MILWAUKEE COUNTY



Department of Administrative Services

General Mitchell International Airport 5300 South Howell Ave. Milwaukee, Wisconsin 53207

REQUEST FOR PROPOSAL FOR

MKE PFAS Investigation

PROJECT NO. 5055-19808

November 2019

DEPARTMENT OF ADMINISTRATIVE SERVICES Milwaukee County



November 6, 2019

To: All Interested Consultants

Project: MKE PFAS Investigation

Project No.: 5055-19808

Subject: REQUEST FOR PROPOSAL (RFP)

Milwaukee County's General Mitchell International Airport (MKE) is requesting proposals for professional consulting services to address per- and polyfluoroalkyl substances (PFAS) contamination found in surface water discharges from MKE property. The successful consultant will plan and conduct a comprehensive site investigation at MKE for the presence in soil and/or groundwater of PFAS compounds.

I. BACKGROUND

Per- and polyfluoroalkyl substances (PFAS) are man-made chemicals that do not occur naturally in the environment. They have been used in many products and manufacturing processes since the 1950s. Their wide use is largely due to their water and oil repellent properties, and they resist temperature extremes and are useful in reducing friction. They have also been widely used in certain firefighting foams used by the military and at airports for their ability to extinguish petroleum-related fires. Recently the scientific community has been interested in these compounds as they do not break down readily in the environment and because of their potential to bio-accumulate and cause potential adverse health effects.

MKE is owned and operated by Milwaukee County, and is located at 5800 South Howell Avenue in Milwaukee. See Project Location Map, Attachments 1 and 2. Historically, MKE has used PFAS-containing firefighting foam per Federal Aviation Administration (FAA) requirements. In addition, MKE is the site of the Air National Guard 128th Air Refueling Wing and the former United States Airforce Reserve 440th Airlift Wing. These military bases have also historically used PFAS as part of their operations.

MKE was required by the Wisconsin Department of Natural Resource (WDNR) as part of a Wisconsin Pollution Discharge Elimination System (WPDES) process to conduct an initial survey of PFAS compounds in surface waters at MKE. This initial characterization was conducted by MKE and the United States Geological Survey (USGS, See Attachment 3). The findings of this investigation indicate the presence of these compounds at all sampling points and surface water discharge locations On October 17, 2019, the WDNR issued a *Responsible Party (RP) Letter* to MKE, the 128th Refueling Wing, and the Air Force Engineering Center (440th Airlift Wing). See Attachment 4. The 128th Refueling Wing and the 440th Airlift Wing had previously received RP letters (BRRTS 02-41-582725 and 02-41-583232, respectively).

II. GENERAL PROJECT DESCRIPTION

The project scope is intended to comply with WDNRs directive to complete a site investigation to determine the nature, degree and extent PFAS compounds at MKE.

The USGS report and site investigations conducted by the military have identified specific areas where PFAS concentration are elevated. After a review of pertinent investigations to date, the consultant shall create a work plan that focuses further investigations on areas at MKE to assess if PFAS surface water contamination is a result of contaminant migration from areas already identified in previous studies or if additional source areas exist. It is anticipated that a mix of surface water and/or groundwater assessment will be required for this determination.

III. **SCOPE OF CONSULTANT SERVICES**: The successful consultant shall provide all services as specified per the standard terms and conditions of the <u>Milwaukee County Department of Administrative Services Consultant Agreement for Professional Services (*Type C*) (copy will be emailed upon request).</u>

GENERAL REQUIREMENTS

All members of the consulting team that require access to the airfield (for soil/groundwater sampling, etc.) must obtain a security badge from the MKE ID Badging Office. For more information see the following website.

https://www.mitchellairport.com/airport-information/mke-security-services

BASIC SERVICES

- 1. Attend project kick-off and progress meetings. Assume three (3) progress meetings.
- 2. Complete Comprehensive Review
 Review all pertinent documents to date including the United States Geological
 Survey (USGS) sampling analytical data dated October 2019 and site
 investigation reports from the 128th Air National Guard Refueling Wing (BRRTS
 #: 02-41-582725) and 440th Air Force Reserve Base (BRTTS #: 02-41-583232).
- 3. Develop Site Investigation Work Plan
 The consultant shall develop a work plan for completing a site investigation. The
 work plan must comply with the requirements of Wisconsin Administrative Code
 chapters NR 700 through NR 799 and the Responsible Party Letter dated October
 17, 2019. The workplan shall be submitted to the WDNR for approval. At least
 one draft will be provided to Milwaukee County prior to WDNR submittal.

For the purposes of this proposal, presume that all sampling shall be done with low-profile geoprobe equipment rather than hollow stem augers. Assume all wells will be temporary wells. This is due to height restrictions of equipment on the airfield.

4. Complete Site Investigation
Complete Site Investigation per Wisconsin Administrative Code Chapter NR 716,
the Responsible Party Letter dated October 17, 2019 and addressing any other
WDNR requirements to determine the nature, degree and extent, both areal and

vertical, of PFAS contamination.

The consultant will need to prepare a Phasing Plan and/or coordinate with Airport Operations for airfield access for sampling.

- 5. Complete Site Investigation Report Complete and submit Site Investigation Report per Wisconsin Administrative Code Chapter NR 716. At least one draft will be provided to Milwaukee County prior to WDNR submittal.
- 6. Include any WDNR review fees as reimbursable expenses.
- 7. Include a \$3000 miscellaneous allowance in proposal fee

DELIVERABLES

- 1. WDNR-approved Site Investigation Work Plan
- 2. WDNR-approved Site Investigation Report

IV. QUALITY CONTROL

a. Milwaukee County reserves the right to request partial or full reimbursement from consultants for change orders resulting from errors and omissions in the services they are contracted to provide.

V. **PROJECT SCHEDULE**

11/6/2019 Issue Request for Proposal

11/20/2019 RFP Due

11/27/2019 Selection Committee selects consultant.

12/5/2019 Consultant award (will occur no sooner than this date).

By 12/31/2019 Offer, negotiate and execute a contract with selected consultant.

January 2020 Anticipated Project Start

Project Timetable dictated by WDNR requirements and review time.

VI. PRE-PROPOSAL MEETING

There will be a non-mandatory pre-proposal meeting at 10AM on November 13, 2019. The meeting will be held in the Sijan Conference Room, which is in the Mitchell Gallery of Flight Museum on the main level Terminal. Park in the Hourly Parking Ramp.

VII. RELATED WORK BY OTHERS

NA

- VIII. **SUBMISSION REQUIREMENTS:** The proposal shall conform to Milwaukee County's Proposal Preparation, Submission and Evaluation Guidelines (see Attachment 3). The proposal shall include the Consultant Proposal Form (Attachment 5) and the following information:
 - a. Cover Page: Include project number and name, project location, consultant's name, address, telephone number, FAX number, e-mail address, proposal date, etc.
 - b. Table of Contents: Include an identification of the material by section and page number.
 - c. Letter of Transmittal: The name and description of the organization submitting the proposal briefly stating the proposer's understanding of the service to be provided.

- d. Description of the Organization: A description of the organization submitting the proposal. Include the name, size, legal status (corporation, partnership, etc.), professional registration/certification, major type of activity or areas of consulting.
- e. Include a list of similar projects that the consultant has participated with during the past five years. Attach a separate sheet for each project, up to five maximum, giving a brief description of each project, the consultant's participation, and a client contact reference and phone number. Provide a list of three (3) references that can be contacted with questions regarding your past work. Consultant must have thorough knowledge of the requirements of the Wisconsin Administrative Code NR700 series.
- f. Description of Project Team/Resumes: Provide an organizational structure of the consultant's project team, including any subconsultants to be used for this project. Include the name of the Principal in Charge of this project along with the name, occupation and title of the Project Manager who will be in charge of this project.
 - Provide a one-page resume for each individual involved in the project, and include their name, title, address, telephone number, e-mail address, fax number, duties for the project, professional registration, a brief description of related experience including time contribution in this capacity to past projects, and Proposals.
- g. Sub-Consultants: Indicate the names and addresses of any sub-consultants and/or associates proposed to be used in this project. State the capacity they would be used in and the approximate percentage of the total services they would provide. Also state their past experience in the field.
- h. Project Approach: Provide a description of challenges you anticipate in this project and how you propose to overcome them. Discuss how you plan to staff the project to efficiently complete the work effort.
- Project Schedule to Completion: Provide a timetable and relationship of tasks which are necessary to complete this project as noted in the "Project Schedule" section of this RFP.
- j. Constant Effort: Include a spreadsheet/matrix listing the names, classifications, hourly rates and hours to be spent by each required task to complete the project as described in this RFP.
- k. TBE Firm Goals: The Targeted (Disadvantaged) Business Enterprise participation goal for this project/contract is 17%.
 - Community Business Development Partners (CBDP) is responsible for monitoring and enforcing Milwaukee County's Targeted Business Enterprise (TBE) Program for inclusion of small business. Targeted firms include DBE firms certified under the Unified Certification Program following Federal regulations and WBE and MBE certifications from the State of Wisconsin DOA.

For a non-certified firm bidding or proposing as Prime, participation may be obtained utilizing a TBE firm, whether DBE, MBE, or WBE. This allows for increased participation by providing opportunities for multiple certifications to be included in the project.

For a TBE firm bidding or proposing as Prime, the goal must be satisfied using DBE subcontractors or sub-consultants. MBE and WBE certifications count as additional participation once the goal is achieved through DBE participation. Any work a TBE Prime self-performs would be counted as additional participation in excess of the participation provided by subcontractors or sub-consultants.

Compliance reporting is accomplished from collection of data in the Diversity Management and Compliance System, utilizing B2GNow software. Prime contractors are required to report payments received from the County and amounts paid to subcontractors in the system. Subcontractors will receive an automated email requesting them to confirm the amounts and whether the terms of the prompt payments policy were followed. There is no cost to the Prime or any subcontractor, the only requirement is to become a registered user and complete the one hour webinar training.

- Contact the Community Business Development Partners Office at 414-278-4747 or cbdp@milwaukeecountywi.gov for questions related to TBE and DBE requirements.
- I. **Quality Control:** Submit a contract document quality control plan. Quality control is to be performed by individuals not assigned to the project on an ongoing basis.
- m. **Fee Proposal:** The fee for this project shall be clearly stated as an actual cost not-to-exceed fee for these services. A dollar amount for reimbursable items as described in the proposal should also be clearly stated.

IX. CONSULTANT SELECTION

a. Proposers must recognize this is not a bid procedure, and a Professional Services agreement will not be awarded solely on the basis of the low fee proposal. Milwaukee County reserves the right to accept or reject any and all proposals, issue addenda, request clarification, waive technicalities, alter the nature and/or scope of the proposed project, request additional submittals, and/or discontinue this process.

The proposal evaluation team will be made up of three to five individuals with technical knowledge of the requirements and familiarity with the project. Depending on the number and quality of the proposals, Milwaukee County may decide to conduct interviews of a short-list of consultants. The evaluation team may select up to three consultants to attend an interview, if required. The interview will be evaluated based on project team, experience and qualifications, project understanding, and the overall presentation.

The project manager will post this RFP, as well as any pre proposal meeting minutes, sign in sheets, addendums and other information related to this project to the Milwaukee County Construction RFP website:

http://county.milwaukee.gov/ConstructionBidsandR23075.htm

The consultant should consider information on this website to be part of the official RFP. Please check the site frequently. To allow time for proposal preparation, Milwaukee County will not post anything new within two days of the proposal due date.

X. GENERAL REQUIREMENTS

- **a.** The selected consultant and/or any contractor affiliated with the prime consultant shall be prohibited from submitting bids in the construction bidding process for this project.
- b. Selected consultant shall follow Milwaukee County Code of Ethics as follows: No person(s) with a personal financial interest in the approval or denial of a Contract being considered by a County department or with an agency funded and regulated by a County department, may make a campaign contribution to any County official who has approval authority over that Contract during its consideration. Contract consideration shall begin when a Contract is submitted directly to a County department or to an agency until the Contract has reached final disposition, including adoption, County Executive action, proceeding on veto (if necessary) or departmental approval.
- **c.** The selected consultant must be an Equal Opportunity Employer.
- **d.** The proposal shall conform with all attached documents. All proposals should use this RFP and its attachments as the sole basis for the proposal. The issuance of a written addendum are the only official method through which interpretation, clarification or additional information will be given.
- **e.** All costs for preparing a proposal, attending the selection interview if required, or supplying additional information requested by Milwaukee County, is the sole responsibility of the submitting party. Material submitted will not be returned.
- **f.** The proposal must be submitted in a single bound 8-1/2" x 11" document.
- g. With the signing and submission of a statement or proposal the submitting consultant certifies that the standard terms and conditions of the Agreement for Professional Services (that will be used to contract with the selected consultant) has been read and understood and that the submitting consultant is ready, willing and able to sign the agreement when requested without making any substantive changes.

Submit four (4) copies of the proposal, sealed in an envelope or equivalent, no later than November 20, 2019 by 3:00 p.m.

The proposals shall be addressed and submitted to:

Timothy Detzer, PE Senior Environmental Engineer 633 W Wisconsin Ave 10th Floor Milwaukee, WI 53233

Proposals submitted by telephone, fax, or email will be rejected.

