

FACILITY NAME AND PERMIT NUMBER:

Granite Falls WWTP WA0021130

**FORM
2A
NPDES**



NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a “Basic Application Information” packet and a “Supplemental Application Information” packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow \geq 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 1. Has a design flow rate greater than or equal to 1mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

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BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name Granite Falls Wastewater Treatment Plant

Mailing Address PO Box 1440

Facility Address (not P.O. Box) 500 West Wallace Street, Granite Falls, WA 98252

Location 40.079029/-121.975724
(Latitude/Longitude as decimal degrees (NAD83/WGS84)

Telephone Number (360) 691-7432

E-mail address Lyle.Bjornson@ci.granite-falls.wa.us

Contact Person Lyle Bjornson

Title Wastewater Treatment Plant Supervisor

UBI Number _____

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name _____

Mailing Address _____

Telephone Number () _____

E-mail address _____

Contact Person _____

Title _____

Is the applicant the owner or operator (or both) of the treatment works? owner operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.
 facility applicant

Can the facility obtain broadband internet access for WQWebDMR (<http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>)?
 yes no

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	<u>WA 0021130</u>	PSD	_____
UIC	_____	Other	_____
RCRA	_____	Other	_____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Granite Falls</u>	<u>4,100</u>	<u>separate</u>	<u>Granite Falls</u>
_____	_____	_____	_____
_____	_____	_____	_____
Total population served		<u>4,100</u>	

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A.5. Indian Country.

a. Is the treatment works located in Indian Country?

Yes No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

Yes No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.555 mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>0.290</u>	<u>0.324</u>	<u>0.307</u>
c. Maximum daily flow rate	<u>0.651</u>	<u>0.911</u>	<u>0.491</u>

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

Separate sanitary sewer 100 %
 Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? Yes No

If yes, list how many of each of the following types of discharge points the treatment works uses:

- i. Discharges of treated effluent 1
- ii. Discharges of untreated or partially treated effluent 0
- iii. Combined sewer overflow points 0
- iv. Constructed emergency overflows (prior to the headworks) 0
- v. Other _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? Yes No

If yes, provide the following for each surface impoundment:

Location : _____
(Latitude/Longitude as decimal degrees (NAD83/WGS84))

Annual average daily volume discharge to surface impoundment(s) _____ mgd

Is discharge continuous or intermittent?

c. Does the treatment works land-apply treated wastewater? Yes No

If yes, provide the following for each land application site:

Location : _____
(Latitude/Longitude as decimal degrees (NAD83/WGS84))

Number of acres: _____

Annual average daily volume applied to site: _____ mgd

Is land application continuous or intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? Yes No

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

For each treatment works that receives this discharge, provide the following:

Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

If known, provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): Yes No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method: _____

Is disposal through this method continuous or intermittent?

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 1
- b. Location Granite Falls 98252
(City or town, if applicable) (Zip Code)
Snohomish WA
(County) (State)
48.076228 -121.97831
(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) 10 ft.
- d. Depth below surface (if applicable) 2.5 ft.
- e. Average daily flow rate 0.307 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? Yes No (go to A.9.g.)
If yes, provide the following information:
Number of times per year discharge occurs: _____
Average duration of each discharge: _____
Average flow per discharge: _____ mgd
Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

- a. Name of receiving water Pilchuck River
- b. Name of watershed (if known) Snohomish River Watershed
United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): Snohomish River Watershed
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110011
- d. Critical low flow of receiving stream (if applicable)
acute 30 cfs chronic 30 cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): 36 mg/l of CaCO₃

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A.11. Description of Treatment

a. What level(s) of treatment are provided? Check all that apply.

- Primary Secondary
 Advanced Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal > 85 _____ %
 Design SS removal > 85 _____ %
 Design P removal _____ %
 Design N removal _____ %
 Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Ultraviolet disinfection

If disinfection is by chlorination is dechlorination used for this outfall? Yes No

d. Does the treatment plant have post aeration? Yes No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than one and one-half years apart.

