

Ms. Jeanne Tran  
Industrial Facilities Manager  
Water Quality Program  
Washington Department of Ecology  
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Bellevue, Washington 98008

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Seattle  
Washington 98101  
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Fax 206 325 8218  
[www.arcadis.com](http://www.arcadis.com)

Subject:

Notice of Application for National Pollutant Discharge Elimination System  
(NPDES) Permit  
Former Chevron Station 95439 Bridge Way – History and Plans Summary

ENVIRONMENT

Dear Ms. Tran:

Date:

March 5, 2021

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc (Arcadis) is applying for a NPDES permit at Former Chevron Service Station 95439, located at 3876 Bridge Way North in Seattle, Washington.

Contact

Melissa Caldwell

Arcadis plans to install a dual-phase extraction (DPE) system at the site. Components of the DPE system will be housed inside shipping containers within the existing commercial building. Vapor treatment components will be housed within a shipping container placed outside the commercial building. Figure 1 presents a vicinity map for this site. Figure 2 shows the site aerial and vicinity map. Figure 3 shows site plan with historical site features. Figure 4 shows the installed wells and proposed location of system equipment. System installation will likely begin in the second quarter of 2021 and system start up is tentatively scheduled for September 2021.

Phone:

503.785.9381

Email:

Melissa.Caldwell

@arcadis.com

CEMC is performing an independent remedial action at this site. The system design is currently undergoing a Licensing and Industries (L&I) review and is in the Seattle Department of Construction and Inspection (SCDI) building permitting process.

Our ref:

30064308

As requested by you during the February 12, 2021 call with Arcadis, a copy of the State Environmental Policy Act (SEPA) checklist which was included in the permit application for Puget Sound Clean Air Agency is attached. The SEPA checklist along with a Determination of Nonsignificance is included as Attachment A.

**Site History***Physical Site Surface Conditions:*

This 1.3-acre site is located in a mixed residential-commercial area of the Fremont neighborhood in north-central Seattle. The former Chevron station that is the subject of this cleanup was located on the northwestern corner of the block, at 3876 Bridge Way. The property is currently owned by Northlake Commons, LLC and is occupied by commercial tenants. Most of the site is paved or covered by buildings, and the overall slope is toward the southeast.

*Operational Status / History:*

The site was formerly occupied by residential dwellings, while the Olens Chevron station was located north of the site, across 39th Street. In 1961, Olens Chevron moved south to the 3876 Bridge Way property and operated there until approximately 1980. The station had three gasoline underground storage tanks (USTs) (2000 to 6000 gallons each), two pump islands, and two 550-gallon USTs for heating and waste oil. In approximately 1981, the station was removed and the site underwent a large excavation and was backfilled with clean soil in preparation for construction of the current Bridge Way Building. This four-story building includes a warehouse on the ground floor, professional offices on the second and third floors, a residence on the third floor, and a patio area with cell tower on the fourth floor. South of this property is the Stoneway Apartment Complex and west of the property is Union View Property containing a warehouse and several commercial buildings.

*Regulatory Status / History:*

The site was initially entered into the VCP in July 2004. The former Chevron station property is currently undergoing cleanup as an independent action with limited Ecology involvement.

*Hydrogeologic Summary:*

The lithologic variation in soil borings is due in part to separate grading and filling events at the site, along with glacially derived units underlying the fill. The lithologic units beneath the entire site consist of a variety of fill materials which are thicker under the Bridge Way Building. This is underlain by mixed silt, sand, and gravel. These are underlain by glacial outwash (sand/gravel), silt, and glacial till. Dense till forms the "basement" lithology at the site.

Groundwater depths generally range between approximately 7 and 22 feet below ground surface (bgs). The estimated regional groundwater flow direction in the vicinity of the site is south, toward Lake Union. Groundwater elevation data from recent groundwater sampling events indicate that groundwater flows toward the southeast at a gradient of approximately 0.04 to 0.08 feet per foot.

Surface water bodies nearest to the site are Lake Union approximately 1,700 feet to the south, and Green Lake approximately 6,500 feet to the north (Figure 1). Stormwater runoff on and in the vicinity of the site disperses via sheet flow to catch basins connected to the City of Seattle stormwater system.

### **Groundwater History**

The constituents of concern (COCs) at the former Chevron station are attributable to confirmed releases from historical operation.

During 2019 and 2020, groundwater monitoring COCs consisted of gasoline-range (GRO), diesel-range organics (DRO), heavy oils (HO), benzene, ethylbenzene, and total xylenes. This is consistent with previous groundwater monitoring events beginning in 2004.

Petroleum impacted groundwater continues to be present in an area beginning near monitoring well D-MW-2 (in the vicinity of the former service station pump islands) and extending off of the former service station property to the south/southeast. Current and historical groundwater sampling results indicate that the dissolved-phase plume is stable.

### **Current Status**

The DPE system is being constructed by Fliteway Technologies, Inc., and will be equipped with an electric catalytic oxidizer to treat petroleum hydrocarbons in the vapor stream extracted from the subsurface. There are 14, 4-inch diameter DPE extraction wells ranging at a depth of 24 to 29 feet bgs with 15-foot screen intervals. The remediation system will operate groundwater extraction pumps in up to 8 wells at a time. The pumps will depress the groundwater table and simultaneously apply vapor extraction to remove hydrocarbon impacts within the dewatered soils. It is expected that the groundwater extraction rate from wells will range from 0.5 to up to 5 gallons per minute (GPM), with a maximum discharge rate of 40 GPM.

The extracted groundwater will then be collected within a main header pipe and collected in a batch tank. A pump will then transfer the collected groundwater through two sets of two bag filters in parallel before being treated through a minimum of two 1000-lb granular activated carbon vessels. Figure 4 depicts the planned location of the DPE system and extraction wells. Attachment B includes the system design documents.

The Seattle Department of Construction and Inspections has approved the discharge to the public storm drain system via the existing private storm drain service line. The system is tributary to Lake Union which is a designated receiving water. The approval e-mail is included as Attachment C.

95439

March 5, 2021

EPA Form 1 and water balance figures are included as Attachment D. EPA Form 2D and estimate of Effluent Characteristics is included as Attachment E.

If you have any questions, please contact Melissa Caldwell at 503.785.9381 or [Melissa.Caldwell@arcadis.com](mailto:Melissa.Caldwell@arcadis.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Melissa Caldwell", with a long horizontal flourish extending to the right.

Melissa Caldwell, Project Manager

Arcadis U.S., Inc.

Enclosures:

### **Figures**

1. Site Location Map
2. Site Aerial Vicinity Map
3. Site Plan
4. Site Plan with Wells and Structures

### **Attachments**

- A. SEPA Checklist, PSCAA Application, and Determination of Nonsignificance
- B. System Design Documents
- C. Seattle Department of Construction and Inspections approval email
- D. EPA Form 1 and Water Balance Figures
- E. EPA form 2D and Estimate of Effluent Characteristics

