

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

Form 4400-237 (R 12/18)

Page 1 of 5

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.

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 12/18)

Page 2 of 5

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 Wahl	First Scott	MI	Organization/ Business Name Tyco Fire Products LP		
Mailing Address 2700 Industrial Parkway South			City Marinette	State WI	ZIP Code 54143
Phone # (include area code)	Fax # (include area code)		Email		

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		
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)		Email Ben.Verburg@arcadis.com		

Environmental Consultant (if applicable)

Contact Last Name Verburg	First Ben	MI	Organization/ Business Name Arcadis		
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)		Email Ben.Verburg@arcadis.com		

Section 2. Property Information

Property Name JCI/Tyco (Biosolids)			FID No. (if known)		
BRRS No. (if known) 02-38-583856			Parcel Identification Number		
Street Address Multiple Landspreading Fields			City	State WI	ZIP Code
County Marinette	Municipality where the Property is located ☐ City ☐ Town ☐ Village of		Property is composed of: ☐ Single tax parcel ☒ Multiple tax parcels		Property Size Acres Unknown

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

Form 4400-237 (R 12/18)

Page 3 of 5

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

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

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: _____

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

Form 4400-237 (R 12/18)

Page 4 of 5

☐ 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: Drinking Water

Date of Collection: March 2, 2020 - August 15, 2020

☐ 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: Drinking Water Well Summary Report - Land Applied Biosolids Area

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.

Section 7. Certification by the Person who completed this form

☐ I am the person submitting this request (requester)

☒ I prepared this request for: Scott Wahl

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

Joseph R. Rutkowski

Date Signed

9/18/2020

Project Environmental Specialist

Title

(414) 276-7742

Telephone Number (include area code)

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

Form 4400-237 (R 12/18)

Page 5 of 5

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

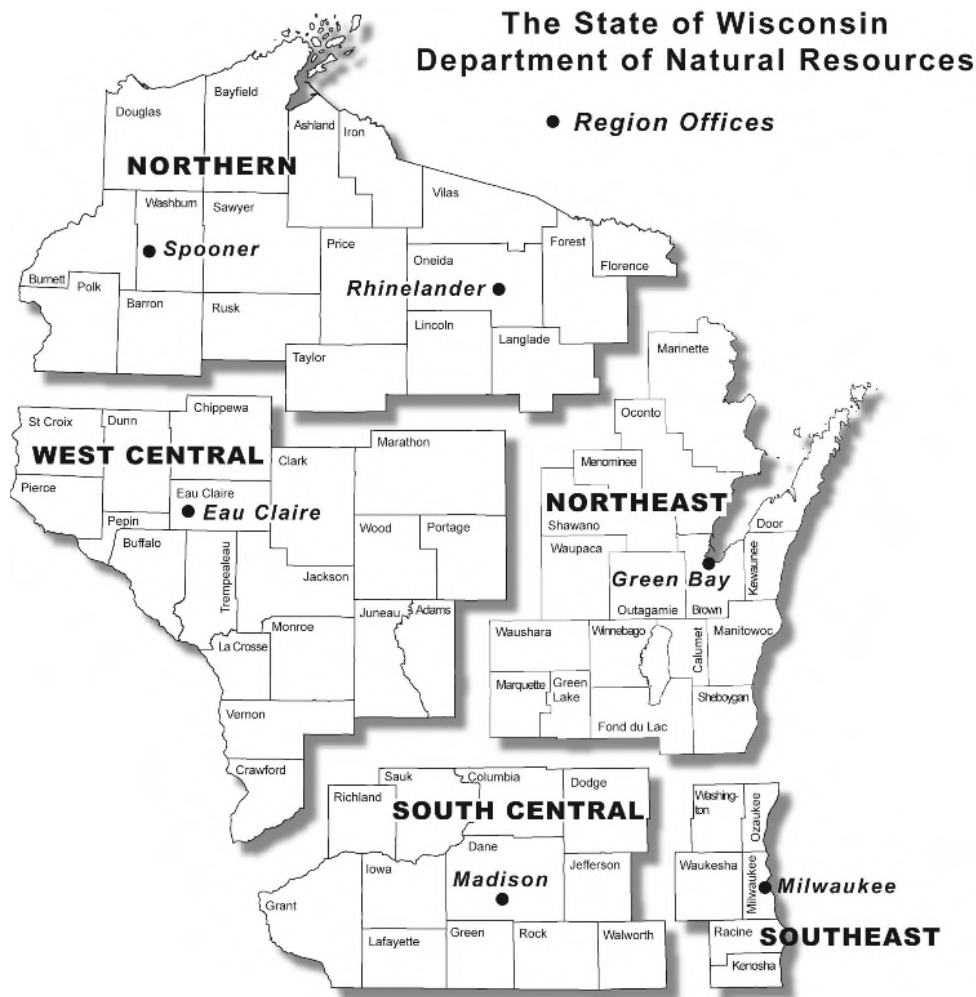
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

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	BRTS Activity Code	BRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? ☐ Yes ☐ No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

Tyco Fire Products LP

DRINKING WATER WELL SAMPLING SUMMARY REPORT - LAND APPLIED BIOSOLIDS AREA

Marinette and Oconto Counties, Wisconsin

BRRTS No. 02-38-583856

September 2020

A large orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, one slightly offset from the other, creating a layered effect. A thin white line runs diagonally across the shape from the bottom left to the top right.

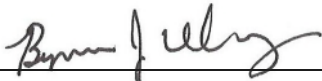
**DRINKING WATER
WELL SAMPLING
SUMMARY REPORT -
LAND APPLIED
BIOSOLIDS AREA**



Lisa M. Rutkowski
Project Environmental Scientist

Marinette And Oconto Counties,
Wisconsin

BRRTS No. 02-38-583856



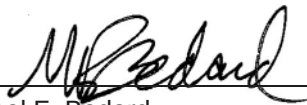
Benjamin J. Verburg, PE
Principal Engineer

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



Michael F. Bedard
Project Lead/Associate Vice President

Our Ref:

30046162

Date:

September 18, 2020

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.

CONTENTS

Acronyms and Abbreviations	iii
Executive Summary	ES-1
1 Introduction.....	1
2 Background	2
3 Regional Geology.....	3
3.1 Central Region	3
3.2 Lake Noquebay Region	3
3.3 Western Region	3
4 Planning, Outreach, and Scheduling	4
4.1 Outreach	4
4.1.1 Initial Outreach	4
4.1.2 Non-Responsive Property Outreach	5
4.1.3 Expanded Property Owner Outreach	6
4.1.4 Property Owner Responses	6
4.2 Sampling Schedule	6
4.2.1 Initial Sampling: March 2 through March 16, 2020	7
4.2.2 Resumption of Sampling: May 22 through August 15, 2020	7
5 Drinking Water Well Sampling Procedures	8
5.1 Field Methods	8
5.2 Sample Collection Procedures	9
5.3 Field Quality Assurance/Quality Control Samples.....	10
6 Quality Assurance/Quality Control	11
7 Communication of Results	12
8 Biosolids Drinking Water Well Sampling Results.....	13
8.1 Biosolids Drinking Water Well Data	13
8.2 Drinking Water Well Construction.....	13
9 Cause and Significance of Findings.....	15
10 References	16

EXHIBITS

Exhibit 1. Certified Mail Tracking	5
Exhibit 2. Final Outreach Response	6
Exhibit 3. Number of Drinking Water Wells Sampled	6

TABLES

Table 1. PFAS Drinking Water Well Sample Results
Table 2. Non-PFAS Drinking Water Well Sample Results
Table 3. Wisconsin Unique Well Numbers for Drinking Water Wells

FIGURES

Figure 1. Land Applied Biosolids Site Location
Figure 2. Geologic Regions in Land Applied Biosolids Area
Figure 3. Land Applied Biosolids Drinking Water Results

APPENDICES

Appendix A. Submittal Certification
Appendix B. Private Well Sampling Request Letter and Well Survey

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis U.S., Inc.
BRRTS	Bureau of Remediation and Redevelopment Tracking System
BWS	biosolids water sample
COC	chain-of-custody
ES	Enforcement Standard
HAL	Health Advisory Level
HDPE	high-density polyethylene
ID	identification
MCL	maximum contaminant level
MS/MSD	matrix spike/matrix spike duplicate
ng/L	nanograms per liter
NR	Natural Resources
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
RL	reporting limit
Tyco	Tyco Fire Products LP
USEPA	United States Environmental Protection Agency
USPS	United States Postal Service
WDHS	Wisconsin Department of Health Services
WDNR	Wisconsin Department of Natural Resources
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

This report describes the drinking water well sampling program initiated by Tyco Fire Products LP (Tyco) in February 2020 related to land applied biosolids in Marinette and Oconto Counties. In March 2020, Tyco voluntarily agreed to conduct a one-time sampling of certain wells in the vicinity of 61 fields identified by the Wisconsin Department of Natural Resources (WDNR) where biosolids were spread under a WDNR permit from wastewater treatment plants (WWTP) in the City of Marinette and the City of Peshtigo.

The Marinette and Peshtigo communities contain numerous industrial facilities that are likely contributing sources of per- and polyfluoroalkyl substances (PFAS) to the WWTPs. Public records and data indicate that any PFAS that may have been contained in the biosolids will have come from multiple potential sources. For example, Tyco has no identifiable connection to the City of Peshtigo WWTP. In addition, City of Marinette and Tyco testing data show that of the five intake sanitary sewer lines to the City of Marinette WWTP, all five lines tested positive for the presence of PFAS in the effluent but Tyco could only have contributed wastewater to three of these five lines.

Tyco made multiple contacts to 345 property owners in this area for well water testing and ultimately identified 203 parcels that used well water as a drinking water source. Of these, 11 owners refused access to their property and nine were non-responsive after indicating an interest in having their well sampled. 183 wells were sampled in total. Of the 183 wells sampled:

- 94 percent (172 wells of the 183 tested) contained combined perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) concentrations below the federal Health Advisory Level of 70 parts per trillion.
- 87 percent (159 of the 183) contained combined PFOA and PFOS concentrations below the Wisconsin Department of Health's proposed groundwater enforcement standard of 20 parts per trillion (proposed Enforcement Standard [ES]).

Drinking water well sample results were provided to applicable property owners and tenants and to WDNR within ten business days of receiving final sample results from the laboratory. These results can be further summarized as follows

- 77 percent of wells (141 out of 183 tested) had no PFAS detected or results that were so low that they fell below the ability of the laboratory to accurately measure them (known as the laboratory reporting limit or RL).
- 10 percent of wells (18 out of 183) had detectable results below 20 parts per trillion for PFOA and PFOS (individually or combined).
- 7 percent of wells (13 out of 183) had results between 20 and 70 parts per trillion for PFOA and PFOS (individually or combined).
- 6 percent of wells (11 out of 183) had results greater than 70 parts per trillion (individually or combined).

For residents whose drinking water wells contain PFOA and PFOS concentrations exceeding the proposed ES, Tyco has voluntarily offered bottled water.

DRINKING WATER WELL SAMPLING SUMMARY REPORT - LAND APPLIED BIOSOLIDS AREA

Significantly, this study has not identified a consistent PFOA and PFOS distribution across the study area in drinking water above the proposed ES. Rather, Tyco identified only isolated areas where several drinking water wells exceeded the proposed ES. Based on infrequent detections of PFAS results above the proposed ES, the land applied biosolids do not appear to be causing widespread contamination of drinking water.

1 INTRODUCTION

On behalf of Tyco Fire Products LP (Tyco), Arcadis U.S., Inc. (Arcadis) has prepared this Drinking Water Well Sampling Summary Report – Land Applied Biosolids (report) to describe the drinking water well sampling completed in Marinette and Oconto Counties, Wisconsin, related to the area where biosolids were land applied. This report describes the drinking water well sampling program Tyco voluntarily initiated in February 2020 under the oversight of the Wisconsin Department of Natural Resources (WDNR) for WDNR Bureau of Remediation and Redevelopment Tracking System (BRRTS) No. 02-38-583856.

Drinking water well sampling activities were conducted in areas adjacent to identified farm fields where biosolids were known to have been spread pursuant to WDNR permits by the City of Marinette and the City of Peshtigo to determine which, if any, drinking water wells had measurable levels of per- and polyfluoroalkyl substances (PFAS) potentially related to the biosolids. The investigation was performed in accordance with the Private Well Sampling Work Plan – Land-Applied Biosolids (Arcadis 2020a). The investigation approach was approved by WDNR (WDNR 2020). This report describes the sampling approach, timeline, sampling results, and cause and significance of the findings. Natural Resources (NR) 712 submittal certifications are included in **Appendix A**.

The United States Environmental Protection Agency (USEPA) classifies PFAS as a category of emerging contaminants. In May 2016, USEPA issued a drinking water lifetime Health Advisory Level (HAL) for two PFAS compounds, the individual and combined values of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), of 70 nanograms per liter (ng/L; parts per trillion). In June 2019, the Wisconsin Department of Health Services (WDHS) issued a proposed groundwater quality enforcement standard (proposed Enforcement Standard [ES]) of 20 ng/L for PFOA and PFOS, individually or combined. While the 20 ng/L concentration is considered a potential future groundwater standard, and not a present drinking water standard, it is included in this report for discussion purposes.

2 BACKGROUND

The City of Marinette Wastewater Treatment Plant (WWTP) has historically land applied biosolids on privately-owned farm fields. Biosolids land application activities conducted by the City of Marinette are permitted by WDNR in accordance with Wisconsin Administrative Code Chapter NR 214. In June 2018, the City of Marinette notified WDNR of elevated PFAS concentrations in influent wastewater received by the WWTP. In July 2018, the City of Marinette identified elevated PFAS concentrations in biosolids generated by the WWTP in 2017 and 2018. In July 2018, the City of Marinette tested lines from five wastewater zones that discharge into its WWTP and identified levels of PFAS in all five lines. Using funding voluntarily provided by Tyco, the City of Marinette later dewatered, treated, and disposed of the biosolids that were generated at approximately the same time as the July 2018 samples were collected. Therefore, neither those biosolids nor any generated since that time have been land applied. The City of Peshtigo also identified elevated PFAS concentrations in biosolids generated by its WWTP in May 2019.

In September 2018, WDNR requested that the City of Marinette stop land application of biosolids. In June 2019, WDNR requested that the City of Peshtigo also stop land application of biosolids. On July 3, 2019, WDNR requested that Tyco evaluate the impact of PFAS-containing land applied biosolids from the City of Marinette on private drinking water (WDNR 2019). WDNR identified 61 fields that received biosolids for land application from the City of Marinette and City of Peshtigo WWTPs between 1996 and 2018. The locations of these fields are shown on **Figure 1**.

The Marinette and Peshtigo communities contain numerous industrial facilities that are likely contributing sources of PFAS to the WWTPs. As a result, there are potentially multiple sources of PFAS that may have been present in the biosolids historically applied by the City of Marinette and the City of Peshtigo WWTPs.

Historically, Tyco discharged, under permit, foam-containing wastewater produced at the Fire Technology Center to the sanitary sewer system. Due to foaming issues reported by personnel from the City of Marinette's Publicly Owned Treatment Works, Tyco limited its output to approximately 2 gallons per minute. In March 2019, Tyco ceased discharging foam-containing wastewater into the sanitary sewer system. The buildings where PFAS-containing products are handled currently collect foam waste in tanks. The tanks are periodically pumped out for treatment and proper offsite disposal of the waste foam water at a licensed facility.