Outfall number: 1

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.0	s.u.			
pH (Maximum)	7.8	s.u.			
Flow Rate	0.911	mgd	0.2915	mgd	1569
Temperature (Winter)	16.5	deg. C	11.2	deg. C	263
Temperature (Summer)	22.6	deg. C	20.3	deg. C	319

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	26.7	mg/L	7.0	mg/L	428	SM 5210	1 mg/L
	CBOD5							
FECAL COLIFORM		220	/100ml	49.3	/100ml	340	SM 9222 D	1 / 100mL
TOTAL SUSPENED SOLIDS (TSS)		28.7	mg/L	9.1	mg/L	402	SM 2540 D	1 mg/L

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

104,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

An annual program has been implemented to seal leaking manholes as outlined in the Inflow and Infiltration Evaluation dated May 2019.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- a. The area surrounding the treatment plant, including all unit processes.
- b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- c. Each well where wastewater from the treatment plant is injected underground.
- d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? Yes No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: (____) _____

Responsibilities of Contractor: _____

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

1

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

Yes No

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

Proposed improvements to the WWTP include, but are not limited to, headworks modifications, new oxidation ditches, new UV channel, improved biosolids processing and new operations building. The scope, phasing and timing of implementation of the improvements is dependent on funding.

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM/DD/YYYY	MM/DD/YYYY
- Begin Construction	____/____/____	____/____/____
- End Construction	____/____/____	____/____/____
- Begin Discharge	____/____/____	____/____/____
- Attain Operational Level	____/____/____	____/____/____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? Yes No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN OR EQUAL TO 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods (See attachment A). In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 1

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	1.62	mg/L	0.92	mg/L	5	SM 4500-NH3-G	0.05 mg/L
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN	8.0	mg/L	5.8	mg/L	3	SM 4500-O G	1.0 mg/L
TOTAL KJELDAHL NITROGEN (TKN)	4.8	mg/L	3.5	mg/L	5	ASTM D 1426-93B	0.2 mg/L
NITRATE PLUS NITRITE NITROGEN	14.8	mg/L	12.5	mg/L	6	EPA 353.2	0.50 mg/L
OIL and GREASE	ND	mg/L	ND	mg/L	3	EPA 1664	4.9 mg/L
PHOSPHORUS (Total)	4.38	mg/L	2.7	mg/L	7	EPA 365.3	0.10 mg/L
TOTAL DISSOLVED SOLIDS (TDS)	365	mg/L	304	mg/L	3	SM 2540 C	5.0 mg/L
OTHER							

**END OF PART B.
 REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

Basic Application Information packet

Supplemental Application Information packet:

Part D (Expanded Effluent Testing Data)

Part E (Toxicity Testing: Biomonitoring Data)

Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING 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 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.

Permittee

Name and Title of Responsible Official

Lyle Bjornson

Signature

Lyle Bjornson

Telephone number

(360) 691-7432

E-mail address

Lyle.Bjornson@ci.granite-falls.wa.us

Date signed

11-15-19

Matthew Hartman

Matthew Hartman

206-999-5376

mat.hartman@ci.granite-falls.wa.us

11-19-19

Co-Permittee (if applicable)

Name and official title

Signature

Telephone number

()

E-mail address

Date signed

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO¹:

¹If unknown, contact an Ecology regional wastewater permit coordinator at: http://www.ecy.wa.gov/programs/wq/permits/permit_coord.html

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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old. The applicant should also review Attachment A.

