire Technology Center Site. 2700 Industrial Parkway, Marinette, Wisconsin. BRRTS No. 0.-38-001345. November 22, 2016.

Oakes, E. L., & Hamilton, L. J. (1973). *Water resources of Wisconsin: Menominee-Oconto-Peshigo River basin* (No. 470). US Geological Survey.

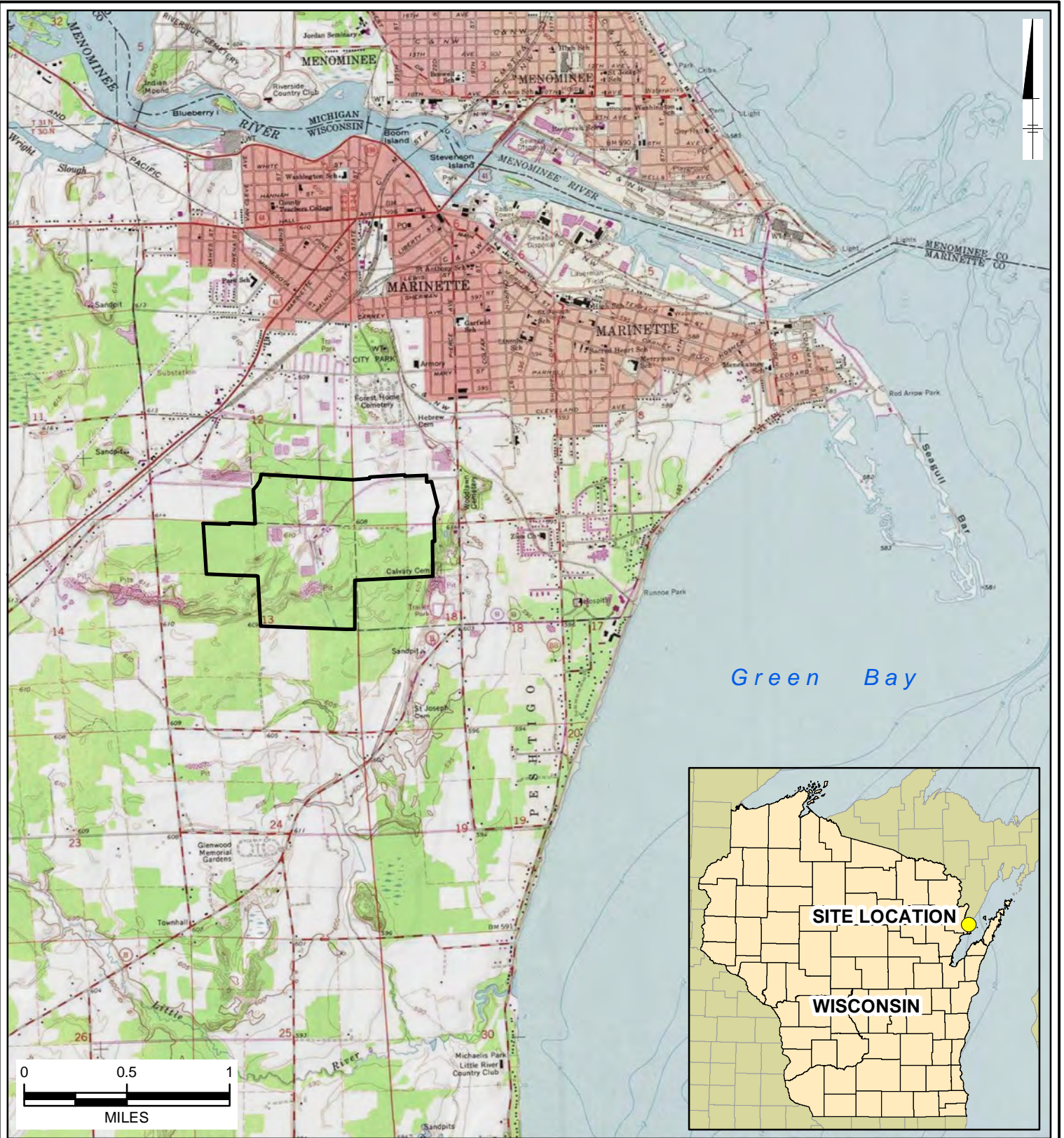
NRCS. 2017. Web Soil Survey. Available online at:

<https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed: February 2018.

Omernik, James M., Chapman, Shannen S., Lillie, Richard A., Dumke, Rober T. 2008. Ecoregions of Wisconsin. Available online at: [https://dnr.wi.gov/topic/surfacewater/datasets/omernik\\_eco/](https://dnr.wi.gov/topic/surfacewater/datasets/omernik_eco/). Accessed: February 2018.

# FIGURES





City: Minneapolis/Clark Div/Group: IMDVC Created By: Last Saved By: mgrs  
 TYCO Marinette WI  
 ZGISProjects\ENVT\TYCO\_Marinette\_WI\MXD\2018-03\Work\_Plan\Fig1\_Sitelocation\_20180305.mxd 3/8/2018 2:31:35 PM

**LEGEND:**

 APPROXIMATE SITE PROPERTY


**NOTES:**

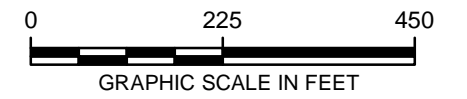
1. TOPOGRAPHIC MAP SOURCE: COPYRIGHT:© 2013 NATIONAL GEOGRAPHIC SOCIETY, I-CUBED, ACCESSED MARCH, 2018.

TYCO FIRE PRODUCTS, LP MARINETTE, WISCONSIN	
<b>SITE LOCATION</b>	
	<b>FIGURE 1</b>



LEGEND:

 OUTDOOR TESTING/TRAINING AREA



NOTES:

- 1. IMAGERY SOURCE: 4/27/2016, DIGITALGLOBE, VIVID - USA.

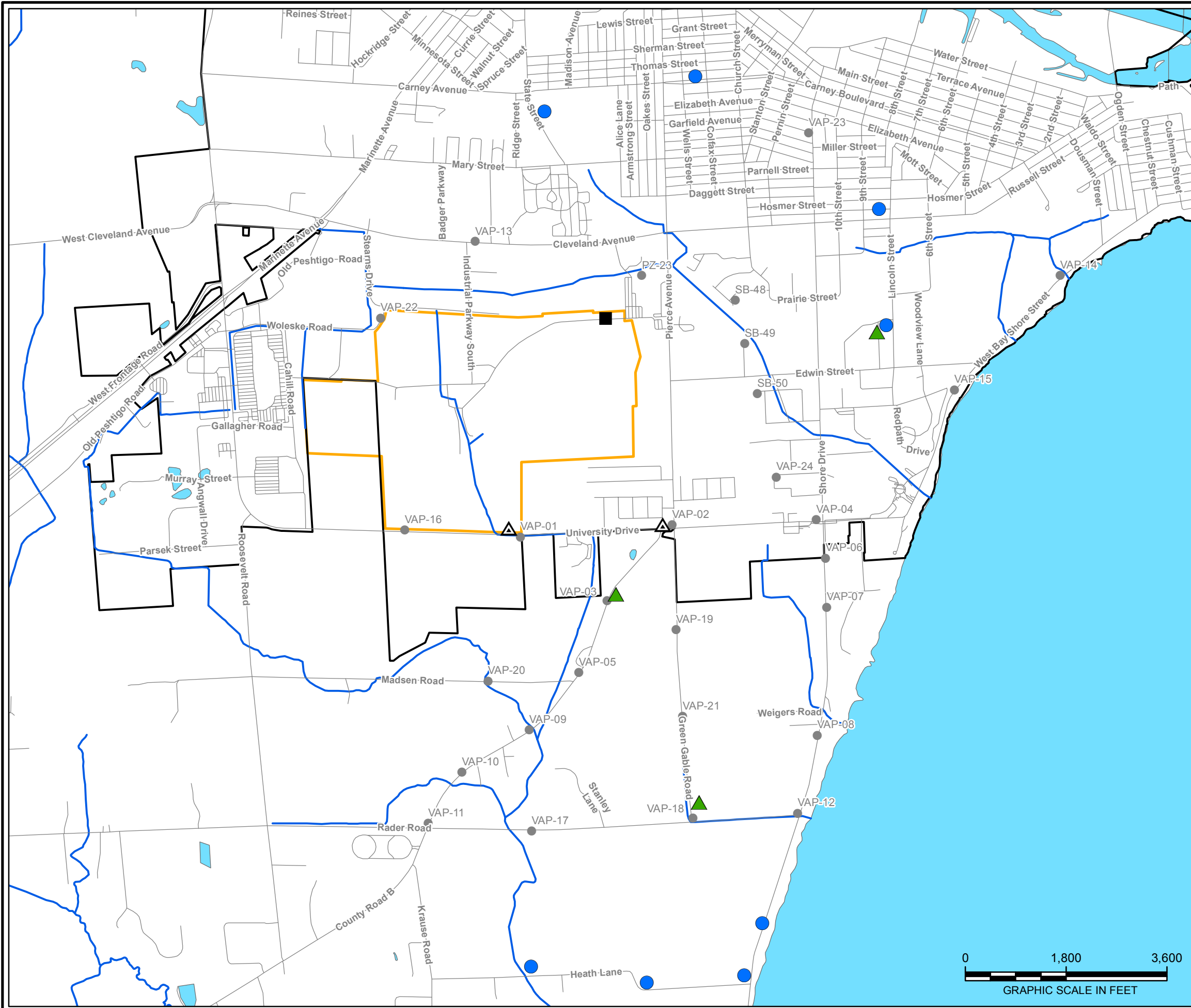
TYCO FIRE PRODUCTS, LP  
MARINETTE, WISCONSIN

**OUTDOOR TESTING/TRAINING AREA**



FIGURE  
**2**

City: Minneapolis/Citrix Div/Group: IMDVC Created By: Last Saved By: mgress  
 TYCO Marinette, WI  
 Z:\GIS\Projects\_ENV\TYCO\_Marinette\_WI\IMXD\2018-03\Work\_Plan\Proposed\_VAP\_Inv\Investigation\_Locations\_20180305.mxd 3/8/2018 2:36:11 PM



**LEGEND:**

- PROPOSED BEDROCK INVESTIGATION LOCATION
- ▲ PROPOSED CONFINING UNIT VAP AND BEDROCK INVESTIGATION LOCATION
- ▲ PROPOSED CONFINING UNIT VAP INVESTIGATION LOCATION
- PROPOSED SAND UNIT VAP INVESTIGATION LOCATION
- PREVIOUS VAP LOCATION (2016 AND 2017)
- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE MARINETTE CITY BOUNDARY
- ROAD
- DITCH/STREAM
- WATERBODY

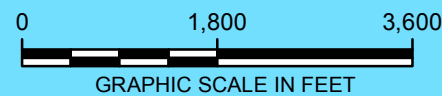
**NOTES:**

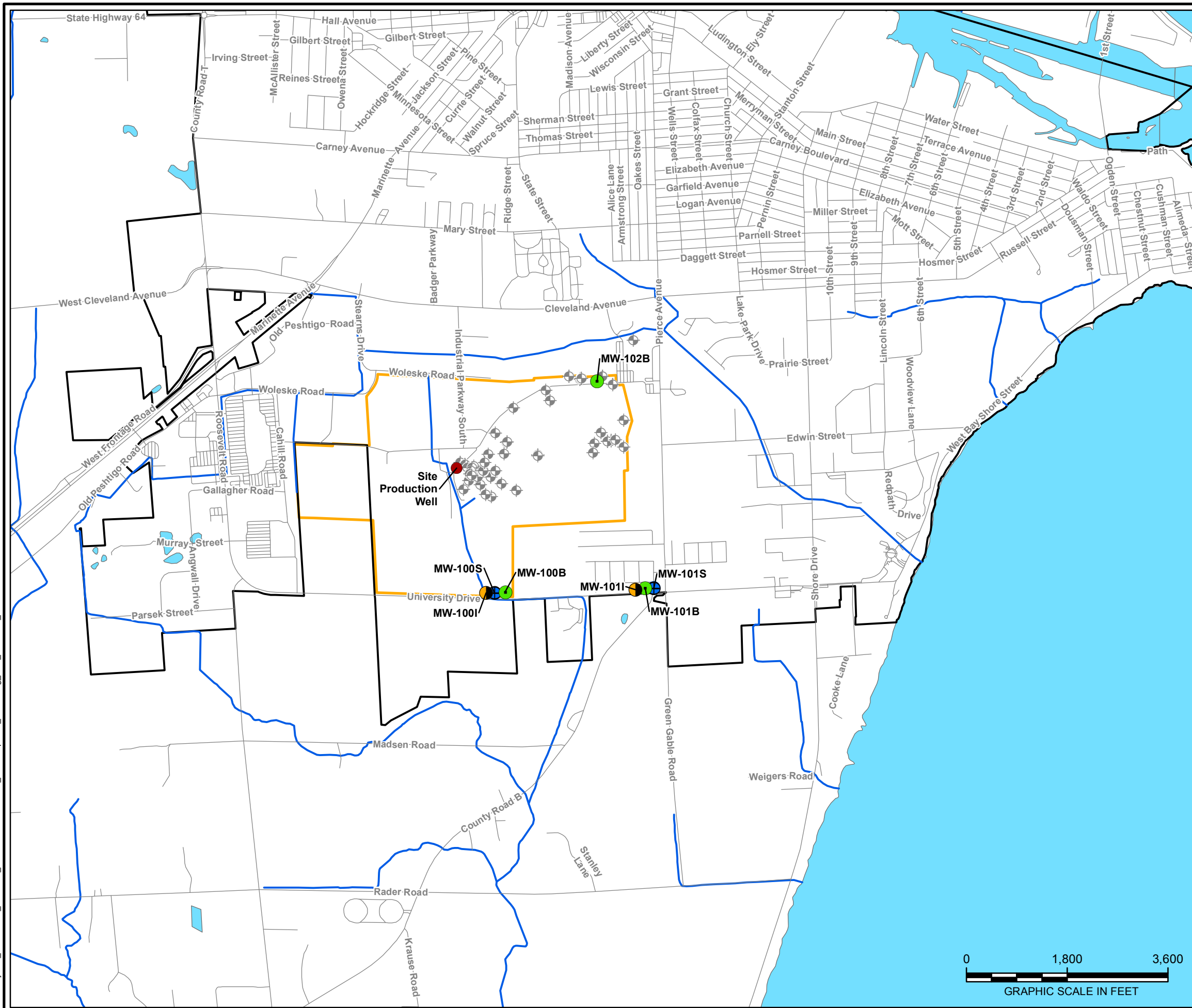
1. VAP = VERTICAL AQUIFER PROFILING
2. CITY BOUNDARY DATA SOURCE: WISCONSIN LEGISLATIVE TECHNOLOGY SERVICES BUREAU, WISCONSIN COUNTY CLERKS AND LAND INFORMATION OFFICES, ACCESSED FALL 2017.
3. DITCH/STREAM AND WATERBODY DATA SOURCE: U.S. GEOLOGICAL SURVEY NATIONAL HYDROGRAPHY DATASET, ACCESSED FALL 2017.
4. ROAD DATA SOURCE: OPEN STREET MAP, ACCESSED FALL 2017.