Please direct any questions about this RFP to Tim Detzer at (414) 278-2988 or timothy.detzer@milwaukeecountywi.gov or Greg Failey at (414) 747-5713 or gfailey@mitchellairport.com

Request for Proposal MKE PFAS Investigation Project 5055-19808

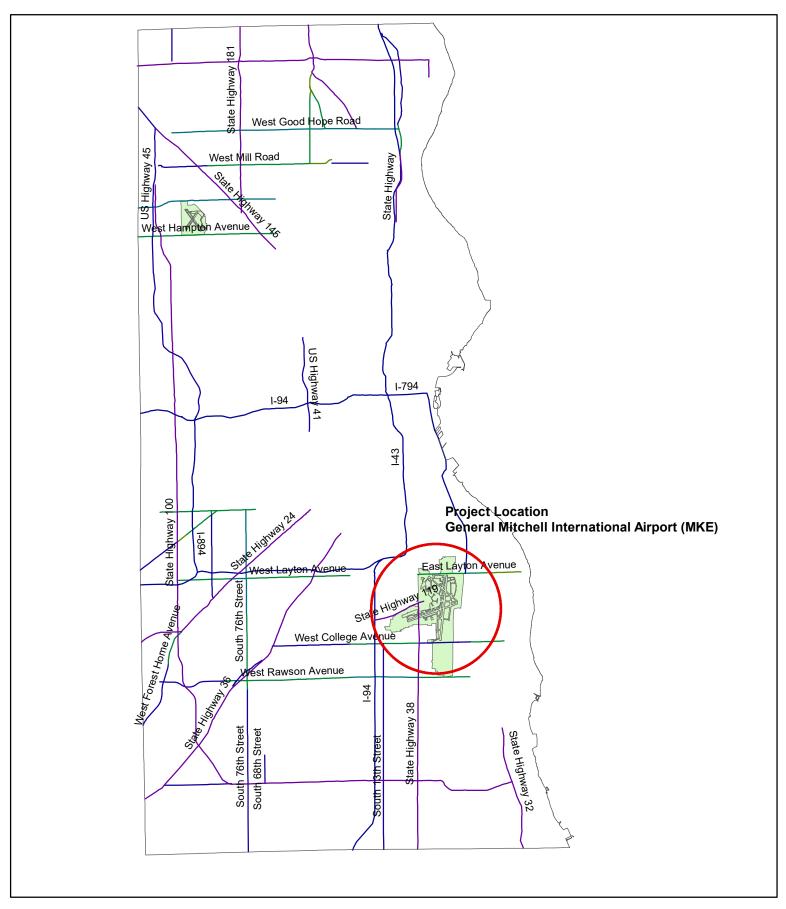
	Sincerely,
Tim Detzer, PE	Greg Failey

Attachments:

- 1. Project Location Map
- 2. Project Site
- 3. USGS Surface Water Analytical Report, October 2019
- 4. WDNR Responsible Party Letter, October 17, 2019
- 5. Proposal Preparation, Submission and Evaluation
- 6. Consultant Proposal Form7. DBE / TBE Forms

G. Failey, MKE, Owner Dept. Representative G. High, DAS-FM cc: CBO Contact, DAS-FM Project Manager, DAS-FM L. Robinson, CDBP

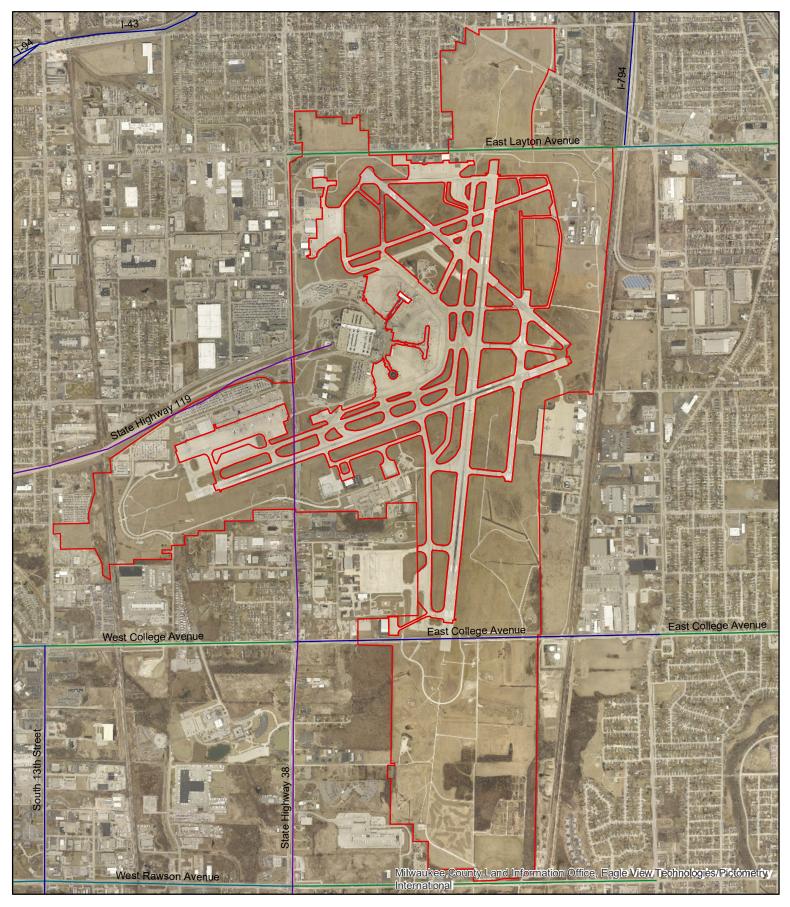
ATTACHMENT 1 PROJECT LOCATION MAP







ATTACHMENT 2 PROJECT SITE



MKE PFAS Site Investigation 5055-19808
Project Site



ATTACHMENT 3

USGS SURFACE WATER ANALYTICAL REPORT OCTOBER 2019

MKE PFAS Surface Water Sampling Update, October 2019

Introduction

The Wisconsin Department of Natural Resources Wisconsin Pollution Discharge Elimination System (WPDES) monitoring permit for Milwaukee Mitchell International Airport (MKE) is in the process of being reviewed for renewal. As part of that process, MKE was asked to conduct an initial characterization of the presence of per-and polyfluoroalkyl substances (PFAS) in MKE surface water discharges. Results of these sampling events are provided below.

Site selection

Sites have been chosen to characterize surface water leaving the airport, surface water entering the airport, and several sites within the airport to provide information on contributions and assist in potential source identification (Figures 1 - 3). The primary surface water discharge points at MKE occur at three outfall locations (Table 1, Figures 1). OUT1 drains the air-cargo area, including the runway 7-R deicing ramp. This storm sewer culvert ultimately discharges to Holmes Ave Creek which is a tributary of Wilson Park Creek. OUT7 (Wilson Park Creek) drains the primary terminal area, a substantial amount of runway and taxiway, and the West deicing ramp. The upper portion of the Out7 watershed drains an area upstream from MKE (referred to as IN), including runoff from the Wisconsin Air National Guard 128th refueling wing (referred to as IN-S) and a stormwater system draining the neighborhood east of the airport that includes residential, commercial, and industrial land use (referred to as IN-E). OUT3 drains the southern portion of the runway and taxiway system, the south deicing ramp, the former Air Force Reserve 440th Airlift Wing area, and a small urban area upstream from the airport that includes residential, commercial, and industrial land use. All other sites help to characterize contributions in different areas within the airport and upstream from the airport.

Table 1. Surface water monitoring sites for per- and polyfluoroalkyl substances at Milwaukee Mitchell International Airport.

Site name	USGS site ID	Short site name	Drainage area
Holmes Ave Creek tributary at GMIA Outfall #1 at Milwaukee, WI	040871476	OUT1	0.03
Wilson Park Creek at GMIA Outfall #7 at Milwaukee, WI	040871475	OUT7	2.25
Wilson Park Creek at GMIA Infall at Milwaukee, WI	040871473	IN	0.89
Wilson Park Creek upstream from GMIA Infall at Milwaukee, WI	NE	IN-E	ND
Wilson Park Creek tribitary near GMIA Infall at Milwaukee, WI	NE	IN-S	ND
Oak Creek tributary at College Ave at Milwaukee, WI	040872015	OUT3	1.76
Oak Creek tributary upstream from GMIA at Milwaukee, WI	NE	OUT3-US	ND
Oak Creek tributary upstream from runway 7-R at Milwaukee, WI	NE	OUT3-440	ND
Oak Creek tributary downstrem from GMIA runway 7-R at Milwaukee, WI	NE	OUT3-1LE	ND
Open channel tributary to Oak Creek tributary along College Ave at Milwaukee, WI	NE	OUT3-SDD	ND

ND, drainage area not yet determined; NE, USGS site ID not yet established.

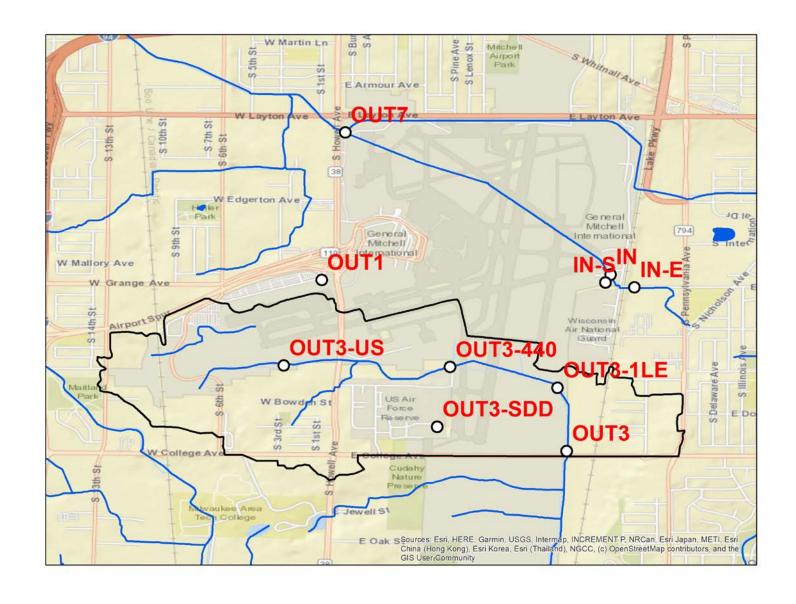


Figure 1: Map of surface water sampling sites for per- and polyfluoroalkyl substances at Milwaukee Mitchell International Airport.



Figure 2: Map of surface water sites in the Wilson Park Creek Watershed on the East portion of airport property sampled for per- and polyfluoroalkyl substances at Milwaukee Mitchell International Airport.

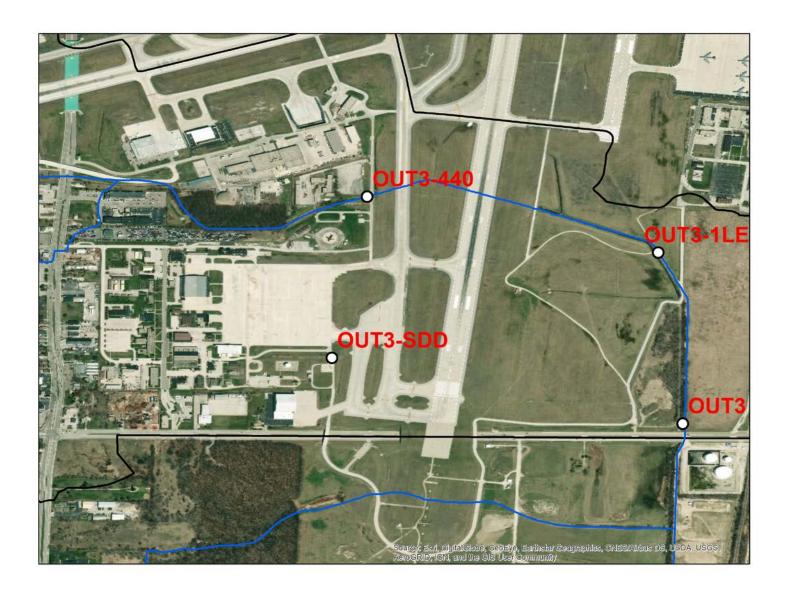


Figure 3: Map of surface water sites in the Oak Creek Watershed sampled for per- and polyfluoroalkyl substances at Milwaukee Mitchell International Airport.

Sampling

Sampling was conducted during two low-flow periods and one high-flow period that resulted from rainfall . In the first low-flow period, six sites were sampled. In the second low-flow period, nine sites were sampled, and all ten sites were sampled during the high-flow period (Figures 4 - 6). Samples were not collected at OUT1 during low-flow because the culvert was without flow. Flow was measured for each sample collected and used in computation of mass loadings.

Samples were analyzed by the Wisconsin State Laboratory of Hygiene using EPA method 537.1.

Results

Concentrations:

Bar graphs with results from PFAS sampling at MKE indicate variable concentrations by site (Figures 4 - 6). Low-flow sampling periods indicate that PFAS concentrations increased from the upstream sites (OUT3-US, IN-E) to sites within and at the exit from the airport. Concentrations are valuable for assessing each individual site, but not necessarily useful for comparing contributions to the streams. Mass loadings are necessary for these comparisons (see below).

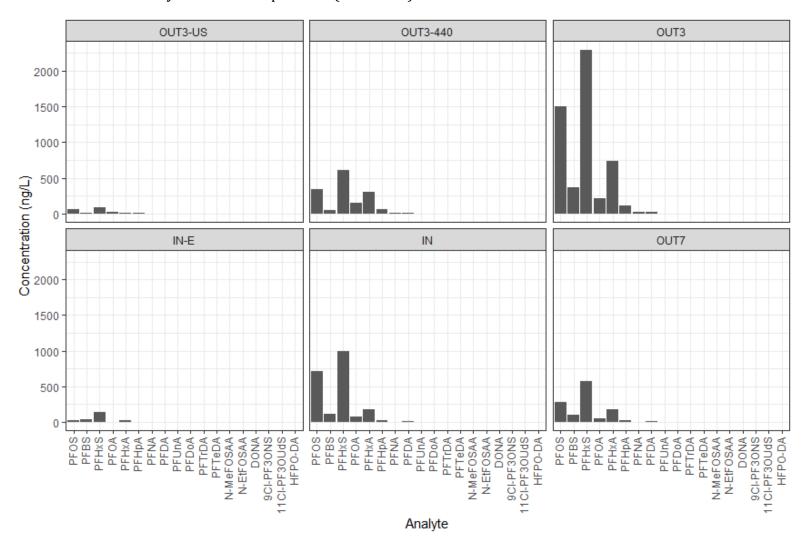


Figure 4: PFAS concentrations for low-flow sampling period, April 24, 2019. ng/L, nanograms per liter.