# FIGURES





WASHINGTON



Design & Consultancy  
for natural and  
built assets

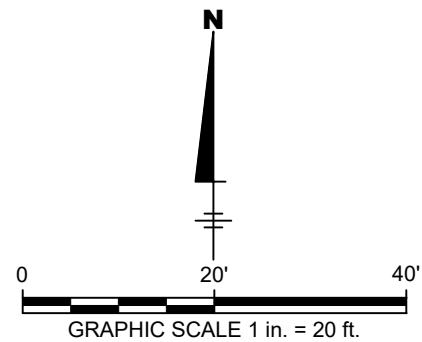
FIGURE  
1





**LEGEND**

--- APPROXIMATE PROPERTY BOUNDARY

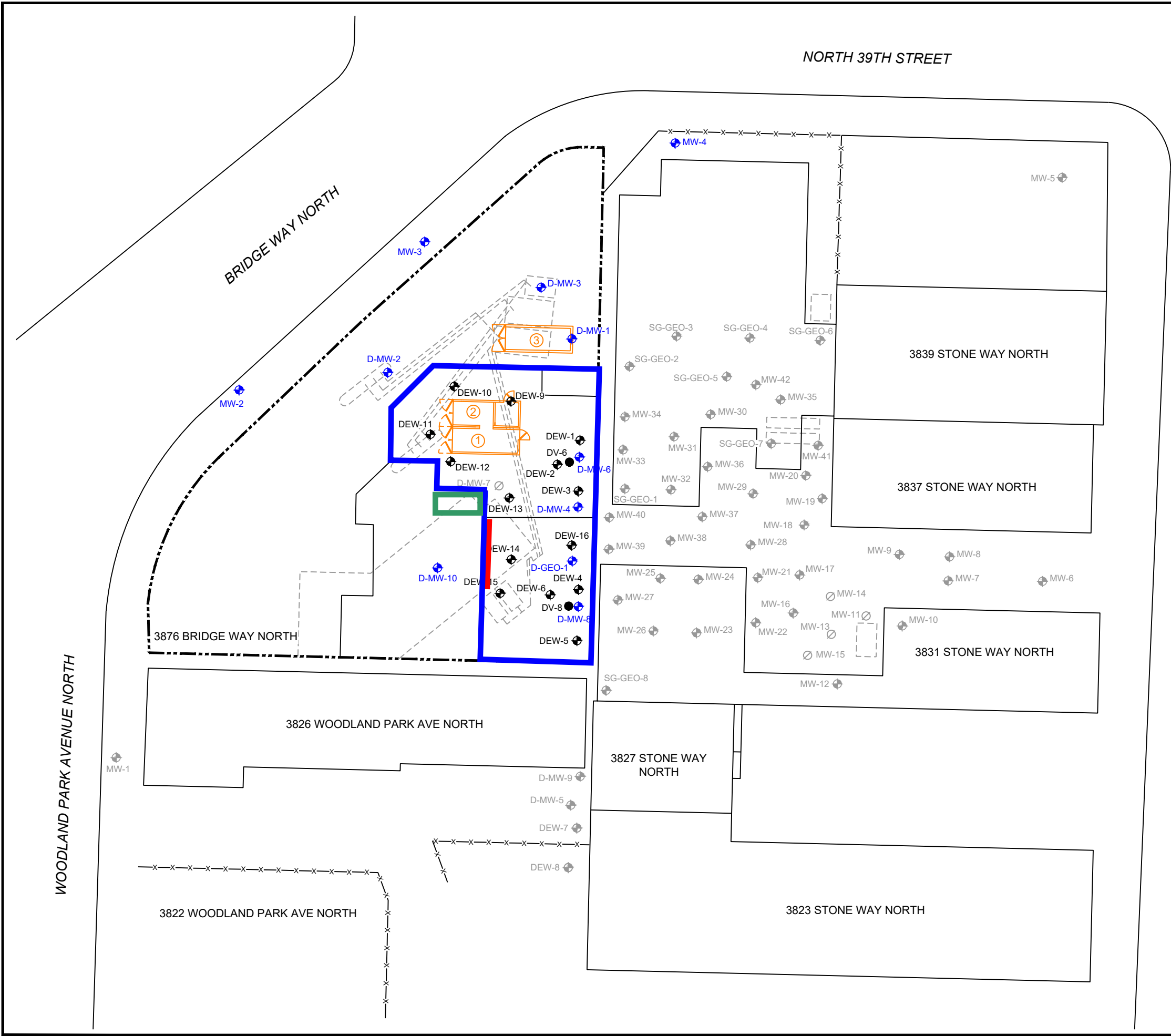


FORMER CHEVRON SERVICE STATION NO. 95439  
3876 BRIDGE WAY NORTH,  
SEATTLE, WASHINGTON 98103

**SITE AERIAL VICINITY MAP**



CITY: (Red) DIV(GROUP/Reqd) DB(Reqd) LD(Reqd) PIC(Reqd) PM(Reqd) TM(Reqd) LVR(Reqd)ON="OFF"REF\*  
C:\BIM\p\Drive - ARCADIS\BIM 360 Docs\CHEVRON CORPORATION\95439 - Seattle\2020\3045282\_462001-DWG\FIGURE 2\_Site Plan.dwg LAYOUT: 2 SAVED: 10/30/2020 2:05 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/30/2020 2:06 PM BY: MURESAN ELENA



**LEGEND**

APPROXIMATE PROPERTY BOUNDARY

FENCE

EXISTING FEATURE

FORMER STRUCTURE / UNDERGROUND STORAGE TANK / SERVICE STATION FEATURE

PROPOSED REMEDIATION SYSTEM EQUIPMENT CONTAINER

EXISTING MONITORING WELL LOCATION

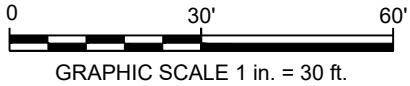
EXISTING EXTRACTION WELL LOCATION

EXISTING VAPOR WELL LOCATION

WELL NOT INCLUDED FOR MONITORING PURPOSES

ABANDONED MONITORING WELL LOCATION

SOURCE:  
MAP WAS DIGITIZED FROM FIGURE 2 CREATED BY LEIDOS, DATED APRIL 2014.  
SITE WELLS SURVEYED JUNE 15, 2020 BY TRUE NORTH LAND SURVEYING, INC.  
MAP STATE PLANE COORDINATE SYSTEM WA83-NF.



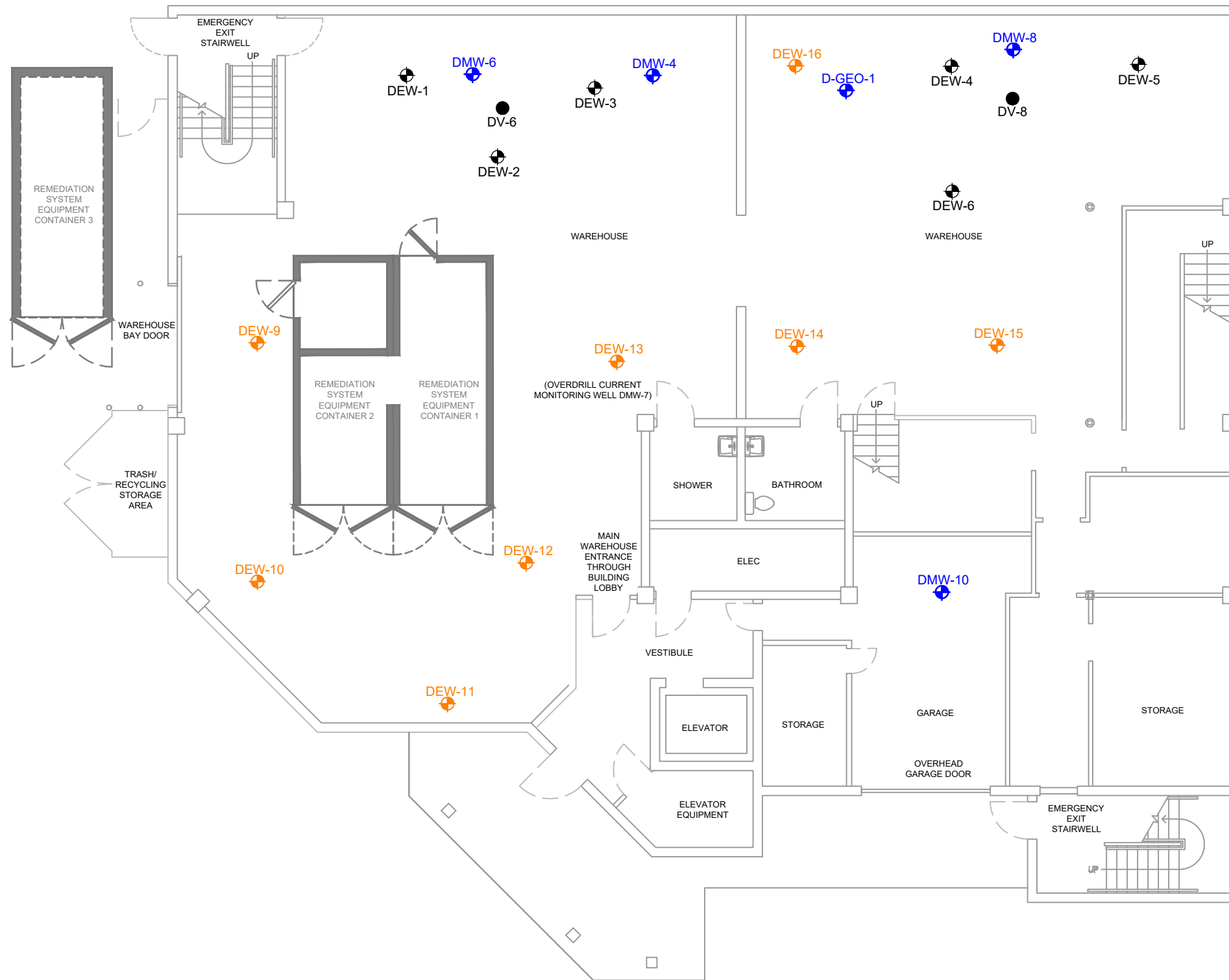
FORMER CHEVRON SERVICE STATION NO. 95439  
3876 BRIDGE WAY NORTH,  
SEATTLE, WASHINGTON 98103