TYCO FIRE PRODUCTS, LP  
MARINETTE, WISCONSIN

**PROPOSED GROUNDWATER  
INVESTIGATION LOCATIONS**

**ARCADIS** | **FIGURE 3**





LEGEND:

- MONITORING WELLS
- PROPOSED BEDROCK MONITORING WELL
- PROPOSED INTERMEDIATE MONITORING WELL
- PROPOSED SHALLOW MONITORING WELL
- SITE PRODUCTION WELL
- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE MARINETTE CITY BOUNDARY
- ROAD
- DITCH/STREAM
- WATERBODY

NOTES:

1. THE LOCATION OF THE SITE PRODUCTION WELL DEPICTED IS APPROXIMATE.
2. VAP = VERTICAL AQUIFER PROFILING
3. CITY BOUNDARY DATA SOURCE: WISCONSIN LEGISLATIVE TECHNOLOGY SERVICES BUREAU, WISCONSIN COUNTY CLERKS AND LAND INFORMATION OFFICES, ACCESSED FALL 2017.
4. DITCH/STREAM AND WATERBODY DATA SOURCE: U.S. GEOLOGICAL SURVEY NATIONAL HYDROGRAPHY DATASET, ACCESSED FALL 2017.
5. ROAD DATA SOURCE: OPEN STREET MAP, ACCESSED FALL 2017.

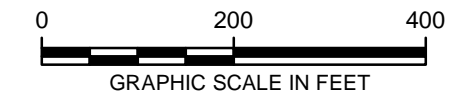
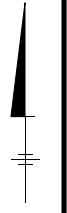
TYCO FIRE PRODUCTS, LP  
 MARINETTE, WISCONSIN

**PROPOSED MONITORING  
 WELL LOCATIONS**





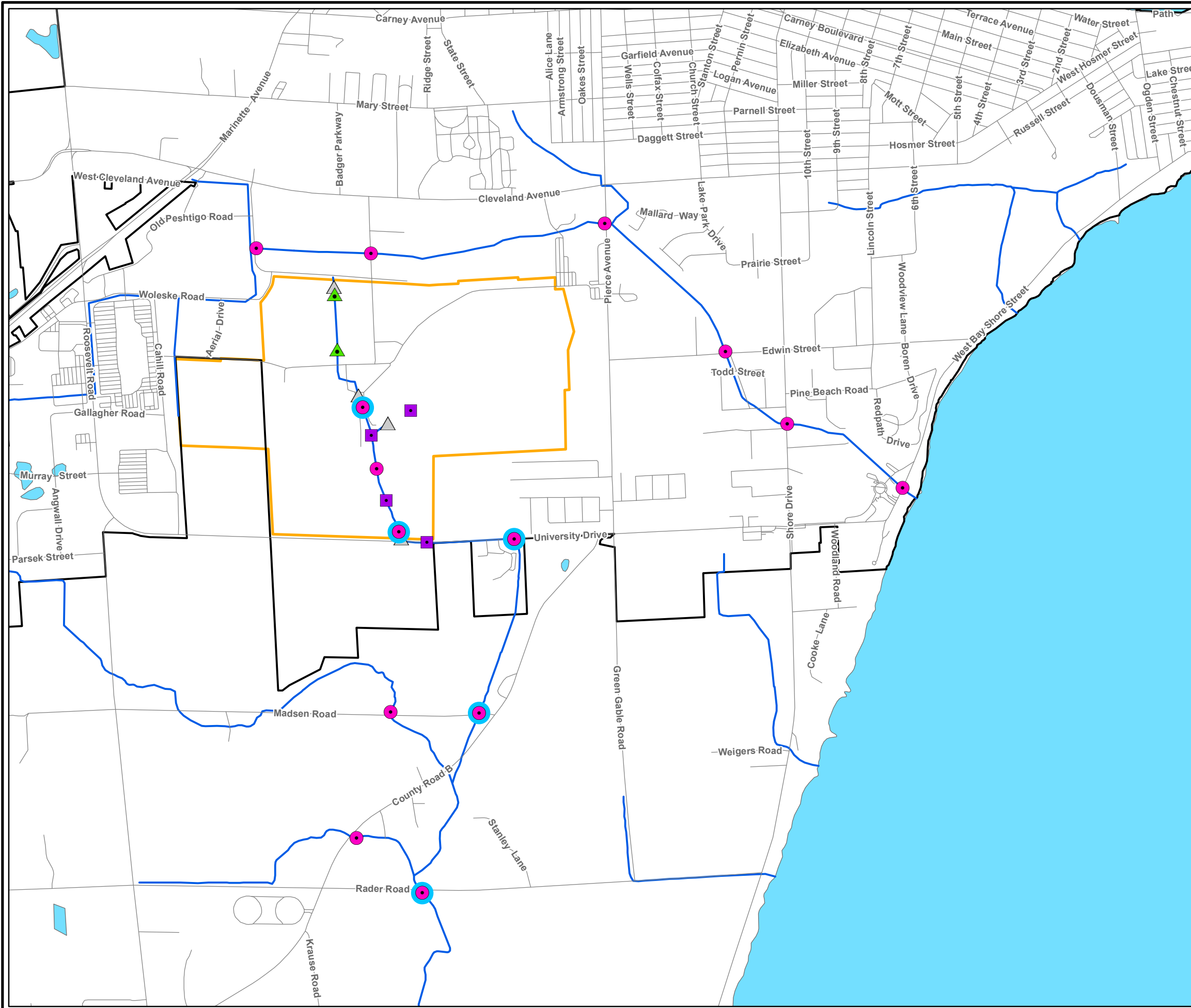
LEGEND:  
X PROPOSED SHALLOW SAMPLE LOCATION



NOTES:  
1. IMAGERY SOURCE: 4/27/2016, DIGITALGLOBE, VIVID - USA.

TYCO FIRE PRODUCTS, LP MARINETTE, WISCONSIN	
<b>PROPOSED SOIL INVESTIGATION LOCATIONS</b>	
	<b>FIGURE 5</b>



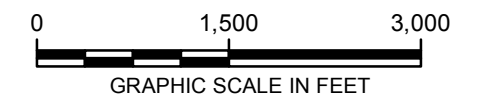


**LEGEND:**

- ▲ COMPLETED SURFACE WATER SAMPLE LOCATION
- ▲ PROPOSED SURFACE WATER SAMPLE LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION
- PROPOSED SURFACE WATER AND SEDIMENT SAMPLE LOCATION
- PROPOSED SURFACE WATER/SEDIMENT SAMPLE AND WATER ELEVATION GAUGING LOCATION
- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE MARINETTE CITY BOUNDARY
- ROAD
- DITCH/STREAM
- WATERBODY

**NOTES:**

1. CITY BOUNDARY DATA SOURCE: WISCONSIN LEGISLATIVE TECHNOLOGY SERVICES BUREAU, WISCONSIN COUNTY CLERKS AND LAND INFORMATION OFFICES, ACCESSED FALL 2017.
2. DITCH/STREAM AND WATERBODY DATA SOURCE: U.S. GEOLOGICAL SURVEY NATIONAL HYDROGRAPHY DATASET, ACCESSED FALL 2017.
3. ROAD DATA SOURCE: OPEN STREET MAP, ACCESSED FALL 2017.



TYCO FIRE PRODUCTS, LP  
 MARINETTE, WISCONSIN


**PROPOSED SURFACE WATER AND SEDIMENT INVESTIGATION LOCATIONS**

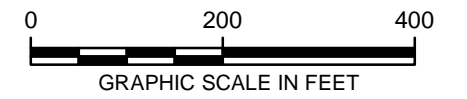


City: Minneapolis/Citrix Div/Group: IMDVC Created By: Last Saved By: mgress  
TYCO Marinette, WI  
Z:\GIS\Projects\ENV\TYCO\_Marinette\_WI\MXD\2018-03\Work\_Plan\Proposed\_Stormwater\_Investigation\_Locations\_20180305.mxd 3/8/2018 2:46:11 PM



LEGEND:

 PROPOSED STORMWATER INVESTIGATION LOCATIONS



NOTES:

1. IMAGERY SOURCE: 4/27/2016, DIGITALGLOBE, VIVID - USA.

TYCO FIRE PRODUCTS, LP  
MARINETTE, WISCONSIN

PROPOSED STORMWATER INVESTIGATION LOCATIONS



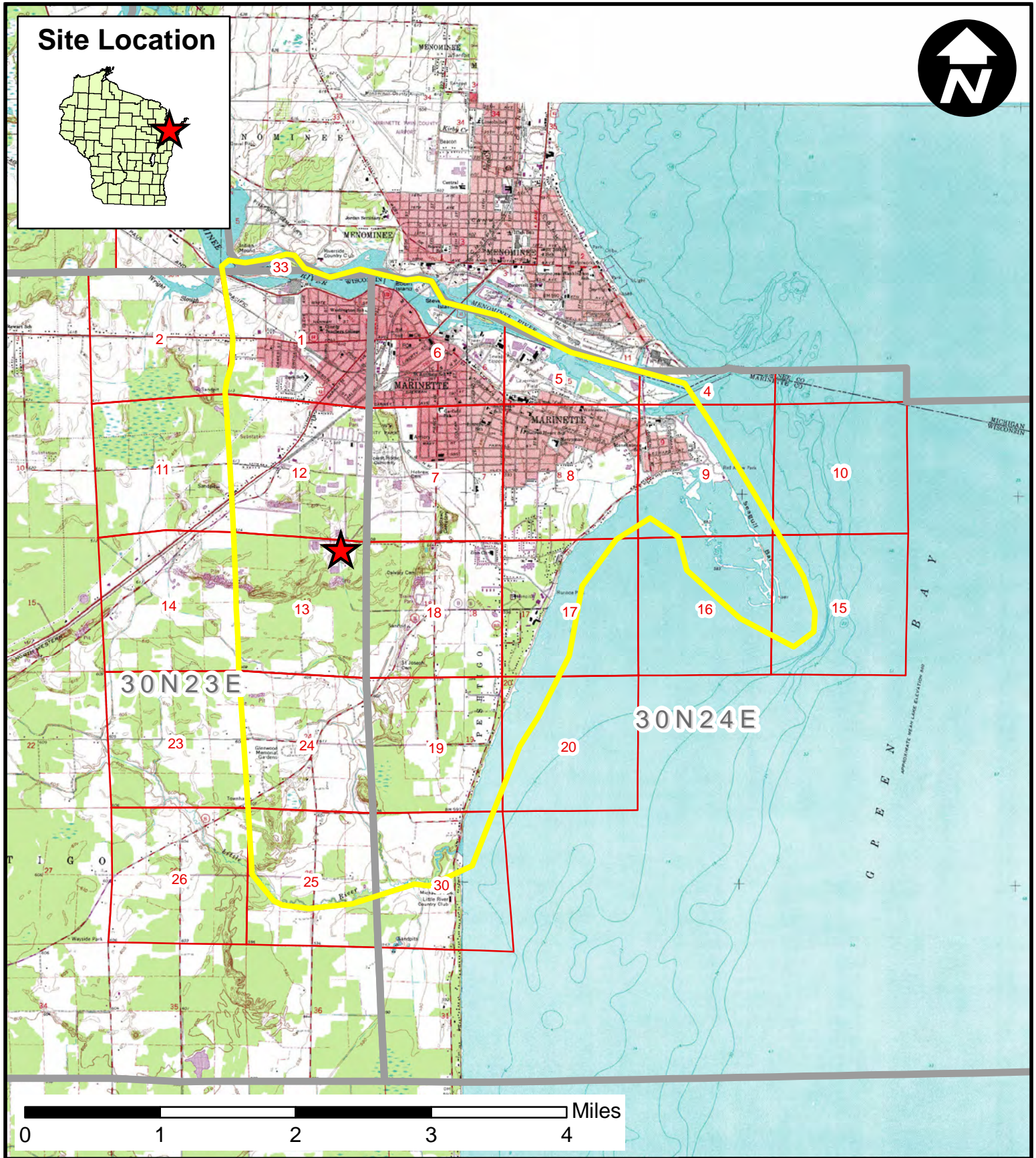
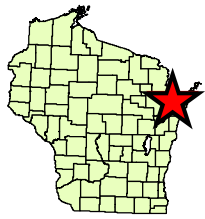
FIGURE  
7

