This form is equivalent to EPA Form 3510-1

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

FORM 1 GENERAL

EPA DEPARTMENT OF ECOLOGY State of Washington

U.S. ENVIRONMENTAL PROTECTION AGENCY/ECOLOGY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

1. Current permit I.D.

	T/A	C
WA-004558-6		D
	14	15

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit a NPDES permit application forms to Ecology. If you answer "yes" to any questions, you must submit this form and the supplemental from listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

	MARK "X"				MARK "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.?** (FORM 2A)	☐	☒	☐	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.?** (FORM 2B)	☐	☒	☐
C. Is this facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	☒	☐	☒	D. Is this proposal facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.?** (FORM 2D)	☐	☒	☐
Does this facility operate a cooling water intake structure? (FORM 2C Supplemental)	☐	☒	☐				
E. Does or will this facility treat, store, or dispose of **hazardous wastes?** (FORM 3)	☐	☒	☐	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	☐	☒	☐
G. Do you or will you inject at this facility any produced water other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	☐	☒	☐	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfer by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	☐	☒	☐
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area?** (FORM 5)	☐	☒	☐	J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area?** (FORM 5)	☐	☒	☐

III. NAME OF FACILITY

C 1: ***Lehigh Cement Company Closed Cement Kiln Dust (CKD) Pile Site***

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2: ***Tim Matz P.E. Corporate Director of Environmental Affairs***	***972 653 3787***
B. EMAIL ADDRESS	**C. Does the facility have or can it obtain broadband internet access?**
C 2: ***tmatz@htcnam.com***	☒ Yes ☐ No

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX		
C 3: ***300 East John Carpenter Freeway***		
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**
C 4: ***Irving***	***TX***	***75062***

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER				
C 5: ***Milepost 14.7, Washington State Route 31***				
B. COUNTY NAME				
Pend Oreille				
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE**	
C 6: ***Metaline Falls***	***WA***	***99153***	***051***	
7: D. LATITUDE/LONGITUDE (NAD 83 DATUM)				
LATITUDE AS DECIMAL DEGREES– N48 51.6				
LONGITUDE AS DECIMAL DEGREES – W117 22.0				

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Department of Ecology
Eastern Washington Office

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VII. SIC, NAICS CODES *(in order of priority)* **AND UBI NUMBER** *Place additional on an attachment.*

SIC FIRST			SIC. SECOND		
C 7		*(specify)* ***Not applicable***	7 7		*(specify)* ***NA***
EQUIVALENT NAICS FIRST			**EQUIVALENT NAICS SECOND**		
C 7		*(specify)* ***NA***	7 7		*(specify)* ***NA***

UBI NUMBER -

VIII. OPERATOR INFORMATION

A. NAME		B. Is the name listed in Item VIII-A also the owner?
C 8	***Lehigh Cement Company LLC***	☒ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*			D. PHONE *(area code & no.)*			
F = FEDERAL S = STATE P = PRIVATE	M = PUBLIC *(other than federal or state)* O = OTHER *(specify)*	***P***	*(specify)* ***NA***	C A	***972***	***653***	***3787***

E. STREET OR PO BOX			
300 East John Carpenter Freeway			
F. CITY OR TOWN	**G. STATE**	**H. ZIP CODE**	**IX. INDIAN LAND**
C B ***Irving***	***TX***	***75062***	Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*	
C 9 T N I ***WA-004558-6***	C 9 T P 8 ***NA***	
B. UIC *(Underground Injection of Fluids*	**E. OTHER** *(specify)*	*(Specify)*
C 9 T U I ***NA***	C 9 T 8 ***NA***	***NA***
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*	*(Specify)*
C 9 T R I ***NA***	C 9 T 8 ***NA***	***NA***