Outfall number: 1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY											
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER	9.01	ug/L	0.0197	lb/d	7.79	ug/L	0.0158	lb/d	5	EPA 200.8	0.1 ug/L
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC	57.8	ug/L	0.136	lb/d	46.9	ug/L	0.101	lb/d	6	EPA 200.8	0.5 ug/L
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO3)	256	mg/L	606	lb/d	106	mg/L	258	lb/d	132	SM 2340 B	3 mg/L
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CHLOROBENZENE											
CHLOROBIBROMOMETHANE											
CHLOROETHANE											
2-CHLOROETHYL VINYL ETHER											
CHOLOROFORM											
DICHLOROBROMOMETHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
1,2-DICHLOROETHYLENE											
TRANS-1,2-DICHLOROETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLOROPROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLOROETHANE											

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
TETRACHLORO-ETHYLENE												
TOLUENE												
1,1,1-TRICHLOROETHANE												
1,1,2-TRICHLOROETHANE												
TRICHLOROETHYLENE												
VINYL CHLORIDE												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL												
2-CHLOROPHENOL												
2,4-DICHLOROPHENOL												
2,4-DIMETHYLPHENOL												
4,6-DINITRO-O-CRESOL												
2,4-DINITROPHENOL												
2-NITROPHENOL												
4-NITROPHENOL												
PENTA CHLOROPHENOL												
PHENOL												
2,4,6-TRICHLORO PHENOL												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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BASE-NEUTRAL COMPOUNDS

ACENAPHTHENE												
ACENAPHTYLENE												
ANTHRACENE												
BENZIDINE												

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
BENZO(A) ANTHRACENE												
BENZO(J)FLUORANTHENE												
BENZO(r,s,t)PENTAPHENE												
BENZO(A)PYRENE												
3,4 BENZO-FLUORANTHENE												
BENZO(GHI)PERYLENE												
BENZO(K)FLOURANTHENE												
BIS (2-CHLOROETHOXY) METHANE												
BIS (2-CHLOROETHYL)-ETHER												
BIS (2-CHLOROISOPROPYL) ETHER												
BIS (2-ETHYLHEXYL) PHTHALATE												
4-BROMOPHENYL PHENYL ETHER												
BUTYL BENZYL PHTHALATE												
2-CHLORO NAPHTHALENE												
4-CHLORPHENYL PHENYL ETHER												
CHRYSENE												
DIBENZO(a,j)ACRIDINE												
DIBENZO(a,h)ACRIDINE												
DIBENZO(a,e)PYRENE												
DIBENZO(a,h)PYRENE												
DI-N-BUTYL PHTHALATE												
DI-N-OCTYL PHTHALATE												
DIBENZO(A,H) ANTHRACENE												
1,2-DICHLORO BENZENE												

FACILITY NAME AND PERMIT NUMBER:

Granite Falls WWTP WA0021130

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
1,3-DICHLORO BENZENE												
1,4-DICHLORO BENZENE												
3,3-DICHLORO BENZIDINE												
DIETHYL PHTHALATE												
DIMETHYL PHTHALATE												
2,4-DINITROTOLUENE												
2,6-DINITROTOLUENE												
1,2-DIPHENYLHYDRAZINE												
FLUORANTHENE												
FLUORENE												
HEXACHLORO BENZENE												
HEXACHLOROBUT ADIENE												
HEXACHLOROCYCLO-PENTADIENE												
HEXA CHLOROETHANE												
INDENO(1,2,3-CD) PYRENE												
ISOPHORONE												
3-METHYL CHOLANTHRENE												
NAPHTHALENE												
NITROBENZENE												
N-NITROSODI-N-PROPYLAMINE												
N-NITROSODI-METHYLAMINE												
N-NITROSODI-PHENYLAMINE												
PERYLENE												
PHENANTHRENE												
PYRENE												
1,2,4-TRICHLOROENZENE												

FACILITY NAME AND PERMIT NUMBER:

Granite Falls WWTP WA0021130

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

--	--	--	--	--	--	--	--	--	--	--	--

**END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

chronic acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

Test Species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each.)