# APPENDIX A

## Natural Resources Desktop Evaluation Data



# Site Location



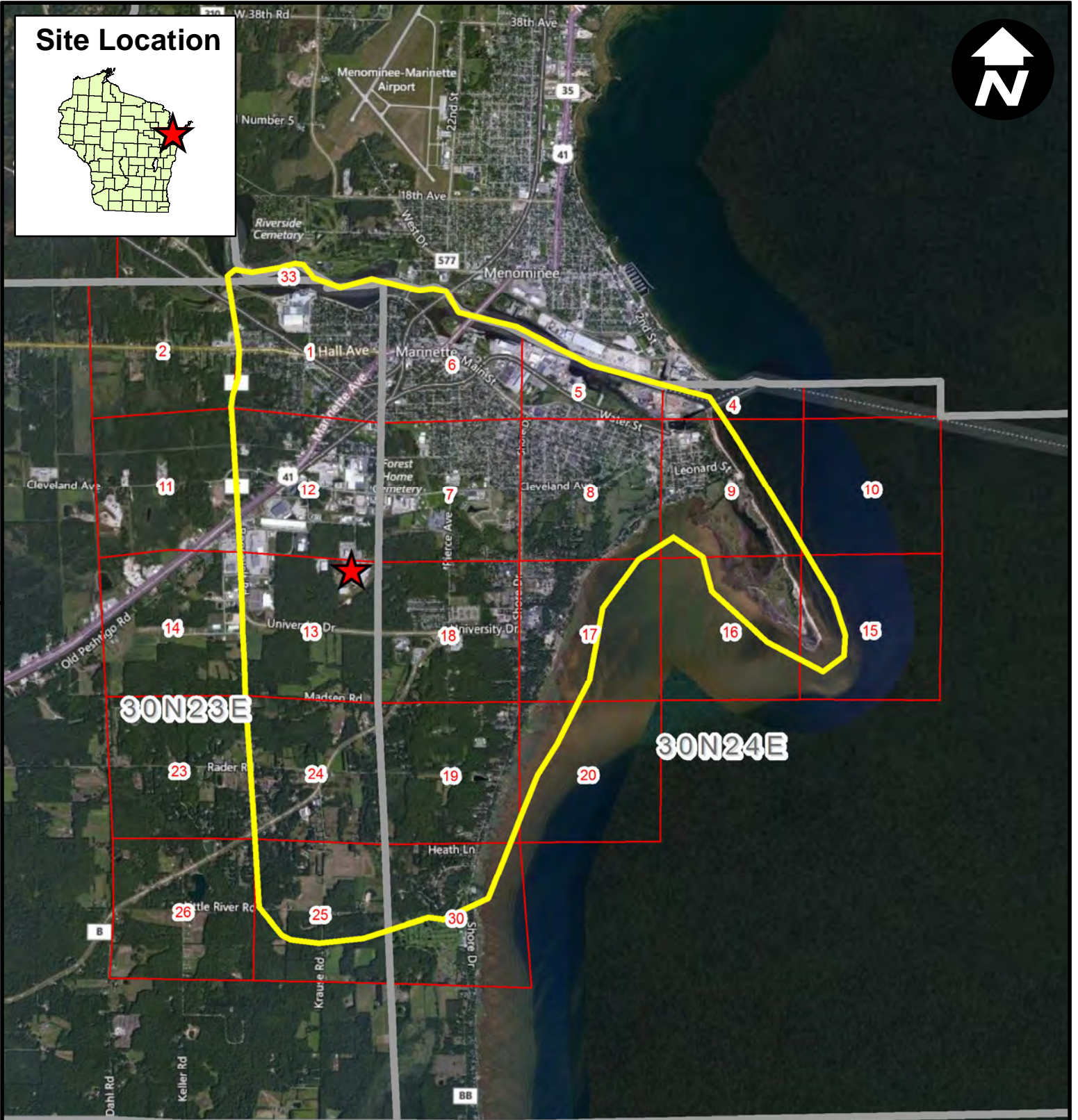
## Legend

- Site Location
- Study Area
- Township
- Section

## DESKTOP EVALUATION

**SITE LOCATION - TOPO**  
MARINETTE COUNTY, WISCONSIN

# Site Location



Corporation © 2018 DigitalGlobe ©CNES (2016) Distribution HERE

## Legend

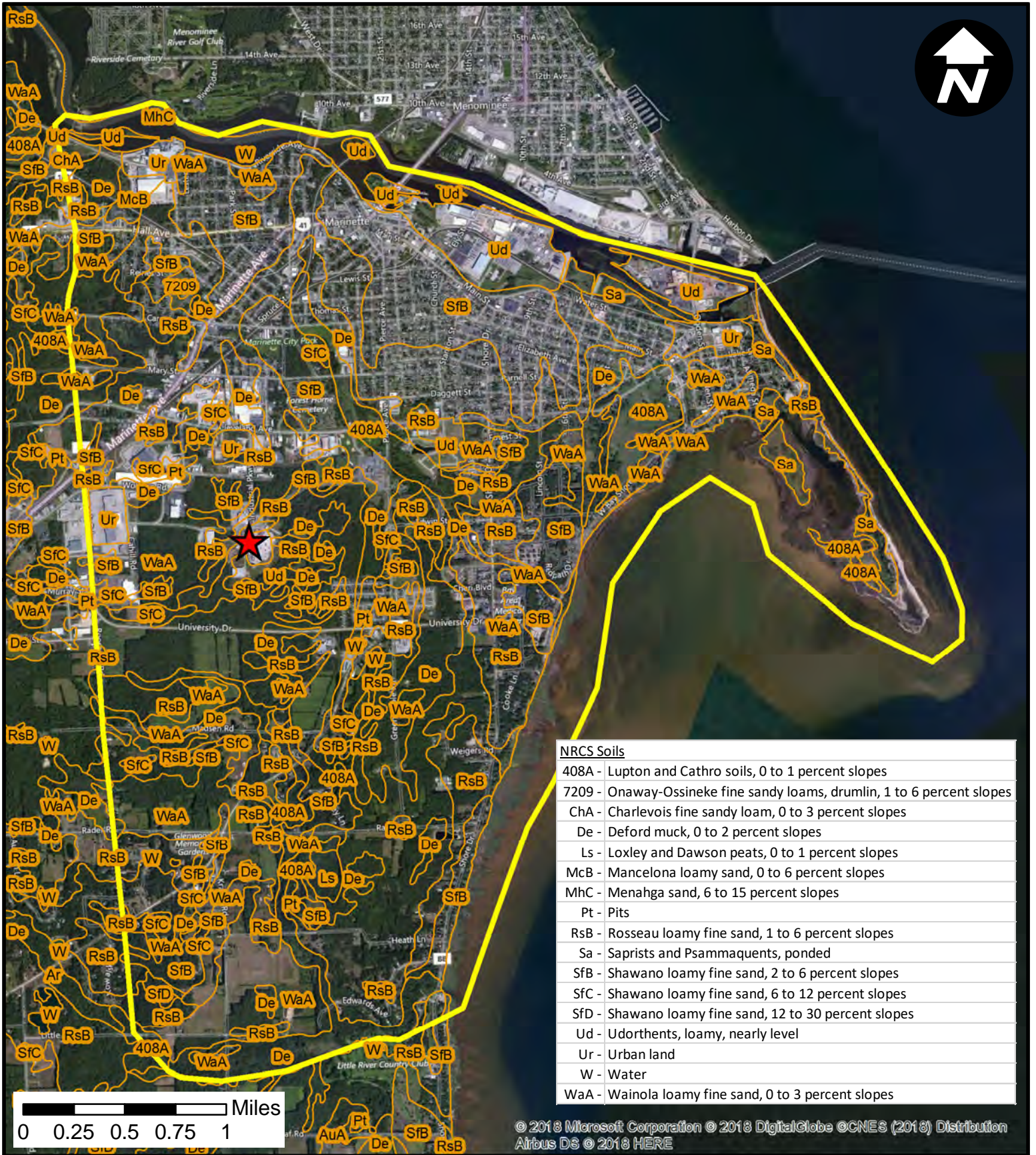
-  Site Location
-  Study Area
-  Township
-  Section

## DESKTOP EVALUATION

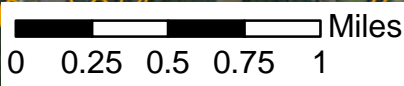
**SITE LOCATION - AERIAL**  
MARINETTE COUNTY, WISCONSIN



FIGURE  
**2**



NRCS Soils	
408A	- Lupton and Cathro soils, 0 to 1 percent slopes
7209	- Onaway-Ossineke fine sandy loams, drumlin, 1 to 6 percent slopes
ChA	- Charlevois fine sandy loam, 0 to 3 percent slopes
De	- Deford muck, 0 to 2 percent slopes
Ls	- Loxley and Dawson peats, 0 to 1 percent slopes
McB	- Mancelona loamy sand, 0 to 6 percent slopes
MhC	- Menahga sand, 6 to 15 percent slopes
Pt	- Pits
RsB	- Rosseau loamy fine sand, 1 to 6 percent slopes
Sa	- Saprists and Psammaquents, ponded
SfB	- Shawano loamy fine sand, 2 to 6 percent slopes
SfC	- Shawano loamy fine sand, 6 to 12 percent slopes
SfD	- Shawano loamy fine sand, 12 to 30 percent slopes
Ud	- Udorthents, loamy, nearly level
Ur	- Urban land
W	- Water
WaA	- Wainola loamy fine sand, 0 to 3 percent slopes



© 2018 Microsoft Corporation © 2018 DigitalGlobe ©CNES (2018) Distribution Airbus DS © 2018 HERE

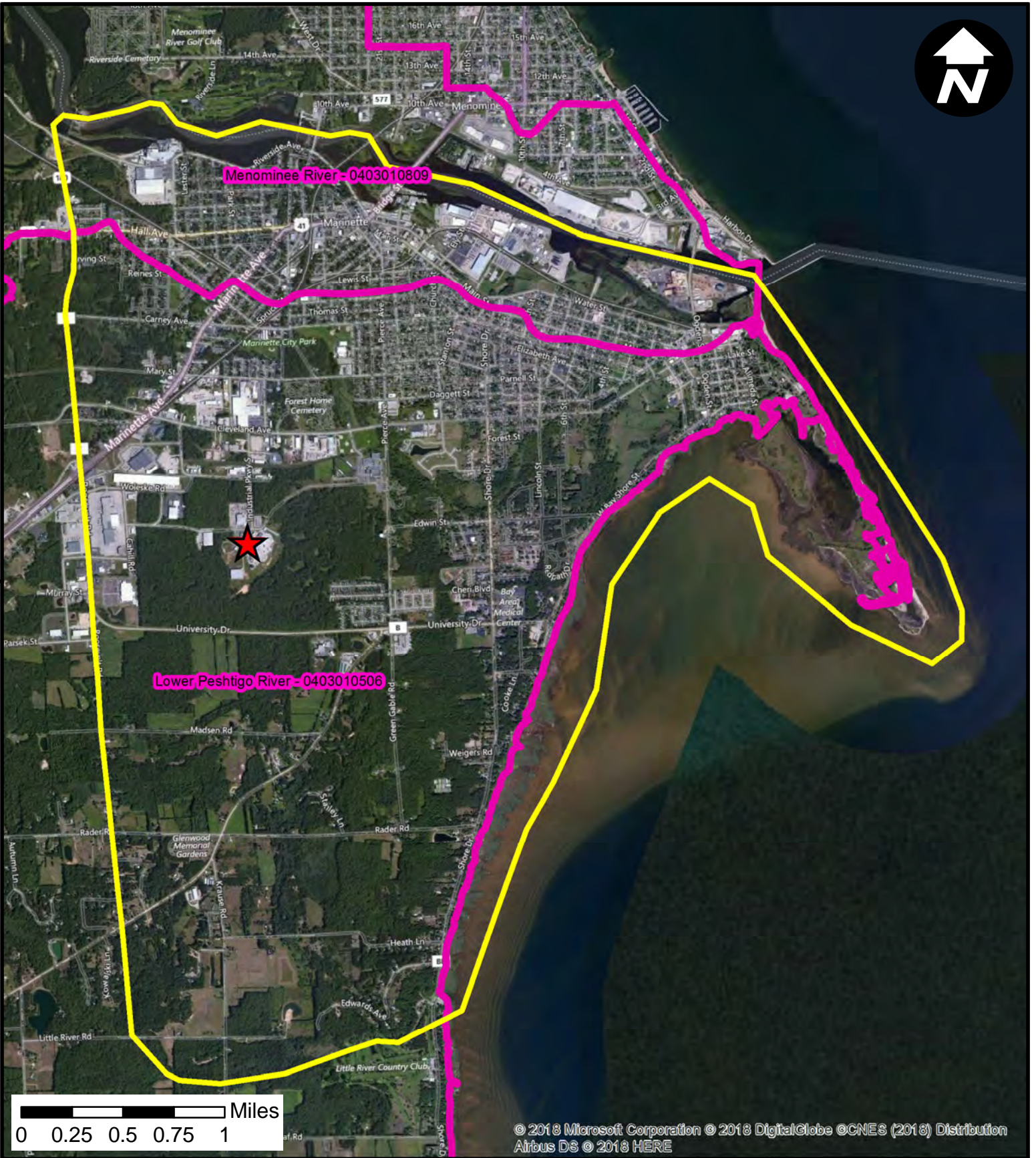
### Legend

- Site Location
- Soil Map Units (NRCS)
- Study Area

## DESKTOP EVALUATION




**SOILS**  
MARINETTE COUNTY, WISCONSIN

**FIGURE**  
3



© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018) Distribution Airbus DS © 2018 HERE

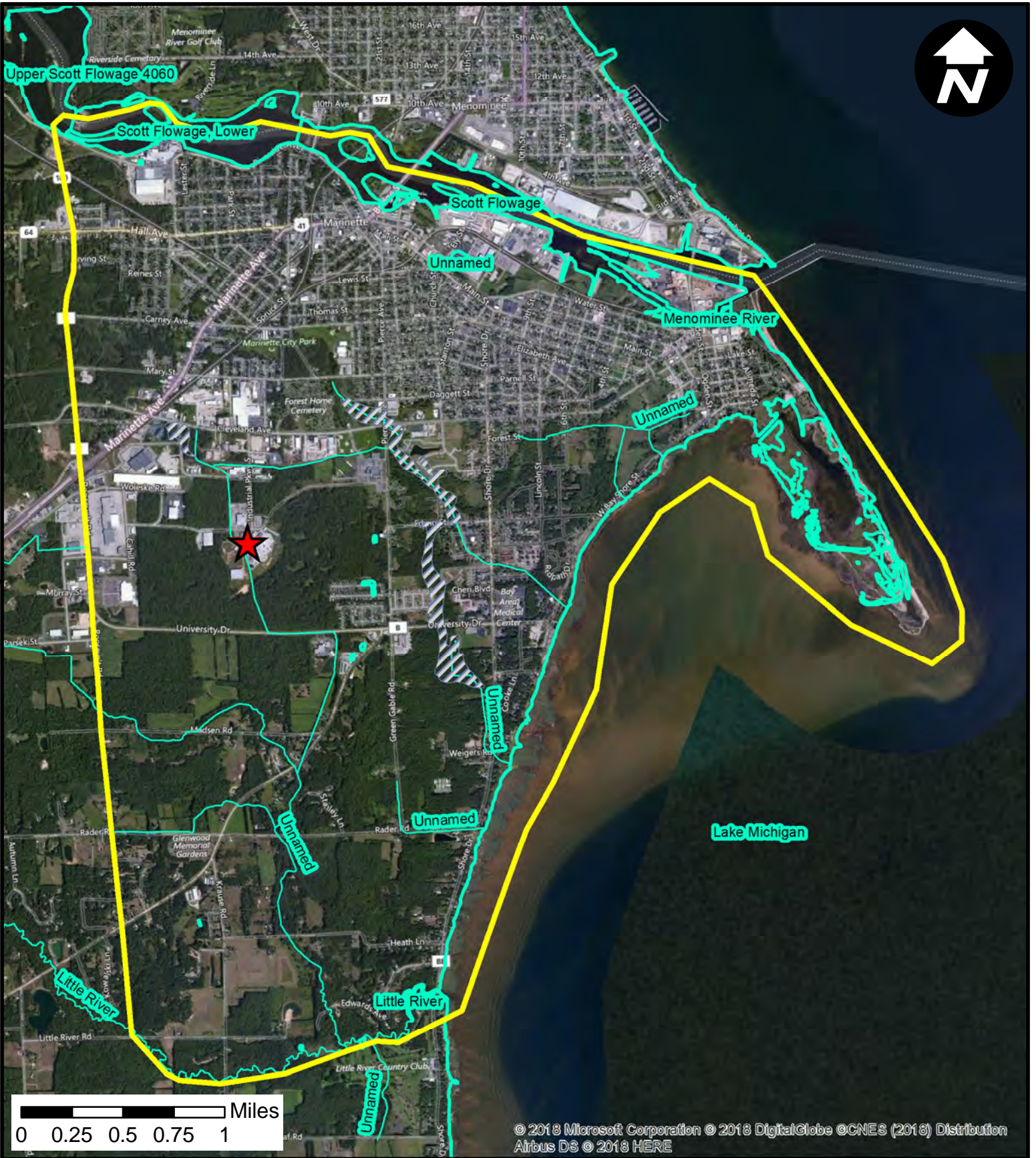
### Legend

-  Site Location
-  HUC10 Watershed (WDNR SWDV)
-  Study Area

### DESKTOP EVALUATION






**WATERSHEDS**  
MARINETTE COUNTY, WISCONSIN

	<b>FIGURE</b> <b>4</b>
---	---------------------------



© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018) Distribution Airbus DS © 2018 HERE

### Legend

-  Site Location
-  Approximate Floodplain (Digitized)
-  Study Area
-  24K Hydrography Lakes and Open Water (WDNR SWDV)
-  24K Hydrography Streams and Rivers (WDNR SWDV)