Tyco performed a facility-wide sanitary sewer investigation in early 2019 at the Fire Technology Center and Stanton Street facility. The investigation consisted of cleaning and televising sanitary sewer mains, laterals, and manholes. More than 2,400 feet of sanitary sewer pipe was inspected. The sewer mains and laterals were inspected with closed-circuit television or push cameras. Visual review of the footage identified groundwater infiltration at multiple locations due to structural defects in the pipes and/or manholes. Tyco performed rehabilitation of the sanitary sewer lines to repair structural defects and limit further infiltration of PFAS into the sewer lines that would have made its way to the City of Marinette WWTP.

3 REGIONAL GEOLOGY

This discussion of geology is based on United States Geological Survey geological mapping (Oakes and Hamilton 1973). The geology in the Marinette County area where documented biosolids land application has occurred is mapped by the United States Geological Survey as stratified glacial outwash deposits and unstratified glacial ground moraine overlying early Paleozoic sedimentary bedrock. Bedrock found in this region includes the late Ordovician dolomite and middle Ordovician sandstone (central sampling region), early Ordovician dolomite (Lake Noquebay sampling region), and Cambrian sandstone (western sampling region) (Oakes and Hamilton 1973). The geologic regions are illustrated on **Figure 2**.

The majority of the region consists of unstratified ground moraine till that is typically very dense, and consists of a poorly sorted mixture of clay, silt, sand, and gravel above bedrock. A smaller area is overlain by stratified outwash that is well-sorted soil consisting mainly of sand and gravel with some silts and clay. The till has low permeability and is a poor source of groundwater, while the sandy outwash has high permeability and provides a better source of groundwater. With low permeable soils (glacial till) and shallow bedrock limestone and dolomite in the majority of the region, there is little groundwater discharge to surface water.

3.1 Central Region

The central region of the documented biosolids land applications (immediately west of the City of Marinette) has more shallow overburden soil deposits present compared to the Lake Noquebay and western regions. The overlying soils are generally clay-based glacial tills that are, on average, less than 50 feet thick. The bedrock that underlies the clay tills in the central region is the Sinnipee Group (Galena, Decorah, and Platteville formations). The area also crosses a thin bedrock unit, the Ancel Group, of the St. Peter Sandstone.

3.2 Lake Noquebay Region

This region is situated immediately south of Lake Noquebay, and also incorporates an area to the north and northwest where biosolid land applications have been documented. The overlying soils are generally clay-based glacial tills that are, on average, less than 50 feet thick. The majority of this area is underlain by the shallower bedrock, the Prairie Du Chien Groups.

3.3 Western Region

This smaller region is located in the far western and southwestern corner of Marinette County, along with the eastern and northeastern portion of Oconto County. This region has outwash at much greater depths (up to and greater than 200 feet below ground surface) compared to the other two regions. The major bedrock unit in this area is Cambrian bedrock, the Jordan sandstone.

4 PLANNING, OUTREACH, AND SCHEDULING

The objective of the drinking water well sampling program related to the land applied biosolids area was to determine whether drinking water wells contain detectable levels of PFAS in the areas adjacent to farm fields where biosolids were known to have been applied. The drinking water well sampling area is shown on **Figure 1**.

WDNR provided Tyco with a database containing farm field number, volume of biosolids spread, owner, and section information. Arcadis plotted the farm field locations and, in conjunction with WDNR, identified a total of 61 farm fields that received biosolids land application. A 1,200-foot buffer around each property boundary that contained a field was requested by WDNR to identify drinking water wells that may have been affected by the biosolids land application. Using publicly available tax maps, Arcadis identified parcels and relevant owner information within 1,200 feet of the property boundaries that contained farm fields where biosolids from the Marinette WWTP were historically applied.

A total of 576 parcels were initially identified within an established 1,200-foot buffer from the property boundaries containing fields. Of the 576 identified parcels, 275 were noted to be potentially improved according to the Marinette County Geographical Information System website and the Oconto County Auditor's Office. The improvement designation indicates a structure was built on the parcel. Given that this area does not have city-supplied drinking water, a structure suggests a drinking water well may be present on the property to provide potable water to the structure. Arcadis created a database of the parcel information and then evaluated whether the improved parcels had a drinking water well through outreach to the parcel owner.

4.1 Outreach

4.1.1 Initial Outreach

Arcadis sent a letter on February 24, 2020 to the 337 property owners of the 576 identified parcels via overnight courier, requesting access to their property for the purpose of sampling their drinking water well(s) for PFAS. A copy of this letter is included in **Appendix B**. Owners were provided a toll-free phone number to schedule sampling before the end of March 2020. Owners were asked to call the toll-free number, regardless of whether there is a drinking water well on the property. Letters also included a postage-paid survey if they preferred to mail in responses instead of calling the toll-free number. The Private Drinking Water Well Survey form is included in **Appendix B**.

Arcadis staffed the Tyco Environmental Assessment Call Line (800-314-1381) from 8:00 a.m. to 4:00 p.m. central standard time Monday through Friday. Calls received during off hours or while all operators were busy were forwarded to a voicemail box. If the caller left a message requesting a call back, a response occurred generally within one business day. Arcadis updated the parcel database according to responses from the parcel owners.

4.1.2 Non-Responsive Property Outreach

On March 6, 2020, any property owners who had not yet responded to the initial letter were sent a second copy of the initial outreach letter via United States Postal Service (USPS) Certified Mail. That mailing list included 228 owners of 385 parcels within the identified buffers. Delivery status was documented as demonstrated in Exhibit 1.

Exhibit 1. Certified Mail Tracking

Tracking Category	Letters
Delivered	187
Unclaimed	32
Refused	3
Returned – Other	6

On March 16, 2020, Arcadis and Tyco suspended field sampling operations after the “Safer at Home” executive order by the Governor of Wisconsin and “Social Distancing” guidelines were enacted by the State of Wisconsin and the federal government. Arcadis contacted the owners who were scheduled to have their drinking water well sampled and canceled the appointments. Arcadis offered to call the owners when sampling resumed to reschedule the appointments.

The toll-free number remained operational throughout the suspension of sampling activities. Homeowners interested in having their private drinking water well sampled could call in to request a call back when sampling resumed. Additionally, homeowners who completed and returned written surveys during the suspension of field work were contacted to alert them of the suspension and were added to a list of owners to call when sampling activities resumed.

On May 13, 2020, the Wisconsin State Supreme Court held that the “Safer at Home” executive order was unlawful. On May 18, 2020, Arcadis initiated outgoing calls to begin scheduling private drinking water well sampling for owners who had previously been scheduled or had requested sampling during the suspension of field activities. Additionally, Arcadis researched potential phone numbers for non-responsive properties and began a proactive outreach campaign via phone calls to connect with parcel owners within the identified buffers. Where phone numbers were available, Arcadis called the number. The following results occurred from calling the numbers: connected directly with the owner, determined the phone number was not accurate, left a voicemail requesting a call back, or allowed the phone to ring until it was determined there was no voicemail system set up for that specific number and the call would be tried again at a later date.

On June 9, 2020, a third letter was sent to 97 property owners and 28 current residents requesting access to their property for the purpose of sampling their drinking water well(s). Parcels with a site address that differed from the owner’s mailing address were sent a generic “Current Resident” letter to give tenants an opportunity to request sampling in the event the parcel owner was non-responsive. These letters were sent via USPS Mailing Certificate.

After several attempts to contact property owners, a total of 117 property owners were non-responsive.

4.1.3 Expanded Property Owner Outreach

Arcadis' review of the buffer boundaries previously identified based on the data provided by WDNR identified a number of discrepancies. These were discussed with WDNR and resolved. The resolution resulted in the addition of 10 improved parcels to the database. On June 26, 2020, at Tyco's request, Arcadis sent letters to the 10 improved parcels. Where phone numbers were available, Arcadis also called those parcel owners to let them know they would be receiving a letter offering to test their private drinking water well(s).

4.1.4 Property Owner Responses

A total of 203 parcels were identified by owners or tenants as having a drinking water well present, while 267 parcels were identified as not having a drinking water well. There were 11 property owners who responded that there was a drinking water well on the parcel but declined sampling. The final response to the outreach efforts is documented in Exhibit 2.

Exhibit 2. Final Outreach Response

Response Category	No. of Responses
Total Parcels	586
Improved Parcels	275
Owners Contacted	345
Wells Identified	203
Owners Agreed to Sampling	194
Wells Sampled	183
Declined Sampling	11
Non-Responsive Owners	117

4.2 Sampling Schedule

Sampling was completed in two distinct sampling time frames. Exhibit 3 shows the number of drinking water wells sampled during each period. Additional details for each event are provided below.

Exhibit 3. Number of Drinking Water Wells Sampled

	March 2 – March 16, 2020	May 22 – August 15, 2020
Number of Drinking Water Wells Sampled	98	85

4.2.1 Initial Sampling: March 2 through March 16, 2020

Arcadis began collecting drinking water well samples on March 2, 2020. On March 16, 2020, Arcadis and Tyco suspended field sampling operations after the “Safer at Home” executive order by the Governor of Wisconsin and “Social Distancing” guidelines were enacted by the State of Wisconsin and the federal government. Those recommendations were extended by Wisconsin Governor Tony Evers on April 16, 2020 to remain active until at least May 26, 2020.

Arcadis collected 98 drinking water well samples during the initial two weeks of sampling. Preliminary results for all 98 wells were provided to WDNR on April 14, 2020. Validated laboratory reports and well sample result letters were provided to WDNR in tandem with the result letters being delivered to the property owners and any tenants within 10 days of Arcadis receiving those results from the third-party laboratories conducting the analyses (Arcadis 2020c).

4.2.2 Resumption of Sampling: May 22 through August 15, 2020

On May 13, 2020, the Wisconsin State Supreme Court held that the “Safer at Home” executive order was unlawful. Arcadis resumed sampling of the drinking water wells on May 22, 2020. Additional health and safety precautions were enacted to comply with state and federal guidelines and to protect the health and safety of the property owners and the sampling staff.

Arcadis collected an additional 85 initial drinking water well samples and resampled three previously sampled drinking water wells to verify results. Validated laboratory reports and well sample result letters were provided to WDNR in tandem with the result letters being delivered to property owners and any tenants within 10 days of Arcadis receiving those results from the third-party laboratories conducting the analyses.

5 DRINKING WATER WELL SAMPLING PROCEDURES

The detection of PFAS compounds, including at low concentrations, can be influenced by common PFAS-containing materials that may be present at the sampling site and potentially introduced during sampling. Therefore, the following sampling protocols were strictly followed by sampling personnel.

5.1 Field Methods

Sample collection methods were designed to avoid cross-contamination from PFAS-containing materials, given the low detection limits for the PFOA and PFOS analyses. As such, materials with any potential to contain PFAS were not used during sampling, including, for example, polytetrafluoroethylene sample tubing, food wrappers, water-resistant/waterproof clothing, and waterproof field books. Additionally, where possible, the sampling team avoided collecting samples from drinking water outfalls and taps fitted with Teflon tape or other known PFAS-containing materials; however, stainless steel and polyvinyl chloride materials were considered acceptable.

The following sample identification (ID) nomenclature was used to assign unique identifiers:

- Biosolids Water Sample (BWS)-XXX, where BWS = biosolids water sample and XXX = the number assigned to the well.

The bottles were labeled with the sample ID along with the date and time collected immediately after sealing the bottles, and the bottles were then placed and sealed in a Ziploc® or similar bag. This information was also recorded on the chain-of-custody (COC) form provided by the laboratory, on a Drinking Water Well Sampling Log, and in the sampling team's field notes. A signed copy of the COC form was provided to the laboratory whenever a sample cooler was delivered to the laboratory. A copy of each COC form was kept with the field notes and sample logs.

The COC form was marked for analysis with a standard turnaround time (approximately 10 business days). Samples were placed in coolers, with enough ice to keep the sample temperature between 0 and 4 degrees Celsius until delivered to the laboratory. Only “wet” ice was used, with no use of “blue ice” or similar cold storage packets. The sample coolers were shipped via FedEx Priority Overnight delivery to:

Sample Receiving
Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, Illinois 60484-3101

During the initial sampling event (March 2 to 16, 2020), drinking water samples were analyzed for 36 PFAS compounds that are reported using Method 537 – Modified, along with 1,4-dioxane via Method 522, pesticides via Method 608.3, and lead via Method 200.8. The analyses for 1,4-dioxane, pesticides, and lead were completed to obtain additional information on overall water quality. After review of the pesticide and 1,4-dioxane results from the initial sampling period, it was decided to eliminate the analyses of these compounds due to limited or no detections. Upon resuming sampling on May 22, 2020, the drinking water samples were analyzed for 36 PFAS compounds that are reported using Method 537 – Modified and lead via Method 200.8.

5.2 Sample Collection Procedures

Upon arrival at a property, the Arcadis sampling team provided introductions and informed the resident/property owner that the purpose of the visit was to collect a drinking water well sample for PFAS and other chemical analysis in accordance with previous correspondence. Arcadis requested any readily available information from the property owner regarding the drinking water well construction and well depth as well as information on any water treatment system, if present, at each property. Information recorded included the presence of water softeners, sediment traps, filters, and other water treatment features and the locations of these items in relation to the sample collection location. In addition, Arcadis collected any readily available information from the property owner regarding onsite wastewater disposal via a conventional or mound septic system, holding tank, etc.

Additional activities performed and procedures followed by the sampling team prior to drinking water well sample collection included:

- Donned a new set of nitrile gloves immediately prior to sampling.
- Did not use gloved hands to subsequently handle papers, pens, clothes, or other non-sampling implements before collecting samples.
- Used the 250-milliliter high-density polyethylene (HDPE) bottles that were supplied by the laboratory for each sample location.
- Kept caps on the bottle until immediately prior to sample collection and sealed the bottle immediately after sample collection.

With the resumption of sampling (May 2020), additional COVID-related precautions were implemented to protect homeowners and the sampling team, which included:

- Sampling team personnel practiced established social distancing protocols when interacting with homeowners.
- Sampling team personnel donned individual protective masks.
- Sampling team personnel requested verbal sampling permission from each of the homeowners and signed the homeowner acceptance, on behalf of the homeowner, of such verbal agreement on the electronic tablet.
- Sampling locations were changed to outdoor spigots, instead of indoor locations, when possible.

Sampling teams strived to sample drinking water prior to any water filtration and/or treatment systems. The sampling team collected unfiltered water samples, when possible, from a tap or port, as follows:

- Initiated flow from the water source and allowed the system to flush for at least 3 minutes.
- Collected the sample into the laboratory-supplied HDPE bottle(s) until the sample bottle was full (leaving slight headspace in the bottle was acceptable).
- Tightly screwed on the polypropylene or HDPE cap.

All disposable sampling materials were treated as single use and disposed of appropriately after sampling at each location. Samples from each residence were kept in a dedicated cooler with any appropriate quality assurance samples.

5.3 Field Quality Assurance/Quality Control Samples

For quality control purposes, field blanks, field duplicate samples, and matrix spike/matrix spike duplicate (MS/MSD) samples were collected for approximately every sample delivery group, every 10 samples, and every 20 samples, respectively. For smaller sample delivery groups, one field blank, one field duplicate, and one MS/MSD sample were collected per group. The samples were collected, stored, and handled as described in the Draft Quality Assurance Project Plan submitted to WDNR on April 15, 2020 (Arcadis 2020b).

6 QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance and quality control processes were performed in accordance with the Draft Quality Assurance Project Plan (Arcadis 2020b).

After receipt from the laboratory, Arcadis completed a preliminary data quality review and Level II data validation. If the data were deemed usable by the preliminary review and Level II data validation, the sample results were communicated to well owners/users and WDNR. After completion of the preliminary data quality review, Arcadis completed a more comprehensive validation of the data (Level IV data validation). If any changes to the reported sampling results were necessary after completion of the Level IV validation, the well owners/users and WDNR would have been notified of those changes. There were no changes to the reported sampling results from the Level IV validation.

Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-2017-002, January 2017 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

Results were qualified as follows in accordance with the National Functional Guidelines:

- D = Dilution required for sample analysis.
- J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ = The result is an estimated quantity. The associated numerical value is expected to have a positive or high bias.
- J- = The result is an estimated quantity. The associated numerical value is expected to have a negative or low bias.
- JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative ID. The associated numerical value is an estimated concentration only.
- JN- = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only. The associated numerical value is expected to have a negative or low bias.
- U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- UB = The compound is considered non-detect at the listed value due to associated blank contamination.
- UJ = The compound was not detected above the reported sample method detection limit; however, the reported limit is approximate and may or may not represent the actual method detection limit.

7 COMMUNICATION OF RESULTS

Drinking water well sample results were provided to applicable property owners and tenants and to WDNR within 10 business days of Arcadis receiving final sample results from the laboratory. If the combined PFOA/PFOS detected concentrations were above the proposed ES, a phone call was placed to the well owner/user to extend an offer for free bottled water service through Tyco. The calls extending bottled water service were made to the property owners prior to data validation. Property owners were informed of their preliminary results, offered bottled water service, provided the contact information for WDNR and WDHS, and alerted that their final results would be delivered after a short validation process.

Property owner results packages included a letter summarizing the sample results, the laboratory analytical results sheet, the drinking water sampling log, and a figure showing the approximate location of the drinking water well on the property. Results packages were sent via overnight courier service whenever possible. Owners with post office box mailing addresses were called to notify them of their results within the 10-day period to comply with state notification requirements. Mail to a post office box must be sent via USPS.

8 BIOSOLIDS DRINKING WATER WELL SAMPLING RESULTS

This section summarizes the drinking water well results associated with the sampling completed between March 2, 2020 and August 15, 2020.

8.1 Biosolids Drinking Water Well Data

A total of 183 wells were sampled through August 15, 2020. Of the wells sampled, 172 wells (94 percent) contained combined PFOA and PFOS concentrations below the HAL, and 159 wells (87 percent) contained combined PFOA and PFOS concentrations below the proposed ES of 20 ng/L. Thirteen wells contained combined PFOA and PFOS concentrations above the proposed ES and below the HAL. Eleven wells contained combined PFOA and PFOS concentrations above the HAL. These totals do not include resampling of wells. That is, if a well was sampled twice, the preceding totals only count that well once. Resampling of selected wells did not result in concentrations in a different category (i.e., if a well's first result was above the HAL, the resampled result was also above the HAL). Sample results above the HAL ranged in concentrations from 72 to 2,230 ng/L for PFOA and PFOS combined. The PFAS drinking water well sample results are included in **Table 1** and the sample results are shown on **Figure 3**.

A total of 24 wells contained combined PFOA and PFOS concentrations that exceeded the proposed ES and were offered bottled water. Of those that were offered, 22 owners/residents serviced by 19 wells accepted bottled water. Four owners declined bottled water and one owner is undecided whether to accept bottled water.

As a public health service to these well owners, Tyco also voluntarily tested for other emerging and known potential contaminants, even though these contaminants are not associated with any Tyco facility. The results of the analysis for 1,4-dioxane indicated no concentrations were detected above the laboratory reporting limit (RL). The results of the analysis for pesticides indicated several pesticides, including atrazine, methoxychlor, and metolachlor, were detected slightly above the RL in several wells, but well below the maximum contaminant level (MCL) or enforcement standard (ES). One pesticide, di(2-ethylhexyl)phthalate, was detected above the RL in four wells and exceeded the MCL/ES in one well. The results of the analysis for lead indicated lead was detected above the MCL/ES in nine wells sampled. Owners/residents of wells with detections of lead or pesticides above the MCL/ES were offered bottled water for three months to allow them the opportunity to address these findings. Six owners accepted this offer. These compounds were analyzed to provide information on overall water quality and the detections are not likely to be associated with the land application of biosolids. The non-PFAS drinking water well sample results are included in **Table 2**.

8.2 Drinking Water Well Construction

Arcadis attempted to obtain information on the construction of the drinking water wells sampled through the property owner and any publicly available information. Arcadis used WDNR's Well Construction Information System to search for information on the sampled drinking water wells.

DRINKING WATER WELL SAMPLING SUMMARY REPORT - LAND APPLIED BIOSOLIDS AREA

Arcadis found well construction information for 67 of the wells sampled. Some of the well construction forms found in WDNR's database could not be positively correlated to a property where a drinking water well was sampled due to incomplete or outdated information. The Wisconsin Unique Well Numbers and the associated well sample IDs are provided in **Table 3**. The information obtained from the well construction forms assisted in identifying well age, construction details, local geology, depth to groundwater, and other potentially relevant data.

9 CAUSE AND SIGNIFICANCE OF FINDINGS

Of the 183 wells sampled, 94 percent contained combined PFOA and PFOS concentrations below the HAL of 70 ng/L, and 87 percent contained combined PFOA and PFOS concentrations below the proposed ES of 20 ng/L. The purpose of the drinking water well sampling program was to identify the presence of PFAS in drinking water where City of Marinette and City of Peshtigo biosolids were land applied.

Significantly, the program results have not identified a consistent PFOA and PFOS distribution in drinking water above the proposed ES across the study area. Rather, Tyco identified only isolated areas where several drinking water wells exceeded the proposed ES. Based on infrequent detections of PFAS results above the proposed ES, the land applied biosolids do not appear to be causing widespread contamination of drinking water. This concludes the one-time sampling event as agreed between Tyco and WDNR.

Pesticides, lead and 1,4-dioxane results showed anywhere from limited to no detections. One pesticide exceeded the MCL/ES in one well sampled and lead exceeded the MCL/ES in nine wells sampled. Owners/residents of wells with detections of lead or pesticides above the MCL/ES were offered bottled water for three months to allow them the opportunity to address these findings. These compounds were analyzed to provide information on overall water quality and the detections are not likely to be associated with the land application of biosolids.

10 REFERENCES

Arcadis. 2020a. Private Well Sampling Work Plan – Land Applied Biosolids, BRRTS No. 02-38-583856. March 16.

Arcadis. 2020b. Draft Quality Assurance Project Plan. Tyco Per- and Polyfluoroalkyl Substances (PFAS) Site Investigation and Private Well Sampling Activities, Marinette, Wisconsin, April 15.

Arcadis. 2020c. Initial Evaluations of Land-spread Biosolids in Marinette and Oconto Counties, BRRTS #02-38-583856. April 30.

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

State of Wisconsin. 2020a. Geographical Information System Safer at Home Order. March 24.

State of Wisconsin. 2020b. Emergency Order #28 Safer at Home Order. April 16.

Tyco. 2019. Letter from Mr. Jeffrey Danko of Johnson Controls, Inc. to Mr. David Neste of WDNR. Regarding Reported Contamination at the City of Marinette Waste Water Treatment Facility and Associated Fields Utilized for Landspreading of Biosolids Sludge; Marinette, WI; DNR BRRTS #: 02-38-583856. July 10.

USEPA. 2017. National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-2017-002. January.

WDNR. 2020. Letter from Mr. David Neste of WDNR to Mr. Jeffrey Danko of Johnson Controls, Inc. and Mr. Scott Wahl of Tyco Fire Products, LP. Regarding Preliminary Review of Site Investigation Work Plan, WWTP Contamination and Associated Fields Utilized for Landspreading Municipal Biosolids; Marinette, Wisconsin; BRRTS #: 02-38-583856. February 18.

WDNR. 2019. Letter from Mr. David Neste of WDNR to Mr. Jefferey Danko of Johnson Controls, Inc. Regarding Reported Contamination at the City Marinette Waste Water Treatment Facility and Associated Fields Utilized for Landspreading Municipal Biosolids; Marinette, WI; DNR BRRTS #: 02-38-583856. July 3.