Before disinfection			
After disinfection			
After dechlorination			

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Test number: _____ Test number: _____ Test number: _____

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:			
-----------------------	--	--	--

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both

Chronic toxicity			
Acute toxicity			

g. Provide the type of test performed.

Static			
Static-renewal			
Flow-through			

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water			
Receiving water			

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water			
Salt water			

j. Give the percentage effluent used for all concentrations in the test series.

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			

l. Test Results.

Acute:			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

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Chronic:

NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?	/ /	/ /	/ /
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

Yes No

If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: ____ / ____ / ____ (MM/DD/YYYY)

Summary of results: (see instructions)

**END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE.**

FACILITY NAME AND PERMIT NUMBER:

Granite Falls WWTP WA0021130

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is subject to, an approved pretreatment program?

Yes No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

- a. Number of non-categorical SIUs. _____
- b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____
Mailing Address: _____

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____
Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

- a. Local limits Yes No
- b. Categorical pretreatment standards Yes No

If subject to categorical pretreatment standards, which category and subcategory?

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F.8. Problems at the Treatment Works Attributed to Waste Discharge by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

Yes No If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

Yes No (go to F.12)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

Truck Rail Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

<u>EPA Hazardous Waste Number</u>	<u>Amount</u>	<u>Units</u>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

Yes (complete F.13 through F.15.) No

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15. Waste Treatment.

a. Is this waste treated (or will be treated) prior to entering the treatment works?

Yes No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

Continuous Intermittent If intermittent, describe discharge schedule.

**END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE**

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SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- a. All CSO discharge points.
- b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1 or on a separate drawing, of the combined sewer collection system that includes the following information.

- a. Location of major sewer trunk lines, both combined and separate sanitary.
- b. Locations of points where separate sanitary sewers feed into the combined sewer system.
- c. Locations of in-line and off-line storage structures.
- d. Locations of flow-regulating devices.
- e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

- a. Outfall number _____
- b. Location _____
(city or town, if applicable) (Zip Code)

(County) (State)

(Latitude) (Longitude)
- c. Distance from shore (if applicable) _____ ft.
- d. Depth below surface (if applicable) _____ ft.
- e. Which of the following were monitored during the last year for this CSO?
 Rainfall CSO pollutant concentrations CSO frequency
 CSO flow volume Receiving water quality
- f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

- a. Give the number of CSO events in the last year.
_____ events (actual or approx.)
- b. Give the average duration per CSO event.
_____ hours (actual or approx.)

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- c. Give the average volume per CSO event.
_____ million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
_____ Inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: _____
- b. Name of watershed/river/stream system: _____
United State Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin: _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

**END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE.**

Additional information, if provided, will appear on the following pages.

ATTACHMENT A

EFFLUENT CHARACTERIZATION FOR PERMIT APPLICATION

This attachment is used in conjunction with Section V, Parts A, B, and C of EPA Application Form 2C, and Parts A.12, B.6, and D of EPA application Form 2A. It specifies effluent characterization requirements of the Department of Ecology and analytical procedure and detection and quantitation levels for some parameters. For new permit applications, analyze your wastewater for all parameters required by the application and any additional pollutants or groups of pollutants with an X in the left column. Existing Permittees should compile the data from the last year's data for parameters routinely measured. If you are a primary industry category with effluent guidelines you may have some mandatory testing requirements (see Table 2C-2 Form 2C). If you are a municipal POTW, EPA has identified mandatory testing requirements, which depend upon the design flow (see EPA Form 2A).