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The Site consists of a Closed Cement Kiln Dust (CKD) Pile and its downgradient floodplain. The Site is an open area not used for industrial or business purposes. Groundwater that contacts the Closed CKD Pile is characterized by high pH, which causes naturally occurring arsenic in the soil to dissolve into the groundwater. This CKD-affected groundwater migrates from the Closed CKD Pile toward and seeps into Sullivan Creek. A Model Toxics Control Act (MTCA) groundwater remediation project treats the CKD-affected groundwater downgradient of the Closed CKD Pile under Washington Department of Ecology (Ecology) oversight. The groundwater treatment system was selected based on extensive studies and treatability tests, including a pilot test. In January 2006, Ecology issued a Cleanup Action Plan (CAP) that described the groundwater treatment system and established cleanup levels. Construction of the Cleanup Action was completed in December 2007, and subsequent discharges were subject to the NPDES permit that was issued in 2006 (Permit WA-004558-6). The groundwater treatment system intercepts CKD-affected groundwater downgradient of the Closed CKD Pile using a combined system of slurry walls and French drains, and passively funnels it toward a central treatment zone where an in situ carbon dioxide diffusion technology neutralizes high pH and causes arsenic to be redeposited. After treatment, the water migrates through parallel valved discharge pipes into Sullivan Creek (Outfall 1). The groundwater treatment system also includes a source control gravity drain installed under the Closed CKD Pile to capture and redirect groundwater away from the Closed CKD Pile. Water from the gravity drain, if present, will be captured by the slurry walls and French drains for treatment.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Patrick James ***Vice President - ESH***	Patrick James	March 2, 2018

To ask about the availability of this document in a version for the visually impaired, call the Water Quality Program at 360-407-6600, Relay Service 711, or TTY 877-833-6341.

Please type or print in the unshaded areas only	EPA ID Number *(Copy from Item 1 of Form 1)* **WA-004558-6**	*Form Approved OMB No. 2040-0086 Approval expires 8-31-98*

Form **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. Outfall Location

For this outfall, list the latitude and longitude, (degrees, min.xxxx) and name of the receiving water(s)

Outfall Number *(list)*	Latitude		Longitude		Receiving Water *(name)*
	Deg	Min	Deg	Min	
1	***48***	***51***	***117***	***22.0***	***Sullivan Creek***

II. Flows, Sources of Pollution, and Treatment Technologies

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed description in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictoral description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. Outfall No. (list)	2. Operations Contributing Flow		3. Treatment		
	a. OPERATION *(list)*	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
1	***CKD-affected groundwater through the treatment zone***	***11,400 gallons per day (gpd)***	***Neutralization by diffusing carbon dioxide into high pH groundwater***	***2-K***	

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C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ **YES** *(complete the following table)* ☐ **NO** *(go to Section III)*

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW (list)	3. FREQUENCY a. DAYS PER WEEK (specify average)	3. FREQUENCY b. MONTHS PER YEAR (specify average)	4. FLOW a. FLOW RATE (in mgd) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (in mgd) 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME (specify with units) 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME (specify with units) 2. MAXIMUM DAILY	4. FLOW c. DURATION (in days)
1	***CKD-affected groundwater through the treatment zone***	*7*	*6*	***0.0114 mgd***	***0.086 mgd***	***2.07 x 10^6 gal***	***23.7 x 10^6 gal***	***182 days***

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ **YES** *(complete Item III-B)* ☒ **NO** *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ **YES** *(complete Item III-C)* ☒ **NO** *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	2. AFFECTED OUTFALLS (list outfall numbers)
	Not applicable		

IV. IMPROVEMENTS

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☒ **YES** *(complete the following table)* ☐ **NO** *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. No	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
Consent Decree	*1*	***Treated groundwater***	***Groundwater treatment system operation and monitoring***	***NA***	***NA***

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED**

 CONTINUED ON PAGE 3

EPA ID Number *(Copy from Item 1 of Form 1)*
WA-004558-6*Error! Reference source not found.*

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables or each outfall - Annotate the outfall number in the space provided. **NOTE:** Tables V-A, V-B, and V-C are included on separate sheets number V-1 through V-9.