SITE PLAN

**ARCADIS** Design & Consultancy for natural and built assets

FIGURE  
3










## SECTION OF BUILDING

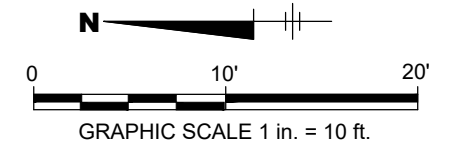
SECTION OF BUILDING					
SECTION /FLOOR NUMBER	SECTION USE	STORIES	HEIGHT	GROSS SQ. FT.	NET SQ.FT
1	STORAGE WAREHOUSE (406)	1	18	5,440	5,440
2	OFFICE BUILDING (344)	1	12	5,528	4,146
3	OFFICE BUILDING (344)	1	9	3,079	2,309
4	APARTMENT (300)	1	9	2,100	2,100

## LEGEND

- DEW-30  EXISTING EXTRACTION WELL LOCATION
- DMW-4  EXISTING MONITORING WELL LOCATION
- DV-8  EXISTING VAPOR WELL LOCATION
- DEW-16  NEWLY INSTALLED EXTRACTION WELL LOCATION
-  PROPOSED SITE FEATURE

**NOTES:**

1. MODIFICATIONS TO THE EXISTING BUILDING WHICH ARE ASSOCIATED WITH INSTALLATION AND OPERATION OF THE PLANNED REMEDIATION SYSTEM ARE LIMITED TO THE FIRST FLOOR WAREHOUSE SPACE AND BUILDING EXTERIOR. THEREFORE, DRAWINGS SHOWING THE EXISTING OFFICE SPACES AND APARTMENT LOCATED ON FLOORS 2-4 ARE NOT INCLUDED IN THIS PLAN SET.



FORMER CHEVRON SERVICE STATION NO. 95439  
3876 BRIDGE WAY NORTH,  
SEATTLE, WASHINGTON 98103

## SITE PLAN WITH WELLS AND STRUCTURES

FIGURE  
4

# ATTACHMENT C

Seattle Department of Construction and Inspections approval email



## Campbell, Peter

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**From:** Bateman, Matthew <Matthew.Bateman@seattle.gov>  
**Sent:** Friday, February 12, 2021 2:42 PM  
**To:** Campbell, Peter  
**Subject:** Discharge for Remediation Project at 3876 Bridge Way N (SDCI #6797868-CN)

Mr. Campbell,

Assuming that you can obtain Ecology approval for treatment and discharge of groundwater for the remediation project, this will be approved by SDCI to be discharged to the Public Storm Drain system in Bridge Way N via the existing private storm drain service that is connected to this system. This system is tributary to Lake Union, a Designated Receiving Water.



Matthew Bateman, P.E.

Senior Civil Engineer

Seattle Department of Construction and Inspections

O: 206-615-1229 | C: 206-561-2342 | [matthew.bateman@seattle.gov](mailto:matthew.bateman@seattle.gov)

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If you'd like to receive notifications about the ongoing City of Seattle Stormwater Code update, [Sign up for the Stormwater Code ListServ](#) by selecting "Subscribe Now" for the Latest News.

*Helping people build a safe, livable, and inclusive Seattle.*

*SDCI's offices are closed to in-person services until further notice. Visit the [SDCI website](#) and read our [Building Connections blog](#) for service change updates. Thank you for your continued flexibility and patience as we provide online services to help reduce the risk of spreading the COVID-19 virus.*



# ATTACHMENT D

EPA Form 1 and Water Balance Figures



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Water Permits Division

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# Application Form 1

## General Information

### NPDES Permitting Program

**Note:** All applicants to the National Pollutant Discharge Elimination System (NPDES) permits program, with the exception of publicly owned treatment works and other treatment works treating domestic sewage, must complete Form 1. Additionally, all applicants must complete one or more of the following forms: 2B, 2C, 2D, 2E, or 2F. To determine the specific forms you must complete, consult the “General Instructions” for this form.

EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004		
Form 1 NPDES			<b>U.S. Environmental Protection Agency</b> <b>Application for NPDES Permit to Discharge Wastewater</b> <b>GENERAL INFORMATION</b>					
<b>SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1))</b>								
Activities Requiring an NPDES Permit	1.1		<b>Applicants <i>Not Required</i> to Submit Form 1</b>					
	1.1.1	Is the facility a new or existing <b>publicly owned treatment works</b> ? If yes, STOP. Do NOT complete <input type="checkbox"/> No Form 1. Complete Form 2A.			1.1.2	Is the facility a new or existing <b>treatment works treating domestic sewage</b> ? If yes, STOP. Do NOT <input type="checkbox"/> No complete Form 1. Complete Form 2S.		
	1.2		<b>Applicants <i>Required</i> to Submit Form 1</b>					
	1.2.1	Is the facility a <b>concentrated animal feeding operation</b> or a <b>concentrated aquatic animal production facility</b> ? <input type="checkbox"/> Yes → Complete Form 1 <input type="checkbox"/> No <b>and</b> Form 2B.			1.2.2	Is the facility an <b>existing</b> manufacturing, commercial, mining, or silvicultural <b>facility</b> that is <b>currently discharging process wastewater</b> ? <input type="checkbox"/> Yes → Complete Form <input type="checkbox"/> No <b>1 and</b> Form 2C.		
	1.2.3	Is the facility a <b>new</b> manufacturing, commercial, mining, or silvicultural <b>facility</b> that has <b>not yet commenced to discharge</b> ? <input type="checkbox"/> Yes → Complete Form 1 <input type="checkbox"/> No <b>and</b> Form 2D.			1.2.4	Is the facility a <b>new or existing</b> manufacturing, commercial, mining, or silvicultural <b>facility</b> that <b>discharges only nonprocess wastewater</b> ? <input type="checkbox"/> Yes → Complete Form <input type="checkbox"/> No <b>1 and</b> Form 2E.		
	1.2.5	Is the facility a <b>new or existing facility</b> whose discharge is composed entirely of <b>stormwater associated with industrial activity</b> or whose discharge is composed of <b>both stormwater and non-stormwater</b> ? <input type="checkbox"/> Yes → Complete Form 1 <input type="checkbox"/> No <b>and</b> Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15).						
<b>SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2))</b>								
Name, Mailing Address, and Location	2.1		<b>Facility Name</b>					
	2.2		<b>EPA Identification Number</b>					
	2.3		<b>Facility Contact</b>					
	Name (first and last)		Title		Phone number			
Email address								
2.4		<b>Facility Mailing Address</b>						
Street or P.O. box								
City or town		State		ZIP code				