TABLES



Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFOA	PFOS	PFBS	PFHpA	PFHxS	PFNA	PFDA	PFDoA	PFHxA	PFTeA	PFTriA	PFUnA	NEtFOSAA	NMeFOSAA	PFBA	PFPeA	PFHxDA	PFODA	PFPeS
BWS-001	3/2/2020	<1.7	<1.7	<1.7	0.53 J	<1.7 UB	<1.7	<1.7	<1.7	1.1 J	<1.7	<1.7	<1.7	<17	<17	0.66 J	1.5 J	<1.7	<1.7	<1.7
BWS-002	3/2/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-003	3/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-003 DUP	3/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-004	3/2/2020	3.4	3.0	<1.8	1.0 J	<1.8 UB	<1.8	<1.8	<1.8	0.63 J	<1.8	<1.8	<1.8	<18	<18	0.46 J	<1.8	<1.8	<1.8	<1.8
BWS-005	3/2/2020	1.3 J	<1.7	2.7	1.6 J	<1.7 UB	<1.7	<1.7	<1.7	57	<1.7 UJ	<1.7	<1.7	<17	<17	21	110	<1.7	<1.7	<1.7
BWS-006	3/2/2020	1.1 J	2.3 JN	0.80 J	0.34 J	<1.7 UB	<1.7	<1.7	<1.7	0.59 J	<1.7	<1.7	<1.7	<17	<17	1.3 J	<1.7	<1.7	<1.7	<1.7
BWS-007	3/2/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	<1.6	0.29 J	<1.6	<1.6	<16	<16	0.85 J	<1.6	<1.6	<1.6	<1.6
BWS-008	3/2/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-009	3/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-010	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-010 DUP	3/3/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-011	3/3/2020	0.82 J	<1.9 UB	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9 UB	<1.9	<1.9	<1.9	<1.9
BWS-012	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-013	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-014	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-015	3/3/2020	<1.8	<1.8	<1.8	0.42 J	<1.8 UB	<1.8	<1.8	<1.8	0.59 J	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-016A	3/3/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-016B	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-017	3/3/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-018	3/3/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<16	<16	<1.6 UB	<1.6	<1.6	<1.6	<1.6
BWS-019	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-020	3/3/2020	<1.6	<1.6 UB	0.41 J	0.21 J	<1.6 UB	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<16	<16	<1.6 UB	<1.6	<1.6	<1.6	<1.6
BWS-021	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-022	3/3/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	0.49 J	<1.6	<1.6	<1.6	<16	<16	<1.6 UB	<1.6	<1.6	<1.6	<1.6
BWS-023	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-024	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-025	3/3/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-026	3/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-027	3/4/2020	<1.8	<1.8	1.2 J	3.7	<1.8	<1.8	<1.8	<1.8	59	<1.8	<1.8	<1.8	<18	<18	21	110	<1.8	<1.8	<1.8
BWS-028	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-029	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.51 J	0.80 J	<1.8	<1.8	<1.8
BWS-029 DUP	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.47 J	0.75 J	<1.8	<1.8	<1.8
BWS-030	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	0.58 J	<1.8	<1.8	<1.8	<18	<18	1.6 J	2.1	<1.8	<1.8	<1.8
BWS-031	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-032	3/4/2020	3.5	22	1.4 J	0.87 J	3.9	<1.8	<1.8	<1.8	1.0 J	<1.8	<1.8	<1.8	<18	<18	2.3	0.87 J	<1.8	<1.8	0.51 J
BWS-033	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-034	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-035	3/5/2020	<1.8	<1.8	1.1 J	2.5	<1.8 UB	<1.8	<1.8	<1.8	12	<1.8	<1.8	<1.8	<18	<18	4.9	21	<1.8 UB	<1.8	<1.8
BWS-036	3/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7 UB	<1.7	<1.7
BWS-037	3/5/2020	1,100	56 JN	18	510	45	2.4	<1.7	<1.7	1,100	<1.7	<1.7	<1.7	<17	<17	280	1,300	<1.7 UB	<1.7	3.7
BWS-037	5/22/2020	1,800 D	94 JN-	31	710 D	58	3.6 J-	<1.8	<1.8	2,000 D	<1.8	<1.8	<1.8	<18	<18	530 D	2,300 D	<1.8	<1.8	4.7
BWS-037 DUP	5/22/2020	1,700 D	91 JN	31	720 D	56	3.6	<1.7	<1.7	2,000 D	<1.7	<1.7	<1.7	<17	<17	540 D	2,400 D	<1.7	<1.7	4.7
BWS-038	3/5/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	0.34 J	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8 UB	<1.8	<1.8
BWS-039	3/5/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFHpS	PFNS	PFDS	PFDoS	FOSA	NEtFOSA	NMeFOSA	NMeFOSE	NEtFOSE	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	DONA	GenX	F-53B Major	F-53B Minor
BWS-001	3/2/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	0.20 J	<1.7	<3.3	<1.7	<1.7
BWS-002	3/2/2020	<1.7	<1.7	<1.7	<1.7	<2.3 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-003	3/2/2020	<1.8	<1.8	<1.8	<1.8	7.0	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-003 DUP	3/2/2020	<1.8	<1.8	<1.8	<1.8	9.9	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	0.17 J	<1.8	<3.6	<1.8	<1.8
BWS-004	3/2/2020	<1.8	<1.8	<1.8	<1.8	4.5	<1.8	<1.8	1.2 J	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-005	3/2/2020	<1.7	<1.7	<1.7	<1.7	3.0	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-006	3/2/2020	<1.7	<1.7	<1.7	<1.7	5.8	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-007	3/2/2020	<1.6	<1.6	<1.6	<1.6	6.3	<1.6	<1.6	<3.2	<1.6	<16	<16	<16	0.16 J	<1.6	<3.2	<1.6	<1.6
BWS-008	3/2/2020	<1.9	<1.9	<1.9	<1.9	7.9	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	0.18 J	<1.9	<3.8	<1.9	<1.9
BWS-009	3/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-010	3/3/2020	<1.7	<1.7	<1.7	<1.7	4.1	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-010 DUP	3/3/2020	<1.8	<1.8	<1.8	<1.8	6.1	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-011	3/3/2020	<1.9	<1.9	<1.9	<1.9	8.5	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	1.2 J	<1.9
BWS-012	3/3/2020	<1.7	<1.7	<1.7	<1.7	6.5	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-013	3/3/2020	<1.7	<1.7	<1.7	<1.7	7.8	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-014	3/3/2020	<1.7	<1.7	<1.7	<1.7	4.1	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-015	3/3/2020	<1.8	<1.8	<1.8	<1.8	3.5	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-016A	3/3/2020	<1.8	<1.8	<1.8	<1.8	4.9	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-016B	3/3/2020	<1.7	<1.7	<1.7	<1.7	6.1	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-017	3/3/2020	<1.8	<1.8	<1.8	<1.8	2.5	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-018	3/3/2020	<1.6	<1.6	<1.6	<1.6	3.2	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-019	3/3/2020	<1.7	<1.7	<1.7	<1.7	3.5	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-020	3/3/2020	<1.6	<1.6	<1.6	<1.6	3.1	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-021	3/3/2020	<1.7	<1.7	<1.7	<1.7	2.4	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-022	3/3/2020	<1.6	<1.6	<1.6	<1.6	<1.9 UB	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-023	3/3/2020	<1.7	<1.7	<1.7	<1.7	2.6	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-024	3/3/2020	<1.7	<1.7	<1.7	<1.7	3.2	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-025	3/3/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-026	3/3/2020	<1.7	<1.7	<1.7	<1.7	3.2	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-027	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-028	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-029	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-029 DUP	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-030	3/4/2020	<1.8	<1.8	<1.8	<1.8	0.64 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-031	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-032	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-033	3/4/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-034	3/4/2020	<1.8	<1.8	<1.8	<1.8	0.72 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-035	3/5/2020	<1.8	<1.8	<1.8	<1.8	2.6	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-036	3/5/2020	<1.7	<1.7	<1.7	<1.7	9.1	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-037	3/5/2020	6.2	<1.7	<1.7	<1.7	9.0	<1.7	<1.7	<3.5	<1.7	<17	1.8 J	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-037	5/22/2020	13	<1.8	<1.8	<1.8	3.4 J-	<1.8	<1.8	<3.6	<1.8	<18	4.3 J	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-037 DUP	5/22/2020	12	<1.7	<1.7	<1.7	1.5 J	<1.7	<1.7	<3.4	<1.7	<17	5.6 J	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-038	3/5/2020	<1.8	<1.8	<1.8	<1.8	<2.2 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-039	3/5/2020	<1.8	<1.8	<1.8	<1.8	<20	<20	<20	<40	<20	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFOA	PFOS	PFBS	PFHpA	PFHxS	PFNA	PFDA	PFDoA	PFHxA	PFTeA	PFTriA	PFUnA	NEtFOSAA	NMeFOSAA	PFBA	PFPeA	PFHxDA	PFODA	PFPeS
BWS-040A	3/5/2020	<1.7	<1.7	<1.7	1.5 J	<1.7 UB	<1.7	<1.7	<1.7	7.7	<1.7	<1.7	<1.7	<17	<17	1.3 J	9.7	<1.7 UB	<1.7	<1.7
BWS-040B	3/5/2020	0.77 J	<1.7	<1.7	3.5	<1.7 UB	<1.7	<1.7	<1.7	27	<1.7	<1.7	<1.7	<17	<17	9.0	44	<1.7	<1.7	<1.7
BWS-041	3/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7 UB	<1.7	<1.7
BWS-042	3/5/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	0.62 J	<1.8	0.64 J	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8 UB	<1.8	<1.8
BWS-042 DUP	3/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7 UB	<1.7	<1.7
BWS-043	3/6/2020	<1.7	<1.7 UB	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7 UB	<1.7	<1.7
BWS-044	3/6/2020	0.83 J	<1.7	0.66 J	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	3.0	0.72 J	<1.7 UB	<1.7	<1.7
BWS-045	3/6/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9 UB	<1.9	<1.9
BWS-046	3/6/2020	<1.8	<1.8	0.23 J	0.47 J	<1.8 UB	<1.8	<1.8	<1.8	7.6	0.40 J	<1.8	<1.8	<18	<18	3.3	15	<1.8 UB	<1.8	<1.8
BWS-047	3/9/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-048	3/9/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-049	3/10/2020	1.4 J	<1.8	2.7 JN	5.8	<1.8 UB	<1.8	<1.8	<1.8	8.3	<1.8	<1.8	<1.8	<18	<18	5.4	9.2	<1.8	<1.8	<1.8
BWS-049 DUP	3/10/2020	1.3 J	<1.8	2.5 JN	5.2	<1.8 UB	<1.8	<1.8	<1.8	8.3	<1.8	<1.8	<1.8	<18	<18	5.5	9.2	<1.8	<1.8	<1.8
BWS-050	3/10/2020	<1.8	<1.8	0.34 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	2.7	<1.8	<1.8	<1.8	<18	<18	2.6	5.8	<1.8	<1.8	<1.8
BWS-051	3/10/2020	21	<1.8	3.7	77	<1.8 UB	<1.8	<1.8	<1.8	240	<1.8	<1.8	<1.8	<18	<18	84	220	<1.8	<1.8	0.87 J
BWS-052	3/10/2020	<1.9	<1.9	3.4	<1.9	<1.9 UB	<1.9	<1.9	<1.9	0.57 J	<1.9	<1.9	<1.9	<19	<19	1.4 J	0.86 J	<1.9	<1.9	<1.9
BWS-053	3/10/2020	5.0	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	0.96 J	<1.8	<1.8	<1.8	<18	<18	0.50 J	1.8	<1.8	<1.8	<1.8
BWS-054	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	0.55 J	<1.8	<1.8	<1.8	<18	<18	0.42 J	1.3 J	<1.8	<1.8	<1.8
BWS-055	3/10/2020	0.87 J	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-056	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-057	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-058	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-059	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-060	3/11/2020	1.1 J	<1.8	0.86 J	0.24 J	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.65 J	0.66 J	<1.8	<1.8	<1.8
BWS-060 DUP	3/11/2020	1.1 J	<1.8	0.88 J	0.29 J	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	1.4 J	<1.8	<18	<18	0.61 J	0.65 J	<1.8	<1.8	<1.8
BWS-061	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-062	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-063	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-064	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-065	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-066	3/13/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.36 J	<1.8	<1.8	<1.8	<1.8
BWS-067	3/11/2020	1.1 J	1.1 J	2.1	0.22 J	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	2.1	0.66 J	<1.8	<1.8	<1.8
BWS-068	3/11/2020	<1.9	<1.9	0.26 J	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9 UJ	<1.9	<1.9
BWS-069	3/11/2020	14	4.0	0.78 J	4.1	<1.8 UB	0.27 J	<1.8	<1.8	3.0	<1.8	<1.8	<1.8	<18	<18	4.1	2.5	<1.8	<1.8	<1.8
BWS-070	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-071A	3/12/2020	<1.8	<1.8	0.86 J	0.25 J	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	4.1	0.59 J	<1.8	<1.8	<1.8
BWS-071B	3/12/2020	<1.7	<1.7	0.48 J	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	0.35 J	<1.7	<1.7	<17	<17	5.4	<1.7	<1.7	<1.7	<1.7
BWS-072	3/12/2020	140	2.0 JN	1.5 J	140	28	1.1 J	<1.8	<1.8	160	0.30 J	<1.8	<1.8	<18	<18	46	140	<1.8	<1.8	1.0 J
BWS-073	3/12/2020	<1.9	1.2 J	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-074	3/12/2020	11	5.9	4.6	8.5	2.1	2.7	<1.8	<1.8	13	<1.8	<1.8	<1.8	<18	<18	12	17	<1.8	<1.8	<1.8
BWS-074 DUP	3/12/2020	11	5.9	4.6	8.0	2.1	2.4	<1.9	<1.9	13	<1.9	<1.9	<1.9	<19	<19	12	17	<1.9	<1.9	<1.9
BWS-075	3/12/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	0.44 JN	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-076	3/12/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.78 J	2.0	<1.8	<1.8	<1.8
BWS-077	3/12/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-078	3/12/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFHpS	PFNS	PFDS	PFDoS	FOSA	NEtFOSA	NMeFOSA	NMeFOSE	NEtFOSE	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	DONA	GenX	F-53B Major	F-53B Minor
BWS-040A	3/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.5	<1.7	<17	21	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-040B	3/5/2020	<1.7	<1.7	<1.7	<1.7	8.9	<1.7	<1.7	<3.5	<1.7	<17	13 J	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-041	3/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-042	3/5/2020	<1.8	<1.8	<1.8	<1.8	3.1	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	0.20 J	<1.8	<3.7	<1.8	<1.8
BWS-042 DUP	3/5/2020	<1.7	<1.7	<1.7	<1.7	5.0	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-043	3/6/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-044	3/6/2020	<1.7	<1.7	<1.7	<1.7	3.5	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-045	3/6/2020	<1.9	<1.9	<1.9	<1.9	4.2	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-046	3/6/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-047	3/9/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-048	3/9/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-049	3/10/2020	<1.8	<1.8	<1.8	<1.8	2.9	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-049 DUP	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-050	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-051	3/10/2020	<1.8	<1.8	<1.8	<1.8	5.4	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-052	3/10/2020	<1.9	<1.9	<1.9	<1.9	2.9	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-053	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-054	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-055	3/10/2020	<1.8	<1.8	<1.8	<1.8	8.4	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-056	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.9 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-057	3/10/2020	<1.8	<1.8	<1.8	<1.8	2.0	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-058	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-059	3/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-060	3/11/2020	<1.8	<1.8	<1.8	<1.8	7.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-060 DUP	3/11/2020	<1.8	<1.8	<1.8	<1.8	4.4	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-061	3/11/2020	<1.8	<1.8	<1.8	<1.8	2.0	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-062	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-063	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-064	3/11/2020	<1.8	<1.8	<1.8	<1.8	9.5	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-065	3/11/2020	<1.8	<1.8	<1.8	<1.8	3.6	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-066	3/13/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-067	3/11/2020	<1.8	<1.8	<1.8	<1.8	6.5	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-068	3/11/2020	<1.9	<1.9	<1.9	<1.9	5.1	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-069	3/11/2020	0.29 J	<1.8	<1.8	<1.8	4.5	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-070	3/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-071A	3/12/2020	<1.8	<1.8	<1.8	<1.8	5.2	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-071B	3/12/2020	<1.7	<1.7	<1.7	<1.7	5.1	<1.7	<1.7	<3.4	0.75 J	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-072	3/12/2020	<1.8	<1.8	<1.8	<1.8	5.2	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-073	3/12/2020	<1.9	<1.9	<1.9	<1.9	<2.8 UB	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-074	3/12/2020	<1.8	<1.8	<1.8	<1.8	6.6	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-074 DUP	3/12/2020	<1.9	<1.9	<1.9	<1.9	6.1	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-075	3/12/2020	<1.7	<1.7	<1.7	<1.7	<2.2 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-076	3/12/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-077	3/12/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-078	3/12/2020	<1.7	<1.7	<1.7	<1.7	8.2	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFOA	PFOS	PFBS	PFHpA	PFHxS	PFNA	PFDA	PFDoA	PFHxA	PFTeA	PFTriA	PFUnA	NEtFOSAA	NMeFOSAA	PFBA	PFPeA	PFHxDA	PFODA	PFPeS
BWS-079	3/12/2020	<1.9	<1.9	0.28 J	<1.9	<1.9 UB	<1.9	<1.9	<1.9	1.6 J	<1.9	<1.9	<1.9	<19	<19	1.6 J	2.9	<1.9	<1.9	<1.9
BWS-080	3/12/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<16	<16	<1.6	<1.6	<1.6	<1.6	<1.6
BWS-081	3/13/2020	0.91 J	<1.8	0.75 J	12	<1.8 UB	<1.8	<1.8	<1.8	43	<1.8	<1.8	<1.8	<18	<18	14	45	<1.8	<1.8	<1.8
BWS-082	3/13/2020	140	2.0 JN	2.4	230	33	0.98 J	<1.9	<1.9	270	<1.9	<1.9	<1.9	<19	<19	76	260	<1.9	<1.9	2.3
BWS-083	3/13/2020	110	1.3 JN	2.2	210	28	1.0 J	<1.9	<1.9	260	<1.9	<1.9	<1.9	<19	<19	75	240	<1.9	<1.9	1.6 J
BWS-084	3/13/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	0.42 J	0.79 J	<1.7	<1.7	<1.7
BWS-085	3/13/2020	<1.9	<1.9	0.58 J	1.1 J	<1.9 UB	<1.9	<1.9	<1.9	47	<1.9	<1.9	<1.9	<19	<19	35	110	<1.9	<1.9	<1.9
BWS-086	3/16/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	2.5	0.70 J	<1.9	<1.9	<1.9
BWS-087	5/26/2020	<1.7	<1.7	<1.7	0.30 J	<1.7 UB	<1.7	<1.7	<1.7	0.96 J	0.74 J	<1.7	<1.7	<17	<17	0.61 J	1.2 J	<1.7	<1.7	<1.7
BWS-088	3/14/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-089	3/14/2020	69	0.81 JN	1.8	170	23	<1.8	<1.8	<1.8	200	<1.8	<1.8	<1.8	<18	<18	56	210	<1.8	<1.8	1.8
BWS-089 DUP	3/14/2020	67	0.93 JN	1.8	170	23	<1.8	<1.8	<1.8	190	<1.8	<1.8	<1.8	<18	<18	56	210	<1.8	<1.8	1.8
BWS-090	3/16/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-091	3/16/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	0.59 J	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-092	3/16/2020	<1.8	0.51 J	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-092 DUP	3/16/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-093	3/16/2020	<1.8	<1.8	0.28 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-094	3/16/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-095	3/16/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-096	3/16/2020	2.1	4.2	3.2	0.49 J	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	3.7	0.55 J	<1.7	<1.7	<1.7
BWS-097	5/22/2020	<1.9	<1.9	0.20 J	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9 UB	<1.9	<1.9	<1.9	<1.9
BWS-098	5/22/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9 UB	<1.9	<1.9	<1.9	<1.9
BWS-099	5/22/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-100	5/22/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9 UB	<1.9	0.93 J	<1.9	<1.9
BWS-101	5/26/2020	0.83 J	<1.7	0.23 J	1.1 J	<1.7 UB	<1.7	<1.7	<1.7	7.2	<1.7	<1.7	<1.7	<17	<17	31	24	<1.7	<1.7	<1.7
BWS-102	5/26/2020	52	0.62 JN	0.76 J	24	1.7	<1.7	<1.7	<1.7	51	<1.7	<1.7	<1.7	<17	<17	13	42	<1.7	<1.7	<1.7
BWS-102 DUP	5/26/2020	48	0.53 J	0.70 J	24	1.8	<1.7	<1.7	<1.7	48	<1.7	<1.7	<1.7	<17	<17	13	43	<1.7	<1.7	<1.7
BWS-103	5/26/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	0.56 J	<1.9	<1.9	<1.9
BWS-104	5/26/2020	1.1 J	1.3 J	1.4 J	7.4	<1.7 UB	<1.7	<1.7	<1.7	64	0.36 J	<1.7	<1.7	<17	<17	28	84	<1.7	<1.7	0.38 J
BWS-105	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-105 DUP	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-106	5/27/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	0.54 JN	<1.7	0.65 J	<1.7	<1.7	<17	<17	4.3	0.58 J	<1.7	<1.7	<1.7
BWS-107	5/27/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	6.4	0.64 J	<1.7	<1.7	<1.7
BWS-108	5/27/2020	<1.8	<1.8	<1.8	0.37 J	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	0.60 J	<1.8	<1.8	<1.8
BWS-109	5/27/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-110	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-111	5/28/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	0.79 J	<1.8	<1.8	<1.8
BWS-112	5/28/2020	71	0.74 J	2.1	210	24	<1.7	<1.7	<1.7	230	<1.7	<1.7	<1.7	<17	<17	70	230	<1.7	<1.7	2.3
BWS-113	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-114	6/1/2020	<1.7	<1.7	0.19 J	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-115	6/1/2020	<1.9	<1.9	<1.9	5.7	<1.9 UB	<1.9	<1.9	<1.9	8.1	<1.9	<1.9	<1.9	<19	<19	3.2	9.7	<1.9	<1.9	<1.9
BWS-116	6/1/2020	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<190	<190	<19	<19	<19	<19	<19
BWS-117	6/1/2020	<1.8	<1.8	0.19 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-118	6/2/2020		<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-119	6/1/2020	210	2.8 JN	1.3 J	120	28	2.4	<1.7	<1.7	110	<1.7	<1.7	<1.7	<17	<17	45	99	<1.7	<1.7	1.0 J