D: Use the space below t list any of the pollutants listed in Tables 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Not applicable			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ **YES** *(list all such pollutants below)* ☒ **NO** *(go to Item VI-B)*

Not applicable

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ **YES** *(identify the test(s) and describe their purpose below)* ☒ **NO** *(go to Section VIII)*

Not applicable

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ **YES** *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☒ **NO** *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Not applicable		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	
		( )	

IX. CERTIFICATION

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.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Patrick James, Vice President - ESH	***(972) 657-4263***
C. SIGNATURE Patrick J James	D. DATE SIGNED March 2, 2018

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
WA-004558-6

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand *(BOD)*	ND	-					1	-	-			
b. Chemical Oxygen Demand *(COD)*	21.1	15.1					1	mg/L	lb/day			
c. Total Organic Carbon *(TOC)*	4.84 (estimated, 2009 data)	3.47 (estimated, 2009 data)			4.58 (estimated, 2009 data)	0.44 (estimated, 2009 data)	3	mg/L	lb/day			
d. Total Suspended Solids *(TSS)*	ND	-					1	-	-			
e. Ammonia *(as N)*	0.125	0.090					1	mg/L	lb/day			
f. Flow	Value 86,000		Value		Value 11,400			gpd		Value		
g. Temperature *(winter)*	Value 4.64		Value		Value 4.48		3	°C		Value		
h. Temperature *(summer)*	Value Not applicable		Value		Value			°C		Value		
i. pH	Minimum 7.0	Maximum 7.8	Minimum	Maximum			3	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitation guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. BELIEVED PRESENT	B. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	☐	☒												
b. Chlorine, Total Residual	☐	☒												
c. Color	☐	☒												
d. Fecal Coliform	☐	☒												
e. Fluoride (16984-48-8)	☒	☐	0.380	0.273					1	mg/L	lb/day			
f. Nitrate-Nitrite *(as N)*	☐	☒												

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'		3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. BELIEVED PRESENT	B. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic *(as N)*	☐	☒												
h. Oil and Grease	☐	☒												
i. Phosphorus *(as P)*, Total (7723-14-0)	☒	☐	*0.291*	*0.209*					*1*	*mg/L*	*lb/day*			
j. Radioactivity														
(1) Alpha, Total	☐	☒												
(2) Bets, Total	☐	☒												
(3) Radium, Total	☐	☒												
(4) Radium 226, Total	☐	☒												
k. Sulfate *(as SO_4)* (14808-79-8)	☒	☐	*186*	*133*					*1*	*mg/L*	*lb/day*			
l. Sulfide (as S)	☐	☒												
m. Sulfite *(as SO_3)(14265-45-3)*	☐	☒												
n. Surfactants	☐	☒												
o. Aluminum, Total (7429-90-5)	☒	☐	*0.0430*	*0.0309*					*1*	*mg/L*	*lb/day*			
p. Barium, Total (7440-39-3)	☒	☐	*0.0878*	*0.0630*					*1*	*mg/L*	*lb/day*			
q. Boron, Total (7440-42-8)	☒	☐	*0.0271*	*0.0194*					*1*	*mg/L*	*lb/day*			
r. Cobalt, Total (7440-48-4)	☒	☐	*0.00315*	*0.0023*					*1*	*mg/L*	*lb/day*			
s. Iron, Total (7439-89-4)	☒	☐	*3.18*	*2.28*					*1*	*mg/L*	*lb/day*			
t. Magnesium, Total (7439-95-4)	☒	☐	*5.19*	*3.72*					*1*	*mg/L*	*lb/day*			
u. Molybdenum, Total (7439-98-7)	☒	☐	*0.0705*	*0.0506*					*1*	*mg/L*	*lb/day*			
v. Manganese, Total (7439-96-5)	☒	☐	*0.35*	*0.2512*			*0.32*	*0.03*	*4*	*mg/L*	*lb/day*			
w. Tin, Total (7440-31-5)	☐	☒												
x. Titanium, Total (7440-32-6)	☒	☐	*0.00644*	*0.0046*					*1*	*mg/L*	*lb/day*			