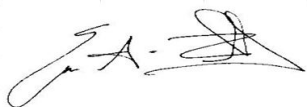


EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
Name, Mailing Address, and Location Continued	2.5	<b>Facility Location</b>					
		Street, route number, or other specific identifier					
		County name		County code (if known)			
		City or town		State		ZIP code	
<b>SECTION 3. SIC AND NAICS CODES (40 CFR 122.21(f)(3))</b>							
SIC and NAICS Codes	3.1	<b>SIC Code(s)</b>		<b>Description (optional)</b>			
	3.2	<b>NAICS Code(s)</b>		<b>Description (optional)</b>			
<b>SECTION 4. OPERATOR INFORMATION (40 CFR 122.21(f)(4))</b>							
Operator Information	4.1	<b>Name of Operator</b>					
	4.2	Is the name you listed in Item 4.1 also the owner? <input type="checkbox"/> Yes <input type="checkbox"/> No					
	4.3	<b>Operator Status</b> <input type="checkbox"/> Public—federal <input type="checkbox"/> Public—state <input type="checkbox"/> Other public (specify) _____ <input type="checkbox"/> Private <input type="checkbox"/> Other (specify) _____					
Operator Information Continued	4.4	<b>Phone Number of Operator</b>					
	4.5	<b>Operator Address</b>					
	Street or P.O. Box						
		City or town		State		ZIP code	
	Email address of operator						
<b>SECTION 5. INDIAN LAND (40 CFR 122.21(f)(5))</b>							
Indian Land	5.1	Is the facility located on Indian Land? <input type="checkbox"/> Yes <input type="checkbox"/> No					

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
<b>SECTION 6. EXISTING ENVIRONMENTAL PERMITS (40 CFR 122.21(f)(6))</b>			
<b>Existing Environmental Permits</b>	6.1	<b>Existing Environmental Permits</b> (check all that apply and print or type the corresponding permit number for each)	
		<input type="checkbox"/> NPDES (discharges to surface water)	<input type="checkbox"/> RCRA (hazardous wastes)
		<input type="checkbox"/> PSD (air emissions)	<input type="checkbox"/> Nonattainment program (CAA)
		<input type="checkbox"/> Ocean dumping (MPRSA)	<input type="checkbox"/> Dredge or fill (CWA Section 404)
		<input type="checkbox"/> UIC (underground injection of fluids)	<input type="checkbox"/> NESHAPs (CAA)
		<input type="checkbox"/> Other (specify) _____	
<b>SECTION 7. MAP (40 CFR 122.21(f)(7))</b>			
<b>Map</b>	7.1	Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)	
		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> CAFO—Not Applicable (See requirements in Form 2B.)	
<b>SECTION 8. NATURE OF BUSINESS (40 CFR 122.21(f)(8))</b>			
<b>Nature of Business</b>	8.1	Describe the nature of your business.	
<b>SECTION 9. COOLING WATER INTAKE STRUCTURES (40 CFR 122.21(f)(9))</b>			
<b>Cooling Water Intake Structures</b>	9.1	Does your facility use cooling water?	
		<input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 10.1.	
	9.2	Identify the source of cooling water. (Note that facilities that use a cooling water intake structure as described at 40 CFR 125, Subparts I and J may have additional application requirements at 40 CFR 122.21(r). Consult with your NPDES permitting authority to determine what specific information needs to be submitted and when.)	
<b>SECTION 10. VARIANCE REQUESTS (40 CFR 122.21(f)(10))</b>			
<b>Variance Requests</b>	10.1	Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(m)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)	
		<input type="checkbox"/> Fundamentally different factors (CWA Section 301(n))	<input type="checkbox"/> Water quality related effluent limitations (CWA Section 302(b)(2))
		<input type="checkbox"/> Non-conventional pollutants (CWA Section 301(c) and (g))	<input type="checkbox"/> Thermal discharges (CWA Section 316(a))
		<input type="checkbox"/> Not applicable	

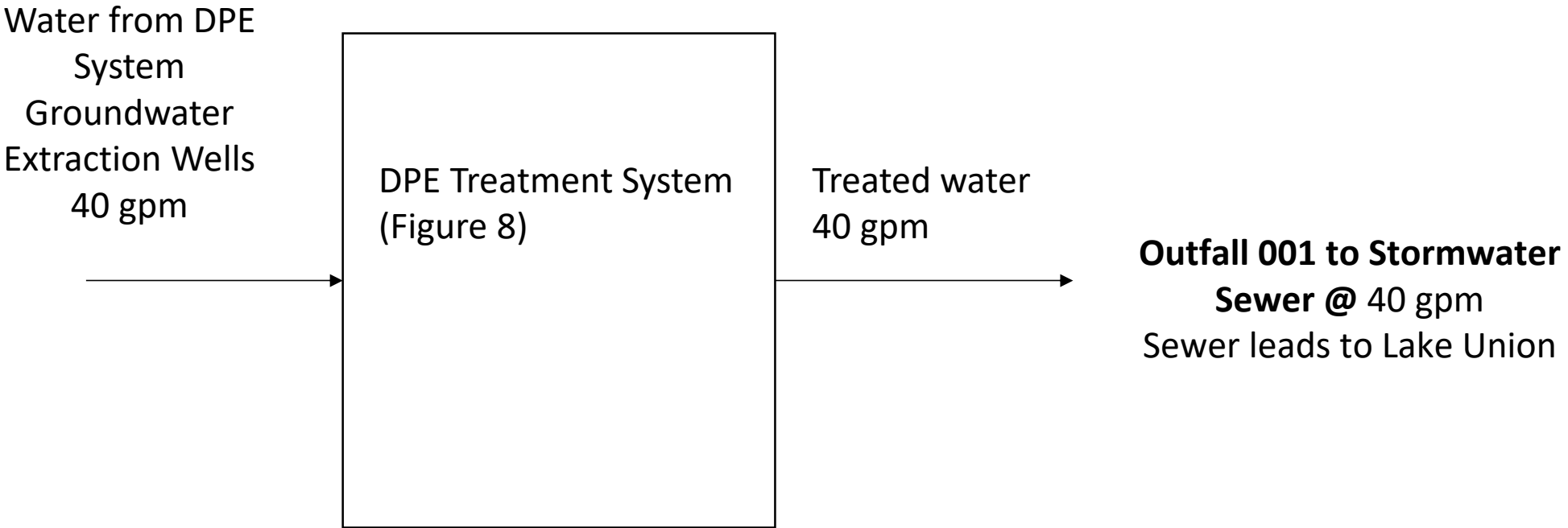
EPA Identification Number New Facility	NPDES Permit Number New Facility	Facility Name Bridgeway Building	Form Approved 03/05/19 OMB No. 2040-0004
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**SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))**

<b>Checklist and Certification Statement</b>	11.1	In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.	
		<b>Column 1</b>	<b>Column 2</b>
	<input checked="" type="checkbox"/>	Section 1: Activities Requiring an NPDES Permit	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 2: Name, Mailing Address, and Location	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 3: SIC Codes	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 4: Operator Information	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 5: Indian Land	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 6: Existing Environmental Permits	<input checked="" type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 7: Map	<input checked="" type="checkbox"/> w/ topographic map <input checked="" type="checkbox"/> w/ additional attachments
	<input checked="" type="checkbox"/>	Section 8: Nature of Business	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 9: Cooling Water Intake Structures	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 10: Variance Requests	<input type="checkbox"/> w/ attachments
	<input checked="" type="checkbox"/>	Section 11: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments
	11.2	<b>Certification Statement</b> <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>	
	Name (print or type first and last name)	Official title	
	Eric G. Hetrick	Environmental Compliance Officer	
	Signature 	Date signed 03/02/2021	