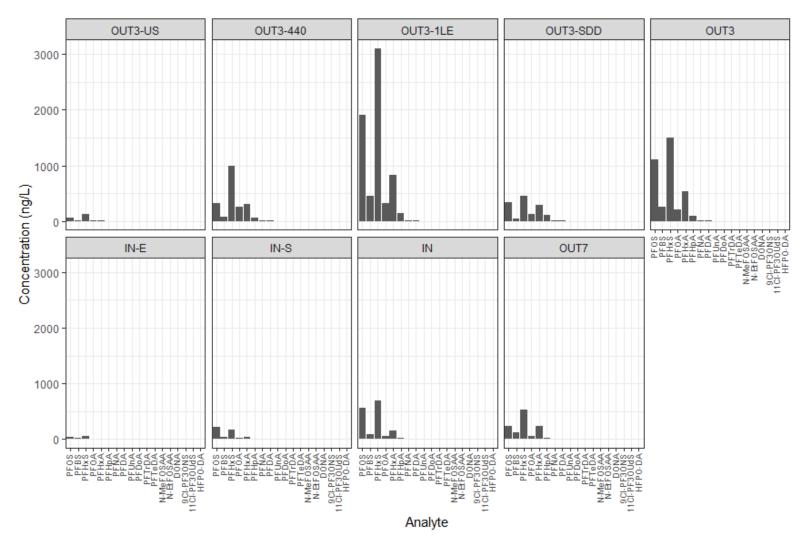


Figure 5: PFAS concentrations for low-flow sampling period, May 24, 2019. ng/L, nanograms per liter.

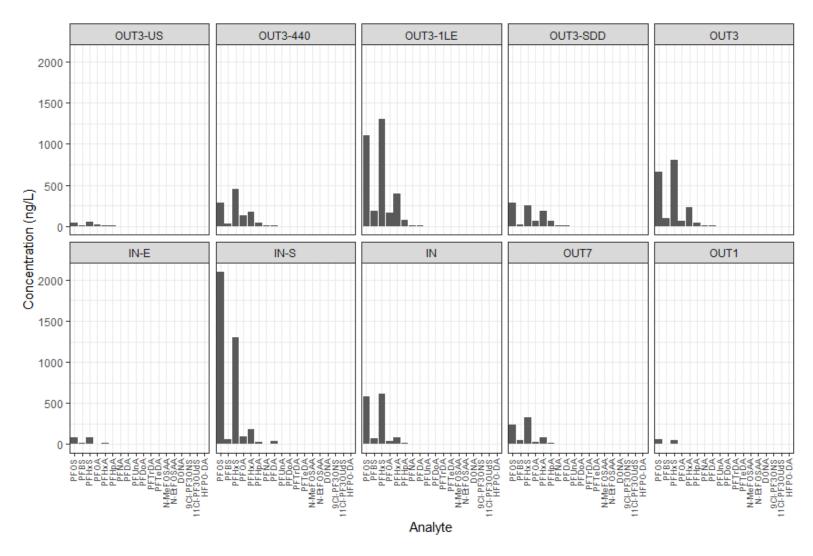


Figure 6: PFAS concentrations for the event-flow sampling period, June 3, 2019. ng/L, nanograms per liter.

Loadings:

Mass loadings are provided to facilitate comparison among contributions from individual sites (Figures 7 - 9). This comparison provides valuable information except for the OUT7 sample during the high-flow period because there was substantial rain and increased flow between the time when the IN sample was collected and when the OUT7 sample was collected. For this reason, loadings cannot be used to compare contributions between IN and OUT7 during the high-flow event. In addition, caution must be used in overinterpretation of loading data. Loadings rely on accurate flow measurements. For a few sites, velocities were very low and uncertainty is quite high in these instances. Loadings are computed by multiplying concentration with load, so the uncertainty in flow is passed on to loading numbers. An example of this uncertainty is in the Oak creek drainage during the second low-flow sampling period. While it looks like loadings are greater at site OUT3-LE than they are downstream at OUT3, this result has potential to be an artifact of flow uncertainty. It is possible that the loadings

really did not decrease going downstream. On the other hand, there is a ponded area where deposition of sediments could occur that may potentially remove PFAS content in the water column between those two sites.

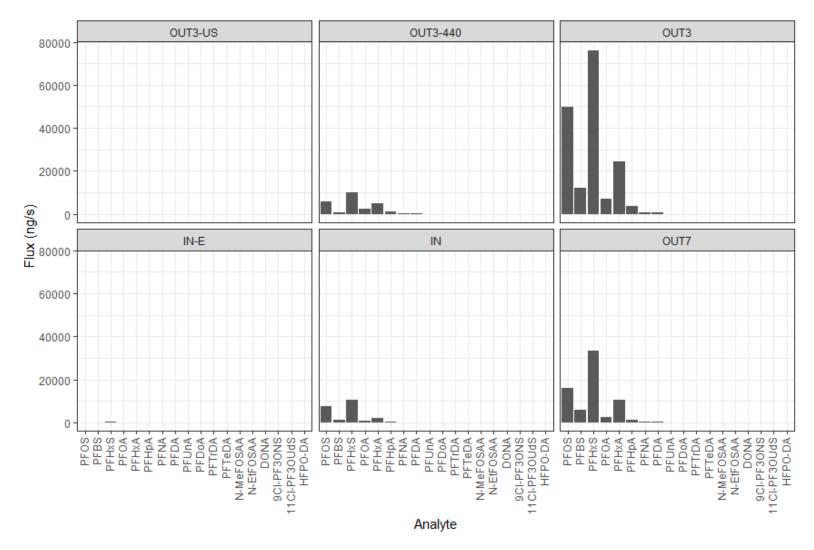


Figure 7: PFAS loadings for low-flow sampling period, April 24, 2019. ng/s, nanograms per second.

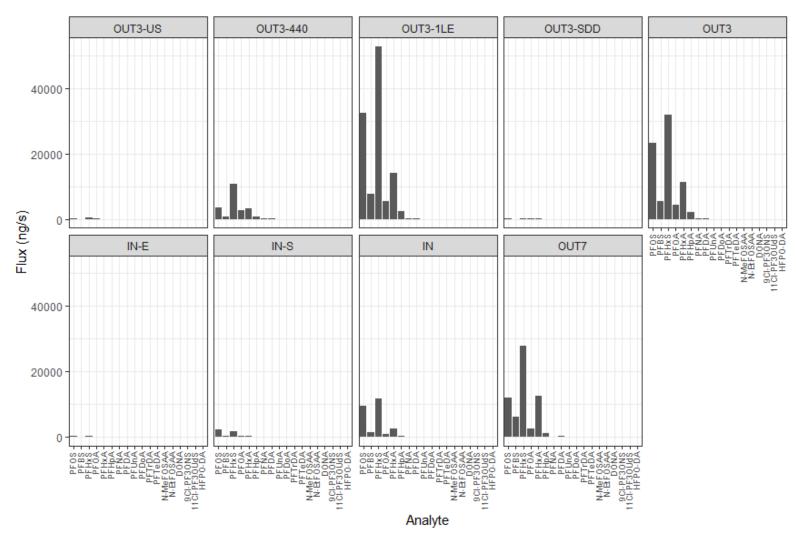


Figure 8: PFAS loadings for low-flow sampling, May 24, 2019. ng/s, nanograms per second.

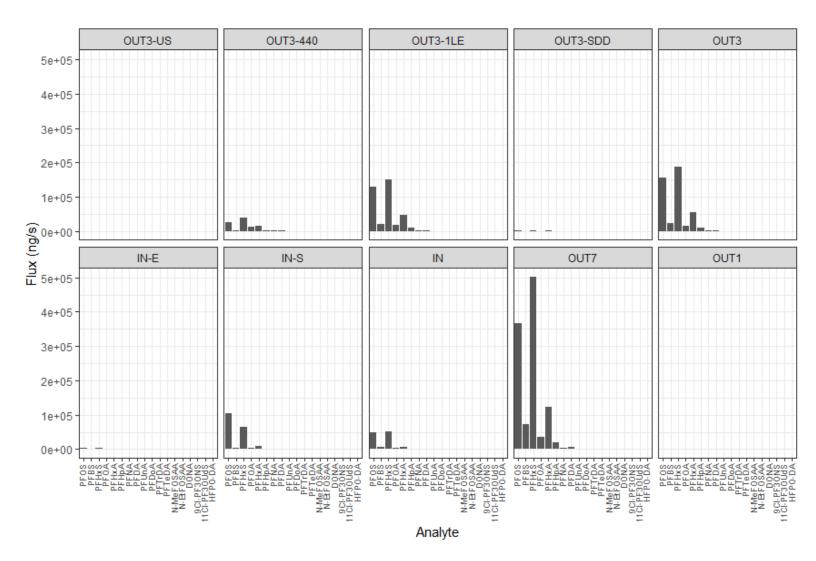


Figure 9: PFAS loadings for the high-flow sampling period, June 3, 2019. ng/s, nanograms per second.

Low-flow samples: Loadings from low-flow sampling results in the Wilson Park Creek watershed indicate substantial contributions between the upstream site at IN-E to site IN and another increase from IN to OUT7. Loadings from low-flow sampling results in the Oak Creek watershed indicate that contributions increase in the downstream direction from the upstream site, OUT3-US to OUT3-1LE with a slight decrease to OUT3.

High-flow samples: Loadings from high-flow sampling results in the Wilson Park Creek watershed indicate substantial contributions between the upstream site at IN-E to site IN. As mentioned above, the OUT7 loadings cannot be compared with IN loadings due to additional rainfall before sampling at OUT7. The relative contribution from IN-S increased during runoff conditions, indicating a potential storage area that may be mobilized during runoff periods.

Loadings from high-flow sampling results in the Oak Creek watershed indicate that contributions increase in the downstream direction from the upstream site, OUT3-US to OUT3-1LE and also an increase between OUT3-1LE to OUT3. The largest contributions are somewhere between Out2-440 and OUT3-1LE. These contributions could originate either from the north through groundwater discharge to the stream, the small channel entering from the north, or these contributions could partially come from groundwater discharge from the area between the creek and the runway on the south side.

The original data is also included as an excel file.

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Analyte	11CI-PF3OUdS	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	ANOG ANOG	HEDO-DA	HEDO DA	HFPO-DA	HFPO-DA	N-ETFOSAA	N-EtFOSAA	N-EIFOSAA	N-IVIEROSAA	N-MerOsaa	N-MerOsaa		PFBS				PFDA	PFDoA	PFDoA	PFDoA	PFHpA	PFHpA	PFHDA				PFHXS	PFHxS	PFHxS	PFNA	PENA	PENA	PEOA	YOL YOU	PFOA	PFOA	PFOS	PFOS	PFOS	PFTeDA	PFTeDA	PFTeDA	PFTrDA	PFTrDA	PFTrDA	PFUnA	PFUnA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge
				17:30	16:30	9 9:50	17:30	16:30	99:50	16.30	10.30	17:30	16.30	10:30	00.66	17:30	16:30	00.25	17:30	16:30	99:50	17:30	16:30	9 9:50	17:30	16:30	9 9:50	17:30	16:30	99:50	17:30	16:30	9 9:50	17:30	16:30	9 9:50	17:30	16.30	9 9:50	17:30	16.30	99.50	17.30	16.30	16:30	99:50	17:30	16:30	9 9:50	17:30	16:30	9 9:50	17:30	16:30	9 9:50	17:30	16:30	9 9:50				13:30	15:45	13:30
	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	6/3/2019 17:30	6/3/2019 10:30	3/24/2019 9.30	6102/42/4	6/3/2019 16:30	3/24/2019 9:30	6102/47/4	6/3/2019 16:30	102/42/6	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/201	4/24/2019 17:30	6/3/2019 16:30	5/24/201	4/24/2019 17:30	6/3/2019 16:30	5/24/201	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 4:50	0.5.51.90.51.57.7	6102/42/4	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	4/24/2019 17:30	6/3/2019 16:30	5/24/2019 9:50	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30
Date																+																																																
Event	B1	B2	E1	B1	B2	E1	B1	85 21	E1	B1 B2	57 E1	B1	10	B2 5.1	1 2	B1 B2	B2	1	19	B2	E1	B1	B2	E1	B1	B2	E1	B1	B2	E1	B1	B2	E1	B1	B2	E1	B1	R2	1 12	B1	R2	F1	1 1	10	28	E1	81	B2	E1	B1	B2	E1	B1	B2	E1	B1	B2	E1	B2	E1	B2	F1	R2	F1
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Site	<u>-</u>	- <u>N</u>	IN-E	IN-E	IN-E	IN-E	- <u>-</u>	N-E	N-F	N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	Z Z	IN-E	N N	- N	- <u>N</u>	- N	- N	N N	<u> </u>	- N-	IN-E	- N-E	N-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-E	IN-F	IN-E	IN-E	IN-E	IN-F	IN-F	N-E	I I	N-F	- N	N N	IN-E	IN-E	IN-E	IN-E	IN-E	S-NI	S-NI	IN-S	S-NI	S-NI	S-NI									
Sample ID	-81	-82	-E1	-B1	-B2	년	-81	-82		-D1	-02	-C1	10-	-52		-61	-62	1	-61	-82	Ē.	-81	-B2	-E1	-B1	-B2	-E1	-81	-B2	.E1	-B1	.B2	.E1	·B1	.B2	.E1	-B1	.B.2	Ė	.B1	.R.2	17	11	10-	-82	-EI	-81	-82	-E1	-B1	-B2	-E1	-81	-B2	-E1	-B1	-82	.E1	-82	£1	-B2	F1	R2	F1
Order Sam	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-BI	1 IN E E1	1 IN-E-E1	IN E	I IN-E-BZ	1 IN-E-EI	I IN-E-BI	1 IN-E-BZ	1 IN-E-EI	IN-E-BI	1 IN-E-B2	I IN-E-EI	1 IN-E-B1	1 IN-E-B2	1 IN-E	1 IN-E-B1	1 IN-E-B2	1 IN-E-	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-F-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-	1 IN-F-R2	1 IN-F-F1	1 IN-E-B1	1 IN-F-B2	1 IN-F-F1	1 IN F D1	IN E	I IN-E-BZ	I IN-E-EI	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	1 IN-E-B1	1 IN-E-B2	1 IN-E-E1	2 IN-S-B2					
ō																																																																