Ecology added this attachment to the application in order to reduce the number of analytical "non-detects" in required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost. The applicant must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the applicant uses an alternative method, as allowed above, it must report the test method, DL, and QL in the application. If the applicant is unable to obtain the required DL and QL in its effluent due to matrix effects, the applicant must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
10	Conventional (Part A)			
a.	Biochemical Oxygen Demand	SM5210-B		2 mg/L
	Soluble Biochemical Oxygen Demand	SM5210-B ³		2 mg/L
b.	Chemical Oxygen Demand	SM5220-D		10 mg/L
c.	Total Organic Carbon	SM5310-B/C/D		1 mg/L
d.	Total Suspended Solids	SM2540-D		5 mg/L
e.	Total Ammonia (as N)	SM4500-NH3-B and C/D/E/G/H		20
f.	Flow	Calibrated device		
	Dissolved oxygen	SM4500-OC/OG		0.2 mg/L
	Temperature (max. 7-day avg.)	Analog recorder or Use micro-recording devices known as thermistors		0.2° C
i.	pH	SM4500-H ⁺ B	N/A	N/A
10	Nonconventional (Part B)			
	Total Alkalinity	SM2320-B		5 mg/L as CaCO ₃
b.	Chlorine, Total Residual	SM4500 Cl G		50.0
c.	Color	SM2120 B/C/E		10 color units
d.	Fecal Coliform	SM 9221E,9222	N/A	Specified in method - sample aliquot

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
				dependent
e.	Fluoride (16984-48-8)	SM4500-F E	25	100
f.	Nitrate + Nitrite Nitrogen (as N)	SM4500-NO3-E/F/H		100
g.	Nitrogen, Total Kjeldahl (as N)	SM4500-N _{org} B/C and SM4500NH ₃ -B/C/D/EF/G/H		300
	Soluble Reactive Phosphorus (as P)	SM4500-P E/F/G	3	10
i.	Phosphorus, Total (as P)	SM 4500 PB followed by SM4500-PE/PF	3	10
h.	Oil and Grease (HEM) (Hexane Extractable Material)	1664 A or B	1,400	5,000
	Salinity	SM2520-B		3 practical salinity units or scale (PSU or PSS)
	Settleable Solids	SM2540 -F		500 (or 1.0 mL/L)
k.	Sulfate (as mg/L SO ₄)	SM4110-B		0.2 mg/L
l.	Sulfide (as mg/L S)	SM4500-S ² F/D/E/G		0.2 mg/L
m.	Sulfite (as mg/L SO ₃)	SM4500-SO3B		2 mg/L
	Total Coliform	SM 9221B, 9222B, 9223B	N/A	Specified in method - sample aliquot dependent
	Total dissolved solids	SM2540 C		20 mg/L
	Total Hardness	SM2340B		200 as CaCO ₃
o.	Aluminum, Total (7429-90-5)	200.8	2.0	10
p.	Barium Total (7440-39-3)	200.8	0.5	2.0
	BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)	EPA SW 846 8021/8260	1	2
q.	Boron Total (7440-42-8)	200.8	2.0	10.0
r.	Cobalt, Total (7440-48-4)	200.8	0.05	0.25
s.	Iron, Total (7439-89-6)	200.7	12.5	50
t.	Magnesium, Total (7439-95-4)	200.7	10	50
u.	Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
v.	Manganese, Total (7439-96-5)	200.8	0.1	0.5
	NWTPH Dx ⁴	Ecology NWTPH Dx	250	250
	NWTPH Gx ⁵	Ecology NWTPH Gx	250	250
w.	Tin, Total (7440-31-5)	200.8	0.3	1.5
x.	Titanium, Total (7440-32-6)	200.8	0.5	2.5
¹⁰	Metals, Cyanide and Total Phenols (Part C)			
1M.	Antimony, Total (7440-36-0)	200.8	0.3	1.0