EPA Form 2D, Item IIIC: DPE Water Balance to Stormwater Sewer



# ATTACHMENT E


EPA Form 2D and Estimate of Effluent Characteristics



# ATTACHMENT E

EPA Form 2D and Estimate of Effluent Characteristics



EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19 OMB No. 2040-0004	
Form 2D NPDES			<b>U.S. Environmental Protection Agency</b> <b>Application for NPDES Permit to Discharge Wastewater</b> <b>NEW MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL OPERATIONS</b> <b>THAT HAVE NOT YET COMMENCED DISCHARGE OF PROCESS WASTEWATER</b>				
<b>SECTION 1. EXPECTED OUTFALL LOCATION (40 CFR 122.21(k)(1))</b>							
Outfall Location	1.1	Provide information on each of the facility's outfalls in the table below.					
		Outfall Number	Receiving Water Name	Latitude		Longitude	
				°   '   ''		°   '   ''	
				°   '   ''		°   '   ''	
				°   '   ''		°   '   ''	
<b>SECTION 2. EXPECTED DISCHARGE DATE (40 CFR 122.21(k)(2))</b>							
Expected Discharge Date	2.1	Month		Day		Year	
<b>SECTION 3. AVERAGE FLOWS AND TREATMENT (40 CFR 122.21(k)(3)(i))</b>							
Average Flows and Treatment	3.1	For each outfall identified under Item 1.1, provide average flow and treatment information. Add additional sheets as necessary.					
		<b>**Outfall Number**</b> _____					
		<b>Operations Contributing to Flow</b>					
		Operation				Average Flow	
						mgd	
						mgd	
						mgd	
						mgd	
						mgd	
		<b>Treatment Units</b>					
		Description (include size, flow rate through each treatment unit, retention time, etc.)		Code from Exhibit 2D-1		Final Disposal of Solid or Liquid Wastes Other Than by Discharge	

EPA Identification Number		NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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Average Flows and Treatment Continued	3.1 Cont.	<b>**Outfall Number**</b> _____		
		<b>Operations Contributing to Flow</b>		
		<b>Operation</b>	<b>Average Flow</b>	
			mgd	
			mgd	
			mgd	
			mgd	
			mgd	
		<b>Treatment Units</b>		
		<b>Description</b> (include size, flow rate through each treatment unit, retention time, etc.)	<b>Code from Exhibit 2D-1</b>	<b>Final Disposal of Solid or Liquid Wastes Other Than by Discharge</b>
		<b>**Outfall Number**</b> _____		
		<b>Operations Contributing to Flow</b>		
		<b>Operation</b>	<b>Average Flow</b>	
			mgd	
			mgd	
			mgd	
			mgd	
			mgd	
		<b>Treatment Units</b>		
		<b>Description</b> (include size, flow rate through each treatment unit, retention time, etc.)	<b>Code from Exhibit 2D-1</b>	<b>Final Disposal of Solid or Liquid Wastes Other Than by Discharge</b>



#### SECTION 4. LINE DRAWING (40 CFR 122.21(k)(3)(ii))

<b>Line Drawing</b>	4.1	Have you attached a line drawing to this application that shows the water flow through your facility with a water balance? (See instructions for drawing requirements. See Exhibit 2D-2 at end of instructions for example.)  <input type="checkbox"/> Yes <input type="checkbox"/> No
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#### SECTION 5. INTERMITTENT OR SEASONAL FLOWS (40 CFR 122.21(k)(3)(iii))

<b>Intermittent or Seasonal Flows</b>	5.1	Except for stormwater runoff, leaks, or spills, are any expected discharges described in Sections 1 and 3 intermittent or seasonal?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 6.					
	5.2	Provide information on intermittent or seasonal flows for each applicable outfall. Attach additional pages, if necessary.					
	Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
			Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
			days/week	months/year	mgd	gallons	days
			days/week	months/year	mgd	gallons	days
			days/week	months/year	mgd	gallons	days
	Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
			Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
			days/week	months/year	mgd	gallons	days
			days/week	months/year	mgd	gallons	days
			days/week	months/year	mgd	gallons	days
	Outfall Number	Operations (list)	Frequency		Rate and Volume		Duration
			Average Days/Week	Average Months/Year	Maximum Daily Discharge	Maximum Total Volume	
			days/week	months/year	mgd	gallons	days
		days/week	months/year	mgd	gallons	days	
		days/week	months/year	mgd	gallons	days	

#### SECTION 6. PRODUCTION (40 CFR 122.21(k)(4))

<b>Production</b>	6.1	Do any effluent limitation guidelines (ELGs) promulgated by EPA under CWA Section 304 apply to your facility?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 7.		
	6.2	Provide the following information on applicable ELGs.		
		ELG Category	ELG Subcategory	Regulatory Citation

<b>Production Continued</b>	6.3	Are the limitations in the applicable ELGs expressed in terms of production (or other measure of operation)?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 7.			
	6.4	Provide an expected measure of average daily production expressed in terms and units of applicable ELGs.			
	<b>Expected Actual Average Daily Production for First Three Years</b>				
	<b>Outfall Number</b>	<b>Year</b>	<b>Operation, Product, or Material</b>	<b>Quantity per Day</b> <small>(note basis if applicable)</small>	<b>Unit of Measure</b>
		Year 1			
		Year 2			
		Year 3			
		Year 1			
		Year 2			
		Year 3			
	Year 1				
	Year 2				
	Year 3				

**SECTION 7. EFFLUENT CHARACTERISTICS (40 CFR 122.21(k)(5))**

<b>Effluent Characteristics</b>	See the instructions to determine the parameters and pollutants you are required to monitor and, in turn, the tables you must complete. Note that not all applicants need to complete each table.			
	<b>Table A. Conventional and Non-Conventional Parameters</b>			
	7.1	Are you requesting a waiver from your NPDES permitting authority for one or more of the Table A parameters for any of your outfalls?  <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 7.3.		
	7.2	If yes, indicate the applicable outfalls below. Attach waiver request and other required information to the application. Outfall number _____ Outfall number _____ Outfall number _____		
	7.3	Have you have provided estimates or actual data for all Table A parameters for each of your outfalls for which a waiver has not been requested and attached the results to this application package?  <input type="checkbox"/> Yes <input type="checkbox"/> No; a waiver has been requested from my NPDES permitting authority for all parameters at all outfalls.		
	<b>Table B. Certain Conventional and Non-Conventional Pollutants</b>			
	7.4	Have you checked "Believed Present" for all pollutants listed in Table B that are limited directly or indirectly by an applicable ELG?  <input type="checkbox"/> Yes <input type="checkbox"/> No		
	7.5	Have you checked "Believed Present" or "Believed Absent" for all remaining pollutants listed in Table B?  <input type="checkbox"/> Yes <input type="checkbox"/> No		
	7.6	Have you provided estimated data for those Table B pollutants for which you have indicated are "Believed Present" in your discharge?  <input type="checkbox"/> Yes <input type="checkbox"/> No		

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<b>Effluent Characteristics Continued</b>	<b>Table C. Toxic Metals, Total Cyanide, and Total Phenols</b>			
	7.7	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table C for all outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	7.8	Have you completed Table C by providing estimated data for pollutants you indicated are "Believed Present," including the source of the information, for each applicable outfall? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	<b>Table D. Organic Toxic Pollutants (GC/MS Fractions)</b>			
	7.9	Do you qualify for a small business exemption under the criteria specified in the Instructions? <input type="checkbox"/> Yes → Note that you qualify at the top of Table D, then SKIP to Item 7.12. <input type="checkbox"/> No		
	7.10	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed on Table D for all outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	7.11	Have you completed Table D by providing estimated data for pollutants you indicated are "Believed Present," including the source of the information, for each applicable outfall? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	<b>2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD)</b>			
	7.12	Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed in the Instructions, or do you know or have reason to believe that TCDD is or may be present in effluent from any of your outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	<b>Table E. Certain Hazardous Substances and Asbestos</b>			
	7.13	Have you indicated whether pollutants are "Believed Present" or "Believed Absent" for all pollutants listed in Table E for all outfalls? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	7.14	Have you completed Table E by reporting the reason the pollutants are expected to be present and available quantitative data for pollutants you indicated are "Believed Present" for each applicable outfall? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	<b>Intake Credits, Tables A through E</b>			
7.15	Are you applying for net credits for the presence of any of the pollutants on Tables A through E for any of your outfalls? <input type="checkbox"/> Yes → Consult with your NPDES permitting authority. <input type="checkbox"/> No			
<b>SECTION 8. ENGINEERING REPORT (40 CFR 122.21(k)(6))</b>				
<b>Engineering Report</b>	8.1	Do you have any technical evaluations of your wastewater treatment, including engineering reports or pilot plant studies? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Item 8.3.		
	8.2	Have you provided the technical evaluation and all related documents to this application package? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	8.3	Are you aware of any existing plant(s) that resemble production processes, wastewater constituents, or wastewater treatment at your facility? <input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section 9.		