CONTINUE ON PAGE V-3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
Error! Reference source not found. **WA-004558-6**	**1**

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant. If you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS			a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1m. Antimony, Total (7440-36-0)	☐	☐	☒												
2M. Arsenic, Total (7440-38-2)	☐	☒	☐	*0.015*	*0.0108*			*0.012*	*0.001*	*4*	*mg/L*	*lb/day*			
3M. Beryllium, Total (7440-41-7)	☐	☐	☒												
4M. Cadmium, Total (7440-43-9)	☐	☐	☒												
5M Chromium, Total (7440-47-3)	☐	☒	☐	*0.0014*	*0.0010*			*0.0009*	*0.0001*	*4*	*mg/L*	*lb/day*			
6M Copper, Total (7440-50-8)	☐	☒	☐	*0.00736*	*0.0053*					*1*	*mg/L*	*lb/day*			
7M lead, Total (7439-92-1)	☐	☒	☐	*0.0044*	*0.0032*			*0.0020*	*0.0002*	*4*	*mg/L*	*lb/day*			
8M Mercury, Total (7439-97-6)	☐	☒	☐	*0.0584*	*0.0419*					*1*	*µg/L*	*lb/day*			
9M Nickel, Total (7440-02-0)	☐	☒	☐	*0.00481*	*0.0035*					*1*	*mg/L*	*lb/day*			
10M Selenium, Total (7782-49-2)	☐	☐	☒												
11M Silver, Total (7440-22-4)	☐	☐	☒												
12M Thallium, Total (7440-28-0)	☐	☐	☒												
13M Zinc, Total (7440-66-6)	☐	☒	☐	*0.00867*	*0.0062*					*1*	*mg/L*	*lb/day*			
14M Cyanide, Total (57-12-5)	☐	☐	☒												
15M Phenols, Total	☐	☐	☒												
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764--01-6)	☐	☐	☒	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRE-SENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☒												
2V. Acrylonitrille (107-13-1)	☐	☐	☒												
3V. Benzene (71-43-2)	☐	☐	☒												
4V. Bis (Chloromethyl) Ether (542-88-1)	☐	☐	☒												
5V. Bromoform (75-25-2)	☐	☐	☒												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☒												
7V. Chlorobenzene (108-90-7)	☐	☐	☒												
8V. Chlorodibromomethane (124-48-1)	☐	☐	☒												
9V. Chloroethane (75-00-3)	☐	☐	☒												
10V. 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☒												
11V. Chloroform (67-66-3)	☐	☐	☒												
12V. Dichlorobromoethane (75-27-4)	☐	☐	☒												
13V. Dichlorodifluoromethane (75-71-8)	☐	☐	☒												
14V. 1,1-Dichloro-ethane (75-27-3)	☐	☐	☒												
15V. 1,2-Dichloro-ethane (107-06-2)	☐	☐	☒												
16V. 1,1-Dichloroethylene (7535-4)	☐	☐	☒												
17V. 1,2-Dichloropropane (78-87-5)	☐	☐	☒												
18V. 1,3-Dichloropropylene (542-75-6)	☐	☐	☒												
19V. Ethylbenzene (100-41-4)	☐	☒	☐	*0.72*	*0.0005*					*1*	*µg/L*	*lb/day*			
20V. Methyl Bromide (74-83-9)	☐	☐	☒												
21V. Methyl Chloride (74-87-3)	☐	☐	☒												

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
Error! Reference source not found. **WA-004558-6**	**1**