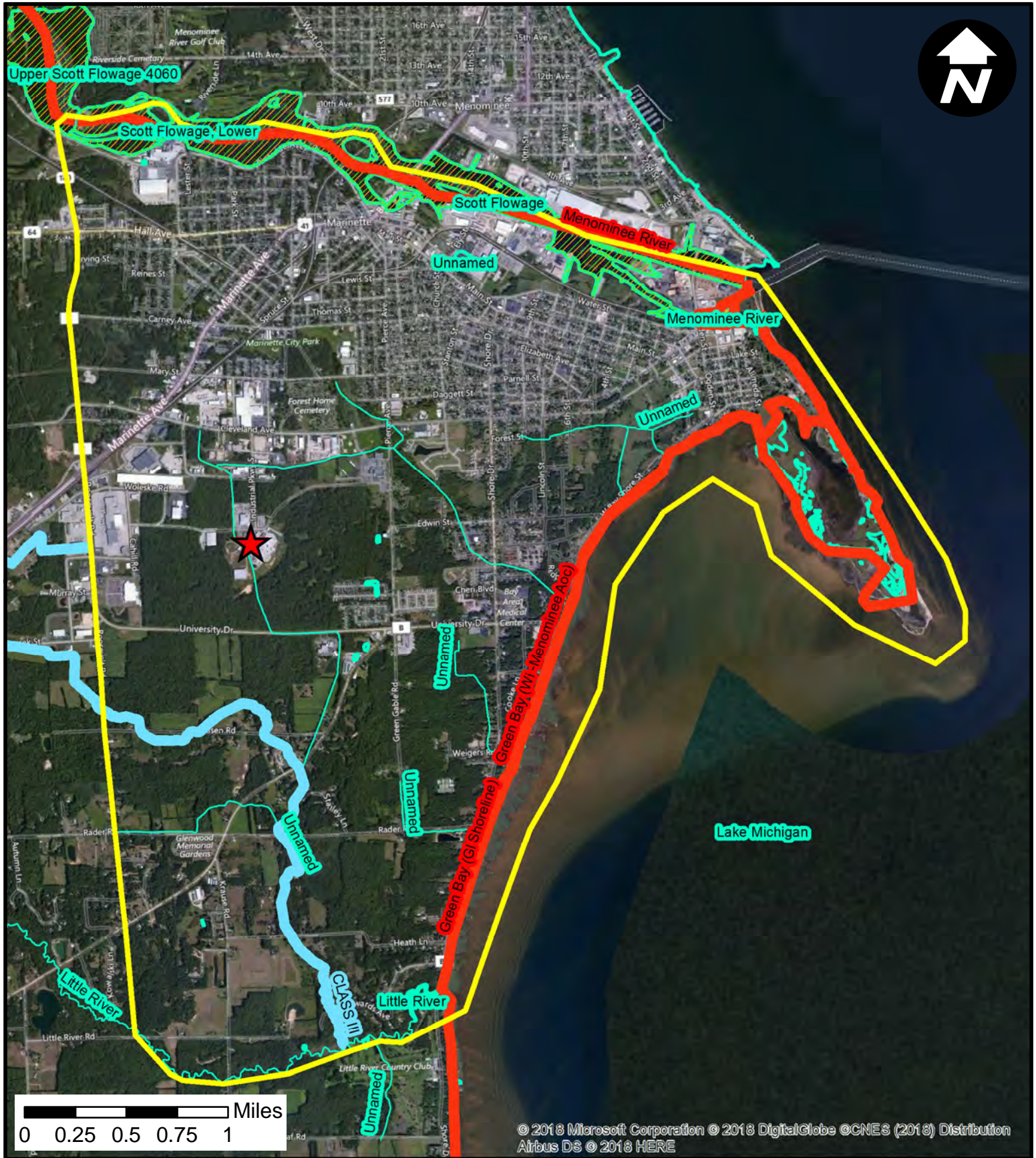
## DESKTOP EVALUATION

### WATERWAYS AND FLOODPLAIN MARINETTE COUNTY, WISCONSIN











FIGURE  
**5**





© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018) Distribution Airbus DS © 2018 HERE

**Legend**

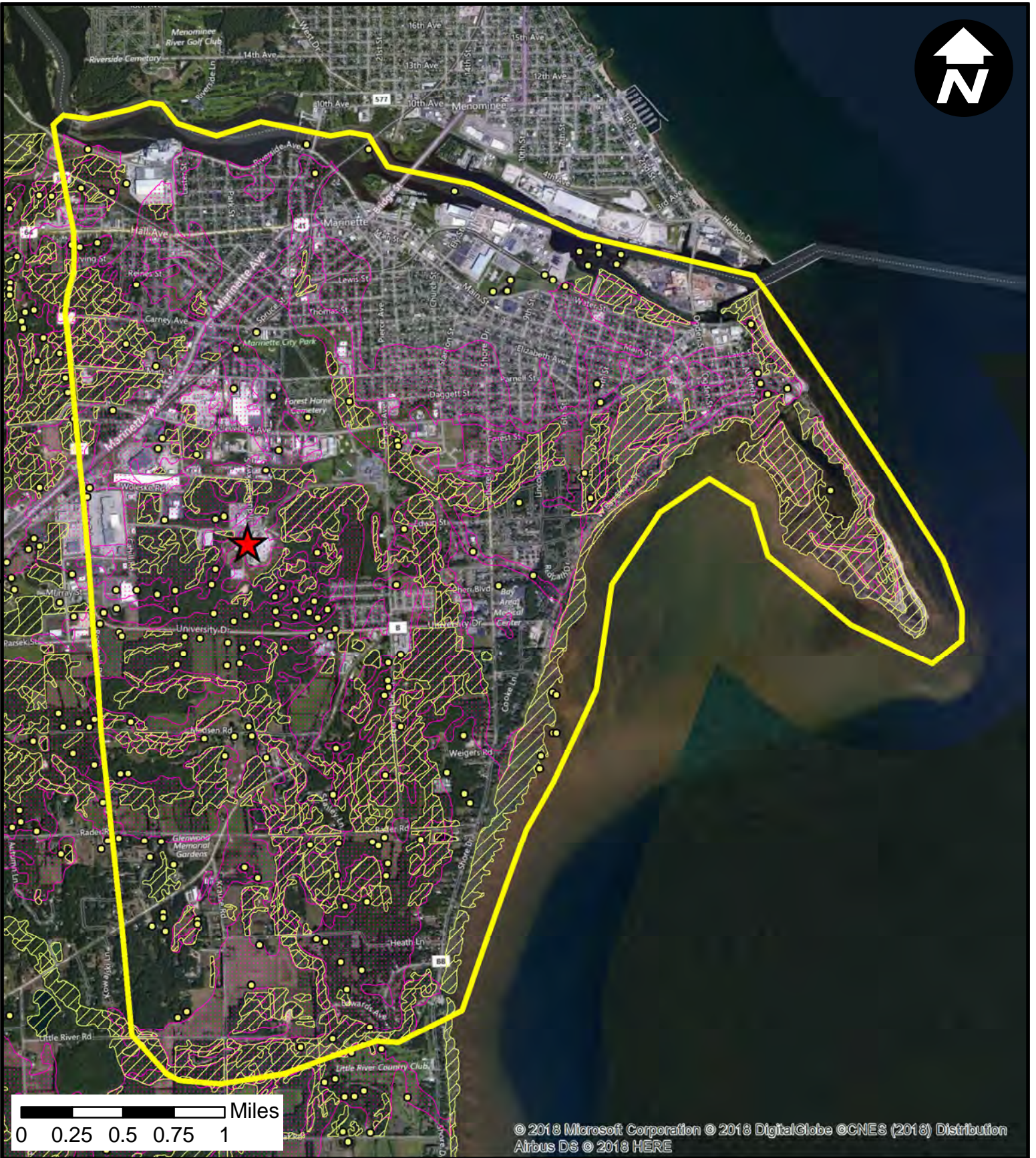
-  Site Location
-  Study Area
-  Impaired Waters (WDNR SWDV)
-  PNW-ASNRI Trout Streams (WDNR SWDV)
-  PNW Musky Areas (WDNR SWDV)
-  PNW Sturgeon Areas (WDNR SWDV)
-  24K Hydrography Streams and Rivers (WDNR SWDV)
-  24K Hydrography Lakes and Open Water (WDNR SWDV)

**DESKTOP EVALUATION**

**SPECIAL STATUS WATERWAYS**  
MARINETTE COUNTY, WISCONSIN








**FIGURE 6**



© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018) Distribution Airbus DS © 2018 HERE

**Legend**

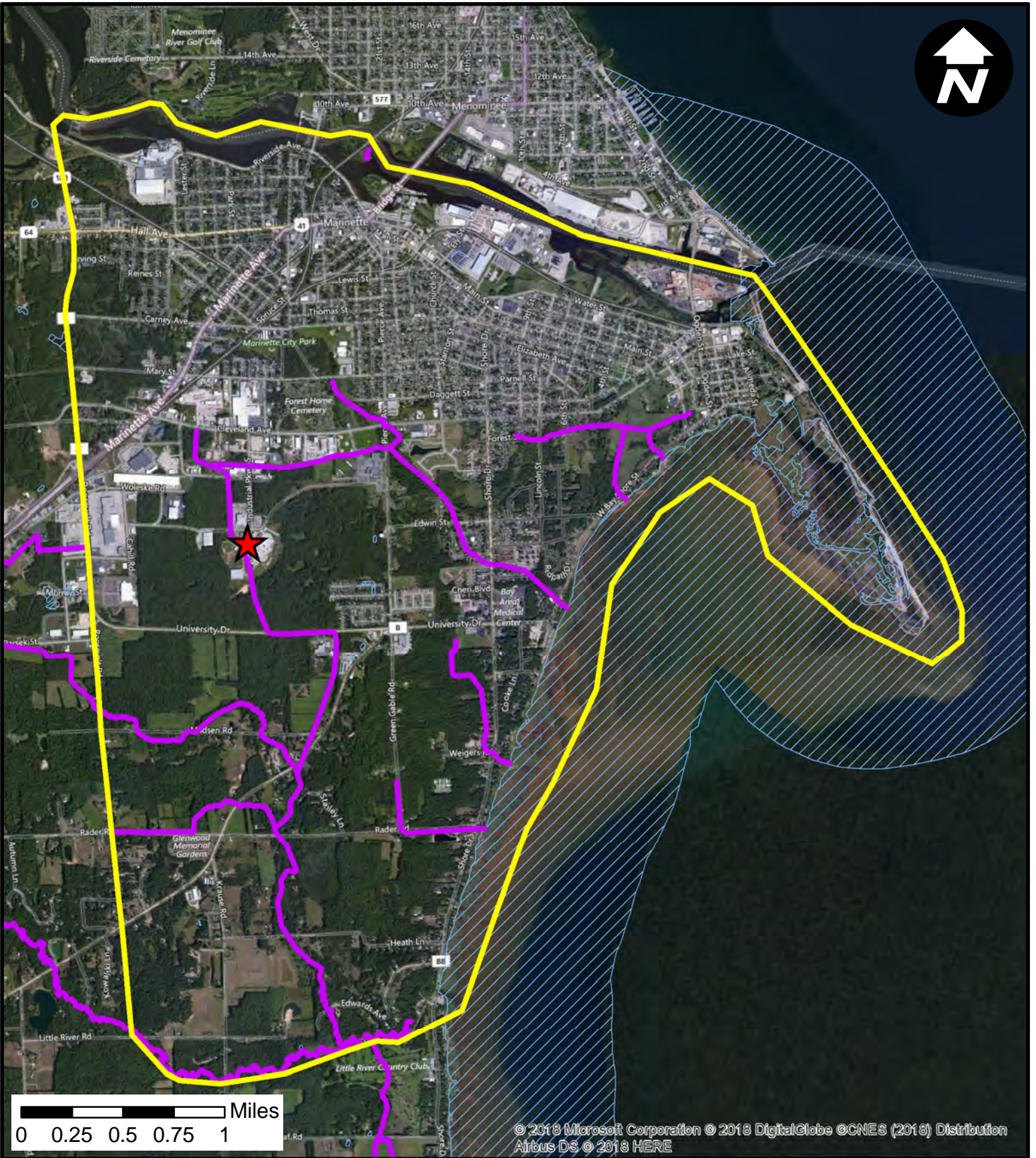
-  Site Location
-  Wisconsin Wetland Inventory Points (WDNR SWDV)
-  Wisconsin Wetland Inventory Polygons (WDNR SWDV)
-  Study Area
-  Wetland Indicators (WDNR SWDV)

**DESKTOP EVALUATION**

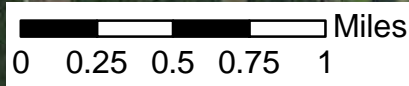
**WISCONSIN WETLAND INVENTORY**  
MARINETTE COUNTY, WISCONSIN







**FIGURE**  
**7**



© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2016) Distribution Airbus DS © 2018 HERE



**Legend**

-  Site Location
-  PNW-ASNRI Special Wetlands Inventory Study Streams (WDNR SWDV)
-  Study Area
-  PNW-ASNRI Special Wetlands Inventory Study Areas (WDNR SWDV)

**DESKTOP EVALUATION**

**SPECIAL STATUS WETLANDS**  
MARINETTE COUNTY, WISCONSIN

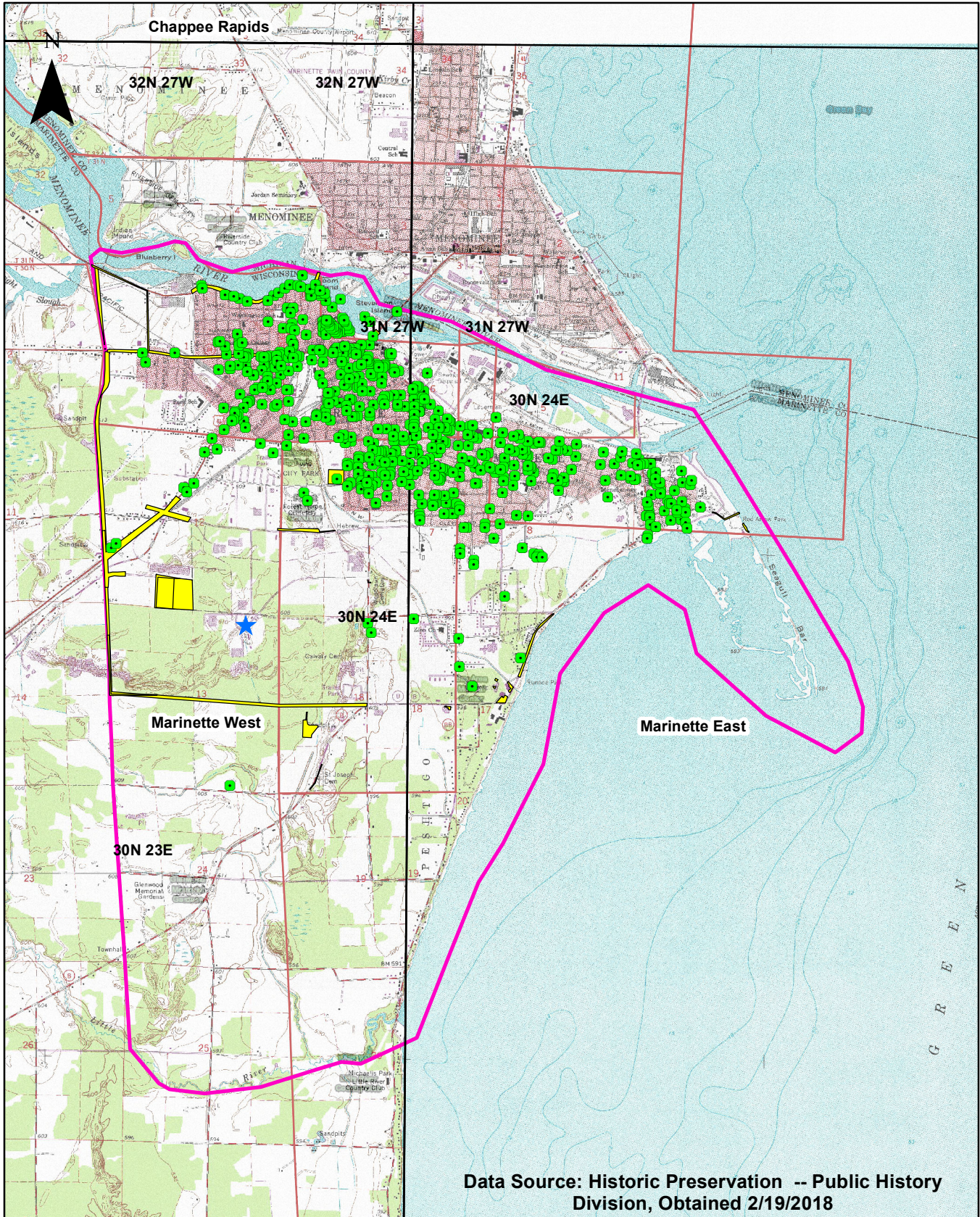
	<b>FIGURE</b> <b>8</b>
---	---------------------------