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<b>Engineering Report Continued</b>	8.4	Provide the name and location of the similar plants.	
		<b>Name of Similar Plants</b>	<b>Location of Similar Plants</b>

SECTION 9. OTHER INFORMATION (40 CFR 122.21(k)(7))		
<b>Other Information</b>	9.1	Have you attached any optional information that you would like considered as part of the application review process (i.e., material beyond that which you have already noted in the application as being attached)? <input type="checkbox"/> Yes <span style="margin-left: 100px;"><input type="checkbox"/> No → SKIP to Section 10.</span>
	9.2	List the additional items and briefly note why you have included them.
		1.
		2.
		3.
		4.
		5.

SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))			
<b>Checklist and Certification Statement</b>	10.1	In Column 1 below, mark the sections of Form 2D that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or tables, or provide attachments.	
		<b>Column 1</b>	<b>Column 2</b>
	<input type="checkbox"/>	Section 1: Expected Outfall Location	<input type="checkbox"/> w/ attachments (e.g., responses for additional outfalls)
	<input type="checkbox"/>	Section 2: Expected Discharge Date	<input type="checkbox"/> w/ attachments
	<input type="checkbox"/>	Section 3: Average Flows and Treatment	<input type="checkbox"/> w/ attachments
	<input type="checkbox"/>	Section 4: Line Drawing	<input type="checkbox"/> w/ line drawing <input type="checkbox"/> w/ additional attachments
	<input type="checkbox"/>	Section 5: Intermittent or Seasonal Flows	<input type="checkbox"/> w/ attachments
	<input type="checkbox"/>	Section 6: Production	<input type="checkbox"/> w/ attachments
	<input type="checkbox"/>	Section 7: Effluent Characteristics	<input type="checkbox"/> w/ Table A waiver request or approval <input type="checkbox"/> Table A <input type="checkbox"/> Table B <input type="checkbox"/> Table C <input type="checkbox"/> Table D <input type="checkbox"/> Table E <input type="checkbox"/> w/ other attachments
	<input type="checkbox"/>	Section 8: Engineering Report	<input type="checkbox"/> w/ technical evaluations and related attachments
	<input type="checkbox"/>	Section 9: Other Information	<input type="checkbox"/> w/ optional information
	<input type="checkbox"/>	Section 10: Checklist and Certification Statement	<input type="checkbox"/> w/ attachments

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Checklist and Certification Statement Continued	10.2	<b>Certification Statement</b>  <i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>		
		Name (print or type first and last name) Eric G. Hetrick		Official title Environmental Compliance Officer
		Signature 		Date signed 03/02/2021



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TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETER ESTIMATES (40 CFR 122.21(k)(5)(ii)) <sup>1</sup>									
Pollutant	Waiver Requested (if applicable)	Units	Effluent Data				Intake Water		
			Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per parameter)			
<input type="checkbox"/> Check here if you have applied to your NPDES authority for a waiver for <i>all</i> of the pollutants listed on this table for the noted outfall.									
1. Biochemical oxygen demand (BOD <sub>5</sub> )	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		Mass							
2. Chemical oxygen demand (COD)	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		Mass							
3. Total organic carbon (TOC)	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		Mass							
4. Total suspended solids (TSS)	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		Mass							
5. Ammonia (as N)	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
		Mass							
6. Flow	<input type="checkbox"/>	Rate					<input type="checkbox"/> Yes	<input type="checkbox"/> No	
7. Temperature	<input type="checkbox"/>	°C	°C				<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	<input type="checkbox"/>	°C	°C						
8. pH	<input type="checkbox"/>	Standard units	s.u.				<input type="checkbox"/> Yes	<input type="checkbox"/> No	
	<input type="checkbox"/>	Standard units	s.u.						

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii)) <sup>1</sup>									
Pollutant		Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
		Believed Present	Believed Absent	Effluent				Intake Water	
				Units	Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)	
<input type="checkbox"/>	Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table B for the noted outfall <i>unless</i> you have quantitative data available.								
1.	Bromide (24959-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.	Chlorine, total residual	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.	Color	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.	Fecal coliform	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
5.	Fluoride (16984-48-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
6.	Nitrate-nitrite	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
7.	Nitrogen, total organic (as N)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
8.	Oil and grease	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
9.	Phosphorus (as P), total (7723-14-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
10.	Sulfate (as SO <sub>4</sub> ) (14808-79-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
11.	Sulfide (as S)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii)) <sup>1</sup>									
Pollutant		Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
		Believed Present	Believed Absent	Effluent				Intake Water	
				Units	Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)	
12.	Sulfite (as SO <sub>3</sub> ) (14265-45-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
13.	Surfactants	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
14.	Aluminum, total (7429-90-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
15.	Barium, total (7440-39-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
16.	Boron, total (7440-42-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
17.	Cobalt, total (7440-48-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
18.	Iron, total (7439-89-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
19.	Magnesium, total (7439-95-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
20.	Molybdenum, total (7439-98-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
21.	Manganese, total (7439-96-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
22.	Tin, total (7440-31-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					



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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.21(k)(5)(ii)) <sup>1</sup>									
Pollutant		Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present or Limited by an ELG (Provide both concentration and mass estimates for each pollutant.)					
		Believed Present	Believed Absent	Effluent				Intake Water	
				Units	Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (use codes in instructions)	Believed Present? (check only one response per item)	
23.	Titanium, total (7440-32-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
24.	Radioactivity								
24.1	Alpha, total	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
24.2	Beta, total	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
24.3.	Radium, total	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
24.4	Radium 226, total	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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**TABLE C. TOXIC METALS, TOTAL CYANIDE, AND TOTAL PHENOLS (40 CFR 122.21(k)(5)(iii)(A))<sup>1</sup>**

Pollutant (CAS Number, if available)	Presence or Absence (check one)		Estimated Data for Pollutants Expected to be Present in Discharge (Provide both concentration and mass estimates for each pollutant.)						
	Believed Present	Believed Absent	Effluent				Intake Water		
			Units	Maximum Daily Discharge (required)	Average Daily Discharge (if available)	Source of Information (Use codes in Instructions.)	Believed Present? (Check only one response per pollutant.)		
<input type="checkbox"/>	Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table C for the noted outfall <i>unless</i> you have quantitative data available.								
1. Antimony, Total (7440-36-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
2. Arsenic, Total (7440-38-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
3. Beryllium, Total (7440-41-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
4. Cadmium, Total (7440-43-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
5. Chromium, Total (7440-47-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
6. Copper, Total (7440-50-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
7. Lead, Total (7439-92-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
8. Mercury, Total (7439-97-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
9. Nickel, Total (7440-02-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
10. Selenium, Total (7782-49-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
11. Silver, Total (7440-22-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
12. Thallium, Total (7440-28-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
13. Zinc, Total (7440-66-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
14. Cyanide, Total (57-12-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						
15. Phenols, Total	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes	<input type="checkbox"/> No
			Mass						

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See Instructions and 40 CFR 122.21(e)(3).