1	86.0	1.3	1.3	0.65	0.63	0.78	0.77	1.3	99	0.8	0.78	1.2	1.2	0.93	0.91	1.4	67	3.9	01	210	0.33	0.54	0.67	33	4	20	0.82	0.81	0.78	0.77	1.4	1.4	98.0	0.85	0.85	0.45	0.45	0.45				0.99	0.98	0.98	1.3	1.3	1.3	0.64	0.63	0.63	0.77	0.77	72.0	99	26	1.3	0.79	0.78	0.78	1.2	1.2	1.2	0.92	0.91
0.3	0.29	0.4	0.39	0.19	0.19	0.23	0.23	0.4	20	0.24	0.23	0.37	0.36	0.28	0.27	0.41	20	1.2	7 2	3,0	0.16	0.10	0.2	9.8	1.2	5.9	0.25	0.24	0.23	0.23	0.43	0.42	0.26	0.26	0.26	0.13	0.13	0.13				0.3	0.29	0.29	0.4	0.39	0.39	0.19	0.19	0.19	0.23	0.23	0.23	20	7.9	0.39	0.24	0.23	0.23	0.37	0.36	0.36	0.28	0.27
ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	39 ng/L	ng/L	1 ng/L	38 ng/L	ng/L	9.1 ng/L	7.4 ng/l	28 ng/L	36 ng/l	180 ng/l	1/9u 021	1300 04/1	1.2 04/1	1.2 IIB/L	3.4 IIB/L	7/ Bu /7	98 ng/L	220 ng/L	2100 ng/L	ng/L	1.5 ng/L	ng/L	ng/L	ng/L	3.2 ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	0.38 cfs	0.60 cfs	2.93 cfs	ng/L	ng/L	ng/L	110 ng/L	1/8u 88	67 ng/L	11 ng/L	6.4 ng/L	8 ng/L	1.8 ng/L	ng/L	1.3 ng/L	28 ng/L	17 ng/L									
537.1 ND	537.1 ND	537.1	537.1 62F	537.1	537.1	537.1 ND	537.1	537.1	537.1	537.1	537.1	537 1	1 753	1.755	137.T	1,552	537.1	537.1	537.1	537.1	537.1 ND	537.1	537.1 ND	537.1 0.40F	537.1 ND	537.1	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND				537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 0.23F	537.1 ND		537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 0.66F	537.1	537.1	537.1						
919005-14-4	919005-14-4	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	375-73-5	375-73-5	335-76-2	335-76-2	307-55-1	307-55-1	375-85-9	375-85-9	307-24-4	307-24-4	355-46-4	255-76-7	275 05 1	3/3-33-1	3/3-93-I	335-6/-1	335-67-1	1763-23-1	1763-23-1	376-06-7	376-06-7	72629-94-8	72629-94-8	2058-94-8	2058-94-8	763051-92-9	763051-92-9	763051-92-9	756426-58-1	756426-58-1	756426-58-1				919005-14-4	919005-14-4	919005-14-4	13252-13-6	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	2355-31-9	375-73-5	375-73-5	375-73-5	335-76-2	335-76-2	335-76-2	307-55-1	307-55-1	307-55-1	375-85-9	375-85-9
DONA	DONA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFDA	PFDA	PFDoA	PFDoA	PFHDA	PFHDA	PFHxA	PFHxA	PEHXS	DEHAC	DENIA	ANI C	Priva	PFCA	PFOA	PFOS	PFOS	PFTeDA	PFTeDA	PFTrDA	PFTrDA	PFUnA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	DONA	DONA	HFPO-DA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFBS	PFDA	PFDA	PFDA	PFDoA	PFDoA	PFDoA	РЕНРА	PFHpA
6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/3/201913:30	6/2/2010 15:35	0/3/2019 13:43	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	6/3/2019 15:45	5/24/2019 13:30	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15
B2	E1	B2	F1	R2	11 11	P	P 2	1 6	82	E1	B2	E1	B2	E1	B2	E1	B2	E1	81	B2	E1	B1	B2	E1	B1	B2	E1	81	B2	E1	81	B2	E1	81	B2	E1	B1	B2	E1	81	B2																							
S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	IN-S	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	S-NI	O INI		C-NII	S-NII	S-NI	S-NI	S-NI	IN-S	IN-S	S-NI	IN-S	S-NI	S-NI	S-NI	Z	Z	Z	Z	N	Z	Z	Z	Z	Z	N	Z	Z	Z	2	Z	Z	Z	2	Z	Z	Z	Z	Z	Z	Z	Z	Z	N	N	Z	N
2 IN-S-B2	2 IN-S-E1	2 IN-5-B2	2 IN-S-E1	2 IN-S-B2		2 IN-S-B2	2 IN-S-F1						79-S-NI 7	2 IN-S-E1	2 IN-S-B2	2 IN-S-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1	3 IN-B1	3 IN-B2	3 IN-E1		3 IN-B2	3 IN-E1	3 IN-B1			3 IN-B1		3 IN-E1	3 IN-B1																	

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0	29							0.54								0.81			0.77)	1.4			0.86					0.45										0.64						26				0.77			1.2				77		1.3		7.5	
0.27	20	8	0.4	5.8	2.3	2.3	0.16	0.16	0.16	0.2	0.2	0.2	5.9	2.4	2.4	0.24	0.24	0.24	0.23	0.23	0.23	0.42	0.42	0.42	0.26	0.25	0.26	0.13	0.13	0.14				0.3	0.29	0.3	0.4	0.39	0.4	0.19	0.19	0.19	0.23	0.23	0.23	7.9	7.8	0.4	0.24	0.23	0.24	0.37	0.35	0.30	0.20	0.27	8.1	7.9	0.4	2.3	2.3	2.3
19 ng/L	180 ng/L	150 ng/L	83 ng/L	1000 ng/L	1/au 069	610 ng/L	5.8 ng/L	3.4 ng/L	4.1 ng/L	73 ng/L	51 ng/L	41 ng/L	710 ng/L	560 ng/L	580 ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	1/Bu	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	2.03 cfs	1.85 cfs	53.8 cfs	ng/L	ng/L	ng/L	100 ng/L	120 ng/L	47 ng/L	10 ng/L	5.9 ng/L	4.4 ng/L	1.2 ng/L	1,2 ng/L	7.2 ng/L	23 ng/L	12 ng/L	180 ng/l	240 ng/L	81 ng/L	580 ng/L	530 ng/L	330 ng/L									
537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 0.93F	537.1 0.44F	537.1 0.77F	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND				537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	(537.1 0.56F	537.1	537.1	237.1	537.1	537.1	537.1	537.1	537.1	537.1
375-85-9	307-24-4	307-24-4	307-24-4	355-46-4	355-46-4	355-46-4	375-95-1	375-95-1	375-95-1	335-67-1	335-67-1	335-67-1	1763-23-1	1763-23-1	1763-23-1	376-06-7	376-06-7	376-06-7	72629-94-8	72629-94-8	72629-94-8	2058-94-8	2058-94-8	2058-94-8	763051-92-9	763051-92-9	763051-92-9	756426-58-1	756426-58-1	756426-58-1				919005-14-4	919005-14-4	919005-14-4	13252-13-6	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	2355-31-9	375-73-5	375-73-5	375-73-5	335-76-2	335-76-2	335-76-2	307-55-1	307-55-1	375-85-0	375 95 9	3/3-63-9	307-24-4	307-24-4	307-24-4	355-46-4	355-46-4	355-46-4
PFHpA	PFHxA	PFHxA	PFHxA	PFHxS	PFHxS	PFHXS	PFNA	PFNA	PFNA	PFOA	PFOA	PFOA	PFOS	PFOS	PFOS	PFTeDA	PFTeDA	PFTeDA	PFTrDA	PFTrDA	PFTrDA	PFUnA	PFUnA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	DONA	DONA	HFPO-DA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFBS	PFDA	PFDA	PFUA	PFDOA	PFDoA	PFDOA	РЕНРА	Printy	PFHXA	PFHXA	PFHXA	PFHxS	PFHXS	PFHXS
5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 18:15	6/3/2019 15:15	5/24/2019 11:00	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/201914:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	3/24/2019 14:15	6/2/2019 14:45	6/3/2019 14:30	3/24/2019 14:13	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15
E1	B1	B2	E1	B1	B2	E1	B1	B2	E1	81	B2	E1	B1	B2	E1	B1	B2	E1	81	B2	E1	B1	B2	E1	81	B2	E1	B1	B2	E1	81	B2	E1	81	B2	E1	B1	B2	E1	81	82	E1	81	82	E1	81	82	E1	81	82	1 5 E	81	B2	E1	TQ CO	82	B1	B2	E1	81	82	E1
Z	Z	N	Z	Z		2	Z	N	Z	Z	Z	Z	Z	2	Z	Z	Z	<u>z</u>	2	Z	N	N	N	N	OUT7	71UO	OUT7	71UO	71UO	OUT7	OUT7	OUT7	7100	71UO	OUT7	OUT7	OUT7	20077	0UT7	0017	7100	0017	0017	0017	0001	0001	0017	7100	OUT7	OUT?	OUT7	7100	OUT7									
IN-E1	IN-B1	IN-B2	IN-E1	OUT7-81	OUT7-82	OUT7-E1	OUT7-81	OUT7-82	OUT7-E1	OUT7-81	OUT7-B2	OUT7-E1	OUT7-81	OUT7-82	OUT7-E1	OUT7-81	OUT7-82	OUT7-E1	OUT7-B1	OUT7-82	OUT7-E1	OUT7-B1	OUT7-B2	OUT7-E1	OUT7-81	OUT7-82	OUT7-E1	OUT7-81	OUT7-82	OUI /-E1	0UI /-B1	OUT7-82	OUT7-81	OUI 7-B1	0017-bz	OUT7-81	OUT7-82	OUT7-£1	OUT7-81	OUT7-82	OUT7-E1																					
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																																																							<u> </u>			
0.54	0.53	0.54	0.66	0.65	0.66	7.9	7.8	8	0.81 PFTeA	0.8	0.82	0.77 PFTriA	0.78	1.70	1.4	1.4	0.86	0.45		0.98	1.3	0.64	0.77	1.3	0.79	1.2	1.3	1.3	0.54	99.0	0.39	0.81	0.77	1.4	0.84	0.04	0.04	0.44	0.44			200	0.97	76:0	1.3	1.3	1.3	0.63	0.63	0.63	0.76	0.75	0.75	1.3	1.3	0.77	0.77	0.77
0.16	0.16	0.16	0.2	0.19	0.2	2.4	2.3	2.4	0.24	0.24	0.24	0.23	0.23	0.42	0.41	0.42	0.26	0.13		0.3	0.39	0.19	0.23	0.04	0.24	0.36	0.27	0 11	0.16	0.2	0.12	0.24	0.23	0.42	0.25	0.25	0.13	0.13	0.13			000	0.29	0.29	0.39	0.39	0.39	0.19	0.19	0.19	0.23	0.23	0.23	0.39	0.39	0.39	0.23	0.23
5.3 ng/L	3.7 ng/L	2.7 ng/L	46 ng/L	51 ng/L	23 ng/L	280 ng/L	230 ng/L	240 ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/l	ng/L	-/Bu	√Su l	0.07 cfs	ng/L	ng/L	0.84 ng/L	ng/L	7.8 ng/L	3.6 ng/L	1.9 ng/L	7.7 ng/L	50 na/l	3.2 ng/L	9.1 ng/L	57 ng/L	ng/L	ng/L	ng/L	ng/L	118/L	1/8/1	7/8 UB/L	ng/L	0.03 cfs	0.16 cfs	0.37 cfs	1/8/1	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	10 ng/L	10 ng/L	D/B/L	ng/L	J/Bu
537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 0.48F	537.1 0.61F	537.1 ND	537.1 ND		537.1 ND	537.1 ND	537.1	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 0.56F	537.1 0.26F	537.1 0.53F	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND			7 L L C C C	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1	537.1	537.1 ND	537.1 ND	537.1 0.25F
375-95-1	375-95-1	375-95-1	335-67-1	335-67-1	335-67-1	1763-23-1	1763-23-1	1763-23-1	376-06-7	376-06-7	376-06-7	72629-94-8	72520 04 8	2058-94-0	2058-94-8	2058-94-8	763051-92-9	756426-58-1		919005-14-4	13252-13-6	2991-50-6	2355-31-9	3/5-/3-5	335-76-2	307-55-1	3/5-85-9	355-46-4	375-95-1	335-67-1	1763-23-1	376-06-7	72629-94-8	2058-94-8	763051-92-9	763051-92-9	756426-58-1	756426-58-1	756426-58-1			010005 14 4	919003-14-4	919005-14-4	13252-13-6	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	2355-31-9	375-73-5	375-73-5	335-76-2	335-76-2	335-76-2
PFNA	PFNA	PFNA	PFOA	PFOA	PFOA	PFOS	PFOS	PFOS	PFTeDA	PFTeDA	PFTeDA	PFTrDA	PFIFDA	PELIDA	PFIInA	PFUnA	11CI-PF3OUdS	9CI-PF3ONS	Discharge	DONA	HFPO-DA	N-EtFOSAA	N-MeFOSAA	PFBS	PFDA	PFDOA	РЕНРА	PEHVS	PFNA	PFOA	PFOS	PFTeDA	PFTrDA	PFUnA	11CI-PF3OUdS	11CL-PF3OUdS	9CI-PF3O003	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	DONA	HFPO-DA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFDA	PFDA	PFDA
4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	5/24/2019 14:15	4/24/2019 14:45	6/3/2019 14:30	4/24/2019 14:13	6/3/2019 14:30	5/24/2019 14:15	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	5/24/2019 9:05	4/24/2019 12:15	6/13/2019 13:00	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	6/3/2019 12:13	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	6/3/2019 13:00	6/13/2019 11:10
B1	B2	E1	B1	82	E1	B1	B2	E1	B1	B2	E1	81	B2 E1	B1	R2	13	E1	13 12	E1	E 2	11	1 5	1 13	E1	E1	E1	E1	£1	81	P	R1	B2	E1	B1	B2	E1	B1	13	81	B2	E1	B1	B2	E1	81	B2	E1	81	B2 F1	E1	B2	E1						
71NO	OUT7	OUT7	OUT7	7100	7100	OUT7	OUT7	OUT7	OUT7	OUT7	OUT7	0017	(100	7110	7110	7100	OUT1	0011	0011	0011	0011	DIE C	00T1	OUT1	OUT1	OUT1	OUT1	OUT1	OUT3-US	OUIT3-US	0013-03	OUT3-US	OUT3-US	OUT3-US	OUT3-US	OUT3-US	0013-03	OUT3-US	OUT3-US	OUT3-US	0013-05 01T3-115	OUT3-US	OUT3-US															
4 OUT7-B1	4 OUT7-B2	4 OUT7-E1	4 OUT7-B1	4 OUT7-B2	4 OUT7-E1	4 OUT7-B1	4 OUT7-B2	4 OUT7-E1	4 OUT7-B1				4 0017-62						5 OUT1-E1		5 OUT1-E1						5 0011-E1					5 OUT1-E1				6 OUI3-U3-B2						6 OUT3-US-E1	6 OUI3-U3-B1			6 OUT3-US-B2	6 OUT3-US-E1	6 OUT3-US-B1	6 OUT3-US-B2		6 OUT3-US-B1				6 OUT3-US-B2	6 OUT3-US-B1		6 OUT3-US-E1