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFHpS	PFNS	PFDS	PFDoS	FOSA	NEtFOSA	NMeFOSA	NMeFOSE	NEtFOSE	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	DONA	GenX	F-53B Major	F-53B Minor
BWS-079	3/12/2020	<1.9	<1.9	<1.9	<1.9	9.2	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-080	3/12/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-081	3/13/2020	<1.8	<1.8	<1.8	<1.8	5.4	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-082	3/13/2020	<1.9	<1.9	<1.9	<1.9	<3.9 UB	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-083	3/13/2020	<1.9	<1.9	<1.9	<1.9	12	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-084	3/13/2020	<1.7	<1.7	<1.7	<1.7	6.0	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-085	3/13/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-086	3/16/2020	<1.9	<1.9	<1.9	<1.9	0.38 J	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-087	5/26/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-088	3/14/2020	<1.8	<1.8	<1.8	<1.8	0.49 J	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-089	3/14/2020	<1.8	<1.8	<1.8	<1.8	0.74 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-089 DUP	3/14/2020	<1.8	<1.8	<1.8	<1.8	0.93 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-090	3/16/2020	<1.9	<1.9	<1.9	<1.9	0.84 J	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-091	3/16/2020	<1.8	<1.8	<1.8	<1.8	0.60 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8 UB	<1.8	<3.6	<1.8	0.30 J
BWS-092	3/16/2020	<1.8	<1.8	<1.8	<1.8	0.37 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-092 DUP	3/16/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-093	3/16/2020	<1.8	<1.8	<1.8	<1.8	0.73 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-094	3/16/2020	<1.9	<1.9	<1.9	<1.9	0.44 J	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9 UB	<1.9	<3.8	<1.9	<1.9
BWS-095	3/16/2020	<1.8	<1.8	<1.8	<1.8	0.33 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-096	3/16/2020	<1.7	<1.7	<1.7	<1.7	0.46 J	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-097	5/22/2020	<1.9	<1.9	<1.9	<1.9	5.0	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-098	5/22/2020	<1.9	<1.9	<1.9	<1.9	1.2 J	<1.9	<1.9	<3.9	<1.9	<19	<19	<19	<1.9	<1.9	<3.9	<1.9	<1.9
BWS-099	5/22/2020	<1.8	<1.8	<1.8	<1.8	2.3	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-100	5/22/2020	<1.9	<1.9	<1.9	<1.9	0.62 J	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-101	5/26/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-102	5/26/2020	0.17 J	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-102 DUP	5/26/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-103	5/26/2020	<1.9	<1.9	<1.9	<1.9	<4.7 UB	<1.9	<1.9	<3.8	<1.9	<19	<19	<19	<1.9	<1.9	<3.8	<1.9	<1.9
BWS-104	5/26/2020	<1.7	<1.7	<1.7	<1.7	<1.9 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-105	5/28/2020	<1.7	<1.7	<1.7	<1.7	<2.5 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-105 DUP	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.8 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-106	5/27/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-107	5/27/2020	<1.7	<1.7	<1.7	<1.7	<3.1 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-108	5/27/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-109	5/27/2020	<1.7	<1.7	<1.7	<1.7	<2.0 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-110	5/28/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-111	5/28/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-112	5/28/2020	<1.7	<1.7	<1.7	<1.7	<3.1 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-113	5/28/2020	<1.7	<1.7	<1.7	<1.7	<3.0 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-114	6/1/2020	<1.7	<1.7	<1.7	<1.7	1.7	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-115	6/1/2020	<1.9	<1.9	<1.9	<1.9	1.3 J	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-116	6/1/2020	<19	<19	<19	<19	5.5 J	<19	<19	<37	<19	<190	<190	<190	<19	<19	<37	<19	<19
BWS-117	6/1/2020	<1.8	<1.8	<1.8	<1.8	7.4	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-118	6/2/2020	<1.8	<1.8	<1.8	<1.8	0.44 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-119	6/1/2020	0.27 J	<1.7	<1.7	<1.7	2.8	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFOA	PFOS	PFBS	PFHpA	PFHxS	PFNA	PFDA	PFDoA	PFHxA	PFTeA	PFTriA	PFUnA	NEtFOSAA	NMeFOSAA	PFBA	PFPeA	PFHxDA	PFODA	PFPeS
BWS-119 DUP	6/1/2020	210	3.8 JN-	1.3 J-	110 J-	30 J-	2.3 J-	<1.6	<1.6	110 J-	<1.6	<1.6	<1.6	<16	<16	45	94	<1.6	<1.6	1.1 J
BWS-120	6/3/2020	24	<1.8	0.73 J	59	7.9	<1.8	<1.8	<1.8	64	<1.8	<1.8	<1.8	<18	<18	22	63	<1.8	<1.8	0.60 J
BWS-121	6/1/2020	30	0.59 J-	1.5 J-	120	13 J-	<1.6	<1.6	<1.6	170	<1.6	<1.6	<1.6	<16	<16	46	160	<1.6	<1.6	1.5 J
BWS-122	6/1/2020	13	<1.8	0.95 J-	70	6.4 J-	<1.8	<1.8	<1.8	93	<1.8	<1.8	<1.8	<18	<18	26	94	<1.8	<1.8	0.83 J
BWS-123	6/1/2020	1.9	0.76 J	4.0	0.61 J	<1.9 UB	<1.9	<1.9	<1.9	0.87 J	<1.9	<1.9	<1.9	<19	<19	5.9	1.1 J	<1.9	<1.9	<1.9
BWS-124	6/1/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-125	6/2/2020	<1.8	<1.8	0.18 J-	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	0.44 J-	<1.8	<1.8	<1.8
BWS-126	6/2/2020	1.1 J	1.1 JN	0.34 J	4.9	<1.7 UB	<1.7	<1.7	<1.7	2.8	<1.7	<1.7	<1.7	<17	<17	<2.6 UB	2.2	<1.7	<1.7	<1.7
BWS-127	6/2/2020	1.9	<1.6	0.66 J	0.74 J	<1.6 UB	<1.6	<1.6	<1.6	2.6	<1.6	<1.6	<1.6	<16	<16	6.9	2.4	<1.6	<1.6	<1.6
BWS-128	6/2/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-129	6/2/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-129 DUP	6/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-130	6/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	0.30 J	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-131	6/2/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-132	6/2/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	0.80 J	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	1.1 J	<1.8	<1.8	<1.8
BWS-133	6/2/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<16	<16	<1.6 UB	<1.6	<1.6	<1.6	<1.6
BWS-134	6/3/2020	<1.6	<1.6	<1.6	<1.6	<1.6 UB	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<16	<16	<1.6 UB	<1.6	<1.6	<1.6	<1.6
BWS-134 DUP	6/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-135	6/3/2020	2.2	<1.7	0.39 J	0.43 J	<1.7 UB	<1.7	<1.7	<1.7	0.58 J	<1.7	<1.7	<1.7	<17	<17	2.8	0.68 J	<1.7	<1.7	<1.7
BWS-136	6/3/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-137	6/3/2020	<1.7	0.84 J	0.55 J	0.24 J	<1.7 UB	<1.7	<1.7	<1.7	<1.7	0.49 J	<1.7	<1.7	<17	<17	<1.7 UB	0.45 J	<1.7	<1.7	<1.7
BWS-138	6/5/2020	2.6	2.1 JN	0.32 J	0.50 J	<1.7 UB	<1.7	<1.7	<1.7	2.0	<1.7	<1.7	<1.7	<17	<17	3.7	5.2	<1.7	<1.7	<1.7
BWS-138 DUP	6/5/2020	2.7	1.8 JN	0.33 J	0.49 J	<1.7 UB	<1.7	<1.7	<1.7	1.8	<1.7	<1.7	<1.7	<17	<17	3.6	4.8	<1.7	<1.7	<1.7
BWS-139	6/5/2020	<19	<19	<19	5.4 DJ-	<19	<19	<19	<19	19 DJ-	<19	<19	<19	<190	<190	8.9 DJ-	18 DJ-	<19	<19	<19
BWS-140	6/5/2020	18	<1.7	0.36 J	40	4.0	<1.7	<1.7	<1.7	45	<1.7	<1.7	<1.7	<17	<17	13	38	<1.7	<1.7	0.33 J
BWS-141	6/5/2020	<17	<17	<17	<17	<17	<17	<17	<17	<17	<17	<17	<17	<170	<170	<17	<17	<17	<17	<17
BWS-142	6/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-145	6/10/2020	<1.8	0.52 J	0.21 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	2.5	<1.8	<1.8	<1.8	<1.8
BWS-145 DUP	6/10/2020	<1.8	<1.8	0.19 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	1.9	<1.8	<1.8	<1.8	<1.8
BWS-146	6/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	0.61 J	<1.8	<1.8	<1.8
BWS-147	6/11/2020	3.4	2.0	2.2	1.3 J	2.0	<1.7	<1.7	<1.7	2.4	<1.7	<1.7	<1.7	<17	<17	3.1	2.6	<1.7	<1.7	0.34 J
BWS-148	6/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8	<1.8	<1.8
BWS-149	6/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	0.40 J	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-150	6/11/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9 UB	<1.9	<1.9	<1.9	<1.9
BWS-151	6/16/2020	21	0.54 J	0.94 J	79	8.7	<1.7	<1.7	<1.7	110	<1.7 UB	<1.7	<1.7	<17	<17	27	94	<1.7	<1.7	1.0 J
BWS-152	6/16/2020	41	2.8 JN	0.97 J	22	2.7	0.41 J	<1.7	<1.7	56	<1.7	<1.7	<1.7	<17	<17	23	65	<1.7	<1.7	<1.7
BWS-152 DUP	6/16/2020	41	3.4	1.4 J	23	3.1	1.0 J	0.67 J	<1.8	53	<1.8	<1.8	<1.8	<18	<18	24	67	<1.8	<1.8	0.59 J
BWS-153	6/18/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<2.6 UB	0.78 J	<1.8 UB	<1.8	<1.8
BWS-154	6/18/2020	0.89 J	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8 UB	<1.8	<1.8
BWS-154 DUP	6/18/2020	0.77 J	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8 UB	<1.8	<1.8 UB	<1.8	<1.8
BWS-157	6/20/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-157 DUP	6/20/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-158	6/22/2020	2.8	2.0	1.5 J	1.8	<1.7 UB	<1.7	<1.7	<1.7	3.6	<1.7	<1.7	<1.7	<17	<17	3.8	2.9	<1.7	<1.7	<1.7
BWS-159	6/22/2020	7.9	<1.8	0.61 J	29	3.5	<1.8	<1.8	<1.8	32	<1.8	<1.8	<1.8	<18	<18	11	29	<1.8	<1.8	<1.8
BWS-160	6/24/2020	0.91 J	1.3 J	1.7	8.9	<1.6 UB	<1.6	<1.6	<1.6	78	<1.6	<1.6	<1.6	<16	<16	33	100	<1.6	<1.6	<1.6

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFHpS	PFNS	PFDS	PFDoS	FOSA	NEtFOSA	NMeFOSA	NMeFOSE	NEtFOSE	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	DONA	GenX	F-53B Major	F-53B Minor
BWS-119 DUP	6/1/2020	0.34 J	<1.6	<1.6	<1.6	3.9 J-	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-120	6/3/2020	<1.8	<1.8	<1.8	<1.8	3.6	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-121	6/1/2020	<1.6	<1.6	<1.6	<1.6	6.1 J-	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-122	6/1/2020	<1.8	<1.8	<1.8	<1.8	2.5 J-	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-123	6/1/2020	<1.9	<1.9	<1.9	<1.9	2.8	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-124	6/1/2020	<1.7	<1.7	<1.7	<1.7	4.8	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-125	6/2/2020	<1.8	<1.8	<1.8	<1.8	3.0 J-	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-126	6/2/2020	<1.7	<1.7	<1.7	<1.7	2.6	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-127	6/2/2020	<1.6	<1.6	<1.6	<1.6	3.1	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-128	6/2/2020	<1.7	<1.7	<1.7	<1.7	1.8	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-129	6/2/2020	<1.7	<1.7	<1.7	<1.7	1.9	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-129 DUP	6/2/2020	<1.8	<1.8	<1.8	<1.8	2.4	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-130	6/2/2020	<1.8	<1.8	<1.8	<1.8	6.0	<1.8	<1.8	<3.6	<1.8	<18	6.6 J-	2.4 J-	0.22 J-	<1.8	<3.6	<1.8	<1.8
BWS-131	6/2/2020	<1.7	<1.7	<1.7	<1.7	1.9	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-132	6/2/2020	<1.8	<1.8	<1.8	<1.8	3.3	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-133	6/2/2020	<1.6	<1.6	<1.6	<1.6	4.2	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-134	6/3/2020	<1.6	<1.6	<1.6	<1.6	3.4	<1.6	<1.6	<3.3	<1.6	<16	<16	<16	<1.6	<1.6	<3.3	<1.6	<1.6
BWS-134 DUP	6/3/2020	<1.7	<1.7	<1.7	<1.7	4.6	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-135	6/3/2020	<1.7	<1.7	<1.7	<1.7	3.8	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-136	6/3/2020	<1.7	<1.7	<1.7	<1.7	3.5	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-137	6/3/2020	<1.7	<1.7	<1.7	<1.7	2.1	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	0.27 J	<1.7	<3.4	0.21 J	0.29 J
BWS-138	6/5/2020	<1.7	<1.7	<1.7	<1.7	4.8 J	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-138 DUP	6/5/2020	<1.7	<1.7	<1.7	<1.7	13 J	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-139	6/5/2020	<19	<19	<19	<19	<19	<19	<19	<38	<19	<190	<190	<190	<19	<19	<38	<19	<19
BWS-140	6/5/2020	<1.7	<1.7	<1.7	<1.7	3.6	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	0.17 J	<1.7	<3.5	<1.7	<1.7
BWS-141	6/5/2020	<17	<17	<17	<17	<17	<17	<17	<34	<17	<170	<170	<170	<17	<17	<34	<17	<17
BWS-142	6/5/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-145	6/10/2020	<1.8	<1.8	<1.8	<1.8	3.8	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-145 DUP	6/10/2020	<1.8	<1.8	<1.8	<1.8	4.3	<1.8	<1.8	<3.7	<1.8	<18	<18	<18	<1.8	<1.8	<3.7	<1.8	<1.8
BWS-146	6/10/2020	<1.8	<1.8	<1.8	<1.8	5.6	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-147	6/11/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-148	6/11/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-149	6/11/2020	<1.8	<1.8	<1.8	<1.8	3.9	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-150	6/11/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-151	6/16/2020	<1.7	<1.7	<1.7	<1.7	11	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-152	6/16/2020	<1.7	<1.7	<1.7	<1.7	8.0	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-152 DUP	6/16/2020	0.84 J	0.50 J	0.31 J	<1.8	7.9	<1.8	<1.8	<3.6	<1.8	<18	19	<18	<1.8	0.72 J	<3.6	0.51 J	0.44 J
BWS-153	6/18/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-154	6/18/2020	<1.8	<1.8	<1.8	<1.8	18	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-154 DUP	6/18/2020	<1.8	<1.8	<1.8	<1.8	18	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-157	6/20/2020	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-157 DUP	6/20/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-158	6/22/2020	<1.7	<1.7	<1.7	<1.7	3.1	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-159	6/22/2020	<1.8	<1.8	<1.8	<1.8	5.5	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-160	6/24/2020	<1.6	<1.6	<1.6	<1.6	1.7	<1.6	<1.6	<3.2	<1.6	<16	<16	<16	<1.6	<1.6	<3.2	<1.6	<1.6