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**TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup>**

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
<input type="checkbox"/>	Check here if all pollutants listed in Table D are expected to be absent from your facility's discharge.								
<input type="checkbox"/>	Check here if the facility believes it is exempt from Table D reporting requirements because it is a qualified small business. See the instructions for exemption criteria and for a list of materials you must attach to the application.								
<b>Note:</b> If you check either of the above boxes, you do not need to complete Table D for the noted outfall <i>unless</i> you have quantitative data available.									
1. Organic Toxic Pollutants (GC/MS Fraction—Volatile Compounds)									
1.1	Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.2	Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.3	Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.4	Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.5	Carbon tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.6	Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.7	Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.8	Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.9	2-chloroethylvinyl ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.10	Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.11	Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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<b>TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup></b>									
Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
1.12	1,1-dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.13	1,2-dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.14	1,1-dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.15	1,2-dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.16	1,3-dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.17	Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.18	Methyl bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.19	Methyl chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.20	Methylene chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.21	1,1,2,2-tetrachloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.22	Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.23	Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.24	1,2-trans-dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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**TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup>**

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units		Effluent			Intake Water Believed Present? (check only one response per pollutant)
						Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	
1.25	1,1,1-trichloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.26	1,1,2-trichloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.27	Trichloroethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
1.28	Vinyl chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
<b>2. Organic Toxic Pollutants (GC/MS Fraction—Acid Compounds)</b>									
2.1	2-chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.2	2,4-dichlorophenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.3	2,4-dimethylphenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.4	4,6-dinitro-o-cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.5	2,4-dinitrophenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.6	2-nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.7	4-nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.8	p-chloro-m-cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.9	Pentachlorophenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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<b>TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup></b>									
Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
2.10	Phenol (108-95-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
2.11	2,4,6-trichlorophenol (88-05-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
<b>3. Organic Toxic Pollutants (GC/MS Fraction—Base /Neutral Compounds)</b>									
3.1	Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.2	Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.3	Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.4	Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.5	Benzo (a) anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.6	Benzo (a) pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.7	3,4-benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.8	Benzo (ghi) perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.9	Benzo (k) fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.10	Bis (2-chloroethoxy) methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.11	Bis (2-chloroethyl) ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					



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**TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup>**

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
3.12	Bis (2-chloroisopropyl) ether (102-80-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.13	Bis (2-ethylhexyl) phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.14	4-bromophenyl phenyl ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.15	Butyl benzyl phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.16	2-chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.17	4-chlorophenyl phenyl ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.18	Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.19	Dibenzo (a,h) anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.20	1,2-dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.21	1,3-dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.22	1,4-dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.23	3,3-dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.24	Diethyl phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					
3.25	Dimethyl phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				Mass					

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**TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup>**

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)						Intake Water Believed Present? (check only one response per pollutant)			
		Believed Present	Believed Absent	Units		Effluent			Source of Information (use codes in instructions)				
						Maximum Daily Discharge	Average Daily Discharge						
3.26	Di-n-butyl phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.27	2,4-dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.28	2,6-dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.29	Di-n-octyl phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.30	1,2-diphenylhydrazine (as azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.31	Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.32	Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.33	Hexachlorobenzene (118-74-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.34	Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.35	Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.36	Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.37	Indeno (1,2,3-cd) pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.38	Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									
3.39	Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration						<input type="checkbox"/> Yes <input type="checkbox"/> No			
				Mass									

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<b>TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup></b>									
Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
3.40	Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.41	N-nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.42	N-nitrosodi-n-propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.43	N-nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.44	Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.45	Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
3.46	1,2,4-trichlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
<b>4. Organic Toxic Pollutants (GC/MS Fraction—Pesticides)</b>									
4.1.	Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.2	α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.3	β-BHC (319-85-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.4	γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.5	δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.6	Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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**TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B))<sup>1</sup>**

Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units		Effluent			Intake Water Believed Present? (check only one response per pollutant)
						Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	
4.7	4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.8	4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.9	4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.10	Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.11	$\alpha$ -endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.12	$\beta$ -endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.13	Endosulfan sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.14	Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.15	Endrin aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

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TABLE D. ORGANIC TOXIC POLLUTANTS (Gas Chromatography/Mass Spectrometry or GC/MS Fractions) (40 CFR 122.21(k)(5)(iii)(B)) <sup>1</sup>									
Pollutant (CAS Number, if available)		Presence or Absence (check one)		Estimated Data for Pollutants Expected to Be Present in Discharge (provide both concentration and mass estimates for each pollutant)					
		Believed Present	Believed Absent	Units	Effluent			Intake Water	
					Maximum Daily Discharge	Average Daily Discharge	Source of Information (use codes in instructions)	Believed Present? (check only one response per pollutant)	
4.16	Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.17	Heptachlor epoxide (1024-57-3)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.18	PCB-1242 (53469-21-9)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.19	PCB-1254 (11097-69-1)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.20	PCB-1221 (11104-28-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.21	PCB-1232 (11141-16-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.22	PCB-1248 (12672-29-6)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.23	PCB-1260 (11096-82-5)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.24	PCB-1016 (12674-11-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					
4.25	Toxaphene (8001-35-2)	<input type="checkbox"/>	<input type="checkbox"/>	Concentration					<input type="checkbox"/> Yes <input type="checkbox"/> No
				Mass					

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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**TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))<sup>1</sup>**

Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
	Believed Present	Believed Absent		
<input type="checkbox"/> Check (✓) here if you believe all pollutants listed to be absent from the discharge. You need not complete Table E for the noted outfall <i>unless</i> you have quantitative data available.				
1. Asbestos	<input type="checkbox"/>	<input type="checkbox"/>		
2. Acetaldehyde	<input type="checkbox"/>	<input type="checkbox"/>		
3. Allyl alcohol	<input type="checkbox"/>	<input type="checkbox"/>		
4. Allyl chloride	<input type="checkbox"/>	<input type="checkbox"/>		
5. Amyl acetate	<input type="checkbox"/>	<input type="checkbox"/>		
6. Aniline	<input type="checkbox"/>	<input type="checkbox"/>		
7. Benzonitrile	<input type="checkbox"/>	<input type="checkbox"/>		
8. Benzyl chloride	<input type="checkbox"/>	<input type="checkbox"/>		
9. Butyl acetate	<input type="checkbox"/>	<input type="checkbox"/>		
10. Butylamine	<input type="checkbox"/>	<input type="checkbox"/>		
11. Captan	<input type="checkbox"/>	<input type="checkbox"/>		
12. Carbaryl	<input type="checkbox"/>	<input type="checkbox"/>		
13. Carbofuran	<input type="checkbox"/>	<input type="checkbox"/>		
14. Carbon disulfide	<input type="checkbox"/>	<input type="checkbox"/>		
15. Chlorpyrifos	<input type="checkbox"/>	<input type="checkbox"/>		
16. Coumaphos	<input type="checkbox"/>	<input type="checkbox"/>		
17. Cresol	<input type="checkbox"/>	<input type="checkbox"/>		
18. Crotonaldehyde	<input type="checkbox"/>	<input type="checkbox"/>		

EPA Identification Number	Facility Name	Outfall Number
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**TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))<sup>1</sup>**

Pollutant	Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
	Believed Present	Believed Absent		
19. Cyclohexane	<input type="checkbox"/>	<input type="checkbox"/>		
20. 2,4-D (2,4-dichlorophenoxyacetic acid)	<input type="checkbox"/>	<input type="checkbox"/>		
21. Diazinon	<input type="checkbox"/>	<input type="checkbox"/>		
22. Dicamba	<input type="checkbox"/>	<input type="checkbox"/>		
23. Dichlobenil	<input type="checkbox"/>	<input type="checkbox"/>		
24. Dichlone	<input type="checkbox"/>	<input type="checkbox"/>		
25. 2,2-dichloropropionic acid	<input type="checkbox"/>	<input type="checkbox"/>		
26. Dichlorvos	<input type="checkbox"/>	<input type="checkbox"/>		
27. Diethyl amine	<input type="checkbox"/>	<input type="checkbox"/>		
28. Dimethyl amine	<input type="checkbox"/>	<input type="checkbox"/>		
29. Dinitrobenzene	<input type="checkbox"/>	<input type="checkbox"/>		
30. Diquat	<input type="checkbox"/>	<input type="checkbox"/>		
31. Disulfoton	<input type="checkbox"/>	<input type="checkbox"/>		
32. Diuron	<input type="checkbox"/>	<input type="checkbox"/>		
33. Epichlorohydrin	<input type="checkbox"/>	<input type="checkbox"/>		
34. Ethion	<input type="checkbox"/>	<input type="checkbox"/>		
35. Ethylene diamine	<input type="checkbox"/>	<input type="checkbox"/>		
36. Ethylene dibromide	<input type="checkbox"/>	<input type="checkbox"/>		
37. Formaldehyde	<input type="checkbox"/>	<input type="checkbox"/>		