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1.2	1.2	1.2	6.0	6.0	6.0	1.3	1.3	1.3	0.38	3.8	0.38	0.53	0.53	.53	.65	64	64	0.39	0.39	000	0.00 O	J.O FFIEA	0.79	0.79	76 PFIFIA	9/:	0.70	1.4	1.4	1.4	0.86	.86	0.85	0.45	0.45	0.45				0.98	66:	0.98	1.3	1.3	1.3	0.64	0.64	0.63	77.	0.77	77.	1.3	1.3	1.3	0.79	.79	0.78	1.2	1.2	1.2	0.91	.92	27
36	0.36	0.36		0.27		0.4		0.39			0.11 0		0.16 0					0 12 0				0.24		0.24 0				0.41						0.13 0	14 0	13 0								0.4		0.19 0				0.23 0											0.27 0		8
0.	0.	0.	0.	0.	ď		0.	0.	0.	1	0.	0.	0.	0.	0.	O		5 0	o c	o c	<i>i</i> c	5 6	j 0	o 0	O	O	o 6	o	0.	0.	0.	0	0.	0.	0.	0.				0	_	0.	0.	0	0.	0.	.0	0.	0.	0.	0.	_	(0.	0.	0.	0.	0.	0.	0.	0 0		j j
ng/L	ng/L	ng/L	3.6 ng/L	3.9 ng/L	2.9 ng/L	8.7 ng/L	9.3 ng/L	6.4 ng/L	86 ng/L	120 ng/L	55 ng/L	1.2 ng/L	0.87 ng/L	1.3 ng/L	17 ng/L	18 ng/l	14 ng/l	57 ng/l	55 ng/l	72 ng/L	42 IIB/L	11g/L	ng/L	ng/L	ng/L	ng/L	ng/L	0.59 cfs	0.38 cfs	3.16 cfs	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	0.69 ng/L	0.64 ng/L	ng/L	ng/L	ng/L	ng/L	53 ng/L	73 ng/L	31 ng/L	15 ng/L	6.6 ng/L	8.4 ng/L	1.6 ng/L	ng/L	ng/L	1/gu 09	90 ng/L	300 ng/L									
QN	ND	무																			9	ON C	מו	מא	מא	מא	חו	QN !	QN	Q.	ND	ND	ND	QN	ND	ΔN				ΔN	ND	ND	Q.	ND ND	ND ND			0.58F	QN	ND	ND								0.57F	0.75F			
537.1	537.1	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537 1	537 1	127.1	1763		337.T	337.1 ND	337.1 ND	537.1	537.1	17./EC	537.1	537.1	537.1 ND	537.1	537.1	537.1 ND	537.1	537.1 ND	537.1				537.1 ND	537.1	537.1	537.1	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1
307-55-1	307-55-1	307-55-1	375-85-9	375-85-9	375-85-9	307-24-4	307-24-4	307-24-4	355-46-4	355-46-4	355-46-4	375-95-1	375-95-1	375-95-1	335-67-1	335-67-1	335-67-1	1763-73-1	1762-22-1	1762 22 1	1,03-53-1	270-02-2	3/6-06-7	3/6-06-/	72629-94-8	72629-94-8	7.2029-94-8	2058-94-8	2058-94-8	2058-94-8	763051-92-9	763051-92-9	763051-92-9	756426-58-1	756426-58-1	756426-58-1				919005-14-4	919005-14-4	919005-14-4	13252-13-6	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	2355-31-9	375-73-5	375-73-5	375-73-5	335-76-2	335-76-2	335-76-2	307-55-1	307-55-1	307-55-1	375-85-9	375-85-9	307-24-4
PFDoA	PFDoA	PFDoA	PFHpA	PFHDA	PFHDA	PFHxA	PFHxA	PFHxA	PFHxS	PFHxS	PFHxS	PFNA	PFNA	PFNA	PFOA	PFOA	PFOA	PEOS	DEO:	5011	SOLL VIOLEN	Prieda	PFIEDA	PFIEDA	PFILDA	PFILDA	FFILDA	PFUnA	PFUnA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS	9CI-PF3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	DONA	DONA	HFPO-DA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFBS	PFDA	PFDA	PFDA	PFDoA	PFDoA	PFDoA	PFHpA	PFHpA	PFHPA
4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	7/20/2018 12:15	6/2/0101013:00	6/13/2010 11:10	0/13/2019 11:10	4/24/2019 12:13	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 12:15	6/3/2019 13:00	6/13/2019 11:10	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45 4/24/2019 13:00
81	B2	E1	B1	R2	F1	B1	B2	27	E1	DI	82	E1	81	B2	1	81	B2	E1	B1	B2	E1	81	B2	81																																							
OUT3-US	OUT3-US	OUT3-US	OUT3-US	OUT3-US	OHT3-HS	OLITZ-IIS	OLT2-11S	SU CLICO	50-E100	0013-03	0013-03	0013-05	0013-US	0013-05	0013-05	0013-05	OUT3-US	OUT3-US	OUT3-440	OUT3-440	OUT3-440																																										
OUT3-US-B1	OUT3-US-B2	OUT3-US-E1	OUT3-US-B1	OUT3-US-R2	O11T3-11S-F1	OIT3-IIS-R1	OUT2-11S-B2	OUT2 115 E1	OUIT2 115 B4	OUIS-03-BI	0013-05-BZ	0013-05-E1	0013-05-B1	0013-05-BZ	0013-03-E1	OUI3-US-B1	OUT3-US-B2	OUT3-US-E1	OUT3-440-B1	OUT3-440-B2	OUT3-440-E1																																										
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	٠	0	o (4	o u	0	0	٥	ه ا	٥	٥	۰ ۵	۱ و	9	9	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	

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														PFTeA			DETriA	<u> </u>																																													1					
27	27	7.7	7.7	7.6	0.54	0.54	0.54	13	13	13	7.9	∞	7.9	0.81	0.82	0.81	0.77	07.0	0.70	0.77	1.4	1.4	1.4	0.84	0.84	0.44	0.44	5			0.97	0.97	1.3	1.3	0.63	0.63	0.75	0.76	1.3	1.3	77.0	77.0	7.0	1.7	1.2	18	0.9	26	13	7.5	3.8	0.53	0.00	0.00	13	0.65	7.8	3.9	0.79	0.8	0.76	27.0	0.76	1.4	1.4	0.84	0.84	0.44
8.1	∞	2.3	2.3	2.3	0.16	0.16	0.16	3.9	4	3.9	2.4	2.4	2.4	0.24	0.24	0 24	0.23	0.23	0.23	0.23	0.42	0.42	0.42	0.25	0.25	0.13	0.13			0	0.29	0.29	0.39	0.39	0.19	0.19	0.23	0.23	0.39	0.39	0.23	0.23	0.20	0.35	0.36	5.4	0.27	7.9	4	2.2	1.1	0.16	0.10	0.10	3.9	0.19	2.3	1.2	0.24	0.24	0.23	0.23	0.43	U.41	0.41	0.25	0.25	0.13
310 ng/L	170 ng/L	610 ng/L	1000 ng/L	450 ng/L	14 ng/L	11 ng/L	8.3 ng/L	150 ng/L	250 ng/L	130 ng/L	340 ng/L	320 ng/L	290 ng/L	ng/L	ng/L	l/au	ng/l	1/8/1	IIB/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	l/au	1/au	- (9.: - (9.:	0.02 CIS	0.15 CTS	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	38 ng/L	19 ng/L	5.8 ng/L	5.1 ng/l	7,1 IIB/L	ng/L	ng/L	110 ng/L	61 ng/L	290 ng/L	180 ng/L	450 ng/L	250 ng/L	13 ng/l	1/3 IIB/L	9.0 IIB/L	120 ng/L	1/gu 89	340 ng/L	280 ng/L	ng/L	ng/L	1/50	118/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
														ND	ND	CZ	537 1 ND	2 2	O 2	UN .	537.1 ND	ND	537.1 0.51F	ND	537.1 ND	CN	537 1 ND					ND.	ND	537.1 ND	ND.	537.1 ND	0.23F	ND					0 01	0.91F	537.1 0.61F														ND	ND	537 1 ND	2 2	537.1 ND	0.42r	537.1 ND	ND	ND	ND.
537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1	537 1	537.1	7 703	/56	/50	537.1	537.1	537.1	537.1	537.1	537 1	537				537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1	537.1	537.1	537 1	127.1	.,567	53/.1	537.1	537.1	537.1	537.1	537.1	537.1	537 1		1.757	53/.1	537.1	537.1	537.1	537.1	537.1 ND	537	527.7	7 7 6 3	1.750	537.1	537.1	537.1 ND	537.1
307-24-4	307-24-4	355-46-4	355-46-4	355-46-4	375-95-1	375-95-1	375-95-1	335-67-1	335-67-1	335-67-1	1763-23-1	1763-23-1	1763-23-1	376-06-7	376-06-7	376-06-7	77679-94-8	0.46-62627	72029-94-0	72529-94-8	2058-94-8	2058-94-8	2058-94-8	763051-92-9	763051-92-9	756426-58-1	756426-58-1				919005-14-4	919005-14-4	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	375-73-5	375-73-5	335-76-2	335-76-2	207 55 1	307-55-1	30/-55-1	375-85-9	375-85-9	307-24-4	307-24-4	355-46-4	355-46-4	375-95-1	37.33-1	373-93-1	335-6/-1	335-67-1	1763-23-1	1763-23-1	376-06-7	376-06-7	77679-94-8	27620-04-9	7059 04 9	2058-94-8	2058-94-8	763051-92-9	763051-92-9	756426-58-1
PFHxA	PFHxA	PFHxS	PFHxS	PFHxS	PFNA	PFNA	PFNA	PFOA	PFOA	PFOA	PFOS	PFOS	PFOS	PFTeDA	PFTeDA	PETADA	DETruA	A CATA	FFILDA	PFILDA	PFUNA	PFUnA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PE3ONS	9CI-PE3ONS	Discharge	Discharge	Discharge	DONA	DONA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PEDA	PEDA	AGI-	PFD0A	PFDOA	PFHpA	PFHpA	PFHxA	PFHxA	PFHXS	PFHXS	DENA	VIVIO	PFINA	PFOA	PFOA	PFOS	PFOS	PFTeDA	PFTeDA	DETrOA	DETENA	PFITDA	PFUNA	PFUnA	11CI-PF3OUdS	11CI-PF3OUdS	9CI-PF3ONS
6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/201911.45	0/21/202/27/0	24/24/2019 19:00	9/3/2019 12:13	6/13/2019 11:45	4/24/2019 13:00	6/3/2019 12:15	6/13/2019 11:45	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/201912:20	00:01:01:01:01	08/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/201912:20	6/2/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	0/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 13:30	6/13/2019 12:20	6/3/2019 10:30	6/13/2019 12:20	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20
B2	E1	B1	B2	F1	R1	10.	D2	13	81	B2	E1	B2	E1	R2	F1	-	52	EI	B2	E1	B2	F1	L1 D2	82	E1	B2	E1	B2	E1	B2	E1	R2	57	13	82	E1	B2	E1	B2	E1	== B2	57	F1	B2	E1	B2	E1	B2																				
OUT3-440	OUT3-440	OUT3-440	OUT3-440	O11T3-440	O11T3-440	0015 440	OU13-440	0013-440	OUT3-440	OUT3-440	OUT3-440	OUT3-SDD	OUT3-SDD	OUT3-SDD	OIT3-SDD	and child	0013-50D	0013-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUTS CALL	0013-500	0013-500	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OIT3-SDD	202-5100	0013-500	0013-500	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OUT3-SDD	OLITZ-SAD	OUT2-SAD	OUI3-SUD	0013-SDD	OUT3-SDD	OUT3-1LE	OUT3-1LE	OUT3-1LE																				
OUT3-440-B2	OUT3-440-E1	OUT3-440-B1	OUT3-440-B2	O11T3-440-F1	OUT3-440-E1	10.04.0110	OUI 3-440-62	0013-440-E1	OUT3-440-B1	OUT3-440-B2	OUT3-440-E1	OUT3-SDD-B2	OUT3-SDD-E1	OUT3-SDD-R2	OLIT3-SDD-F1	Ca day chilo	0013-500-62	OUI3-SDD-E1	OUT3-SDD-82	OUT3-SDD-E1	OUT3-SDD-B2	OLIT3-SDD-F1	OUT2 CDD B2	OUI3-SDD-82	OUI 3-SDD-E1	OUT3-SDD-B2	OUT3-SDD-E1	OUT3-SDD-B2	OUT3-SDD-E1	OUT3-SDD-B2	OUT3-SDD-E1	OLIT3-SDD-B2	OUI3-300-62	OUIS-SDD-E1	0013-500-82	OUT3-SDD-E1	OUT3-SDD-B2	OUT3-SDD-E1	OUT3-SDD-B2	OUT3-SDD-E1	OLIT3-SDD-B2	OUT2-SDD-62	OUI3-SDD-EI	UU13-5UU-62	OUT3-SDD-E1	OUT3-1LE-B2	OUT3-1LE-E1	OUT3-1LE-B2																				
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	, _	- 1	, ,	,	7	7	∞	∞	o o	×	0	0 0	x o	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	000	0	0	×	∞	∞	∞	∞	∞	∞	∞	0	0 0	0 0	∞	∞	∞	∞	∞	∞	O.	0 0	0 0	×	∞ (6	6	6