# APPENDIX B

## Cultural Resources Desktop Evaluation Data



**Confidential Information Not Displayed**  
**Disclosure of Site Information is Restricted, NHPA Section 304 (16 U.S.C. 470w-3(a))**



Cultural Records Review Map  
 Marinette, WI Confidential Client  
 Arcadis Project No. WI001605.0005

**ARCADIS** | Figure

**Legend**

- ★ Site
- WHPD Architecture and History Inventory
- Search Area
- WHPD Archaeological Report Inventory

0      0.5      1      2 Miles

Table 1. Archaeological Sites Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

Site Number	Name	Burial Number	Eligibility	Status/Description	Site Type	Date
	GLENWOOD MEMORIAL CEMETERY	BMT-0022	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	
	Calvary Cemetery	BMT-0024	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Euro-American
	St. Joseph's Cemetery	BMT-0023	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Euro-American
	Forest Home Cemetery	BMT-0026	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Euro-American
	Hebrew Cemetery	BMT-0057	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Euro-American
	Woodlawn Cemetery	BMT-0025	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Indian;Historic Euro-American
MT-0055			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown Prehistoric

Table 1. Archaeological Sites Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

Site Number	Name	Burial Number	Eligibility	Status/Description	Site Type	Date
MT-0058	WATER STREET VILLAGE		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown Prehistoric
MT-0059			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown Prehistoric
MT-0061	Raymond Street Sawmill		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village; Mill/sawmill	Unknown Prehistoric; Historic Euro-American
MT-0062	Boom Island Cemetery	BMT-0084	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Campsite/village; Cemetery/burial	Historic Indian; Unknown Prehistoric
MT-0064	Old Farnsworth Trading Post		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Cabin/homestead; Trading/fur post	Historic Euro-American; Historic Indian
MT-0065	Riverside Park Village	BMT-0083	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial; Lithic scatter	Historic Indian
MT-0066	Mission of St. Michael		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Church/Mission	Historic Euro-American; Historic Indian

Table 1. Archaeological Sites Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

Site Number	Name	Burial Number	Eligibility	Status/Description	Site Type	Date
MT-0067			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown Prehistoric
MT-0068			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Historic Indian
MT-0069			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown
MT-0070	Chappiere Trade Post		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Trading/fur post	Historic Euro-American
MT-0071	Chautauqua Grounds Village		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Early Archaic; Early Woodland; Historic Euro-American; Historic Indian; Late Archaic; Late Woodland; Middle Archaic; Late Woodland; Oneota; Late Paleo-Indian
MT-0073			Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village	Unknown
MT-0132	City of Grand Haven (1872)		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Shipwreck	Historic Euro-American



Table 1. Archaeological Sites Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

Site Number	Name	Burial Number	Eligibility	Status/Description	Site Type	Date
MT-0249	GRANITE WORKS SITE		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Industrial	Historic Euro-American
MT-0250	Ben Hall Cemetery	BMT-0100	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Indian
MT-0268	Stephenson Island		Unknown	The current status of the site is unknown and additional investigations may need to be completed. Please consult with WHS Staff.	Campsite/village; Mill/sawmill	Middle Archaic; Late Woodland
MT-0288	Water Street Cemetery	BMT-0046	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Cemetery/burial	Historic Euro-American; Historic Indian
MT-0289	Red Arrow Park	BMT-0047	Unknown	This human burial site is protected under Wis. Stats 157.70. Consultation with the Wisconsin Historical Society is required. See burial page.	Campsite/village; Isolated finds	Historic Indian; Unknown Prehistoric; Historic Euro-American
MT-0305	Red Arrow Park II	BMT-0110	Unknown	See site description.	Isolated finds	Unknown Prehistoric; Historic Indian
MT-0310	Riverside Avenue Isolate		Unknown	Previous investigations suggested a loss of archaeological integrity. Current recommendations may differ and site status should be confirmed with WHS Staff.	Isolated finds	Unknown Prehistoric
MT-0311	Blueberry Island		Unknown	Additional work has been recommended. Please consult with WHS Staff.	Campsite/village	Woodland

Table 1. Archaeological Sites Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

Site Number	Name	Burial Number	Eligibility	Status/Description	Site Type	Date
MT-0315	Marinette Standard Oil		Unknown	Previous investigations suggested a loss of archaeological integrity. Current recommendations may differ and site status should be confirmed with WHS Staff.	Industrial; Transportation site	Historic Euro-American

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
883	An Archaeological Survey Report Of An Intensive Archaeological Survey To Inventory (Phase I) The Right-Of-Way Of The Proposed Realignment And Extension Of Roosevelt Rd And University Ave In The City Of Marinette, Marinette County, Wisconsin.	Forde, J.M.	Survey along approx. 4 mile R.O.W.	1977
3463	An Archaeological Survey Of A Gas Pipeline Route At Weston, Wisconsin And A Combustion Turbine Facility And Gas Pipeline Route At West Marinette, Wisconsin.	Van Dyke, Allen P.	In August, 1990 an archaeological survey was conducted for the proposed West Marinette Combustion Turbine project in Marinette and Marathon counties. A surface survey, shovel tests and soil coring uncovered no significant archaeological material. No furt[...]	1990
3464	An Archaeological Survey Of The Aerial Company Building Site, In The City Of Marinette, In Marinette County, Wisconsin.	Dirst, Victoria	In April, 1990 an archaeological survey was conducted for the WDF Grant for Aerial Company in Marinette. A records search and shovel tests uncovered no significant archaeological material. No further study of the project area is recommended. (cross-refer[...])	1990
3465	An Archaeological Survey Of The Aerial Company Building Site, In The City Of Marinette, In Marinette County, Wisconsin.	Dirst, Victoria	In April, 1990 an archaeological survey was conducted for the WDF Grant for Aerial Company in Marinette. A records search and shovel tests uncovered no significant archaeological material. No further study of the project area is recommended. (c[...])	1990

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
3464	An Archaeological Survey Of The Aerial Company Building Site, In The City Of Marinette, In Marinette County, Wisconsin.	Dirst, Victoria	IN APRIL, 1990 AN ARCHAEOLOGICAL SURVEY WAS CONDUCTED FOR THE WDF GRANT FOR AERIAL COMPANY IN MARINETTE. A RECORDS SEARCH AND SHOVEL TESTS UNCOVERED NO SIGNIFICANT ARCHAEOLOGICAL MATERIAL. NO FURTHER STUDY OF THE PROJECT AREA IS RECOMMENDED. (CROSS-REFER	1990
5211	An Archaeological Survey of Hosmer Park in the City of Marinette, Wisconsin.	Salkin, Philip H.	In September 1991 a Phase I survey was conducted in Marinette County. No sites were found and the project was recommended to proceed.	1991
12671	A Phase I Archaeological Investigation for Proposed Improvements at the UW-Marinette Campus, Marinette County, Wisconsin	Pleger, Thomas and Nathan S. Lowrey	In 1999 MVAC conducted Phase I archaeological survey in the area of proposed improvements to the UW-Marinette Campus, in Marinette, Wisconsin. The project area is adjacent to MT-0071 (R), a multicomponent site on the NRHP. A total of 88 tests were exca[...]	1999
6958	WDOT Archaeological Survey Field Report: Menominee River Pedestrian Bridge In Marinette County, Wisconsin.	Van Dyke, Allen P.	A Phase I archaeological survey was conducted for the proposed Menominee River Pedestrian Bridge in Marinette County, Wisconsin. No cultural material was encountered within the project area.	1999

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
7693	WDOT Archaeological Survey Field Report: Reconstruct STH 64, CTH E to West Corporate Limits of Marinette	Marshall, Adam	In September 2001 MAP field crews conducted Phase I Archaeological Survey of the route of proposed improvements to STH 64 in Marinette County. The project runs from CTH "E" to the West Corporate limits of the City of Marinette. Of the 87.7 acre project	2001
15229	WDOT Archaeological Survey Field Report: CTH T from USH 41 to STH 64 in Marinette County, Wisconsin	Cain, Daniel	In June 2005 archaeologists with ARI conducted Phase I archaeological survey along portions of CTH T in Marinette County, Wisconsin. The project corridor included 4.2 acres extending from USH 41 to STH 64. The project area included primarily vegetated	2005
19928	WDOT Archaeological Survey Field Report: STH 64 from Roosevelt Road to State Street in Marinette County, Wisconsin	Watson, Robert	In September 2006 archaeologists with GLARC conducted Phase I archaeological survey along STH 64 from Roosevelt Road to State Street in Marinette County, Wisconsin. The project area included 84 acres of paved areas and grassed boulevard between the side	2006
51120	WDOT Archaeological Survey Field Report: CTH 'T', Gallagher Road to 1400 Feet East of Roosevelt Road/University Drive Split, Marinette County, Wisconsin	Van Dyke, Allen	In October of 2009 AVD conducted phase I archaeological survey for a proposed road reconstruction project along 0.57 miles of CTH 'T' in Marinette County, Wisconsin. The project area extended through urbanized landscapes. Paved areas, obviously disturbe	2009

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
52317	A Phase I Archaeological Survey of the Chippewa Falls Armory Site in Chippewa County, Wisconsin	Dowiasch, Jean	In July 2009 archaeologists with MVAC conducted Phase I archaeological survey for the Chippewa Falls Armory in Chippewa County, Wisconsin. The survey was undertaken around the facility, outbuildings, and tall grassy areas on the property. Surface visib	2009
38928	Phase I Archaeological Reconnaissance Survey, Proposed Telecommunications Facility, New Tower Construction: Marinette County, 2161 University Drive, Marinette, Marinette County, Wisconsin	Johnson, Richard	On April 21, 2010, Edge Consulting Engineers, Inc., conducted a Phase I archaeological survey in an area proposed for construction of a telecommunications facility on the grounds of the Marinette County Law Enforcement Center in Marinette County, Wisconsin	2010
43948	Letter Report: Fiber Optic Cable Installation STH 180, CTH X to STH 64, Marinette County, Wisconsin	Egan-Bruhy, Kathryn	In 2010 CCRG conducted Phase I archaeological survey for a proposed fiber optic cable route. The cable route will occur within highway ROW and there will be no effect to previously undisturbed areas beyond the current ROW. CCRG confirmed that the proje	2010
50868	Letter Report: Literature and Archives Research and Fieldwork to Determine if Archaeological Sites 47MT70 and 47MT71 Will be Affected by the Bay Shore Street Construction Project	Van Dyke, Allen	In April of 2011 AVD conducted shovel testing for a proposed road construction project within the potential boundaries of MT-0070 and MT-0071. Survey focused on untested segments of the project corridor. One blue glass bead was recovered from disturbed	2011

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
51050	Phase I Archaeological Surveys at Green Island and Red Arrow Park, Marinette County, Wisconsin (Draft)	Overstreet, David, Lawrence J. Meier, Ryan J. Overstreet, and James A. Clark, Jr	Between July and October of 2013 Overstreet and colleagues carried out phase I investigations at two locations in Marinette County: The site of a proposed recreational development on Green Island in Green Bay and at a potential utility corridor in Red Ar	2013
51663	Phase I Archaeological Survey Proposed Telecommunication Tower Cellcom/Marinette North Marinette, Wisconsin	Rieb, Jake	In July of 2013 Edge Consulting conducted phase I archaeology for a proposed telecommunications tower in Marinette County, Wisconsin. The project included a 60 x 60 foot compound within a total APE of 320 x 120 feet and a 30-foot wide utility and easeme	2013
53037	Phase I Archaeological Study: Proposed Telecommunication Tower Cellcom/Marinette North, Marinette County, Wisconsin	Rieb, Jake	In November of 2013 Edge Consulting conducted phase I archaeological survey for a proposed telecommunications facility in Marinette County, Wisconsin. The project will involve a 50 by 50 foot fenced compound, a fifty foot buffer, and an access road measu	2013
51297	Archaeological Survey and Evaluation of Proposed Alterations to the Beach area of Red Arrow Park, City of Marinette, Marinette County, Wisconsin	Behm, Jeffery	In April of 2014 UW-Oshkosh conducted phase I archaeological survey for a proposed beach stabilization and reshaping project in Red Arrow Park. The project area crosses or is adjacent to two reported burial discoveries. Shovel testing and auguring with	2014

Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
52601	WDOT Archaeological Survey Field Report: USH 41, Peshtigo to Marinette, Marinette County, Wisconsin	Haas, Jennifer	In October 2014, UWM-MAP conducted phase I survey for a USH 41 project. No cultural materials were found.	2015
52864	WDOT Archaeological Survey Field Report: Riverside Avenue, Hattie Street to Van Cleve Avenue, Marinette County, Wisconsin	Haas, Jennifer	In August 2015, UWM-CRM conducted phase I survey for a Riverside Ave reconstruction project. Though four sites were previously recorded in the APE, no cultural materials were found.	2015
52916	WDOT Archaeological Survey Field Report: Hattie Street Bridge, Riverside Avenue to 26th Street, Marinette County, Wisconsin	Haas, Jennifer	In November 2015, UWM-CRM conducted phase I survey for a Hattie Street Bridge project. Though two sites were previously recorded in the APE, no cultural materials were found.	2015
53575	Archaeological Monitoring at Burial Sites BMT-0026 and BMT-0057 for the Installation of Main Line Gas Service in Marinette County, Wisconsin	Van Dyke, Allen P.	In September and October of 2015 TRC conducted monitoring at two adjacent cemeteries in Marinette County, Wisconsin prior to installation of gas lines within their boundaries. Work consisted of segments of open trench, utility locate holes, and directio	2015