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**TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))<sup>1</sup>**

Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
38.	Furfural	<input type="checkbox"/>	<input type="checkbox"/>		
39.	Guthion	<input type="checkbox"/>	<input type="checkbox"/>		
40.	Isoprene	<input type="checkbox"/>	<input type="checkbox"/>		
41.	Isopropanolamine	<input type="checkbox"/>	<input type="checkbox"/>		
42.	Kelthane	<input type="checkbox"/>	<input type="checkbox"/>		
43.	Kepone	<input type="checkbox"/>	<input type="checkbox"/>		
44.	Malathion	<input type="checkbox"/>	<input type="checkbox"/>		
45.	Mercaptodimethur	<input type="checkbox"/>	<input type="checkbox"/>		
46.	Methoxychlor	<input type="checkbox"/>	<input type="checkbox"/>		
47.	Methyl mercaptan	<input type="checkbox"/>	<input type="checkbox"/>		
48.	Methyl methacrylate	<input type="checkbox"/>	<input type="checkbox"/>		
49.	Methyl parathion	<input type="checkbox"/>	<input type="checkbox"/>		
50.	Mevinphos	<input type="checkbox"/>	<input type="checkbox"/>		
51.	Mexacarbate	<input type="checkbox"/>	<input type="checkbox"/>		
52.	Monoethyl amine	<input type="checkbox"/>	<input type="checkbox"/>		
53.	Monomethyl amine	<input type="checkbox"/>	<input type="checkbox"/>		
54.	Naled	<input type="checkbox"/>	<input type="checkbox"/>		
55.	Naphthenic acid	<input type="checkbox"/>	<input type="checkbox"/>		
56.	Nitrotoluene	<input type="checkbox"/>	<input type="checkbox"/>		

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**TABLE E. CERTAIN HAZARDOUS SUBSTANCES AND ASBESTOS (40 CFR 122.21(k)(5)(v))<sup>1</sup>**

Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
57.	Parathion	<input type="checkbox"/>	<input type="checkbox"/>		
58.	Phenolsulfonate	<input type="checkbox"/>	<input type="checkbox"/>		
59.	Phosgene	<input type="checkbox"/>	<input type="checkbox"/>		
60.	Propargite	<input type="checkbox"/>	<input type="checkbox"/>		
61.	Propylene oxide	<input type="checkbox"/>	<input type="checkbox"/>		
62.	Pyrethrins	<input type="checkbox"/>	<input type="checkbox"/>		
63.	Quinoline	<input type="checkbox"/>	<input type="checkbox"/>		
64.	Resorcinol	<input type="checkbox"/>	<input type="checkbox"/>		
65.	Strontium	<input type="checkbox"/>	<input type="checkbox"/>		
66.	Strychnine	<input type="checkbox"/>	<input type="checkbox"/>		
67.	Styrene	<input type="checkbox"/>	<input type="checkbox"/>		
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	<input type="checkbox"/>	<input type="checkbox"/>		
69.	TDE (tetrachlorodiphenyl ethane)	<input type="checkbox"/>	<input type="checkbox"/>		
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]	<input type="checkbox"/>	<input type="checkbox"/>		
71.	Trichlorofon	<input type="checkbox"/>	<input type="checkbox"/>		
72.	Triethanolamine	<input type="checkbox"/>	<input type="checkbox"/>		
73.	Triethylamine	<input type="checkbox"/>	<input type="checkbox"/>		
74.	Trimethylamine	<input type="checkbox"/>	<input type="checkbox"/>		
75.	Uranium	<input type="checkbox"/>	<input type="checkbox"/>		

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Pollutant		Presence or Absence (check one)		Reason Pollutant Believed Present in Discharge	Available Quantitative Data (specify units)
		Believed Present	Believed Absent		
76.	Vanadium	<input type="checkbox"/>	<input type="checkbox"/>		
77.	Vinyl acetate	<input type="checkbox"/>	<input type="checkbox"/>		
78.	Xylene	<input type="checkbox"/>	<input type="checkbox"/>		
79.	Xylenol	<input type="checkbox"/>	<input type="checkbox"/>		
80.	Zirconium	<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

## **Estimate of Effluent Characteristics Bridgeway:**

### **Effluent Concentration from Dual-phase Extraction System**

Based on groundwater monitoring data collected at the site in May 2019 and April 2020 the average and maximum concentration of the following constituents of concern in the groundwater are calculated to be:

- Total Petroleum Hydrocarbons (sum of gasoline range, diesel range and heavy oil range)
  - average = 12,700 micrograms per liter ( $\mu\text{g/L}$ ) and
  - maximum = 73,400  $\mu\text{g/L}$ .
- Benzene
  - Average 99  $\mu\text{g/L}$
  - Maximum 510  $\mu\text{g/L}$
- Toluene
  - Average 170  $\mu\text{g/L}$
  - Maximum 720  $\mu\text{g/L}$
- Ethylbenzene
  - Average 120  $\mu\text{g/L}$
  - Maximum 820  $\mu\text{g/L}$
- Total Xylenes
  - Average 410  $\mu\text{g/L}$
  - Maximum 1900  $\mu\text{g/L}$
- BOD
  - Estimated based on typical systems 5 mg/L

Assuming 99 % removal efficiency by bag filtration and granular activated carbon (GAC) units the estimated discharge concentration at the outfall:

- Average Daily Value of TPH: 127  $\mu\text{g/L}$
- Maximum Daily Value of TPH: 734  $\mu\text{g/L}$
- Average Daily Value for benzene: 1  $\mu\text{g/L}$
- Maximum Daily Value of benzene: 5.1  $\mu\text{g/L}$
- Average Daily Value for toluene: 2  $\mu\text{g/L}$
- Maximum Daily Value of toluene: 7.2  $\mu\text{g/L}$
- Average Daily Value for ethylbenzene: 1.2  $\mu\text{g/L}$
- Maximum Daily Value of ethylbenzene: 8.2  $\mu\text{g/L}$
- Average Daily Value for total xylenes: 4.1  $\mu\text{g/L}$
- Maximum Daily Value of total xylenes: 19  $\mu\text{g/L}$
- Average Daily Value for BOD: 5 mg/L

Assuming an average flow of 40 gallons per minute (gpm) for the water treated through the remediation system, the estimated total mass of pollutants discharged over a day are:

- Average Daily mass of TPH: 0.028 grams per day (g/d)
- Maximum Daily mass of TPH: 0.16 g/d
- Average Daily mass for benzene: .00022 g/d
- Maximum Daily mass of benzene: 0.0011 g/d
- Average Daily mass for toluene: 0.00044 g/d
- Maximum Daily mass of toluene: 0.0016 g/d
- Average Daily mass for ethylbenzene: 0.00026 g/d
- Maximum Daily mass of ethylbenzene: 0.0017 g/d
- Average Daily mass for total xylenes: 0.00089 g/d
- Maximum Daily mass of total xylenes: 0.0041 g/d
- Average Daily mass of BOD: 1.08 g/d

$$\text{Mass removal rate } \frac{\text{grams}}{\text{day}} = \frac{\text{COC} \frac{\text{ug}}{\text{L}} \times 40 \frac{\text{gallons}}{\text{minute}} \times 3.75 \frac{\text{L}}{\text{gallons}} \times 1,440 \frac{\text{minutes}}{\text{day}} \times \text{grams}}{1,000,000,000 \text{ ug}}$$