0.44					1.3			0.63			9										19										92.0				0.84			0.45				0.98	76:0	1.3										26				1.2
0.13			0.29	0.29	0.39	0.39	0.19	0.19	0.23	0.23	19	7.8	0.23	0.23	0.36	0.36	14	0.27	20	7.9	5.6	2.2	0.16	0.16	9.7	3.9	5.8	2.3	0.24	0.23	0.23	0.41	0.41	0.25	0.75	0.25	0.13	0.13				0.29	0.29	0.3	0.39	0.39	0.19	0.19	0.19	0.23	0.23	0.23	7.8	7.9	0.23	0.23	0.24	0.36
J/gu		4.11 cfs	ng/L	ng/L	ng/L	ng/L	0.65 ng/L	ng/L	ng/L	ng/L	460 ng/L	180 ng/L	14 ng/L	11 ng/L	1.6 ng/L	1.2 ng/L	140 ng/L	75 ng/L	830 ng/L	400 ng/L	3100 ng/L	1300 ng/L	13 ng/L	8.6 ng/L	330 ng/L	160 ng/L	1900 ng/L	1100 ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	1.17 cfs	0.75 cfs	8.28 cfs	ng/L	ng/L	ng/L	ne/L	ng/L	1.2 ng/L	0.98 ng/L	ng/L	ng/L	ng/L	ng/L	3/0 ng/L	100 ng/L	22 ng/L	11 ng/L	6.2 ng/L	2.3 ng/L 1.5 ng/l
537.1 ND			537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1	537.1 0.42F	537.1 ND	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 ND	537.1 ND	537.1 ND	537.1 1.1F	537.1 0.99F	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 ND				537.1 ND	537.1 ND	537.1 ND 537.1 ND	537.1 ND	537.1 ND	537.1	537.1	537.1 0.30F	537.1 ND	537.1 ND	537.1 ND	537.1	537.1	537.1	537.1	537.1	537.1
756426-58-1			919005-14-4	919005-14-4	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	375-73-5	375-73-5	335-76-2	335-76-2	307-55-1	307-55-1	375-85-9	375-85-9	307-24-4	307-24-4	355-46-4	355-46-4	375-95-1	375-95-1	335-67-1	335-6/-1	1763-23-1	1/63-23-1	376-06-7	72629-94-8	72629-94-8	2058-94-8	2058-94-8	763051-92-9	763051-92-9	756426-59-1	756426-58-1	756426-58-1				919005-14-4	919005-14-4	919005-14-4 13252-13-6	13252-13-6	13252-13-6	2991-50-6	2991-50-6	2991-50-6	2355-31-9	2355-31-9	2355-31-9	3/5-/3-5	375-73-5	335-76-2	335-76-2	335-76-2	307-55-1
9CI-PF3ONS	Discharge	Discharge	DONA	DONA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	PFBS	PFBS	PFDA	PFDA	PFDoA	PFDoA	PFHpA	PFHpA	PFHxA	PFHxA	PFHxS	PFHxS	PFNA	PFNA	PFOA	PFOA	PFOS	PFOS	PETEDA	PFTrDA	PFTrDA	PFUnA	PFUnA	11Cl-PF3OUdS	11CFPF30UdS	OCI-PESONS	9CI-PE3ONS	9CI-PF3ONS	Discharge	Discharge	Discharge	DONA	DONA	DONA HEDO-DA	HFPO-DA	HFPO-DA	N-EtFOSAA	N-EtFOSAA	N-EtFOSAA	N-MeFOSAA	N-MeFOSAA	N-MerOsAA	PFBS	PFBS	PFDA	PFDA	PFDA	PFDOA
6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	6/13/2019 11:20	6/3/2019 11:20	6/13/2019 13:00	6/3/2019 11:20	6/13/2019 13:00	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	6/3/2019 14:00	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00
E1	B2	E1	D2	E2 B2	E1	B2	E1	81	B2	1 a	B2	E1	81	B2	E1	81	B2	E.1	B2	E1	B1	B2	E1	B1	B2	E1	B1 B2	E1	81	B2	E1	B1 R2																										
OUT3-1LE	OUT3-1LE	OUI3-1LE	OUT3-1LE	OUI3-1LE	OUIT3-11 E	OUT3-1LE	OUT3-1LE	OUT3-1LE	OUT3-1LE	OUT3	00013	OUITS	OUTS	OUT3	OUT3	OUT3	OUT3	OUT3	OUT3	OUTS	OUT3	OUT3	OUT3	OUT3	OUT3	OUT3	OUT3	0013	OUIS	OUT3	OUT3	OUT3	OUT3	OUT3																								
					9 OUT3-1LE-B2	9 OUT3-1LE-E1			9 OUT3-1LE-B2			9 OUT3-1LE-E1	9 OUT3-1LE-B2	9 OUT3-1LE-E1	9 OUT3-1LE-B2	9 OUT3-1LE-E1						9 OUT3-1LE-E1			9 OUT3-1LE-B2			9 OUI3-1LE-E1				9 OUT3-1LE-B2			10 0013-82	10 OUIT2-B1		10 OUT3-E1			10 OUT3-E1			10 0013-E1			10 OUT3-B1) OUT3-B2		10 OUT3-B1		10 0013-E1	0013-81	10 OUT3-E1				10 OUT3-B1

2	45	18	1	99	26	7	19	2	7	4	3	4	3	3	9	0	8	6	0.8 PFTeA	8	1	0.76 PFTriA	9		4	4	4
0.36	14 4	5.4	0.27 0.91	20 6	7.9	8 27	5.7	2.3 7.	2.3	0.16 0.54	0.16 0.53	0.16 0.54	9.8	3.9	0.2 0.66	5.9 20	2.3 7.8	2.4 7.9	0.24 0.	0.24 0.8	0.24 0.81	0.23 0.7	0.23 0.76	0.23	0.42	0.41	0.42
ng/L	110 ng/L	100 ng/L	41 ng/L	740 ng/L	530 ng/L	230 ng/L	2300 ng/L	1500 ng/L	800 ng/L	17 ng/L	9.5 ng/L	5.9 ng/L	210 ng/L	210 ng/L	7/Bu 99	1500 ng/L	1100 ng/L	7/Bu 099	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
9F	11	10	4	74	53	23	230	150	08	1	.6	.5	21	21	9	150	110	99	3F	4F					1F	ь	4F
537.1 0.89F	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1	537.1 0.53F	537.1 0.24F	537.1 ND	537.1 ND	537.1 ND	537.1 ND	537.1 0.81F	537.1 1.2F	537.1 0.64F
																						8	8	8			
307-55-1	375-85-9	375-85-9	375-85-9	307-24-4	307-24-4	307-24-4	355-46-4	355-46-4	355-46-4	375-95-1	375-95-1	375-95-1	335-67-1	335-67-1	335-67-1	1763-23-1	1763-23-1	1763-23-1	376-06-7	376-06-7	376-06-7	72629-94-8	72629-94-8	72629-94-8	2058-94-8	2058-94-8	2058-94-8
PFDoA	PFHpA	PFHpA	PFHpA	PFHxA	PFHxA	PFHxA	PFHxS	PFHxS	PFHxS	PFNA	PFNA	PFNA	PFOA	PFOA	PFOA	PFOS	PFOS	PFOS	PFTeDA	PFTeDA	PFTeDA	PFTrDA	PFTrDA	PFTrDA	PFUnA	PFUnA	PFUnA
6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45	4/24/2019 14:00	6/3/2019 9:15	6/13/2019 9:45
E1	B1	B2	E1																								
OUT3	OUT3	OUT3	OUT3																								
OUT3-£1	OUT3-B1	OUT3-B2	OUT3-£1	OUT3-B1	OUT3-B2	OUT3-E1	OUT3-B1	OUT3-B2	OUT3-£1	OUT3-B1	OUT3-B2	OUT3-E1	OUT3-B1	OUT3-B2	OUT3-E1	OUT3-B1	OUT3-B2	OUT3-£1	OUT3-B1	OUT3-B2	OUT3-E1	OUT3-B1	OUT3-B2	OUT3-E1	OUT3-B1	OUT3-B2	OUT3-E1
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

MKE Surface Water Sampling Site Location Discharge Summary

Order	Site	Date	Analyte	Remarks Discharge	Units	Location	Lat	Long
1	IN-E-81	4/24/2019 17:30	Discharge	0	0.09 cfs	WPC upstream from MMIA and 128th	425640.7 875309.	875309.2
1	IN-E-E1	5/24/2019 9:50	Discharge	ri	1.19 cfs	WPC upstream from MMIA and 128th	425640.7 875309.	875309.2
1	IN-E-B2	6/3/2019 16:30	Discharge	0	0.23 cfs	WPC upstream from MMIA and 128th	425640.7 875309.	875309.2
2	IN-S-E1	5/24/2019 13:30	Discharge	Estimated 1.	1.74 cfs	WPC tributary coming from the 128th, upstream from WPC Infall	425641.9 875310.9	875310.9
2	IN-S-B2	6/3/2019 15:45	Discharge	Estimated 0.	0.37 cfs	WPC tributary coming from the 128th, upstream from WPC Infall	425641.9	425641.9 875310.9
3	IN-B1	4/24/2019 18:15	Discharge	0	0.38 cfs	WPCInfall	425642	875310
e	IN-E1	5/24/2019 11:00	Discharge	2.	2.93 cfs	WPCInfall	425642	875310
8	IN-B2	6/3/2019 15:15	Discharge	0	0.60 cfs	WPCInfall	425642	875310
4	OUT7-B1	4/24/2019 14:45	Discharge	2.	2.03 cfs	WPC Outfall7	425724	875425
4	OUT7-E1	5/24/2019 14:15	Discharge	.20	53.8 cfs	WPC Outfall7	425724	875425
4	OUT7-B2	6/3/2019 14:30	Discharge	ti .	1.85 cfs	WPC Outfall7	425724	875425
2	OUT1-E1	5/24/2019 9:05	Discharge	0	0.07 cfs	Out1 Cargo	425640	875437
9	OUT3-US-B1 (changed from OAK-US-B1)	4/24/2019 12:15	Discharge	0	0.03 cfs	Out3 - Oak Creek Trib near 6th St (upstream of MMIA)	425617.6 875433.3	875433.3
9	OUT3-US-B2 (changed from OAK-US-B2)	6/3/2019 13:00	Discharge	0	0.16 cfs	Out3 - Oak Creek Trib near 6th St (upstream of MMIA)	425617.6 875433.3	875433.3
9	OUT3-US-E1 (Changed from OAK-US-E1)	6/13/2019 11:10	Discharge	0	0.37 cfs	Out3 - Oak Creek Trib near 6th St (upstream of MMIA)	425617.6 875433.3	875433.3
7	OUT3-440-B1	4/24/2019 13:00	Discharge	0	0.59 cfs	Out3 - Oak Creek Trib DS of 440th, west of Runway 1L	425615.4 875400.8	875400.8
7	OUT3-440-B2	6/3/2019 12:15	Discharge	0	0.38 cfs	Out3 - Oak Creek Trib DS of 440th, west of Runway 1L	425615.4 875400.8	875400.8
7	OUT3-440-E1	6/13/2019 11:45	Discharge	8	3.16 cfs	Out3 - Oak Creek Trib DS of 440th, west of Runway 1L	425615.4 875400.8	875400.8
00	OUT3-SDD-B2	6/3/2019 10:30	Discharge	0	0.02 cfs	Out3 - South Drainage Ditch west of Runway 1L	425604	425604 875327.7
00	OUT3-SDD-£1	6/13/2019 12:20	Discharge	0	0.15 cfs	Out3 - South Drainage Ditch west of Runway 1L	425604	425604 875327.7
6	OUT3-1LE-B2	6/3/2019 11:20	Discharge	0	0.60 cfs	Out3 - Oak Creek Trib east of Runway 1L	425606.8	425606.8 875325.8
6	OUT3-1LE-E1	6/13/2019 13:00	Discharge	4	4.11 cfs	Out3 - Oak Creek Trib east of Runway 1L	425606.8	425606.8 875325.8
10	OUT3-B1	4/24/2019 14:00	Discharge	1	1.17 cfs	Out3- Oak Creek Trib at College Ave	425548	875323
10	OUT3-B2	6/3/2019 9:15	Discharge	0	0.75 cfs	Out3- Oak Creek Trib at College Ave	425548	875323
10	OUT3-E1	6/13/2019 9:45	Discharge	80	8.28 cfs	Out3- Oak Creek Trib at College Ave	425548	875323