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSIS	4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - VOLATILE COMPOUNDS *(continued)*															
22 V. Methylene Chloride (75-09-2)	☐	☐	☒												
23V. 1,1,2,2-Tetra-Chloroethane (79-34-5)	☐	☐	☒												
24V. Tetrachloro-ethylene (127-18-4)	☐	☐	☒												
25V. Toluene (108-88-3)	☐	☐	☒												
26V. 1,2-Trans-Dichloroethylene (156-60-5)	☐	☐	☒												
27V. 1,1,1-Tri-chloroethane (71-55-6)	☐	☐	☒												
28V. 1,1,2-Tri-chloroethane (79-00-5)	☐	☐	☒												
29V. Trichloro-ethylene (79-01-6)	☐	☐	☒												
30V. Trichloro-fluoromethane (75-69-4)	☐	☐	☒												
31V. Vinyl Chloride (75-01-4)	☐	☐	☒												
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	☐	☐	☒												
2A. 2,4-Dichloro-phenol (120-83-2)	☐	☐	☒												
3A. 2,4-Dimethyl-phenol (105-67-9)	☐	☐	☒												
4A. 4,6-Dinitro-O-cresol (534-52-1)	☐	☐	☒												
5A. 2,4-Dinitro-phenol (51-28-5)	☐	☐	☒												
6A. 2-Nitro-phenol (88-75-5)	☐	☐	☒												
7A. 4-Ntro-phenol (100-02-7)	☐	☐	☒												
8A. P-Chloro-M-Cresol (59-50-7)	☐	☐	☒												
9A. Penta-chlorophenol (87-86-5)	☐	☐	☒												
10A. Phenol (108-95-2)	☐	☐	☒												
11A. 2,4,6-Tri-chlorophenol (88-06-2)	☐	☐	☒												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenphthene (83-32-9)	☐	☐	☒												
2B. Acenaphtylene (208-96-8)	☐	☐	☒												
3B. Anthracene (120-12-7)	☐	☐	☒												
4B. Benzidine (92-87-5)	☐	☐	☒												
5B. Benzo (a) Anthracene (56-55-3)	☐	☐	☒												
6B. Benzo (a) Pyrene (50-32-8)	☐	☐	☒												
7B. 3,4-Benzo-fluoranthene (205-99-2)	☐	☐	☒												
8B. Benzo (ghi) Perylene (191-24-2)	☐	☐	☒												
9B. Benzo (k) Fluoranthene (207-08-9)	☐	☐	☒												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	☐	☐	☒												
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	☐	☐	☒												
12B. Bis (2-Chloroisopropyl) Ether (108-60-1	☐	☐	☒												
13B. Bis(2-Ethyl-hexyl) Phthalate (117-81-7)	☐	☒	☐	*0.86*	*0.0006*					*1*	*µg/L*	*lb/day*			
14 B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	☐	☐	☒												
15B Butyl Benzyl Phthalate (85-68-7)	☐	☐	☒												
16B. 2-Chloro-naphthalene (91-58-7)	☐	☐	☒												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	☐	☐	☒												
18B. Chrysene (218-01-9)	☐	☐	☒												
19B. Dibenzo (a,h) Anthracene (53-70-3)	☐	☐	☒												

CONTINUE ON PAGE V-7

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
Error! Reference source not found. **WA-004558-6**	**1**

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS - BASE/NEUTRAL COMPOUNDS *(continued)*															
20B. 1,2-Dichlorobenzene (95-50-1)	☐	☐	☒												
21B. 1,3-Dichlorobenzene (541-73-1)	☐	☐	☒												
22B. 1,4-Dichlorobenzene (106-46-7)	☐	☐	☒												
23B. 3,3'-Dichlorobenzidine (91-94-1)	☐	☐	☒												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☒												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☒												
26B. Di-N-Butyl Phthalate (84-74-2)	☐	☐	☒												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☒												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☒												
29B. Di-N-Octyl Phthalate (117-84-0)	☐	☐	☒												
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	☐	☐	☒												
31B. Fluoranthene (206-44-0)	☐	☐	☒												
32B. Fluorene (86-73-7)	☐	☐	☒												
33B. Hexachlorobenzene (118-74-1)	☐	☐	☒												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☒												
35B. Hexachlorocyclopentadiene (77-47-4)	☐	☐	☒												
36B. Hexachloroethane (67-72-1)	☐	☐	☒												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	☐	☐	☒												