Table 2. Archaeological Report Inventory Results  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

SURVEY ID	Title	Author	Abstract <i>Note: Data taken directly from WHPD-provided GIS shapefiles and may not be complete.</i>	Year Published
53576	Letter Report: Archaeological Monitor at Cemetery Site BMT-0025 for the System Modernization and Reliability Project in Marinette County, Wisconsin	Van Dyke, Allen P.	In December 2015 TRC conducted monitoring at one cemetery in Marinette County, Wisconsin prior to installation of underground electrical service within the cemetery's boundaries. Work consisted of segments of trench, utility locate holes, and directiona	2015
54150	Letter Report: Monitoring at Archaeological/Burial Site 47MT250/BMT-0100 in Marinette County, Wisconsin	Van Dyke, Allen	In June of 2017 TRC monitored utility work within the reported boundaries of MT-0250 in Marinette County, Wisconsin. The project area was located on the south side of Riverside Avenue and consisted of a 500-foot main line with five laterals measuring 35	2017
54801	Archaeological Survey for the Wisconsin Public Service Corporation (WPS) 2018 System Modernization and Reliability Project (SMRP), Marinette-Menominee Bay Project Segment, WPS Work Request Number 1914759, Marinette County, Wisconsin	Davenport, Michelle	In August of 2017 CHG conducted phase I archaeological survey within the vicinity of one previously reported burial site in Marinette County. Two transmission poles are slated for removal from the western boundary of the cemetery. No indications of unma	2017

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22650		THOR MADSEN BARN	0			barn	Astylistic Utilitarian Building
22690			0			house	One Story Cube
22691			1922			house	Side Gabled
22692			0			barn	Astylistic Utilitarian Building
22693			0			privy	Astylistic Utilitarian Building
22694			0			small animal building	Astylistic Utilitarian Building
22696			0			barn	Astylistic Utilitarian Building
22697			0			house	Queen Anne
22698			0			house	Gabled Ell
22699			0			house	Cross Gabled
22700			0			house	Gabled Ell
22701			0			duplex	Gabled Ell
22702			0			house	Front Gabled
22703			0			house	Front Gabled
22704			0			house	Front Gabled
22705			0			house	Mediterranean Revival
22706			0			house	Gabled Ell
22707			0			house	Front Gabled
22708			0			house	Cross Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22709			0			house	Front Gabled
22710	GUSTAV GARDNER HOUSE (1975 SURVEY)	L KNOPP HOUSE	0			house	Colonial Revival
22711			0			house	Colonial Revival
22712			0			retail building	Commercial Vernacular
22713			0			house	Front Gabled
22724			0			house	Front Gabled
22725			0			house	Craftsman
22742		A STROMER HOUSE	1925			house	Bungalow
22747			1884			house	Gabled Ell
22748			0			house	Cross Gabled
22749		LEROY'S CLEANERS	0			mill	Commercial Vernacular
22751			0			industrial building	Astylistic Utilitarian Building
22761			0			house	Queen Anne
22781	LAUERMAN BROTHERS DEPARTMENT STORE WAREHOUSE		1920		Yes	warehouse	Commercial Vernacular
22782	Lauerman Brothers Department Store		1884		Yes	department store	Italianate
22786	Lauerman's Department Store	LAUERMAN BROTHERS COMPANY DEPARTMENT STORE	1904		Yes	department store	Chicago Commercial Style
22787			0			house	Front Gabled
22800			0			house	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22801			0			carriage house	Astylistic Utilitarian Building
22802			0			house	Side Gabled
22803			0			house	One Story Cube
22804			0			house	Cross Gabled
22805			0			house	Bungalow
22806			0			house	Queen Anne
22807			0			house	Front Gabled
22808			0			house	Other Vernacular
22809			0			house	Gabled Ell
22810			0			house	Side Gabled
22811			0			house	Gabled Ell
22812			0			house	Cross Gabled
22814			0			house	Bungalow
22826			0			house	Front Gabled
22827			0			house	Front Gabled
22828			0			house	Front Gabled
22829			0			house	Front Gabled
22830			0			house	Colonial Revival
22831			0			house	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22843			0			house	Colonial Revival
22851			0			house	Front Gabled
22852	EVENSON/PECARD BUILDING	Stephenson National Bank	1883			restaurant	Commercial Vernacular
22854	Dunlap Square Building	YE OLDE OFFICES / OAKE TAVERN / M&M ANTIQUES	1890		Yes	retail building	Queen Anne
22857		IHDE'S FLOOR COVERING CENTER	1932			retail building	Twentieth Century Commercial
22859	Thomas Brown's Garage		1910			retail building	Commercial Vernacular
22861	Twin City Auto Tire Building	INTERSTATE AUTO PARTS	1910			retail building	Commercial Vernacular
22868	Milwaukee Road Depot	Escanaba and Lake Superior Railroad Depot	1903		Yes	depot	Stick Style
22876		Kass Sunstrom House	1889			house	Front Gabled
22877			1885			house	Other Vernacular
22882			0			house	Cross Gabled
22884		Hattie Street Bridge	0				NA (unknown or not a building)
22886			0			house	Cross Gabled
22887			0			house	Cross Gabled
22888			0			house	Queen Anne
22890		LABOR TEMPLE (SIGN)	0			meeting hall	Commercial Vernacular
22891			0			house	Queen Anne
22906			0			house	Side Gabled
22909			0			garage	Astylistic Utilitarian Building
22910			0			house	Colonial Revival
22911			0			house	Gabled Ell
22912			0			house	Gabled Ell
22916	H J PLACE HOUSE	O'CONNELL HOUSE	1875			house	Cross Gabled
22918			0			house	Side Gabled
22919			0			barn	Astylistic Utilitarian Building
22920			0			house	Bungalow
22925			0			house	Cross Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22926			0			house	Colonial Revival
22927			0			house	Colonial Revival
22929			0			house	Cross Gabled
22930			0			house	Colonial Revival
22931			0			house	Colonial Revival
22933	ST. MARY'S CHAPEL OF CATHOLIC CENTRL HIGH SCHOOL		1876			church	Neogothic Revival
22951	ST. MARY'S INSTITUTE	CATHOLIC CENTRAL CONVENT SCHOOL	0			elementary, middle, jr.high, or high	Romanesque Revival
22956	Independent Order of Odd Fellows-Lodge #189	CHO'S BLACK BELT ACADEMY/DODGE INN/BOUCHER'S BAKERY	1889		Yes	retail building	Commercial Vernacular
22962			0			retail building	Italianate
22966			0			house	Italianate
22970	RIDSDLE BLOCK	HAROLDS KNIGHT KAP TAVERN	1888			tavern/bar	Italianate
22977	Bijou Theatre		1905		Yes	retail building	Neoclassical
23001			0			carriage house	Astylistic Utilitarian Building
23002			0			house	Side Gabled
23003			0			house	Bungalow
23004			0			house	Front Gabled
23005			0			house	Front Gabled
23007	FOREST HOME CEMETERY AND MAUSOLEUM	FOREST HOME CEMETERY AND MAUSOLEUM	0			cemetery	NA (unknown or not a building)
23009			0			dam	NA (unknown or not a building)
23023			0			carriage house	Astylistic Utilitarian Building
23029			0			house	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23030			0			house	Side Gabled
23031			0			house	Cross Gabled
23032			0			house	Bungalow
23033			0			house	Front Gabled
23034			0			house	Colonial Revival
23035			1922			house	Craftsman
23036			0			house	Cross Gabled
23037			0			house	Cross Gabled
23038			0			house	Gabled Ell
23039			0			house	Craftsman
23053			0			house	Cross Gabled
23054			0			house	Italianate
23055			0			apartment/ condominium	Two Story Cube
23056			0			house	Colonial Revival
23057			0			house	Colonial Revival
23058			0			house	Colonial Revival
23059			0			house	Queen Anne
23060			0			house	Front Gabled
23062	CALVARY CEMETERY (1963 USGS MAP)	CALVARY CEMETERY	0			cemetery	NA (unknown or not a building)
23063			0			house	Front Gabled
23065			0			garage	Astylistic Utilitarian Building
23066			0			house	Gabled Ell
23070		MONUMENT TO QUEEN MARINETTE	1940			monument	NA (unknown or not a building)
23072	MILWAUKEE ROAD RAILROAD BRIDGE	SOO LINE RAILROAD BRIDGE	0			steel beam or plate girder bridge	NA (unknown or not a building)
23076	MARY BROWN HOUSE	SWABODA HOUSE	1880			house	Queen Anne

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23077	Mary and Harry Brown House	Melgary House	1883			house	Tudor Revival
23083	OFFICE OF THE MENOMINEE RIVER BOOM COMPANY (1888-1948)		1888			small office building	Dutch Colonial Revival
23084	Robert McAlpine House		1894			house	Queen Anne
23086	Marinette & Menominee Paper Company Park Mills Plant and Dam	SCOTT PAPER CO, MARINETTE PLANT MAIN OFFICE	0			other	Twentieth Century Commercial
23087			0			house	Front Gabled
23088			0			house	Colonial Revival
23095			0			house	Colonial Revival
23096			0			house	Craftsman
23097			0			house	Cross Gabled
23098	MARINETTE GENERAL HOSPITAL (MARINETTE CO CENTENNIAL B	MARINETTE GENERAL HOSPITAL	1940			hospital	Art Moderne
23108			0			house	Colonial Revival
23110	F.J. Lauerman House	FRANK J. LAUERMAN, III, HOUSE, Casa del Flores	1901		Yes	house	Spanish Colonial
23123			0			house	Colonial Revival
23127			0			house	Cross Gabled
23128			0			house	Queen Anne
23139			0			house	Side Gabled
23140			0			house	American Foursquare
23144	REUBAN MERRYMAN HOUSE	MAGNUSAN HOUSE	1885			house	Queen Anne
23145			0			house	Gabled Ell
23146			0			house	Cross Gabled
23147			0			warehouse	Commercial Vernacular
23148		MARINE HOUSE TAVERN	0			tavern/bar	Colonial Revival



Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23149			0			house	Gabled Ell
23150			0			house	Front Gabled
23154		MARINETTE LUMBER YARD	0			lumber yard/mill	Astylistic Utilitarian Building
23155		MARINETTE LUMBER YARD	0			lumber yard/mill	Astylistic Utilitarian Building
23163	STEPHENSON TRAINING SCHOOL	STEPHENSON TRAINING SCHOOL	0			university or college building	Neoclassical
23220	CHATAUQUA DINING HALL	PINE BEACH CLUB	1896			dining hall	Colonial Revival
29078	MERRYMAN ISLAND LUMBER SETTLEMENT HOUSE		0			house	Gabled Ell
29079			0			house	Gabled Ell
29080	MERRYMAN ISLAND LUMBER SETTLEMENT HOUSE		0			house	Gabled Ell
29762		EVANCHECK CABIN	1894			house	Side Gabled
42005			0			house	Queen Anne
42010			0			house	Gabled Ell
42036			0			house	Other Vernacular
42038	Martineau Building		0			retail building	Twentieth Century Commercial
42039			0			house	Front Gabled
42079		Bill's Barber Shop	0			retail building	Boomtown
42080		Knight Kap	0			retail building	Twentieth Century Commercial
42081		Sneakers	0			retail building	Commercial Vernacular
42082			0			small office building	Astylistic Utilitarian Building
42102			0			house	Colonial Revival
42103		Pioneer Presbyterian Church	0			church	Front Gabled
42104			0			house	Colonial Revival
42105			0			house	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
42106			0			house	Side Gabled
42107			0			house	Gabled Ell
42226			0			garage	Astylistic Utilitarian Building
42227			0			house	Other Vernacular
42228			0			house	Cross Gabled
42229			0			storage building	Astylistic Utilitarian Building
120627	Menominee-Marquette Bridge	Menominee River Bridge-Marquette Bridge	1929			steel beam or plate girder bridge	NA (unknown or not a building)
227146			1950			house	Contemporary
227147			1955			house	Contemporary
230330			1910			house	Bungalow
230331			1925			house	Tudor Revival
230332			1950			house	Ranch
230333			1920			house	Colonial Revival
230334			1920			house	Colonial Revival
230335			1965			house	Contemporary
230336			1930			house	Side Gabled
230337			1960			house	Contemporary
22849	STEPHENSON PUBLIC LIBRARY	STEPHENSON PUBLIC LIBRARY	1903	Determined Eligible		library	Neoclassical
23071	Isaac Stephenson Statue	MONUMENT TO ISAAC STEPHENSON	1917	Determined Eligible		monument	NA (unknown or not a building)
23078	JOSEPH LAUERMAN HOUSE	Lauerman Guest House Inn	1910	Determined Eligible		house	Neoclassical
23081	Westberg House		1938	Determined Eligible		house	International Style
22715	INTERSTATE BRIDGE		1928	Not Eligible		concrete bridge	NA (unknown or not a building)
22716	Mission Point Building	BPOE 1313	1901	Not Eligible		small office building	Neoclassical

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22717			0	Not Eligible		other	NA (unknown or not a building)
22718			0	Not Eligible		small office building	Side Gabled
22719			0	Not Eligible		house	Gabled Ell
22720			0	Not Eligible		house	Front Gabled
22721			0	Not Eligible		garage	Astylistic Utilitarian Building
22722			0	Not Eligible		house	Cross Gabled
22723		JAMES L BLASIER LOCKSMITHING	0	Not Eligible		duplex	Other Vernacular
22726			0	Not Eligible		house	Gabled Ell
22727			0	Not Eligible		house	Craftsman
22728			0	Not Eligible		house	Front Gabled
22729			0	Not Eligible		house	Cross Gabled
22730			0	Not Eligible		house	Front Gabled
22731			0	Not Eligible		house	Gabled Ell
22732			0	Not Eligible		house	Front Gabled
22733			0	Not Eligible		house	Front Gabled
22734			0	Not Eligible		house	Craftsman
22735			0	Not Eligible		house	Gabled Ell
22736			0	Not Eligible		house	Colonial Revival
22737			0	Not Eligible		house	One Story Cube
22738			0	Not Eligible		house	Front Gabled
22739			0	Not Eligible		house	Front Gabled
22740			0	Not Eligible		house	Gabled Ell
22741			0	Not Eligible		house	Front Gabled
22743			0	Not Eligible		house	Bungalow
22744			0	Not Eligible		house	Front Gabled
22746			0	Not Eligible		house	Other Vernacular
22755			0	Not Eligible		house	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22757	AMXCO INC; MARINETTE EXCELSIOR & WRAPPER CO.	AMERICAN EXCELSIOR CO.	1913	Not Eligible		warehouse	Astylistic Utilitarian Building
22758	AMXCO INC; MARINETTE EXCELSIOR & WRAPPER CO.	AMERICAN EXCELSIOR CO	1913	Not Eligible		small office building	One Story Cube
22759			0	Not Eligible		house	Front Gabled
22760			0	Not Eligible		house	Queen Anne
22762			0	Not Eligible		house	Bungalow
22763			0	Not Eligible		house	Front Gabled
22764			0	Not Eligible		house	Gabled Ell
22768			0	Not Eligible		house	Front Gabled
22769			0	Not Eligible		house	Front Gabled
22770			0	Not Eligible		house	Gabled Ell
22771			0	Not Eligible		house	Gabled Ell
22772			0	Not Eligible		house	Bungalow
22773			0	Not Eligible		house	Queen Anne
22774			0	Not Eligible		house	Queen Anne
22775			0	Not Eligible		house	Cross Gabled
22776			0	Not Eligible		house	Front Gabled
22777			0	Not Eligible		house	Front Gabled
22778			0	Not Eligible		house	Front Gabled
22779			0	Not Eligible		house	Front Gabled
22780			0	Not Eligible		house	Front Gabled
22783			0	Not Eligible		house	Colonial Revival
22784			0	Not Eligible		house	Gabled Ell
22785		JOE'S CHEESE HOUSE	0	Not Eligible		warehouse	Side Gabled
22788			0	Not Eligible		house	Side Gabled
22789			0	Not Eligible		house	Gabled Ell
22790			0	Not Eligible		house	Gabled Ell
22791			0	Not Eligible		house	Gabled Ell
22792			0	Not Eligible		house	Colonial Revival
22795			0	Not Eligible		house	Queen Anne