Samples sorted Chronoloically

OIT3-IIS-B1 (changed from OAK-IIS-B1)	17.07 0700/70/7			
CO S OS DE (CHANGE A HOM ON OS DE)	4/24/2019 12:15	1	Baseflow 1 - all 6 sites	sites
OUT3-440-B1	4/24/2019 13:00	2		
OUT3-B1	4/24/2019 14:00	3		
OUT7-B1	4/24/2019 14:45	4		
IN-E-B1	4/24/2019 17:30	2		
IN-B1	4/24/2019 18:15	9		
OUT1-E1	5/24/2019 9:05	1	Event 1 - Wilson	Event 1 - Wilson Park Creek watershed
IN-E-E1	5/24/2019 9:50	2		
IN-E1	5/24/2019 11:00	3		
IN-S-E1	5/24/2019 13:30	4		
OUT7-E1	5/24/2019 14:15	2		
OUT3-B2	6/3/2019 9:15	1	Baseflow 2 - all 9 sites	sites
OUT3-SDD-B2	6/3/2019 10:30	2		
OUT3-1LE-B2	6/3/2019 11:20	3		
OUT3-440-B2	6/3/2019 12:15	4		
OUT3-US-B2 (changed from OAK-US-B2)	6/3/2019 13:00	2		
OUT7-B2	6/3/2019 14:30	9		
IN-B2	6/3/2019 15:15	7		
IN-S-B2	6/3/2019 15:45	∞		
IN-E-B2	6/3/2019 16:30	6		
OUT3-E1	6/13/2019 9:45	1	Event 1 - Oak Cre	Event 1 - Oak Creek Tributary watershed
OUT3-US-E1 (Changed from OAK-US-E1)	6/13/2019 11:10	2		
OUT3-440-E1	6/13/2019 11:45	3		
OUT3-SDD-E1	6/13/2019 12:20	4		
OUT3-11E-E1	6/13/2019 13:00	2		

ATTACHMENT 4

WDNR *RESPONSIBLE PARTY LETTER* OCTOBER 17, 2019

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463

TTY Access via relay - 711



October 17, 2019

Mr. Greg Failey General Mitchell International Airport 5300 S. Howell Ave. Milwaukee, WI 53207

Mr. Brian Schrader 128th Air Refueling Wing 1919 E. Grange Ave. Milwaukee, WI 53207

Ms. Kay Grosinske AFCEC/CIBE 2261 Hughes Ave., Suite 163 Joint Base San Antonio – Lackland, TX 78236-9853

Subject:

Reported Contamination & Responsibilities – General Mitchell International Airport PFAS General Mitchell International Airport, 5300 S. Howell Ave., Milwaukee, WI

BRRTS #: 02-41-584547, FID #: 241280270

Dear Mr. Failey, Mr. Schrader, & Ms. Grosinske:

On October 11, 2019, the Wisconsin Department of Natural Resources (DNR) received surface water sampling results that were collected from several locations within the General Mitchell International Airport (GMIA) property. Per- and polyfluoroalkyl substances (PFAS) were detected in these samples. The 128th Air Refueling Wing was sent a responsible party letter for PFAS contamination on December 3, 2018. The Air Force Civil Engineering Center was sent a responsible party letter for PFAS contamination at the Former 440th Air Reserve Station on March 14, 2019. The representatives of the 128th (BRRTS #: 02-41-582725) and the Former 440th Air Reserve Station (BRRTS #: 02-41-583232) are included on this responsible party letter due to PFAS contamination at GMIA being a property-wide issue.

This sampling data indicates that you are responsible for the discharge(s) of a hazardous substance or other environmental pollution (hereafter referred to as "contamination") at the property described above. You are receiving this letter as a person who caused, possesses, or controls the PFAS contamination reported to the DNR. "Site" refers to any area where a hazardous substance has been discharged, as defined in Wis. Admin. Code § NR 700.03(56). The site refers to the area on the property where the contamination occurred and any other property to which the contamination has migrated. Under Wis. Stats. ch. 292, you may be considered a responsible party whether or not you own the property.

This letter explains how to initiate the investigation and cleanup of contamination of the site and how to access further information and assistance from the DNR. The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up. Please note that in addition to the standard requirements for responsible parties, this letter also specifies the DNR's direction that you take any immediate actions necessary to



halt and minimize the harmful effects of the contamination. This may include evaluating the need for a proposed interim action to contain or stabilize PFAS contamination from migrating into surface water and groundwater.

Immediate and Interim Actions for PFAS

The law requires you to take any immediate actions needed to halt and minimize harmful effects, unless you are otherwise directed by DNR staff. Within 45 days of October 11, 2019, which is the date the DNR received the data indicating a hazardous substance discharge had occurred, submit documentation describing immediate actions taken in accordance with Wis. Admin. Code NR § 708.09.

The DNR also requests that you submit an evaluation within 60 days for the need for an interim action to mitigate and treat PFAS-contaminated groundwater and surface water, consistent with Wis. Admin. Code NR § 708.11. If directed by the DNR, you shall take any interim actions.

Site Investigation and Remedial Actions for PFAS

Wis. Admin. Code ch. NR 716 lists the requirements for investigation of contamination in the environment. Specifically, Wis. Admin. Code § NR 716.11(3)(a) requires that the field investigation determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media. You are required to submit a work plan that complies Wis. Admin. Code § NR 716.09 and outlines an investigation that will determine the full extent of PFAS contamination associated with current and past airport activities. Further remedial responses, in addition to immediate and interim actions, may be necessary upon completion of the site investigation as identified in a remedial action options report.

Legal Responsibilities

Persons meeting the definition of "responsible party" under Wis. Admin. Code § NR 700.03(51) must follow applicable law to address the discharge of a hazardous substance to the environment or other environmental pollution. Wis. Stats. ch. 292 and Wis. Admin. Code chs. NR 700 through NR 754 provide specific requirements for undertaking appropriate response actions to address contamination, including requirements for emergency and interim actions, public information, site investigations, remedy selection, design and operation of remedial action systems, and case closure.

General Recommendations for Responsible Parties

The DNR recommends that you:

1. Hire a Qualified Environmental Consultant

To ensure response actions you plan to undertake comply with Wisconsin law, you should hire an environmental consultant within 30 days of the date of this letter to meet the regulatory deadlines listed below. A delay in hiring an environmental consultant could result in you missing key submittal deadlines.

Hiring a consulting firm with staff that have the appropriate State of Wisconsin qualifications to supervise and certify the submittals is a critical component and necessary to meet your requirements. Further, an environmental consultant should be knowledgeable of Wisconsin's technical procedures and laws and be able to answer questions regarding cleanup requirements. Required qualifications for environmental consultants are specified in Wis. Admin. Code ch. NR 712. Program guidance is available, see *Wis. Admin. Code ch. NR 712 Qualifications and Certifications, RR-081*.

2. Properly Submit Reports on Time with Required Information Included

Wisconsin law includes timeframes for submitting technical documents and conducting work, as well as specifications for what should be included in those submittals. This letter provides a general overview of the timeframes and first steps to take for site investigation and cleanup. For an overview of timing requirements, please refer to NR 700 Process and Timeline Overview, RR-967.

The DNR developed the publication *Guidance for Electronic Submittals for the Remediation and Redevelopment Program, RR-690* to assist responsible parties and consultants in properly submitting documents. Wis. Admin. Code § NR 700.11(3g), and other specific provisions within Wis. Admin. Code ch. NR 700, outline the requirements for submittals, including electronic submittals. Consultants and representatives of responsible parties are required to submit one paper copy and one electronic copy of submittals, including case closure documents. The electronic version must be an exact duplicate of the paper version. Failure to submit both a paper copy and electronic copy delays acceptance of your submittals.

3. Consider the Benefits of a Fee-based Technical Review of your Submittals

In-depth DNR review of technical reports and submittals is available for a fee. The Remediation and Redevelopment (RR) Program project managers are available throughout the process to answer general questions and provide general input as the site moves toward closure. However, if you want a formal written response from the DNR, a meeting, or both on a specific submittal, a review fee will be required in accordance with Wis. Admin. Code ch. NR 749. Obtaining technical assistance from DNR project managers throughout the process is an effective way to prevent problems and delays at the end of the process when case closure is requested. Forms, a fee schedule, and further information on technical assistance is available at dnr.wi.gov and searching "brownfield fees."

Required Steps to Take and Documents to Submit

The steps listed below serve as a general overview only — all mandatory steps and submittals specified in state law must be met before the DNR can grant "case closure," which is a determination by the DNR that no further cleanup is necessary at a site, as defined in Wis. Admin. Code § NR 700.03(3m).

- 1. <u>Immediate Actions NR 708.05</u>: The law requires you to take any immediate actions needed to halt and minimize harmful effects, unless you are otherwise directed by DNR staff, and to submit documentation describing immediate actions and outcomes within 45 days of October 11, 2019, which is the date the DNR received the data indicating a hazardous substance discharge had occurred. A final immediate action report should be submitted in accordance with Wis. Admin. Code § NR 708.09.
- 2. <u>Interim Actions NR 708.11</u>: The law requires you to evaluate the need for interim action prior to initiating a site investigation and during a site investigation. Interim action shall be taken where it is necessary to contain or stabilize a discharge of a hazardous substance or environmental pollution, in order to minimize any threat to public health, safety, or welfare, or the environment. When warranted, responsible parties shall implement an interim action as soon as possible.
- 3. <u>Public Participation and Notification NR 714.07</u>: To promote effective and meaningful public participation and notification, responsible parties shall conduct all necessary public participation and notification activities, unless otherwise directed by the DNR. Responsible parties shall evaluate the need for and level of public participation based on the criteria in Wis. Admin. Code § NR 714.07(1).

- 4. Scoping and Work Plan Submittal NR 716.07 and 716.09: The law requires that you appropriately scope out your site investigation and submit a work plan within 60 days of this notification, for completing a site investigation. The work plan must comply with the requirements in Wis. Admin. Code, chs. NR 700 through NR 799. For additional assistance, the DNR has extensive guidance on its web page at dnr.wi.gov and search "brownfield publications."
 - Prior to and during a site investigation, you must evaluate whether any interim actions are needed to contain or stabilize a hazardous substance discharge or environmental pollution, pursuant to Wis. Admin. Code § NR 708.11. If you undertake an interim action (e.g., free product removal), you must submit documentation of the action per Wis. Admin. Code § NR 708.15.
- 5. Field Investigation NR 716.11: Following submission of the work plan, the site investigation must be started within the timeframe provided under law. The timeframe varies depending on whether you are requesting the DNR's fee-based review of the work plan. If you do not request a fee-based review of the work plan, you must initiate the field investigation within 90 days of submitting the work plan, and you may proceed with the field investigation upon DNR notification to proceed; however, if the DNR has not responded within 30 days, from submittal of the work plan, you may then proceed with the field investigation. If a fee and request for DNR review of the work plan is submitted, the field investigation must begin within 60 days after receiving DNR approval.
- 6. <u>Sample Results Notification Requirements NR 716.14</u>: You must report sampling results to the DNR, owners, occupants, and various other parties within 10 business days after receiving the sampling results, unless a different timeframe is approved by the DNR, in accordance with Wis. Admin. Code § NR 716.14.
- 7. Site Investigation Report NR 716.15: Within 60 days after completion of the field investigation and receipt of laboratory data, the law requires you to submit a Site Investigation Report (SIR) to the DNR. As part of the SIR or in the Remedial Actions Options Report (RAOR), if there is soil contamination, the responsible party shall identify the current land use (i.e., industrial or non-industrial) and zoning for the site or facility in accordance with Wis. Admin. Code § NR 720.05(5). Also, as part of the SIR or in the RAOR, you must include any interim action report that may be required under Wis. Admin. Code § NR 708.15.
- 8. Remedial Actions Options Report NR 722: Within 60 days after submitting the SIR, the law requires you to submit a RAOR. The selected remedy in the RAOR should include an evaluation of green and sustainable remediation criteria, as appropriate, as required by Wis. Admin. Code § NR 722.09(2m). This may be submitted as part of a broader SIR.
- 9. Remedial and Interim Action Design, Implementation, Operation, Maintenance and Monitoring Reports NR 724: Unless otherwise directed by the DNR, the responsible party shall submit all plans and reports required in Wis. Admin. Code ch. NR 724.
- 10. Notification of Residual Contamination or Continuing Obligations NR 725: In situations where notification is required, the responsible party must provide documentation confirming that continuing obligations have been identified and affected property owners have been notified by the responsible parties 30 days prior to case closure, as required by Wis. Admin. Code ch. NR 725.
- 11. <u>Semi-annual Reporting -- NR 700.11</u>: Wis. Admin. Code § NR 700.11(1)(a) requires responsible parties to submit semi-annual site progress reports to the DNR until final case closure is granted. The reports summarize the work completed over six months and additional work planned to adequately complete the response action at the site. Consultants may submit these reports on behalf of responsible parties. These

reports are due in January and July of each year. Please refer to DNR publication NR 700 Semi-Annual Site Progress Report, RR-082, for more information.