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFOA	PFOS	PFBS	PFHpA	PFHxS	PFNA	PFDA	PFDoA	PFHxA	PFTeA	PFTriA	PFUnA	NEtFOSAA	NMeFOSAA	PFBA	PFPeA	PFHxDA	PFODA	PFPeS
BWS-161	6/24/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-161 DUP	6/24/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-162	6/24/2020	100	<1.8	4.1	530 D	19	<1.8	<1.8	<1.8	630 D	<1.8	<1.8	<1.8	<18	<18	200	580 D	<1.8	<1.8	4.2
BWS-163	6/24/2020	180	4.1 JN	1.2 J	98	26	3.1	<1.8	<1.8	90	<1.8	<1.8	<1.8	<18	<18	36	68	<1.8	<1.8	0.82 J
BWS-163	7/23/2020	220	<2.3 UB	1.3 J	140	38	1.9	<1.7	<1.7	140	<1.7	<1.7	<1.7	<17	<17	53	110	<1.7	<1.7	1.2 J
BWS-164	6/24/2020	5.8	0.60 J	0.57 J	5.8	<1.8 UB	<1.8	<1.8	<1.8	6.1	<1.8	<1.8	<1.8	<18	<18	4.0	5.2	<1.8	<1.8	<1.8
BWS-165	6/24/2020	56	3.9 JN	1.1 J	33	8.3	1.7	<1.7	<1.7	31	<1.7	<1.7	<1.7	<17	<17	13	24	<1.7	<1.7	0.28 J
BWS-166	6/24/2020	5.8	21	1.3 J	1.7	5.1	0.28 J	<1.7	<1.7	2.1	<1.7	<1.7	<1.7	<17	<17	1.9	<1.7 UB	<1.7	<1.7	0.71 J
BWS-167	7/9/2020	<1.8	<1.8	0.28 J	3.5	<1.8 UB	<1.8	<1.8	<1.8	3.8	<1.8	<1.8	<1.8	<18	<18	2.1	3.8	<1.8	<1.8	<1.8
BWS-167 DUP	7/9/2020	0.95 J	<1.8	0.26 J	4.5	<1.8 UB	<1.8	<1.8	0.59 J	4.8	<1.8	<1.8	<1.8	<18	<18	2.3	4.4	<1.8	<1.8	<1.8
BWS-168	6/24/2020	140	<1.7	1.9	330	22	<1.7	<1.7	<1.7	260	<1.7	<1.7	<1.7	<17	<17	100	230	<1.7	<1.7	2.1
BWS-169	6/30/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-169 DUP	6/30/2020	<1.7	0.47 J	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<17	<17	<1.7 UB	<1.7	<1.7	<1.7	<1.7
BWS-170	7/6/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7 UJ	<1.7	<17	<17	<1.7	<1.7	<1.7	<1.7	<1.7
BWS-171	7/6/2020	58	<1.7	2.7	190	19	<1.7	<1.7	<1.7	280	<1.7	<1.7	<1.7	<17	<17	76	260	<1.7	<1.7	2.8
BWS-171 DUP	7/6/2020	59	<1.7	2.5	220	20	<1.7	<1.7	<1.7	290	<1.7	<1.7	<1.7	<17	<17	75	270	<1.7	<1.7	2.8
BWS-172	7/6/2020	<1.7	13	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	4.7 JN	<17	<17	1.5 J	<1.7	<1.7	<1.7	<1.7
BWS-173	7/9/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.58 J	<1.8	<1.8	<1.8 UJ	<1.8
BWS-174	7/9/2020	<2.0	<2.0	<2.0	<2.0	<2.0 UB	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<20	0.40 J	<2.0	<2.0	<2.0	<2.0
BWS-175	7/10/2020	2,200 D	30 JN	33	1,000 D	77	1.7 J-	<1.9	<1.9	2,200 D	<1.9	<1.9	<1.9	<19	<19	580 D	2,000 D	<1.9	<1.9	8.0
BWS-175	7/23/2020	2,100 D	<1.8	31	970 D	73	2.0	<1.8	<1.8	1,900 D	<1.8	<1.8	<1.8	<18	<18	550 D	1,700 D	<1.8	<1.8	8.0
BWS-176	7/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-176 DUP	7/10/2020	<1.9	<1.9	<1.9	<1.9	<1.9 UB	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9
BWS-177	7/10/2020	1.8	3.2	0.70 J	0.79 J	<1.8 UB	<1.8	<1.8	<1.8	2.0	<1.8	<1.8	<1.8	<18	<18	2.5	2.1	<1.8	<1.8	<1.8
BWS-178	7/10/2020	<1.8	<1.8	0.26 J	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	0.79 J	<1.8	<1.8	<1.8	<1.8
BWS-179	7/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-180	7/10/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8
BWS-181	7/16/2020	28	<1.7	1.7	220	14	<1.7 UB	<1.7	<1.7	120	<1.7	<1.7	<1.7	<17	<17	51	110	<1.7	<1.7	1.7
BWS-181 DUP	7/16/2020	28	<1.8	1.7 J	230	14	<1.8 UB	<1.8	<1.8	130	<1.8	<1.8	<1.8	<18	<18	51	110	<1.8	<1.8	1.6 J
BWS-182	7/23/2020	1,200 D	<1.8	19	640 D	40 J-	<1.8	<1.8	<1.8	1,300 D	<1.8	<1.8	<1.8	<18	<18	330 D	1,100 D	<1.8	<1.8	6.4
BWS-183	7/23/2020	23	<1.8	1.8	110	<1.8 UB	<1.8	<1.8	<1.8	270	<1.8	<1.8	<1.8	<18	<18	120	290	<1.8	<1.8	0.48 J
BWS-183 DUP	7/23/2020	24	<1.8	1.8	100	<1.8 UB	<1.8	<1.8	<1.8	280	<1.8	<1.8	<1.8	<18	<18	120	280	<1.8	<1.8	0.51 J
BWS-184	8/15/2020	1.1 J	1.1 J	0.53 J	0.96 J	<1.8 UB	<1.8	<1.8	<1.8	1.2 J	<1.8	<1.8	<1.8	<18	<18	7.4	0.99 J	<1.8	<1.8	<1.8
BWS-184 DUP	8/15/2020	1.2 J	<1.8	0.52 J	0.92 J	<1.8 UB	<1.8	<1.8	<1.8	1.2 J	<1.8	<1.8	<1.8	<18	<18	7.3	1.0 J	<1.8	<1.8	<1.8

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Sample Date	PFHpS	PFNS	PFDS	PFDoS	FOSA	NEtFOSA	NMeFOSA	NMeFOSE	NEtFOSE	4:2 FTS	6:2 FTS	8:2 FTS	10:2 FTS	DONA	GenX	F-53B Major	F-53B Minor
BWS-161	6/24/2020	<1.7	<1.7	<1.7	<1.7	1.0 J	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-161 DUP	6/24/2020	<1.7	<1.7	<1.7	<1.7	0.87 J	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-162	6/24/2020	<1.8	<1.8	<1.8	<1.8	4.1	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-163	6/24/2020	0.47 J	<1.8	<1.8	<1.8	1.5 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-163	7/23/2020	<1.7	<1.7	<1.7	<1.7	2.9	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-164	6/24/2020	<1.8	<1.8	<1.8	<1.8	4.8	<1.8	<1.8	<3.5	R	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-165	6/24/2020	0.25 J	<1.7	<1.7	<1.7	2.2	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-166	6/24/2020	0.64 J	<1.7	<1.7	<1.7	2.2	<1.7	<1.7	<3.3	<1.7	<17	<17	<17	<1.7	<1.7	<3.3	<1.7	<1.7
BWS-167	7/9/2020	<1.8	<1.8	<1.8	<1.8	4.0	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-167 DUP	7/9/2020	<1.8	<1.8	<1.8	<1.8	5.3	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-168	6/24/2020	<1.7	<1.7	<1.7	<1.7	1.8	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-169	6/30/2020	<1.7	<1.7	<1.7	<1.7	<1.8 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-169 DUP	6/30/2020	<1.7	<1.7	<1.7	<1.7	<2.9 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-170	7/6/2020	<1.7	<1.7	<1.7	<1.7	<1.9 UB	<1.7	<1.7	<3.5	<1.7	<17	<17	<17	<1.7	<1.7	<3.5	<1.7	<1.7
BWS-171	7/6/2020	<1.7	<1.7	<1.7	<1.7	<2.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-171 DUP	7/6/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-172	7/6/2020	<1.7	<1.7	<1.7	<1.7	<1.7 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-173	7/9/2020	<1.8	<1.8	<1.8	<1.8	1.2 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-174	7/9/2020	<2.0	<2.0	<2.0	<2.0	8.1	<2.0	<2.0	<3.9	<2.0	<20	<20	<20	<2.0	<2.0	<3.9	<2.0	<2.0
BWS-175	7/10/2020	6.7	<1.9	<1.9	<1.9	12	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-175	7/23/2020	8.9	<1.8	<1.8	<1.8	8.3	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-176	7/10/2020	<1.8	<1.8	<1.8	<1.8	0.32 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-176 DUP	7/10/2020	<1.9	<1.9	<1.9	<1.9	0.52 J	<1.9	<1.9	<3.7	<1.9	<19	<19	<19	<1.9	<1.9	<3.7	<1.9	<1.9
BWS-177	7/10/2020	<1.8	<1.8	<1.8	<1.8	1.7 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-178	7/10/2020	<1.8	<1.8	<1.8	<1.8	0.55 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-179	7/10/2020	<1.8	<1.8	<1.8	<1.8	2.7	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-180	7/10/2020	<1.8	<1.8	<1.8	<1.8	0.43 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-181	7/16/2020	<1.7	<1.7	<1.7	<1.7	<2.4 UB	<1.7	<1.7	<3.4	<1.7	<17	<17	<17	<1.7	<1.7	<3.4	<1.7	<1.7
BWS-181 DUP	7/16/2020	<1.8	<1.8	<1.8	<1.8	3.9	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-182	7/23/2020	2.6	<1.8	<1.8	<1.8	9.0	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-183	7/23/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-183 DUP	7/23/2020	<1.8	<1.8	<1.8	<1.8	<1.8 UB	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8
BWS-184	8/15/2020	<1.8	<1.8	<1.8	<1.8	0.85 J	<1.8	<1.8	<3.5	<1.8	<18	<18	<18	<1.8	<1.8	<3.5	<1.8	<1.8
BWS-184 DUP	8/15/2020	<1.8	<1.8	<1.8	<1.8	1.4 J	<1.8	<1.8	<3.6	<1.8	<18	<18	<18	<1.8	<1.8	<3.6	<1.8	<1.8

Notes on Page 11.

Table 1
PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Notes:
Detections are boldfaced
Detections of combined PFOA and PFOS ≥ 20 ng/L are boldfaced

Units are in ng/L (nanogram per liter)
< = Compound not detected at reporting detection limit
D = Dilution required for sample analysis
DUP = Duplicate sample result
DJ- = Dilution required for sample analysis. The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J- = The result is an estimated quantity. The associated numerical value is expected to have a negative or low bias.
JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
JN- = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only. The associated numerical value is expected to have a negative or low bias.
U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UB = Compound considered non-detect at the listed value due to associated blank contamination.
UJ = The compound was not detected above the reported sample method detection limit; however, the reported limit is approximate and may or may not represent the actual method detection limit.
PFOA = Perfluorooctanoic acid (C8)
PFOS = Perfluorooctanesulfonic acid (C8)
PFBS = Perfluorobutanesulfonic acid (C4)
PFHpA = Perfluoroheptanoic acid (C7)
PFHxS = Perfluorohexanesulfonic acid (C6)
PFNA = Perfluorononanoic acid (C9)
PFDA = Perfluorodecanoic acid (C10)
PFDaA = Perfluorododecanoic acid (C12)
PFHxA = Perfluorohexanoic acid (C6)
PFTeA = Perfluorotetradecanoic acid (C14)
PFTriA = Perfluorotridecanoic acid (C13)
PFUnA = Perfluoroundecanoic acid (C11)
NEtFOSAA = N-ethylperfluorooctanesulfonamidoacetic acid (C12)
NMeFOSAA = N-methylperfluorooctanesulfonamidoacetic acid (C11)
PFBA = Perfluorobutanoic acid (C4)
PFPeA = Perfluoropentanoic acid (C5)
PFHxDA = Perfluoro-n-hexadecanoic acid (C16)
PFODA = Perfluoro-n-octadecanoic acid (C18)
PFPeS = Perfluoropentanesulfonic acid (C5)
PFHpS = Perfluoroheptanesulfonic acid (C7)
PFNS = Perfluorononanesulfonic acid (C9)
PFDS = Perfluorodecanesulfonic acid (C10)
PFDoS = Perfluorododecanesulfonic acid (C12)
FOSA = Perfluorooctanesulfonamide (C8)
NEtFOSA = N-ethylperfluorooctanesulfonamide (C10)
NMeFOSA = N-methylperfluorooctanesulfonamide (C9)
NMeFOSE = N-methylperfluorooctanesulfonamidoethanol (C11)
NEtFOSE = N-ethylperfluorooctanesulfonamidoethanol (C12)
4:2 FTS = 4:2 fluorotelomer sulfonate (C6)
6:2 FTS = 6:2 fluorotelomer sulfonate (C8)
8:2 FTS = 8:2 fluorotelomer sulfonate (C10)
10:2 FTS = 10:2 fluorotelomer sulfonate (C12)
DONA = 4,8-Dioxa-3H-perfluorononanoic acid (C7)
GenX = Hexafluoropropylene oxide dimer acid (C6)
F-53B Major = 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (C8)
F-53B Minor = 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (C10)

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro-benzene	Hexachlorocyclo-pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-001	3/2/2020	<0.20	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-002	3/2/2020	<0.20	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-003	3/2/2020	<0.20	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-003 DUP	3/2/2020	<0.20	4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-004	3/2/2020	<0.20	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-005	3/2/2020	<0.20	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-006	3/2/2020	<0.20	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-007	3/2/2020	<0.20	0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-008	3/2/2020	<0.20	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-009	3/2/2020	<0.20	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-010	3/3/2020	<0.20 UJ	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-010 DUP	3/3/2020	<0.20 UJ	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-011	3/3/2020	<0.20 UJ	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-012	3/3/2020	<0.20 UJ	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-013	3/3/2020	<0.20 UJ	9.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-014	3/3/2020	<0.20 UJ	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-015	3/3/2020	<0.20 UJ	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-016A	3/3/2020	<0.20 UJ	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-016B	3/3/2020	<0.20 UJ	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-017	3/3/2020	<0.20 UJ	<0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-018	3/3/2020	<0.20 UJ	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-019	3/3/2020	<0.20 UJ	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-020	3/3/2020	<0.20 UJ	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-021	3/3/2020	<0.20 UJ	<0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-022	3/3/2020	<0.20 UJ	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-023	3/3/2020	<0.20 UJ	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-024	3/3/2020	<0.20	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-025	3/3/2020	<0.20	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-026	3/3/2020	<0.20 UJ	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-027	3/4/2020	<0.20	10	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-028	3/4/2020	<0.20	0.29	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-029	3/4/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-029 DUP	3/4/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-030	3/4/2020	<0.20	0.64	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-031	3/4/2020	<0.20	0.68	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-032	3/4/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-033	3/4/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-034	3/4/2020	<0.20	12	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4

Notes on Page 6.