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
2M.	Arsenic, Total (7440-38-2)	200.8	0.1	0.5
3M.	Beryllium, Total (7440-41-7)	200.8	0.1	0.5
4M.	Cadmium, Total (7440-43-9)	200.8	0.05	0.25
	Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
5M.	Chromium, Total (7440-47-3)	200.8	0.2	1.0
6M.	Copper, Total (7440-50-8)	200.8	0.4	2.0
7M.	Lead, Total (7439-92-1)	200.8	0.1	0.5
8M.	Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
9M.	Nickel, Total (7440-02-0)	200.8	0.1	0.5
10M.	Selenium, Total (7782-49-2)	200.8	1.0	1.0
11M.	Silver, Total (7440-22-4)	200.8	0.04	0.2
12M.	Thallium, Total (7440-28-0)	200.8	0.09	0.36
13M.	Zinc, Total (7440-66-6)	200.8	0.5	2.5
14M.	Cyanide, Total (57-12-5)	335.4	5	10
	Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
	Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
15M.	Phenols, Total	EPA 420.1		50
10	Acid Compounds			
1A.	2-Chlorophenol (95-57-8)	625	1.0	2.0
2A.	2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
3A.	2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4A.	4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
5A.	2,4 dinitrophenol (51-28-5)	625	1.0	2.0
6A.	2-Nitrophenol (88-75-5)	625	0.5	1.0
7A.	4-nitrophenol (100-02-7)	625	0.5	1.0
8A.	Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
9A.	Pentachlorophenol (87-86-5)	625	0.5	1.0
10A.	Phenol (108-95-2)	625	2.0	4.0
11A.	2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
10	Volatile Compounds			
1V.	Acrolein (107-02-8)	624	5	10
2V.	Acrylonitrile (107-13-1)	624	1.0	2.0
3V.	Benzene (71-43-2)	624	1.0	2.0
5V.	Bromoform (75-25-2)	624	1.0	2.0
6V.	Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
7V.	Chlorobenzene (108-90-7)	624	1.0	2.0
9V.	Chloroethane (75-00-3)	624/601	1.0	2.0

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
10V.	2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
11V.	Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
8V.	Dibromochloromethane (124-48-1)	624	1.0	2.0
20B.	1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
21B.	1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
22B.	1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
12V.	Dichlorobromomethane (75-27-4)	624	1.0	2.0
14V.	1,1-Dichloroethane (75-34-3)	624	1.0	2.0
15V.	1,2-Dichloroethane (107-06-2)	624	1.0	2.0
16V.	1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
17V.	1,2-Dichloropropane (78-87-5)	624	1.0	2.0
18V.	1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-6) ⁶	624	1.0	2.0
19V.	Ethylbenzene (100-41-4)	624	1.0	2.0
20V.	Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
21V.	Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
22V.	Methylene chloride (75-09-2)	624	5.0	10.0
23V.	1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
24V.	Tetrachloroethylene (127-18-4)	624	1.0	2.0
25V.	Toluene (108-88-3)	624	1.0	2.0
26V.	1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
27V.	1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
28V.	1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
29V.	Trichloroethylene (79-01-6)	624	1.0	2.0
31V.	Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
10	Base/Neutral Compounds (compounds in bold are Ecology PBTs)			
	1B. Acenaphthene (83-32-9)	625	0.2	0.4
	2B. Acenaphthylene (208-96-8)	625	0.3	0.6
	3B. Anthracene (120-12-7)	625	0.3	0.6
	4B. Benzidine (92-87-5)	625	12	24
	15B. Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
	5B. Benzo(a)anthracene (56-55-3)	625	0.3	0.6
	7B. Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) ⁷	610/625	0.8	1.6
	Benzo(j)fluoranthene (205-82-3) ⁷	625	0.5	1.0
	9B. Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) ⁷	610/625	0.8	1.6