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22796			0	Not Eligible		house	Other Vernacular
22797			0	Not Eligible		house	Gabled Ell
22798			0	Not Eligible		house	Bungalow
22799	ST. JOSEPH'S SCHOOL (CORNERSTONE)	HOLY FAMILY SCHOOL (SIGN)	1925	Not Eligible		elementary, middle, jr.high, or high	Romanesque Revival
22815			0	Not Eligible		house	Front Gabled
22816			0	Not Eligible		house	Cross Gabled
22818			0	Not Eligible		house	Gabled Ell
22819			0	Not Eligible		house	Front Gabled
22820			0	Not Eligible		house	Bungalow
22821			0	Not Eligible		house	Bungalow
22822		COOK HOUSE (SIGN)	0	Not Eligible		house	Gabled Ell
22823			0	Not Eligible		house	Front Gabled
22825			0	Not Eligible		house	Cross Gabled
22833	WOLSKE HOUSE; ALBERT H. FAIN HOUSE		1894	Not Eligible		garage	One Story Cube
22834			1927	Not Eligible		house	Craftsman
22835			0	Not Eligible		house	Cross Gabled
22837			0	Not Eligible		house	Queen Anne
22838			0	Not Eligible		house	Bungalow
22839			0	Not Eligible		house	Front Gabled
22840			0	Not Eligible		house	Gabled Ell
22841			0	Not Eligible		house	Gabled Ell
22842			0	Not Eligible		house	Front Gabled
22844			0	Not Eligible		house	Gothic Revival
22845			0	Not Eligible		house	Queen Anne
22846			0	Not Eligible		house	Queen Anne
22847	Chris Miller House		1883	Not Eligible		house	Neogothic Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22848		PETER KATZ SALES & SERVICE	0	Not Eligible		barn	Front Gabled
22862		DR. L.J. BEHRENDT, DDS; LOLLI'S RESTAURANT	1930	Not Eligible		retail building	Commercial Vernacular
22870	BERGER BROTHERS; TWIN CITY WINDOW CO (SIGN)		0	Not Eligible		industrial building	Astylistic Utilitarian Building
22871		MILLIE-BEE ANTIQUE'S (MILLIE'S JUNQUE SHOP)	0	Not Eligible		retail building	Italianate
22872			0	Not Eligible		apartment/condominium	Colonial Revival
22873			1905	Not Eligible		house	Other Vernacular
22874			1897	Not Eligible		house	Cross Gabled
22875			1915	Not Eligible		house	Bungalow
22878			0	Not Eligible		house	Craftsman
22879			0	Not Eligible		garage	Craftsman
22880			0	Not Eligible		house	Front Gabled
22883			0	Not Eligible		house	Front Gabled
22893	Fred C. Leack House		1893	Not Eligible		house	Queen Anne
22894			1912	Not Eligible		house	Dutch Colonial Revival
22895			0	Not Eligible		house	Front Gabled
22896			0	Not Eligible		house	Craftsman
22897			0	Not Eligible		house	Front Gabled
22898			0	Not Eligible		house	Gabled Ell
22900			0	Not Eligible		house	Front Gabled
22901			0	Not Eligible		house	One Story Cube
22902			0	Not Eligible		house	Bungalow
22903			0	Not Eligible		house	Bungalow
22904			0	Not Eligible		house	Front Gabled
22905			0	Not Eligible		house	Bungalow
22917			0	Not Eligible		house	Queen Anne
22921			0	Not Eligible		house	Gabled Ell
22922			0	Not Eligible		house	Bungalow
22923			0	Not Eligible		house	Side Gabled
22924			0	Not Eligible		house	Cross Gabled
22932			0	Not Eligible		house	Other Vernacular
22934			0	Not Eligible		house	Boomtown
22935			0	Not Eligible		retail building	Boomtown

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22936	R.C. Merryman House		1889	Not Eligible		house	Front Gabled
22937			0	Not Eligible		house	Front Gabled
22938			0	Not Eligible		house	Bungalow
22939			0	Not Eligible		house	Other Vernacular
22940		TWIN CITY SALVAGE STORE	0	Not Eligible		retail building	Boomtown
22941			0	Not Eligible		retail building	Boomtown
22942	Sofus Miller House	M. MILLER HOUSE	1884	Not Eligible		house	Gabled Ell
22943			0	Not Eligible		retail building	Commercial Vernacular
22944		RED BRICK TAVERN	0	Not Eligible		tavern/bar	Commercial Vernacular
22945			0	Not Eligible		house	Cross Gabled
22947			0	Not Eligible		retail building	Boomtown
22949			0	Not Eligible		house	Gabled Ell
22952		JIM SALFAI INSURANCE OFFICE	0	Not Eligible		retail building	Boomtown
22953		ESCANABA MOVING SYSTEMS	0	Not Eligible		retail building	Commercial Vernacular
22954		MANE STREET FAMILY HAIRSTYLING CENTER	0	Not Eligible		retail building	Boomtown
22961			0	Not Eligible		house	Colonial Revival
22974		BAILEY'S BETTER LIVING FURNITURE CENTER	0	Not Eligible		retail building	Commercial Vernacular
22979			0	Not Eligible		industrial building	Front Gabled
22982			1900	Not Eligible		house	Gabled Ell
22983			1900	Not Eligible		house	Front Gabled
22984			0	Not Eligible		house	Gabled Ell
22985	J.F. Scott House		1896	Not Eligible		house	Queen Anne
22986			1900	Not Eligible		house	Queen Anne
22987		PURITY HALL (SIGN)	0	Not Eligible		house	Other Vernacular
22988			0	Not Eligible		house	Cross Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22989			0	Not Eligible		house	Other Vernacular
22990			0	Not Eligible		house	Bungalow
22992			1925	Not Eligible		house	Side Gabled
22993		BOB BRUMM HOUSE	1915	Not Eligible		house	Bungalow
22994			0	Not Eligible		house	Other Vernacular
22995			1930	Not Eligible		house	Tudor Revival
22996			1920	Not Eligible		house	Bungalow
22997			0	Not Eligible		house	Bungalow
22998			1900	Not Eligible		house	Other Vernacular
22999			0	Not Eligible		house	Cross Gabled
23000		MICKEY-LU BAR-B-Q	1945	Not Eligible		restaurant	Commercial Vernacular
23008			0	Not Eligible		house	Gabled Ell
23010			0	Not Eligible		house	Gabled Ell
23011			0	Not Eligible		carriage house	Side Gabled
23012			1910	Not Eligible		house	American Foursquare
23013			0	Not Eligible		house	Other Vernacular
23014			0	Not Eligible		house	Dutch Colonial Revival
23017			0	Not Eligible		apartment/ condominium	Two Story Cube
23018			0	Not Eligible		house	Craftsman
23019			0	Not Eligible		wall	NA (unknown or not a building)
23020			0	Not Eligible		house	Gabled Ell
23021			0	Not Eligible		house	Gabled Ell



Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23022			0	Not Eligible		house	Queen Anne
23025			0	Not Eligible		house	Front Gabled
23026			0	Not Eligible		house	Queen Anne
23028			0	Not Eligible		industrial building	Side Gabled
23041			0	Not Eligible		house	Front Gabled
23042			0	Not Eligible		house	Front Gabled
23043			0	Not Eligible		house	Bungalow
23044			0	Not Eligible		house	Gabled EII
23045			0	Not Eligible		house	Gabled EII
23046			0	Not Eligible		house	Front Gabled
23049			0	Not Eligible		house	Queen Anne
23050			0	Not Eligible		house	Queen Anne
23064	OUR LADY OF LOURDES; PARK SCHOOL	HOLY FAMILY SCHOOL	1898	Not Eligible		elementary, middle, jr.high, or high	Richardsonian Romanesque
23069		CHARLES O. PENDERSEN BALL PARK (SIGN)	0	Not Eligible		stadium/arena	NA (unknown or not a building)
23073	Charles M. Fairchild House	Dr. Jennifer and William Jason Flatt House	1881	Not Eligible		house	Queen Anne
23074	William S. Baker House		1893	Not Eligible		house	Queen Anne
23080	Fred Carney Jr. House		1895	Not Eligible		house	Queen Anne
23089			0	Not Eligible		house	Gabled EII
23089			0	Not Eligible		house	Gabled EII
23090		Leason Poster Co. Warehouse	1900	Not Eligible		warehouse	Astylistic Utilitarian Building
23092			0	Not Eligible		house	Two Story Cube
23093			0	Not Eligible		house	Bungalow
23094			0	Not Eligible		house	Front Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23099		Civil Defense Siren	0	Not Eligible		other	NA (unknown or not a building)
23100			0	Not Eligible		apartment/ condominium	Two Story Cube
23111			0	Not Eligible		house	Gabled Ell
23112			0	Not Eligible		house	Bungalow
23113		EVERARD FLOWERS	0	Not Eligible		retail building	Commercial Vernacular
23114			0	Not Eligible		other	NA (unknown or not a building)
23115			0	Not Eligible		house	Gabled Ell
23116			0	Not Eligible		house	Gabled Ell
23125			0	Not Eligible		house	Front Gabled
23126			0	Not Eligible		house	Front Gabled
23129			0	Not Eligible		house	Gabled Ell
23130			0	Not Eligible		house	Gabled Ell
23131			0	Not Eligible		house	Front Gabled
23132			0	Not Eligible		house	Gabled Ell
23133			0	Not Eligible		house	Gabled Ell
23134			0	Not Eligible		house	Queen Anne
23135			0	Not Eligible		house	Front Gabled
23136	ZION LUTHERAN CHURCH PARSONAGE		1947	Not Eligible		rectory/parson age	Gabled Ell
23137			0	Not Eligible		house	Italianate
23138			0	Not Eligible		house	Front Gabled
23142			0	Not Eligible		house	Side Gabled
23143			0	Not Eligible		house	Bungalow
23156		MARINETTE JAYCEES / STEVEN HOYME, M D, OFFICE	0	Not Eligible		small office building	Commercial Vernacular
23164			0	Not Eligible		duplex	Two Story Cube
23165			0	Not Eligible		house	Front Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
35340	Swedish M.E. Church	Faith Christian Family Church	1902	Not Eligible		church	Gothic Revival
41969			0	Not Eligible		house	Side Gabled
41970			0	Not Eligible		house	Front Gabled
41974			0	Not Eligible		house	Gabled Ell
41976			0	Not Eligible		house	Gabled Ell
41977			0	Not Eligible		house	Gabled Ell
41984			0	Not Eligible		house	Front Gabled
41985			0	Not Eligible		house	Bungalow
41986			0	Not Eligible		house	Bungalow
41988			0	Not Eligible		house	One Story Cube
41989			0	Not Eligible		house	Contemporary
41990			0	Not Eligible		house	Other Vernacular
41991			0	Not Eligible		house	Side Gabled
41992			0	Not Eligible		house	Gabled Ell
41993			0	Not Eligible		house	Front Gabled
41994			0	Not Eligible		house	Front Gabled
42001			0	Not Eligible		house	Front Gabled
42003			0	Not Eligible		house	Other Vernacular
42012			0	Not Eligible		house	Gabled Ell
42014			0	Not Eligible		house	Gabled Ell
42022			0	Not Eligible		house	Gabled Ell
42028			0	Not Eligible		house	Tudor Revival
42029			0	Not Eligible		house	Bungalow
42030			0	Not Eligible		house	Gabled Ell
42035			0	Not Eligible		house	Front Gabled
42044			0	Not Eligible		house	American Foursquare
42046			0	Not Eligible		house	Gabled Ell
42047			0	Not Eligible		house	Gabled Ell
42048			0	Not Eligible		house	Gabled Ell
42049			0	Not Eligible		house	Gabled Ell
42051			0	Not Eligible		house	Gabled Ell
42052			0	Not Eligible		house	Front Gabled
42056			0	Not Eligible		house	Gabled Ell
42057			0	Not Eligible		house	Gabled Ell
42058			0	Not Eligible		house	Gabled Ell
42060			0	Not Eligible		house	Front Gabled
42061			0	Not Eligible		house	Front Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
42062			0	Not Eligible		house	Gabled Ell
42063			0	Not Eligible		house	Gabled Ell
42065			0	Not Eligible		house	Gabled Ell
42067			0	Not Eligible		house	Queen Anne
42068			0	Not Eligible		house	Gabled Ell
42069			0	Not Eligible		house	Gabled Ell
42074			0	Not Eligible		house	Queen Anne
42084			0	Not Eligible		house	Side Gabled
42087			0	Not Eligible		house	Gabled Ell
42089			0	Not Eligible		house	Front Gabled
42090			0	Not Eligible		house	Front Gabled
42091			0	Not Eligible		house	Gabled Ell
42092			0	Not Eligible		house	Side Gabled
42095			0	Not Eligible		house	American Foursquare
42097			0	Not Eligible		house	Italianate
42099			0	Not Eligible		house	Front Gabled
42100			0	Not Eligible		house	Bungalow
42108			0	Not Eligible		house	Front Gabled
42109			0	Not Eligible		house	Gabled Ell
42110			0	Not Eligible		house	Gabled Ell
42112			0	Not Eligible		house	American Foursquare
42113			0	Not Eligible		house	Bungalow
42114			0	Not Eligible		house	Two Story Cube
42115			0	Not Eligible		house	American Foursquare
42116			0	Not Eligible		house	Bungalow
42117			0	Not Eligible		house	Bungalow
42118			0	Not Eligible		house	American Foursquare
42119			0	Not Eligible		house	Front Gabled
42204			0	Not Eligible		house	Front Gabled
42208			0	Not Eligible		house	Colonial Revival
42215			0	Not Eligible		house	Front Gabled
42218			0	Not Eligible		house	Side Gabled
42219			0	Not Eligible		house	Front Gabled
42220			0	Not Eligible		house	Front Gabled
42221			0	Not Eligible		house	Gabled Ell
42222			0	Not Eligible		house	Front Gabled
42223			0	Not Eligible		house	Gabled Ell