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro- benzene	Hexachlorocyclo- pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-035	3/5/2020	<0.20	0.55	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-036	3/5/2020	<0.20	1.8	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-037	3/5/2020	<0.20	9.8	<0.01	<0.01	<0.02	<0.1	<0.6	1.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-037	5/22/2020	NA	0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-037 DUP	5/22/2020	NA	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-038	3/5/2020	<0.20	0.37	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-039	3/5/2020	<0.20	0.52	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-040A	3/5/2020	<0.20	2.6	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-040B	3/5/2020	<0.20	0.79	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-041	3/5/2020	<0.20	8.1	<0.01	<0.01	<0.02	<0.1	<0.6	0.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-042	3/5/2020	<0.20	6.0	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-042 DUP	3/5/2020	<0.20	6.2	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-043	3/6/2020	<0.20	0.18	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-044	3/6/2020	<0.20	2.2	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-045	3/6/2020	<0.20	0.54	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-046	3/6/2020	<0.20	1.0	<0.01	<0.01	<0.02	<0.1	<0.6	14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-047	3/9/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-048	3/9/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-049	3/10/2020	<0.20	0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-049 DUP	3/10/2020	<0.20	0.18	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-050	3/10/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-051	3/10/2020	<0.20	5.9	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-052	3/10/2020	<0.20	0.28	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-053	3/10/2020	<0.20	0.21	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-054	3/10/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-055	3/10/2020	<0.20	3.4	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-056	3/10/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03 UJ	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-057	3/10/2020	<0.20	3.7	<0.01	<0.01	<0.02	<0.1	<0.6	2.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-058	3/10/2020	<0.20	0.79	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-059	3/10/2020	<0.20	0.66	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-060	3/11/2020	<0.20	160 J	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-060 DUP	3/11/2020	<0.20	15 J	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-061	3/11/2020	<0.20	1.3	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-062	3/11/2020	<0.20	0.26	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-063	3/11/2020	<0.20	7.0	<0.01	<0.01	<0.02	<0.1	<0.6	1.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-064	3/11/2020	<0.20	19	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-065	3/11/2020	<0.20	32	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-066	3/13/2020	<0.20	0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4

Notes on Page 6.

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro- benzene	Hexachlorocyclo- pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-067	3/11/2020	0.082 J	5.2	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-068	3/11/2020	<0.20	1.3	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-069	3/11/2020	<0.20	0.42	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-070	3/11/2020	<0.20	0.72	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-071A	3/12/2020	<0.20	1.7	<0.01	0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-071B	3/12/2020	0.18 J	0.32	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-072	3/12/2020	<0.20	<0.17	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-073	3/12/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-074	3/12/2020	<0.20	0.66	<0.01	0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-074 DUP	3/12/2020	<0.20	0.58	<0.01	0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-075	3/12/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-076	3/12/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-077	3/12/2020	<0.20	0.50	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-078	3/12/2020	<0.20	0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	0.01	<0.01	<0.01	<0.4
BWS-079	3/12/2020	<0.20	2.3	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-080	3/12/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-081	3/13/2020	<0.20	0.52	<0.01	0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-082	3/13/2020	<0.20	0.26	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-083	3/13/2020	<0.20	15	<0.01	0.03	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-084	3/13/2020	<0.20	8.8	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-085	3/13/2020	<0.20	<0.17	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-086	3/16/2020	<0.20	1.1	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-087	5/26/2020	NA	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-088	3/14/2020	<0.20	18	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-089	3/14/2020	<0.20	8.0	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	0.01	<0.01	<0.01	<0.4
BWS-089 DUP	3/14/2020	<0.20	6.9	<0.01	0.02	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	0.01	<0.01	<0.01	<0.4
BWS-090	3/16/2020	<0.20	1.00	<0.01	<0.01	<0.02	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01	<0.01	<0.4
BWS-091	3/16/2020	<0.20	2.2	<0.01	<0.01	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.02	<0.02	<0.01	<0.4
BWS-092	3/16/2020	<0.20	<0.17	<0.01	<0.01	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-092 DUP	3/16/2020	<0.20	<0.17	<0.01	<0.01	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-093	3/16/2020	<0.20	0.20	<0.01	0.02	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-094	3/16/2020	<0.20	0.23	<0.01	0.01	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-095	3/16/2020	<0.20	1.6	<0.01	0.02	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-096	3/16/2020	<0.20	1.2	<0.01	0.02	<0.01	<0.1	<0.6	<0.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.02	<0.02	<0.01	<0.4
BWS-097	5/22/2020	NA	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-098	5/22/2020	NA	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-099	5/22/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-100	5/22/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 6.

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro-benzene	Hexachlorocyclo-pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-101	5/26/2020	NA	0.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-102	5/26/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-102 DUP	5/26/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-103	5/26/2020	NA	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-104	5/26/2020	NA	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-105	5/28/2020	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-105 DUP	5/28/2020	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-106	5/27/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-107	5/27/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-108	5/27/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-109	5/27/2020	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-110	5/28/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-111	5/28/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-112	5/28/2020	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-113	5/28/2020	NA	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-114	6/1/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-115	6/1/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-116	6/1/2020	NA	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-117	6/1/2020	NA	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-118	6/2/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-119	6/1/2020	NA	0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-119 DUP	6/1/2020	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-120	6/3/2020	NA	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-121	6/1/2020	NA	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-122	6/1/2020	NA	0.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-123	6/1/2020	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-124	6/1/2020	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-125	6/2/2020	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-126	6/2/2020	NA	0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-127	6/2/2020	NA	0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-128	6/2/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-129	6/2/2020	NA	0.74 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-129 DUP	6/2/2020	NA	0.29 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-130	6/2/2020	NA	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-131	6/2/2020	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-132	6/2/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-133	6/2/2020	NA	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-134	6/3/2020	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 6.

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro-benzene	Hexachlorocyclo-pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-134 DUP	6/3/2020	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-135	6/3/2020	NA	0.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-136	6/3/2020	NA	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-137	6/3/2020	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-138	6/5/2020	NA	0.88 J+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-138 DUP	6/5/2020	NA	0.73 J+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-139	6/5/2020	NA	3.4 J+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-140	6/5/2020	NA	0.83 J+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-141	6/5/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-142	6/5/2020	NA	0.99 J+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-145	6/10/2020	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-145 DUP	6/10/2020	NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-146	6/10/2020	NA	4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-147	6/11/2020	NA	0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-148	6/11/2020	NA	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-149	6/11/2020	NA	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-150	6/11/2020	NA	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-151	6/16/2020	NA	0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-152	6/16/2020	NA	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-152 DUP	6/16/2020	NA	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-153	6/18/2020	NA	0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-154	6/18/2020	NA	4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-154 DUP	6/18/2020	NA	3.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-157	6/20/2020	NA	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-157 DUP	6/20/2020	NA	0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-158	6/22/2020	NA	0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-159	6/22/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-160	6/24/2020	NA	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-161	6/24/2020	NA	0.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-161 DUP	6/24/2020	NA	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-162	6/24/2020	NA	2.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-163	6/24/2020	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-163	7/23/2020	NA	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-164	6/24/2020	NA	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-165	6/24/2020	NA	0.58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-166	6/24/2020	NA	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-167	7/9/2020	NA	4.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-167 DUP	7/9/2020	NA	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 6.

Table 2
Non-PFAS Drinking Water Well Sampling Results
Land Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Location	Chemical	1,4-Dioxane	Lead	Alachlor	Atrazine	Benzo(a) pyrene	Chlordane	Di(2-Ethylhexyl) adipate	Di(2-Ethylhexyl) phthalate	Endrin	gamma-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachloro- benzene	Hexachlorocyclo- pentadiene	Methoxychlor	Metolachlor	Metribuzin	Simazine	Toxaphene
	NR 809 MCL	NS	15	2	3	0.2	2	400	6	2	0.2	0.4	0.2	1	50	40	NS	NS	4	3
	NR 140 ES	3	15	2	3	0.2	2	NS	6	2	0.2	0.4	0.2	1	NS	40	100	70	4	3
	Sample Date																			
BWS-168	6/24/2020	NA	0.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-169	6/30/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-169 DUP	6/30/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-170	7/6/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-171	7/6/2020	NA	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-171 DUP	7/6/2020	NA	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-172	7/6/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-173	7/9/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-174	7/9/2020	NA	0.48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-175	7/10/2020	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-175	7/23/2020	NA	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-176	7/10/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-176 DUP	7/10/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-177	7/10/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-178	7/10/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-179	7/10/2020	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-180	7/10/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-181	7/16/2020	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-181 DUP	7/16/2020	NA	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-182	7/23/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-183	7/23/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-183 DUP	7/23/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-184	8/15/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BWS-184 DUP	8/15/2020	NA	<0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Detections are boldfaced

Concentrations above NR 809 MCL and/or NR 140 ES are printed in orange font

Detections of Lead ≥ 15 µg/L are boldfaced

Detections of Di(2-ethylhexyl)phthalate ≥ 6 µg/L are boldfaced

Units are in µg/L (microgram per liter)

< = Compound not detected at reporting detection limit

ES = Enforcement Standard

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ = The result is an estimated quantity. The associated numerical value is expected to have a positive or high bias.

MCL = Maximum Contaminant Level

NA = Not analyzed

NS = No standard

UJ = The compound was not detected above the reported sample method detection limit; however, the reported limit is approximate and may or may not represent the actual method detection limit.

Table 3
Wisconsin Unique Well Numbers for Potable Wells
Land-Applied Biosolids - Drinking Water Well Sampling Summary Report
Marinette and Oconto Counties, Wisconsin

Well Sample ID	WI Unique Well Number	Well Sample ID	WI Unique Well Number
BWS-004	KP405	BWS-088	UO225
BWS-007	8DJ159	BWS-089	WS239
BWS-008	8MK385	BWS-090	YS637
BWS-009	VJ723	BWS-092	QY852
BWS-011	CL950	BWS-107	8DK617
BWS-013	QQ359	BWS-109	RU211
BWS-014	VA498	BWS-110	NP814
BWS-016B	AG649	BWS-112	XE738
BWS-020	QY987	BWS-116	VJ713
BWS-021	MH748	BWS-117	UH778
BWS-023	8DK715	BWS-118	XR890
BWS-024	XB790	BWS-119	VJ714
BWS-028	RU219	BWS-120	UY070
BWS-029	8DK714	BWS-130	UT627
BWS-030	XE883	BWS-131	8DK721
BWS-032	KX304	BWS-132	AA913
BWS-035	NK526	BWS-134	8DK173
BWS-036	OL120	BWS-140	VK465
BWS-039	XH027	BWS-148	UY459
BWS-042	SL176	BWS-149	NK575
BWS-043	8DJ184	BWS-150	SO366
BWS-046	TA458	BWS-151	OU237
BWS-047	8DK616	BWS-154	TM087
BWS-050	XM207	BWS-157	ZC147
BWS-053	8DK599	BWS-161	MF159
BWS-056	XV473	BWS-166	GG245
BWS-057	KQ539	BWS-168	8DJ534
BWS-058	WX912	BWS-170	XW431
BWS-059	TM428	BWS-172	UY064
BWS-066	JA965	BWS-180	OB057
BWS-068	MX463	BWS-182	HK458
BWS-070	MR815		
BWS-072	ZD897		
BWS-076	LN767		
BWS-080	MR697		
BWS-087	NK567		

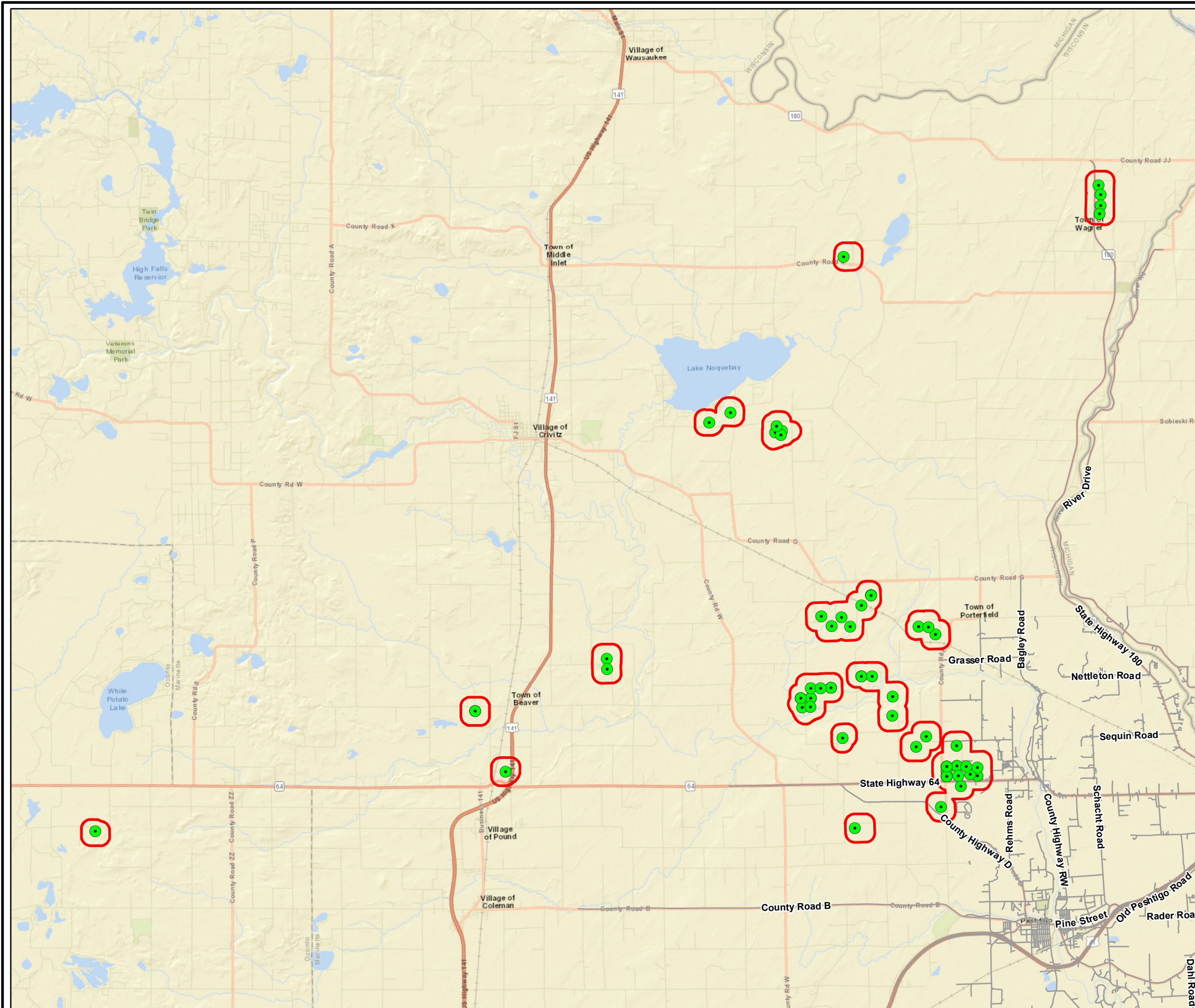
Notes:

Well construction forms obtained from Wisconsin (WI) Department of Natural Resources Well Records Database and Well Driller Viewer. WI Unique Well Numbers matched with potable wells based on publicly available information and information provided by homeowners.