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
	Benzo(r,s,t)pentaphene (189-55-9)	625	0.5	1.0
6B.	Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
8B.	Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0
10B.	Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
11B.	Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
12B.	Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
13B.	Bis(2-ethylhexyl)phthalate (117-81-7)	625	0.1	0.5
14B.	4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
16B.	2-Chloronaphthalene (91-58-7)	625	0.3	0.6
17B.	4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
18B.	Chrysene (218-01-9)	610/625	0.3	0.6
	Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
	Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
19B.	Dibenzo(a-h)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
	Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
	Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
23B.	3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
24B.	Diethyl phthalate (84-66-2)	625	1.9	7.6
25B.	Dimethyl phthalate (131-11-3)	625	1.6	6.4
26B.	Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
27B.	2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
28B.	2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4
29B.	Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
30B.	1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	1625B	5.0	20
31B.	Fluoranthene (206-44-0)	625	0.3	0.6
32B.	Fluorene (86-73-7)	625	0.3	0.6
33B.	Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
34B.	Hexachlorobutadiene (87-68-3)	625	0.5	1.0
35B.	Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
36B.	Hexachloroethane (67-72-1)	625	0.5	1.0
37B.	Indeno(1,2,3-cd)Pyrene (193-39-5)	610/625	0.5	1.0
38B.	Isophorone (78-59-1)	625	0.5	1.0
	3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
39B.	Naphthalene (91-20-3)	625	0.3	0.6
40B.	Nitrobenzene (98-95-3)	625	0.5	1.0

Form 2C Ref. #	Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
41B.	N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
42B.	N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
43B.	N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
	Perylene (198-55-0)	625	1.9	7.6
44B.	Phenanthrene (85-01-8)	625	0.3	0.6
45B.	Pyrene (129-00-0)	625	0.3	0.6
46B.	1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
10	Dioxin			
	2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16) (2,3,7,8 TCDD)	1613B	1.3 pg/L	5 pg/L
10	Pesticides/PCBs			
1P.	Aldrin (309-00-2)	608	0.025	0.05
2P.	alpha-BHC (319-84-6)	608	0.025	0.05
3P.	beta-BHC (319-85-7)	608	0.025	0.05
4P.	gamma-BHC (58-89-9)	608	0.025	0.05
5P.	delta-BHC (319-86-8)	608	0.025	0.05
6P.	Chlordane (57-74-9) ⁸	608	0.025	0.05
7P.	4,4'-DDT (50-29-3)	608	0.025	0.05
8P.	4,4'-DDE (72-55-9)	608	0.025	0.0510
9P.	4,4' DDD (72-54-8)	608	0.025	0.05
10P.	Dieldrin (60-57-1)	608	0.025	0.05
11P.	alpha-Endosulfan (959-98-8)	608	0.025	0.05
12P.	beta-Endosulfan (33213-65-9)	608	0.025	0.05
13P.	Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
14P.	Endrin (72-20-8)	608	0.025	0.05
15P.	Endrin Aldehyde (7421-93-4)	608	0.025	0.05
16P.	Heptachlor (76-44-8)	608	0.025	0.05
17P.	Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
18P.	PCB-1242 (53469-21-9) ⁹	608	0.25	0.5
19P.	PCB-1254 (11097-69-1)	608	0.25	0.5
20P.	PCB-1221 (11104-28-2)	608	0.25	0.5
21P.	PCB-1232 (11141-16-5)	608	0.25	0.5
22P.	PCB-1248 (12672-29-6)	608	0.25	0.5
23P.	PCB-1260 (11096-82-5)	608	0.13	0.5
24P.	PCB-1016 (12674-11-2) ⁹	608	0.13	0.5
25P.	Toxaphene (8001-35-2)	608	0.24	0.5