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
42224			0	Not Eligible		house	Front Gabled
42225			0	Not Eligible		house	Front Gabled
42231			0	Not Eligible		house	Queen Anne
42232			0	Not Eligible		house	Gabled Ell
42233			0	Not Eligible		house	Gabled Ell
42234			0	Not Eligible		house	Gabled Ell
42236			0	Not Eligible		house	Gabled Ell
123595			1925	Not Eligible		house	Dutch Colonial Revival
123601		Dan's Faster Lube	1955	Not Eligible		gas station/service station	Contemporary
123602			1935	Not Eligible		house	Tudor Revival
123658		Cedars Guest House	1940	Not Eligible		house	Colonial Revival
123659			1940	Not Eligible		house	Colonial Revival
149327	Marinette National Guard Armory	Marinette National Guard Armory	1956	Not Eligible		armory	Contemporary
22695	Evangelical Friends Church	PEACE UNITED CHURCH OF CHRIST	1893	Potentially Eligible		church	Gothic Revival
22714		Soldier's Monument	1917	Potentially Eligible		statue/sculpture	NA (unknown or not a building)
22745	EGLISE FRANCAISE DE ST. JOSEPH	ST. JOSEPH'S CHURCH	1891	Potentially Eligible		church	Octagon
22750	GARFIELD ELEMENTARY SCHOOL	NORTHEAST WISCONSIN TECHNICAL INSTITUTE	0	Potentially Eligible		elementary, middle, jr. high, or high	Georgian Revival
22752	ST. PAUL'S EPISCOPAL CHURCH	ST. PAUL'S EPISCOPAL CHURCH	1912	Potentially Eligible		church	Tudor Revival
22753	St. Paul's Rectory	ST. PAUL'S EPISCOPAL CHURCH PARSONAGE	0	Potentially Eligible		rectory/parsonage	Craftsman
22754	CHARLES R JOHNSTON HOUSE	J REICH HOUSE	1893	Potentially Eligible		house	Stick Style
22756	MARINETTE EXCELSIOR AND WRAPPER CO	AMERICAN EXCELSIOR CO	1913	Potentially Eligible		industrial building	Astylistic Utilitarian Building

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22765	MERRYMAN ISLAND LUMBER SETTLEMENT HOUSE		0	Potentially Eligible		house	Italianate
22766	MERRYMAN ISLAND LUMBER SETTLEMENT HOUSE		0	Potentially Eligible		house	Italianate
22767	Harvey A. White Car Dealership		1924	Potentially Eligible		automobile showroom	Chicago Commercial Style
22793	SWEDISH BAPTIST CHURCH	VICTORY BAPTIST CHURCH	1899	Potentially Eligible		church	Romanesque Revival
22794	SACRED HEART CATHOLIC CHURCH	SACRED HEART CHURCH	1894	Potentially Eligible		church	Gothic Revival
22813	J.E. Johnson House		1894	Potentially Eligible		house	Queen Anne
22817		MARINETTE WASTEWATER TREATMENT PLNT	1938	Potentially Eligible		sewage utility	Other Vernacular
22824	LINCOLN ELEMENTARY SCHOOL	LINCOLN SCHOOL DAY NURSERY	1936	Potentially Eligible		elementary, middle, jr.high, or high	Art Deco
22832	ALBERT H. FAIN HOUSE		1894	Potentially Eligible		house	Queen Anne
22853	STEPHENSON NATIONAL BANK	STEPHENSON NATIONAL BANK & TRUST	1900	Potentially Eligible		bank/financial institution	Neoclassical
22855	STEPHENSON'S BLOCK (NAME STONE)		1885	Potentially Eligible		small office building	Commercial Vernacular
22856	STEPHENSON BANK BLOCK (1898 MARINETTE SOUVENIR)		1885	Potentially Eligible		bank/financial institution	Romanesque Revival
22858	Stephenson Building	TRICOUNTY ABSTRACT AND TITLE	1885	Potentially Eligible		small office building	Romanesque Revival
22860	MARINETTE COUNTY COURTHOUSE	MARINETTE COUNTY COURTHOUSE	1942	Potentially Eligible		courthouse	Art Deco
22863	COMMERCIAL BLOCK; F. ROCK'S HOUSE	Old Style Deli	1885	Potentially Eligible		retail building	Commercial Vernacular
22864		Computer Center	1880	Potentially Eligible		retail building	Commercial Vernacular
22865	J. WHELIHAN AND CO.	THE COUNTRY PEDDLER	1898	Potentially Eligible		retail building	Commercial Vernacular

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22866	D.J. BELL BLOCK	Waggin Tails; Carquest; Details	1890	Potentially Eligible		hotel/motel	Commercial Vernacular
22867	CHICAGO AND NORTHWESTERN TRAIN DEPOT	CHICAGO AND NORTHWESTERN TRAIN DEPOT	0	Potentially Eligible		depot	Side Gabled
22869	Samuel C. Mendelson House	HARTER PRODUCTIONS	1910	Potentially Eligible		house	Bungalow
22881	John Q. Lindquist House		1895	Potentially Eligible		house	Queen Anne
22885	William Baker House		1884	Potentially Eligible		house	Front Gabled
22889	Gus Settenstein Store	MENEKAUNEE VARIETY STORE	1888	Potentially Eligible		retail building	Italianate
22892	Aerial Cutlery Manufacturing Co.	Aerial Co.	1910	Potentially Eligible		retail building	Chicago Commercial Style
22907	WILLIAM F. SCHULZ HOUSE		1913	Potentially Eligible		house	Bungalow
22908			0	Potentially Eligible		house	Other Vernacular
22913	Hans A. Buck House		1895	Potentially Eligible		house	Queen Anne
22914	Tobias Kirmse House		1910	Potentially Eligible		house	Craftsman
22915		CHRISTIAN SCIENCE READING ROOM (SIGN)	1899	Potentially Eligible		meeting hall	Neoclassical
22928	Louis Carlson House		1892	Potentially Eligible		house	Queen Anne
22948	MARINETTE JUNIOR HIGH SCHOOL	MARINETTE MIDDLE SCHOOL	1921	Potentially Eligible		elementary, middle, jr. high, or high	Collegiate Gothic
22950	Catholic Central High School	MARINETTE CATHOLIC CENTRAL HIGH SCHOOL (SIGN)	1911	Potentially Eligible		elementary, middle, jr. high, or high	Neoclassical
22955	AMERICAN HOUSE HOTEL; JOSEPH EGGENER BLDG.	BLACK FOREST RESTAURANT; BOURBON STREET DISCO	1889	Potentially Eligible		hotel/motel	Italianate
22957	HAMILTON MERRYMAN LUMBER CO.	C. L. LOVIG CO.	1881	Potentially Eligible		small office building	Italianate

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
22958			0	Potentially Eligible		house	Colonial Revival
22959	WILLIAM BROWN HOUSE; A.C. BROWN HOUSE	SINGER HOUSE; "Plumfield"	1884	Potentially Eligible		house	Queen Anne
22960		ST. JAMES EVANGELICAL LUTHERAN CHURCH (SIGN)	0	Potentially Eligible		church	Neogothic Revival
22965	G.J. JOHNSTONE BUILDING	MBK SPORT SHOP	1888	Potentially Eligible		retail building	Commercial Vernacular
22967	Colonial Building	DAVE'S APPLIANCE REPAIR/WAGNER INSURANCE AGENCY	1892	Potentially Eligible		recreational building/gymn asium	Richardsonian Romanesque
22968			0	Potentially Eligible		house	Two Story Cube
22969	Dr. William W. Squire Building	PROFESSIONAL BUILDING	1884	Potentially Eligible		small office building	Queen Anne
22971		Nyland Building	0	Potentially Eligible		retail building	Italianate
22972		Vacation-Land Travel Service, Prescription Optical	1899	Potentially Eligible		retail building	Commercial Vernacular
22973	Masonic Temple	Paul's Music/The Psalms	1907	Potentially Eligible		meeting hall	Neoclassical
22975	Burleigh Perkins Block	Bay Area Fitness	1888	Potentially Eligible		retail building	Chicago Commercial Style
22976	GUSTAV REINKE CO (1898 MARINETTE SOUVENIR)	MERLAINE'S; HUBERT'S MENSWEAR; KEN BAUER PHOTOGRAPHY	1887	Potentially Eligible		retail building	Commercial Vernacular
22978	Watson Brothers Building	HAASE SHOES	1885	Potentially Eligible		retail building	Commercial Vernacular
22980		KURT A. ASCHIN GENERAL DENTISTRY (SIGN)	1921	Potentially Eligible		house	Tudor Revival
22981	FRANCIS A. BROWN HOUSE	HANSEN-ONION-MARTELL FUNERAL HOME	1888	Potentially Eligible		house	Queen Anne
22991	CHURCH OF THE REDEEMER	WEATHERVANE ANTIQUES	1906	Potentially Eligible		church	Neogothic Revival
23006	FOREST HOME CEMETERY CHAPEL	FOREST HOME CEMETERY CHAPEL	1930	Potentially Eligible		church	Tudor Revival



Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23015	Mrs. S.H. Sizer House		1883	Potentially Eligible		house	Gabled Ell
23016	Leigh H. Lathrop House		1910	Potentially Eligible		house	Bungalow
23024		NADEAU MEDICAL & DENTAL OFFICES	1921	Potentially Eligible		house	Colonial Revival
23027	ST. ANTHONY'S SCHOOL	HOLY FAMILY SCHOOL	1921	Potentially Eligible		elementary, middle, jr.high, or high	Twentieth Century Commercial
23040	Waldemar M. Kreiter House		1921	Potentially Eligible		house	Prairie School
23047	Marinette Knitting Mills		1910	Potentially Eligible		industrial building	Twentieth Century Commercial
23048	CABLE COMMUNICATIONS	LIFESTYLE EYEWEAR/JJ BREZINSKI & ASSOC/WARNER AMEX	0	Potentially Eligible		small office building	Twentieth Century Commercial
23051	MC ALPIN HOUSE; ARCHIBALD MCALLISTER HOUSE		1886	Potentially Eligible		house	Queen Anne
23052			1921	Potentially Eligible		gas station/service station	Tudor Revival
23067	J.W. Follett House		1890	Potentially Eligible		house	Italianate
23068	G.W. BAUDER HOUSE		1883	Potentially Eligible		house	Italianate
23075	E. Judson, William Baker House		1901	Potentially Eligible		house	Two Story Cube
23079	I. K. HAMILTON JR. HOUSE		1902	Potentially Eligible		house	Other Vernacular
23082	I. WATSON STEPHENSON HOUSE		1902	Potentially Eligible		house	Georgian Revival
23085	FRANCIS G. HOOD HOUSE	ANDES HOUSE	1909	Potentially Eligible		house	Shingle Style
23091	Adolph C. Schutt House	JOHNSTON HOUSE	1887	Potentially Eligible		house	Gabled Ell
23101	Thomas Finn House		1910	Potentially Eligible		house	Bungalow

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23102	COLIX MERCHANT HOUSE		1880	Potentially Eligible		house	Italianate
23103	JAMES B. GOODMAN HOUSE		1902	Potentially Eligible		house	Georgian Revival
23104	CHARLES GOODMAN CARRIAGE HOUSE		1902	Potentially Eligible		carriage house	Astylistic Utilitarian Building
23105	ESTELLA M. GOODMAN HOUSE		1902	Potentially Eligible		house	Colonial Revival
23106	E. Henry Redeman House		1912	Potentially Eligible		house	Prairie School
23107	I.B. Duplein House		1885	Potentially Eligible		house	Queen Anne
23109	Rudolph W. Meyer House		1939	Potentially Eligible		house	Tudor Revival
23117	James B. Goodman Land Office	FALLER, PLEGER & WILSON ATTORNEYS	1926	Potentially Eligible		small office building	One Story Cube
23118	FIRST CHURCH OF CHRIST SCIENTIST	FIRST CHURCH OF CHRIST SCIENTIST	1899	Potentially Eligible		church	Neoclassical
23119	Polly and Jacob O. Lindem House	John and Linda Nye House	1879	Potentially Eligible		house	Italianate
23120			0	Potentially Eligible		retail building	Commercial Vernacular
23121			1915	Potentially Eligible		house	Craftsman
23122			1921	Potentially Eligible		house	Arts and Crafts
23124	MRS. G. DANCY HOUSE		1902	Potentially Eligible		house	Queen Anne
23141	GERMAN EVANGELICAL TRINITY LUTHERAN CHURCH	TRINITY EVANGELICAL LUTHERAN CHURCH	1902	Potentially Eligible		church	Gothic Revival
23151	AMERICAN WATER WORKS & GUARANTEE CO. STATION	MARINETTE WATER WORKS UTILITY OFFICE & PLANT	1889	Potentially Eligible		water utility	Neogothic Revival
23152		MARINETTE CATHOLIC CENTRAL CONVENT	0	Potentially Eligible		monastery, convent, religious retreat	Colonial Revival

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
23157	Sam Foster House		1883	Potentially Eligible		house	Italianate
23158	St. Antonius (German) Catholic Church	ST. ANTHONY'S CATHOLIC CHURCH	1902	Potentially Eligible		church	Neogothic Revival
23159	Fred Carney House		1885	Potentially Eligible		rectory/parsonage	Tudor Revival
23160	FIRST TRINITY LUTHERAN CHURCH	FIRST TRINITY LUTHERAN CHURCH	1931	Potentially Eligible		church	Neogothic Revival
23161	C.E. Peterson House		1888	Potentially Eligible		house	Queen Anne
41983	Swedish Mission Church		1895	Potentially Eligible		church	Neogothic Revival
42019			0	Potentially Eligible		house	Other Vernacular
42041	John Callaway House		1905	Potentially Eligible		house	Cross Gabled
42042	Mrs. Ozilda Bougie		1904	Potentially Eligible		house	Other Vernacular
42043	Frank Noel		1900	Potentially Eligible		house	Queen Anne
42045	David Christenson		1910	Potentially Eligible		house	Other Vernacular
42093			0	Potentially Eligible		house	Art Deco
42094			0	Potentially Eligible		house	Colonial Revival
42098			0	Potentially Eligible		house	Colonial Revival
42205	William Carmppbell House		1900	Potentially Eligible		house	Other Vernacular
42206			0	Potentially Eligible		house	Side Gabled
42207	Peter C. Donnelly House		1913	Potentially Eligible		house	Other Vernacular
42209	Joseph LeRoy House		1900	Potentially Eligible		house	Gabled Ell
42210	Frederick Bake House		1900	Potentially Eligible		house	Front Gabled

Table 3. Architecture and History Inventory  
 Data Source: Wisconsin Historic Preservation Database GIS Attribute Data

AHI Number	Historic Name	Other Name	Year Built	NR Eligibility	NRHP	Historic Use	Style
42211	Robert A. McDonald House		1926	Potentially Eligible		house	One Story Cube
42212	Dr. James V. Maig House		1911	Potentially Eligible		house	Cross Gabled
42213	Orley W. Dickenson House		1911	Potentially Eligible		house	American Foursquare
42214	Jacob E. Witting House		1907	Potentially Eligible		house	American Foursquare
42216	William E. Filds House		1907	Potentially Eligible		house	Two Story Cube
42217	Charles Lauerman House		1905	Potentially Eligible		house	Other Vernacular

**Arcadis U.S., Inc.**

126 North Jefferson Street

Suite 400

Milwaukee, Wisconsin 53202

Tel 414 276 7742

Fax 414 276 7603

**[www.arcadis.com](http://www.arcadis.com)**