CONTINUED FROM THE FRONT

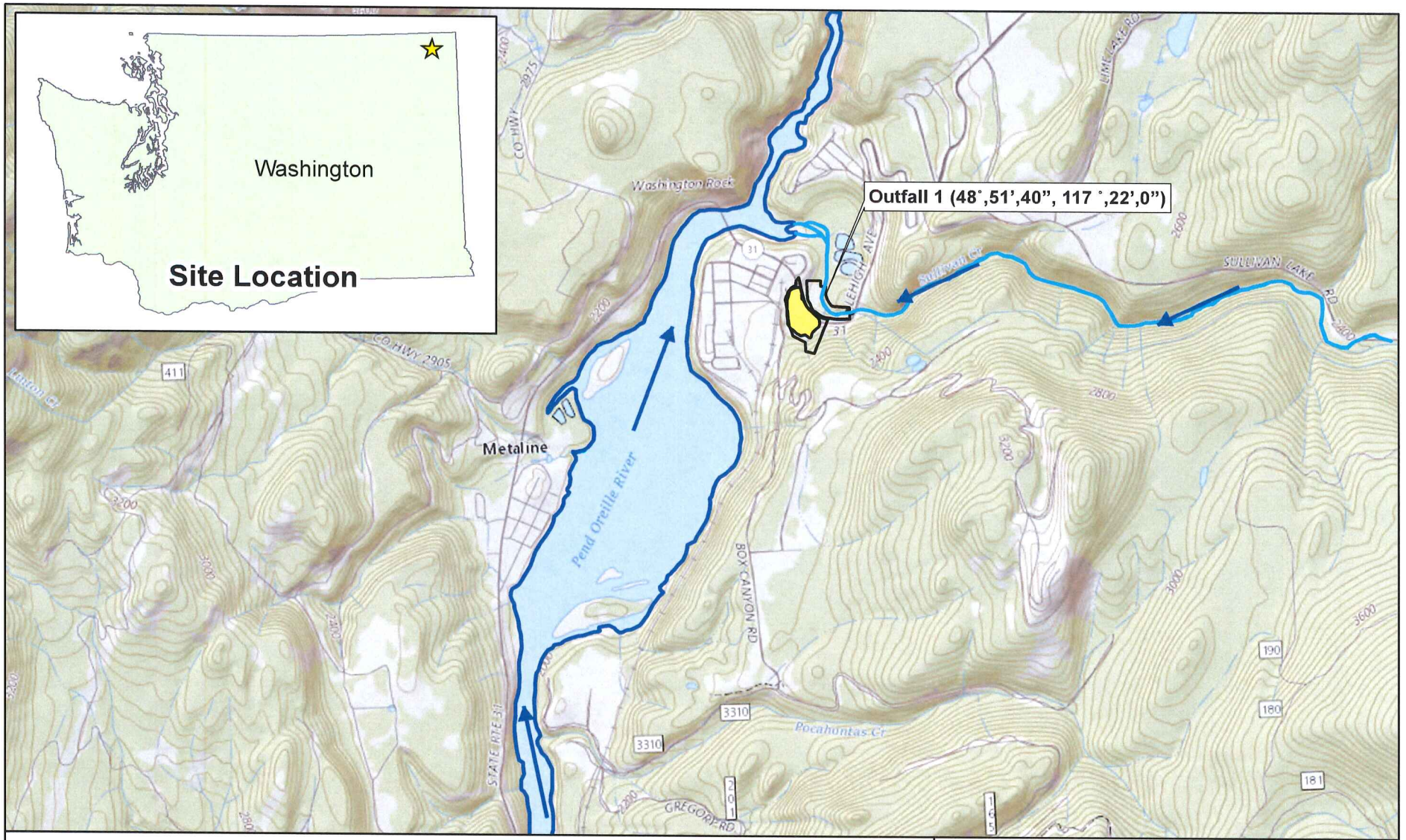
1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS *(continued)*															
38B. Isophorone (78-59-1)	☐	☐	☒												
39B. Napthalene (91-20-3)	☐	☐	☒												
40B. Nitrobenzene (98-95-3)	☐	☐	☒												
41B. N-Nitro-sodimethylamine (62-75-9)	☐	☐	☒												
42B. N-Nitrosdi-N-Propylamine (621-64-7)	☐	☐	☒												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☒												
44B. Phenanthrene (85-01-/	☐	☐	☒												
45B. Pyrene (129-00-0)	☐	☐	☒												
46B. 1,2,4-Tri-chlorobenzene (120-82-1)	☐	☐	☒												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☒												
2P. α-BHC (319-84-6	☐	☐	☒												
3P. β-Bhc (319-85-7)	☐	☐	☒												
4P. γ-BHC (58-89-9)	☐	☐	☒												
5P. δ-BHC (319-86-8)	☐	☐	☒												
6P. Chlordane (57-74-9)	☐	☐	☒												
7P. 4,4'-DDT (50-29-3)	☐	☐	☒												
8P. 4,4'-DDE (72-55-9)	☐	☐	☒												
9P. 4,4'-DDD (72-54-8)	☐	☐	☒												
10P. Dieldrin (60-57-1)	☐	☐	☒												
11P. α-Endo-sulfan (115-29-7)	☐	☐	☒												
12P. β-Endo-sulfan (115-29-7	☐	☐	☒												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☒												
14P. Endrin (72-20-8)	☐	☐	☒												

CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*	OUTFALL NUMBER
Error! Reference source not found. **WA-004558-6**	**1**

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSIS			a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	
GC/MS - PESTICIDES *(continued)*															
15P. Endrin Aldehyde (7421-93-4)	☐	☐	☒												
16P. Heptachlor (76-44-8)	☐	☐	☒												
17P. Heptachlor Expxide (1024-57-3)	☐	☐	☒												
18P. PCB-1242 (53469-21-9)	☐	☐	☒												
19P. PCB-1254 (11097-69-1)	☐	☐	☒												
20P. PCB-1221 (11104-28-2)	☐	☐	☒												
21P. PCB-1232 (11141-16-5)	☐	☐	☒												
22P. PCB-1248 (12672-29-6)	☐	☐	☒												
23P. PCB-1260 (11096-82-5)	☐	☐	☒												
24P. PCB-1016 (12674-11-2)	☐	☐	☒												
25P. Toxaphene (8001-35-2)	☐	☐	☒												



Legend

- Sullivan Creek
- Closed CKD Pile
- Pend Oreille River
- Property Boundary
- Flow Direction

Notes:

N

0 2,500 Feet

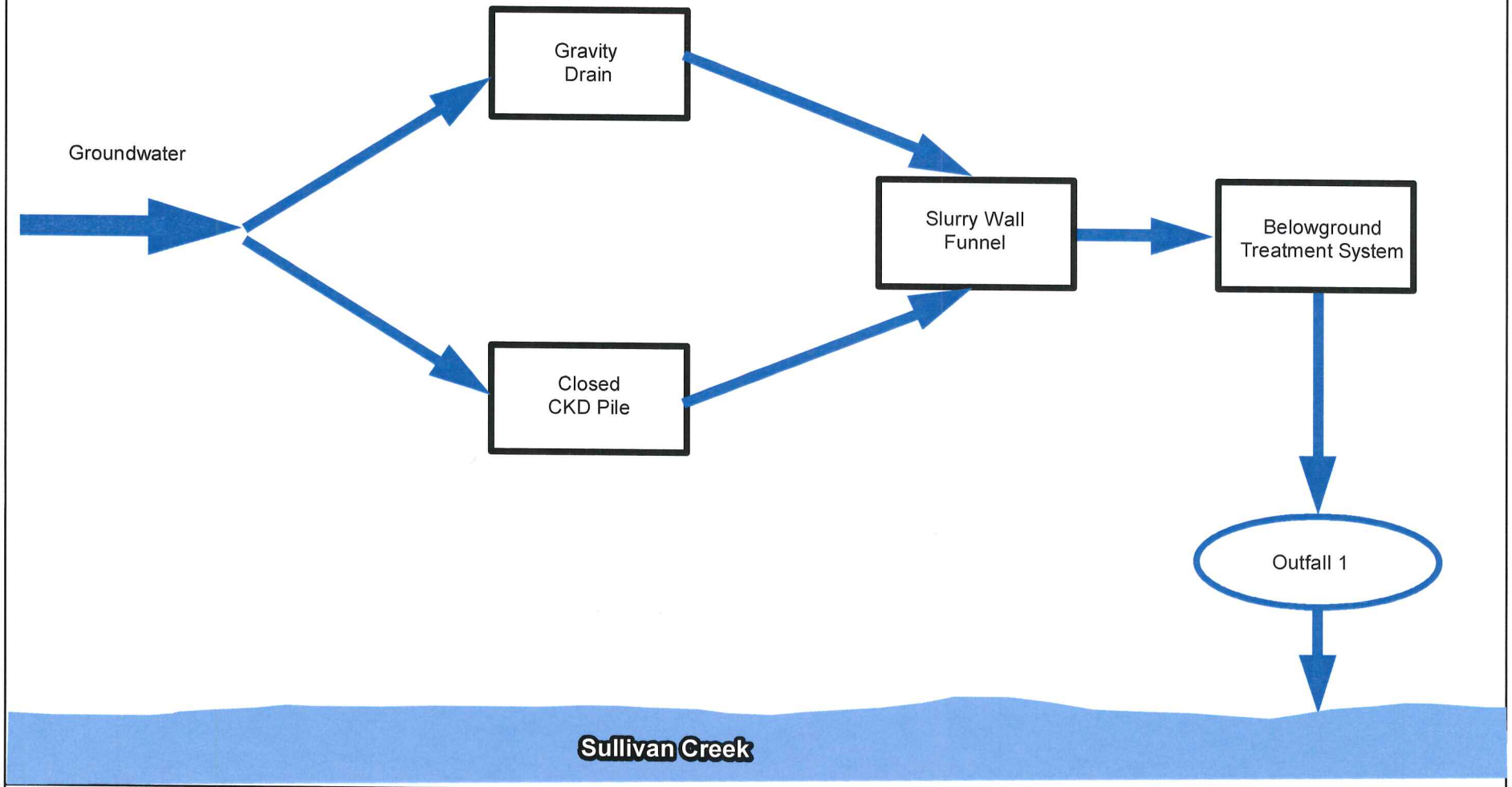
Site Map
NPDES Form 1 Figure XI

Lehigh Cement Company
Closed CKD Pile Site
Metaline Falls, WA

Geosyntec consultants

HR0996C | November 2017

Figure 1



Notes:
1. Groundwater conveyance and treatment infrastructure is belowground.
2. Outfall 1 is belowground and discharge passes through a streambank to Sullivan Creek.

Groundwater Flow Diagram
NPDES Form 2C Figure IIA

Lehigh Cement Company
Closed CKD Pile Site
Metaline Falls, WA

Geosyntec consultants

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Figure 2