Submittals required under Wis. Admin. Code chs. NR 700 - 726 These documents, as applicable, must be submitted to the DNR prior to the responsible party requesting case							
closure	closure, unless otherwise directed by the DNR:						
	Ch. NR 708 reports and documentation for any immediate or interim actions.						
	Ch. NR 712 professional certifications and signatures are included with applicable submittals.						
	Ch. NR 716 work plan(s) and site investigation report.						
	Ch. NR 722 remedial action options report (exception is for Dry Cleaners Environmental Response						
	Fund sites), with the selected remedial action identified.						
	Ch. NR 724 design, construction documentation, operation, maintenance and monitoring plans and						
	reports, including vapor mitigation commissioning.						
	Ch. NR 725 submittal(s) that confirms that continuing obligations have been identified and affected						
	property owners have been notified by the responsible parties 30 days prior to case closure.						
	If requesting case closure, the Ch. NR 726 case closure form and documentation substantiating						
	compliance with the NR 700 rule series.						
	Ch. NR 749 fees have been paid, as applicable, including closure and database fees.						
	Ch. NR 700 semi-annual site progress reports starting six months after notification.						

Additional Information

The DNR tracks information on all cleanup sites in a DNR database available at dnr.wi.gov and search "BOTW". The Bureau for Remediation and Redevelopment Tracking System (BRRTS) identification number for this site is listed at the top of this letter. You may view information related to your site on this database at any time.

All correspondence regarding this site should be directed to:

Riley Neumann, Project Manager Remediation and Redevelopment Program Wisconsin Department of Natural Resources 2300 N. Dr. Martin Luther King Jr. Drive Milwaukee, WI 53212

Email: Riley.Neumann@wisconsin.gov

Phone: (414) 263-8699

As previously noted, you are required to submit one paper copy and one electronic copy of plans and reports. To speed up processing, your correspondence should reference the BRRTS and Facility Identification (FID) numbers (if assigned) listed at the top of this letter.

Please visit the DNR's Remediation and Redevelopment Program website at dnr.wi.gov and search "Brownfields," for information on selecting a consultant, seeking financial assistance, and understanding the investigation and cleanup process. Information regarding review fees, liability clarification letters, post-cleanup liability and more is also available.

If you have questions, please contact the DNR Project Manager identified above, or Jennifer Dorman, Environmental Program Associate, at 414-263-8683, or Jennifer.Dorman@wisconsin.gov for assistance.

Thank you for your cooperation.

Sincerely,

Christine Haag, Director

Remediation & Redevelopment Program

llerie Hang

cc:

Darsi Foss - AD/8

Trevor Nobile – SER-Milwaukee Riley Neumann – SER-Milwaukee Michele Norman – SER-Milwaukee

Adrian Stocks – WY/3

ATTACHMENT 5

PROPOSAL PREPARATION, SUBMISSION AND EVALUATION GUIDELINES

PROPOSAL PREPARATION, SUBMISSION & EVALUATION

<u>I.</u> Explanation to Prospective Offerors

Any prospective offeror desiring an explanation or interpretation of this RFP must request it in writing no later than seven business days before the last date for submission of proposals. Requests should be directed to the individual in charge at the address listed in the RFP. Any information given to a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment to the RFP, if that information is necessary in submitting offers or if the lack of it would be prejudicial to any other prospective offerors.

II. Complete Proposals

Proposals shall represent the best efforts of the offerors and will be evaluated as such. Proposals must set forth full, accurate, and complete information as required by this section and other sections of this RFP.

III. Unnecessarily Elaborate Proposals

Brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as unnecessarily elaborate and an indication of the offeror's lack of cost consciousness. Elaborate art work, expensive paper and binding, and expensive visual and other presentation aids are neither necessary nor desired. Concise and clear proposals are sought.

IV. Retention of Proposals

All proposal documents shall be retained by the County and therefore, will not be returned to the offerors. The County will not pay for preparation of proposals or for proposals that are retained by the County.

V. Examination of Proposals

Offerors are expected to examine the Site, Statement of Work and all instructions and attachments in this RFP. Failure to do so will be at the offeror's risk.

VI. Legal Status of Offeror

Each offeror must provide the following information in its proposal:

- A. Name of the offeror;
- B. Whether offeror is a corporation, joint venture, partnership (including type of partnership), or individual;
- C. Copy of any current license, registration, or certification to transact business in the State of Wisconsin if required by law to obtain such license, registration, or certification. If the offeror is a corporation or limited partnership and does not

provide a copy of its license registration, or certification to transact business in the State of Wisconsin, the offeror shall certify its intent to obtain the necessary license, registration or certification prior to contract award or its exemption from such requirements; and

- D. Copies of any current license, registration or certification required in RFP;
- E. If the offeror is a partnership of joint venture, names of general partners or joint venturers.

VII. Organization of Offeror

Each proposal must further contain a chart showing the internal organization of the offeror and the numbers of regular personnel in each organizational unit.

VIII. Offerors Authorized Agent

Each proposal shall set forth the name, title, telephone number, and address of the person authorized to negotiate in behalf of the offeror and contractually bind the offeror, if other than the person signing the proposal.

IX. Price Schedule Submission

Offerors are to submit prices for each item identified in the Proposal. Offers for services other than those specified will not be considered. The prices set forth in the schedule will be used for evaluation purposes and for establishing a contract price. Milwaukee County reserves the right to accept or reject any and all Proposals.

X. Certification and Representations

Offerors shall return with their proposal resumes and any other documents as may be requested in the RFP.

XI. Signing of Offers

The offeror shall sign the proposal and print or type its name on the form. Erasures or other changes must be initialed by the person signing the offer. Offers signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the County.

XII. Proposal Guarantee

By submitting a proposal the offeror guarantees that it will keep its initial offer open for at least 60 days.

XIII. Acknowledgement of Amendments

Offerors shall acknowledge receipt of any amendment to this solicitation by signing and returning the amendment or by letter or telegram including mailgrams. The County must receive the acknowledgment by the date and time specified for receipt

of offers. Offeror's failure to acknowledge an amendment may result in rejection of the offer.

XIV. <u>Late Proposals and Modifications and Withdrawals of Proposals</u>

Any proposal received at the office designated in the solicitation after the exact time specified for receipt will not be considered.

XV. Proposal Evaluation Criteria

Following a list of general criteria which will be used to evaluate the proposals:

- a. Quality and responsiveness to the RFP. Weight: 20%
- b. Project approach and understanding, including strategy to perform requested work and time schedule. Weight: 30%.
- c. Qualifications and experience. Weight: 35%
- d. Fee and hourly rates. Weight: 15%.

XVI. Staffing

Consultant shall provide, at its own expense, all personnel required in performing the services under this agreement. Such personnel shall not be employees of Owner.

The offeror must describe his or her qualifications and experience to perform the work described in this RFP. Information about experience should include direct experience with the specific matter and similar facilities. Areas of expertise of each proposed staff member shall be provided (i.e., engineering, economics, architecture, planning). Specific examples of similar or related projects previously conducted shall cite:

- Name of client organization
- Name, address, and current telephone number of client contact person
- Contract number and inclusive dates
- Contract amount

Offeror shall provide the following information for every resume:

- Full name
- Title and areas of specialty
- Affiliation (that is, staff of offeror or subconsultant)
- Experience directly related to the proposed project
- Education/training

- Individual personnel hours and percentage of total project time which will be devoted to the proposed project in total and broken down by task. (See suggested matrix below)
- Resumes shall be included for all personnel expected to work on the project. Only resumes of staff or subconsultant staff employed by or under contract with the firm as of the date of proposal submission are to be included.

	NAME OF EMPLOYEE 1	NAME OF EMPLOYEE 2	ETC	EXPENSE S	SUB TASK	TASK TOTAL
TASK	HOURLY RATE W/OH	HOURLY RATE W/OH	ETC		TOTAL	
DESCRIPTIO N						
1. TASK 1	Number of Hrs/Task	Number of Hrs/Task				
2. TASK 2						
3. TASK 3						
4. TASK 4						
5. TASK 5						
6. TASK 6						
TOTAL HOURS						
TOTAL COST						
% OF TIME						

TOTAL FEE

ATTACHMENT 6 CONSULTANT PROPOSAL

PROJECT: MKE PFAS Investigation 5055-19808

CONSULTANT PROPOSAL

I.	PHASE I - BASIC SERVICES (Include services of all needed subconsultants)					
	A.	"LUMP SUM" fee for schematic design and breakwater contract documents: \$ (
II.	PHA	SE II - BASIC SERVICES (Include services of all needed subconsultants)				
	A.	"LUMP SUM" fee for shoreline improvements contract documents: \$ (
	В.	"ACTUAL COST -NOT TO EXCEED" fee for bidding and construction oversight for breakwater construction: \$ (
IV.	PHA	SE III - BASIC SERVICES (Include services of all needed subconsultants)				
	A.	"ACTUAL COST -NOT TO EXCEED" fee for bidding and construction oversight for shoreline improvements construction: \$				
V.	PRIN	NCIPAL IN CHARGE				
	Nam	e of Principal				
	Engi	neer's Registration No. in Wisconsin				
	Flat	hourly rate for principal				
Partici	pation	of Disadvantaged Business Enterprises at the rate of 10% will be required.				
		Firm Name				
		Authorized Signature				
		Title				
		Date				

ATTACHMENT 7

TARGETED BUSINESS ENTERPRISE (TBE) INSTRUCTIONS & FORMS



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

COMMITMENT TO CONTRACT WITH TBE

PROJECT No	PROJECT	TITLE		
TOTAL CONTRACT AMOUNT (less allowa	ances) \$	\$	TBE Goal:	
Name & Address of TBE		Scope of Work Detailed Description	1) TBE Contra Amount	act 2) % of Total Contract
A =				
 The total project contract amount is County. In some situations the TBE s 				
2) The percentage is based on the elig not be based on the total project con The Pass/Fail determination is base companies the sum of the percentage indicated on this document will be view.	ntract amou ed on the pe es MUST sa	Int. The commitment percentage reentage stated in the RFP/BID atisfy the minimum percentage s	ge is the key indicator of T D. If the Prime is using one stated in the RFP/BID. Not	BE participation or multiple TBE
Bidder/Proposer Comm	nitment (To	o be completed by firm com	mitting work to TBE)	
I certify that the TBE firm quoted the identife and having received confirmation, on partner Prime Contractor/Consultantwill enter into contract with the TBE firm list information on this form is true and accurate statement, or misrepresentation will result in the true and accurate the contract with the TBE firm list information on this form is true and accurate the contract with the true and the co	ted, for the	ng and delivery from the TBE Phone service(s) and amount(s) speet of my knowledge. I furthe	firm listed herein, or of the control of th	one of our subs
Signature of Authorized Representative	<u> </u>	Name & Title of Authorized Representat	ive Date	
TBE Affirmation (To	be comple	ted by TBE Owner/Authoriz	ed Representative)	
MBE by State of W WBE by State of W	nsin Unifie /isconsin D Visconsin D eral Size St	d Certification Program certify OA		
 I acknowledge and accept this comherein. I understand and accept the specified herein and all work is to be obtained prior to subletting any pormeets one of the following requirer MBE or WBE with the State of Wisstandards and is listed in the SAM 	at this completed to the completed to the complete tion of this ments: Cert consin DO/	mitment is for service(s) to be ed with my own forces. I affirm work awarded to my firm on the ified as DBE and listed in the	rendered in completion on that approval from CBD his project. I affirm that on Wisconsin UCP Directory	of the project P will be ur company y, certified as
Signature of Authorized TBE Representative	Name & Title o	f Authorized TBE Representative	Phone Number	Date
	FOI	R CBDP USE ONLY		
Commitment number of Part	ticipation:		_ Project Total:	
		Authorized Signature		



COMMUNITY BUSINESS DEVELOPMENT PARTNERS MILWAUKEE COUNTY

COMMITMENT TO CONTRACT WITH TBE

ADDITIONAL INFORMATION & REQUIREMENTS:

Links to Directories for firms eligible for credit:

DBE http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/certified-firms.aspx

MBE and WBE http://www.doa.state.wi.us/Divisions/Enterprise-Operations/Supplier-Diversity-Program

Milwaukee County SBE https://mke.diversitycompliance.com/Default.aspx

SAM Directory for Federal SBE https://www.sam.gov/portal/SAM/#1

- 1. **CONTRACT ADJUSTMENTS**: The successful Bidder/Proposer will maintain the approved TBE participation level during the term of the contract with the County, including any additional work on the contract, e.g., change orders, addendums, scope changes, or fee increases.
- 2. **WRITTEN CONTRACTS WITH TBE**: The County requires that the successful Bidder/Proposer enter into contract, directly or through subs, as stated in this form. Agreements must be submitted to the County within 7 days of receipt of the Notice-To-Proceed. By executing this commitment, you are certifying that you have had contact with the named TBE firm and that they will be hired if you are awarded the contract by the County.
- 3. **SUBSTITUTIONS**, **TBE SUBCONTRACTING WORK**, **TRUCKING FIRMS**: The successful Bidder/Proposer must submit written notification of desire for substitution to the TBE affected, and send a copy to the County, stating the reason(s) for the request. The TBE will have five (5) business days to provide written objection/acceptance of the substitution. The "right to correct" must be afforded any TBE objecting to substitution/termination for less than good cause as determined by the County. Approval must be obtained from the County prior to making any substitutions. TBE firms are required to notify and obtain approval from the County prior to seeking to subcontract out work on this project. In the case of TBE trucking firms, credit will be given for trucks leased from other TBE firms; however, if the TBE leases trucks from non-TBE firms, the commission or fee will be counted for crediting.
- 4. **REQUESTS FOR PAYMENT**: The successful Bidder/Proposer must indicate on the Continuation Sheet (AIA form G703, or equivalent) or invoice for consulting the work being performed by TBE by either a) placing the word "TBE" behind the work item or b) breaking out the work done by TBEs at the end of the report. The successful Bidder/Proposer shall notify TBE firms of the date on which they must submit their invoices for payment.
- 5. **TBE UTILIZATION REPORTS**: The successful Bidder/Proposer will enter payments to subs and suppliers directly into the County's online reporting system on a monthly basis. These entries will cover payments made during the preceding month and will include zero dollar (\$0) entries where no payment has occurred.

If you have any questions related to the Milwaukee County Target Enterprise Program, please contact:

414.278.4851 or cbdpcompliance@milwaukeecountywi.gov