ID = Identification

FIGURES

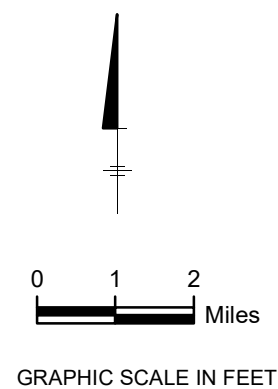




LEGEND:

-  LAND APPLICATION SITE
-  1200-FOOT BUFFER OF PARCEL CONTAINING LAND APPLICATION SITE

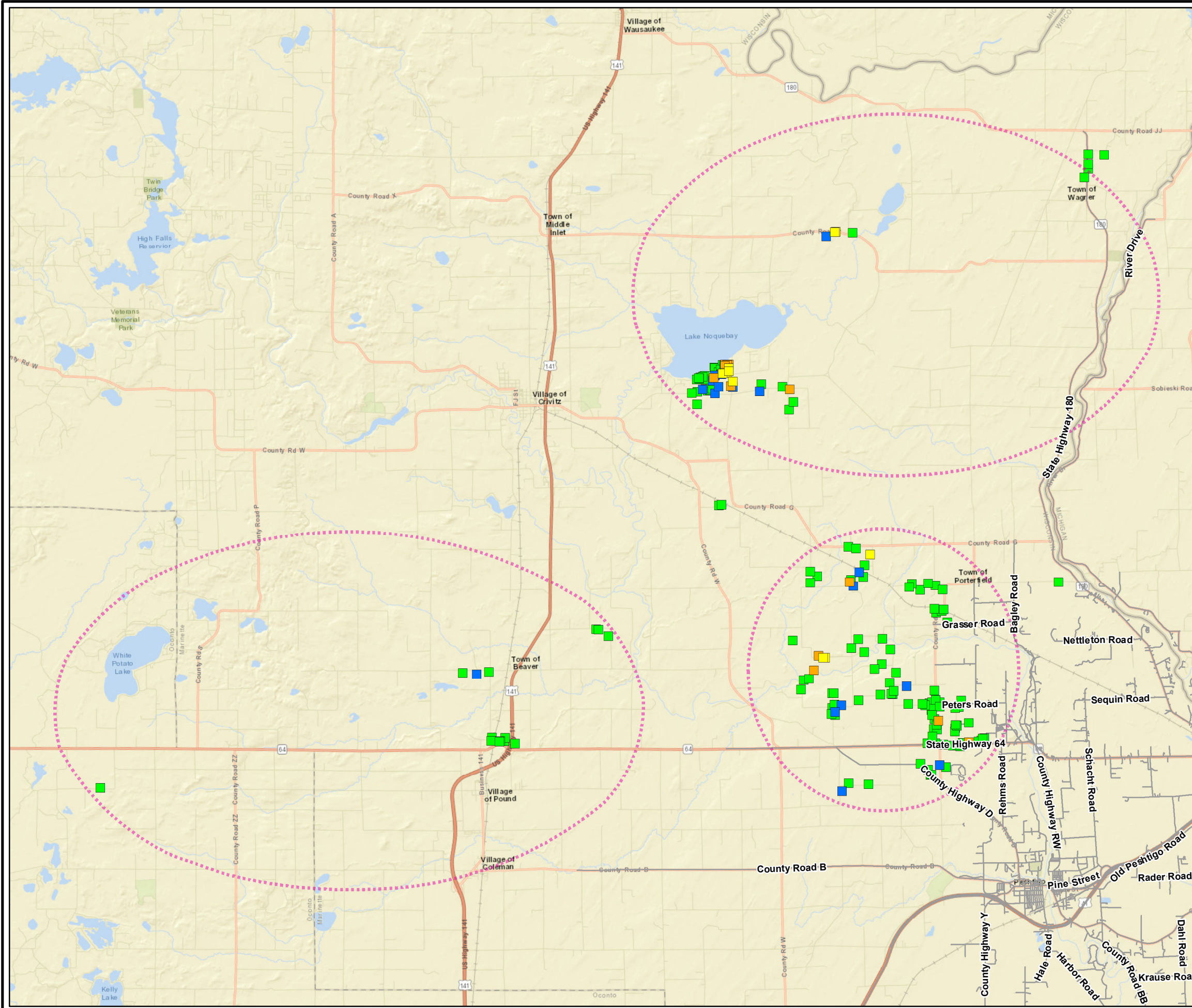
8/27/2020



LAND APPLIED BIOSOLIDS IN
MARINETTE AND OCONTO COUNTIES

LAND APPLIED BIOSOLIDS SITE LOCATION

 **ARCADIS** | **FIGURE 1**



LEGEND:

GEOLOGIC REGIONS

DRINKING WATER RESULTS

- PFOA and/or PFOS below reporting limit (RL)
- PFOA and/or PFOS detection – RL < 20 ng/L
- PFOA and/or PFOS detection – 20 – 70 ng/L
- PFOA and/or PFOS detection above HAL

Notes:
ng/L = nanograms per liter
HAL = Health Advisory Level
PFOA = Perfluorooctanoic acid
PFOS = Perfluorooctanesulfonic acid
Well locations are approximate
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

8/27/2020

0 1 2 Miles

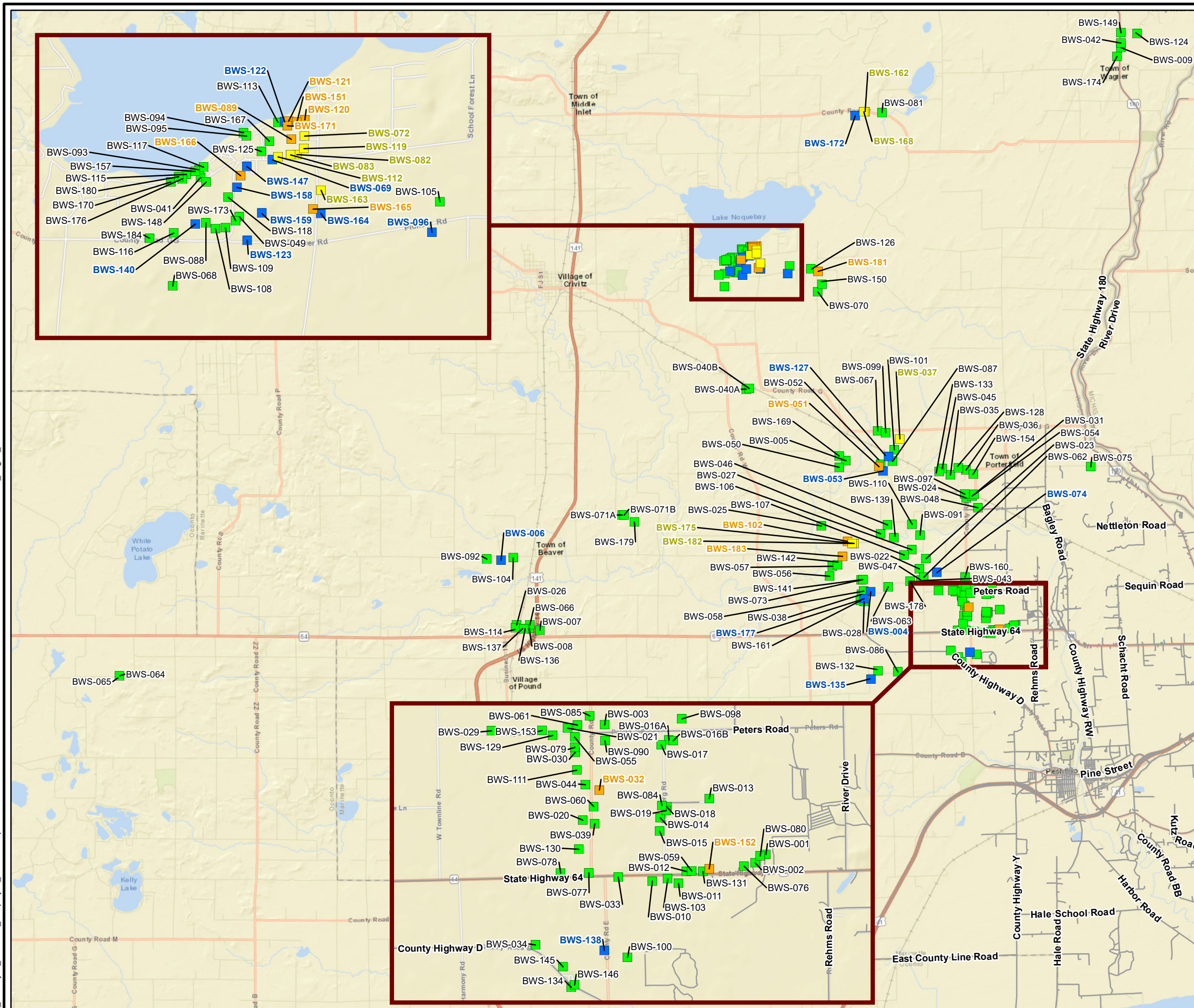
GRAPHIC SCALE IN FEET

LAND APPLIED BIOSOLIDS IN
MARINETTE AND OCONTO COUNTIES

GEOLOGIC REGIONS IN
LAND APPLIED BIOSOLIDS AREA

ARCADIS

FIGURE
2



LEGEND:
DRINKING WATER RESULTS

- | | |
|---|---|
|  | PFOA and/or PFOS below reporting limit (RL) |
|  | PFOA and/or PFOS detection – RL < 20 ng/L |
|  | PFOA and/or PFOS detection – 20 – 70 ng/L |
|  | PFOA and/or PFOS detection above HAL |

Notes:
 ng/L = nanograms per liter
 HAL = Health Advisory Level
 PFOA = Perfluorooctanoic acid
 PFOS = Perfluorooctanesulfonic acid
 BWS-001 = Well sample identification
 Well locations are approximate
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

8/26/2020



GRAPHIC SCALE IN FEET

LAND APPLIED BIOSOLIDS IN MARINETTE AND OCONTO COUNTIES

LAND APPLIED BIOSOLIDS DRINKING WATER RESULTS



FIGURE 3

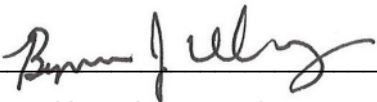
APPENDIX A

Submittal Certification



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.

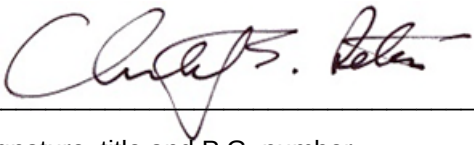


Signature, title and P.E. number

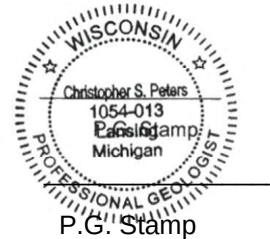


P.E. stamp

I, Christopher S. Peters, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 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 the applicable requirements in chs. NR 700 to 726 Wis. Adm. Code.



Signature, title and P.G. number



P.G. Stamp

APPENDIX B

Private Well Sampling Request Letter and Well Survey



«Owner_First_Name» «Owner_Last_Name»
«Owner_Address»
«Owner_City_State_Zip»

Arcadis U.S., Inc.
126 North Jefferson Street
Suite 400
Milwaukee, Wisconsin 53202
800-314-1381
www.arcadis.com

Subject:

Request for Access and Private Well Drinking Water Sampling at

«Site_1_PIN» «Site_1_Address»
«Site_2_PIN» «Site_2_Address»
«Site_3_PIN» «Site_3_Address»
«Site_4_PIN» «Site_4_Address»
«Site_5_PIN» «Site_5_Address»
«Site_6_PIN» «Site_6_Address»
«Site_7_PIN» «Site_7_Address»
«Site_8_PIN» «Site_8_Address»
«Site_9_PIN» «Site_9_Address»
«Site_10_PIN» «Site_10_Address»
«Site_11_PIN» «Site_11_Address»
«Site_12_PIN» «Site_12_Address»
«Site_13_PIN» «Site_13_Address»
«Site_14_PIN» «Site_14_Address»
«Site_15_PIN» «Site_15_Address»

February 24, 2020

Dear Owner / Occupant:

In cooperation with the Wisconsin Department of Natural Resources (WDNR), Tyco Fire Products LP (Tyco) is conducting an inventory and testing of certain private drinking water wells in the area to determine whether certain per- and polyfluoroalkyl substances (PFAS) are present. Additionally, tests may also be conducted for the presence of lead, 1,4-dioxane, and/or pesticides. Please note that this testing will not provide a comprehensive analysis of overall water quality. Drinking water sampling is being conducted on behalf of Tyco by Arcadis, an environmental engineering/consulting firm. The WDNR and Wisconsin Department of Health Services (WDHS) are providing regulatory oversight.

If you have a residential structure on your property that gets its drinking water from a private well, your property is eligible for this testing. However, structures that use private wells for drinking water for animals or livestock or for other purposes aside from human drinking water would not be eligible. We are asking to sample and test the drinking water well on your property between now and the end of March for this effort. The test is free of charge and we will share results with you promptly. We will also help answer questions you may have about the sampling process and results.

Please Call to Schedule your Sampling and Testing: Please call the Tyco Environmental Assessment Team at (800) 314-1381 to schedule your sampling or, just as importantly, to let us know there are no

February 24, 2020

drinking water wells on your property. If more convenient, you can instead fill out the attached survey and send it back in the postage-paid envelope provided.

Scheduling: When you call the Tyco Environmental Assessment Team at (800) 314-1381, you will select a day and timeframe convenient for you for water sampling at your property. Then, one day before the sampling is scheduled to occur, we will confirm with you a 2-hour sampling appointment window. Sampling will generally be done on weekdays between the hours of 7:00 am and 7:00 pm. If these times are not convenient for you, we will arrange for an appropriate time that works with your schedule.

Sampling: Water samples will be collected by experienced Arcadis technicians and the process should take about 30 minutes. One or more samples will be collected from a faucet within your home. An adult resident (18 years of age or older) must be present during the sampling. If you have questions about this letter or how the sampling will be done, please call us at (800) 314-1381.

Testing Results: We anticipate the testing results will be available approximately 5 weeks after your sampling date. Within 10 days of receipt of the testing results, Arcadis will provide you, the WDNR, and the WDHS a written summary of the results and copy of the data obtained from an accredited independent laboratory. Again, please know that you can call (800) 314-1381 at that time if you have questions.

Privacy of Data: We fully respect your privacy, meaning your personal information will be kept confidential to the extent possible. For example, we will assign a unique identification code to each water sample that will be used in laboratory documents. For official reporting to government agencies we will only provide such information that is required by that agency.

Background: PFAS are fairly common in many existing consumer products. According to the EPA (U.S. Environmental Protection Agency), PFAS are used to make carpets, clothing, fabrics for furniture, paper packaging for food, firefighting foams and other materials (e.g., cookware) that are resistant to water, grease, or stains.

Thank you. We appreciate your cooperation and participation in this important effort. To schedule testing of your water and if you have any questions or concerns, please call (800) 314-1381.

Sincerely,

Arcadis U.S., Inc.



Michael Bedard
Associate Vice President

Enclosure:

Private Drinking Water Well Survey

PRIVATE DRINKING WATER WELL SURVEY

Owner Name: _____ Owner Phone: _____

Owner Address: _____

Property Address: _____

Resident (if different): _____ Resident Phone: _____

Wells on property (choose all that apply):

- ☐ No wells on property.
- ☐ Private drinking water well for an occupiable structure I would like to have tested. Please call me at the phone number provided above to schedule sampling.
- ☐ Private drinking water well for an occupiable structure I would NOT like to have tested.
- ☐ Other well(s) listed below:

Type: _____ Depth: _____

Type: _____ Depth: _____

Type: _____ Depth: _____

Additional Property

Address: _____

Resident (if different): _____ Resident Phone: _____

Wells on property (choose all that apply):

- ☐ No wells on property.
- ☐ Private drinking water well for an occupiable structure I would like to have tested. Please call me at the phone number provided above to schedule sampling.
- ☐ Private drinking water well for an occupiable structure I would NOT like to have tested.
- ☐ Other well(s) listed below:

Type: _____ Depth: _____

Type: _____ Depth: _____

Type: _____ Depth: _____

Additional Property

Address: _____

Resident (if different): _____ Resident Phone: _____

Wells on property (choose all that apply):

- ☐ No wells on property.
- ☐ Private drinking water well for an occupiable structure I would like to have tested. Please call me at the phone number provided above to schedule sampling.
- ☐ Private drinking water well for an occupiable structure I would NOT like to have tested.
- ☐ Other well(s) listed below:

Type: _____ Depth: _____

Type: _____ Depth: _____

Type: _____ Depth: _____

Arcadis U.S., Inc.

126 North Jefferson Street

Suite 400

Milwaukee, Wisconsin 53202

Tel 414 276 7742

Fax 414 276 7603

www.arcadis.com