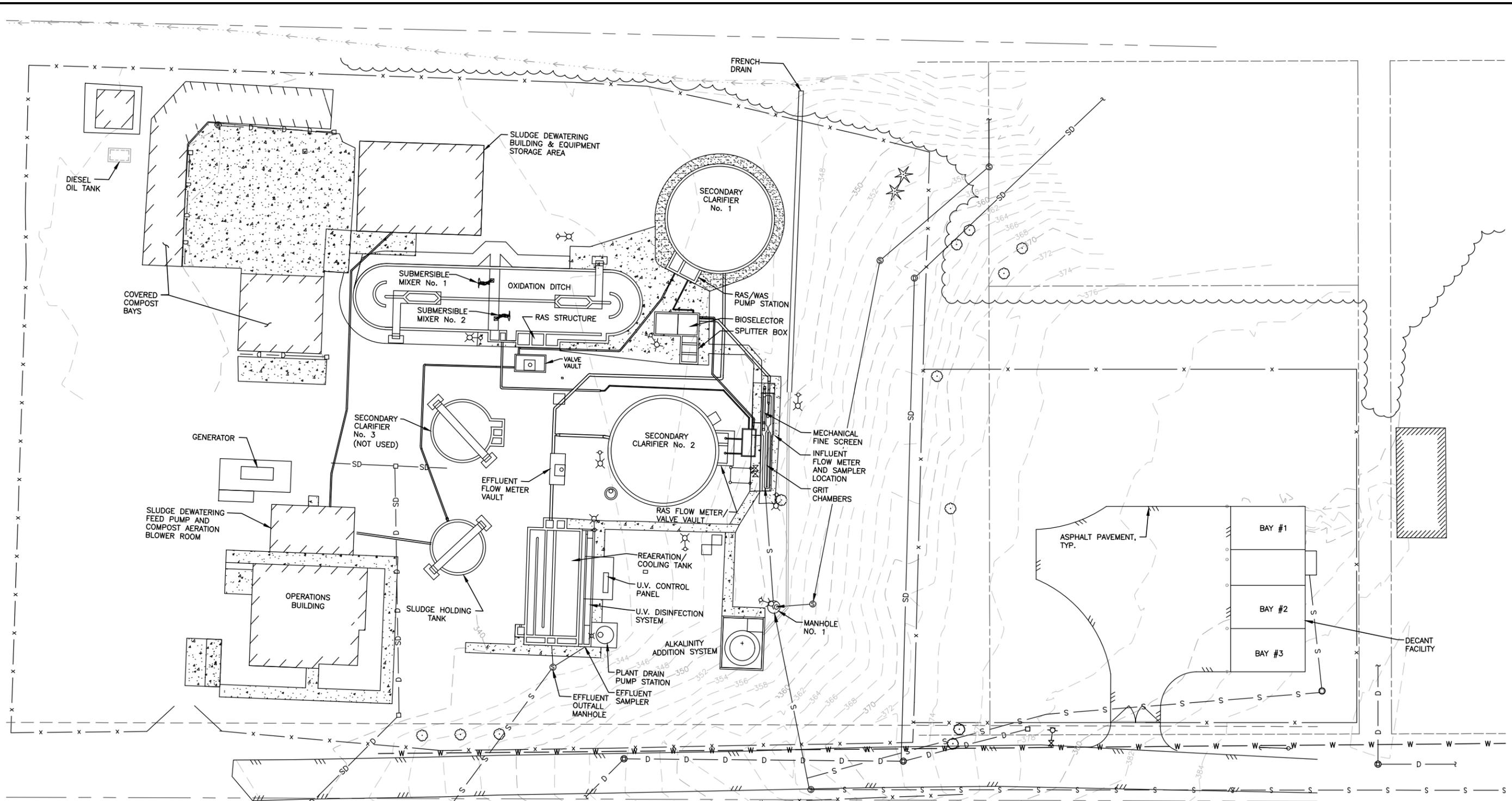
1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by

the procedure given in 40 CFR part 136, Appendix B.

2. Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to $(1, 2, \text{ or } 5) \times 10^n$, where n is an integer. (64 FR 30417).
ALSO GIVEN AS:
The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).
3. Soluble Biochemical Oxygen Demand method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.
4. NWTPH Dx - Northwest Total Petroleum Hydrocarbons Diesel Extended Range – see <http://www.ecy.wa.gov/biblio/97602.html>
5. NWTPH Gx - Northwest Total Petroleum Hydrocarbons Gasoline Extended Range – see <http://www.ecy.wa.gov/biblio/97602.html>
6. 1, 3-dichloropropylene (mixed isomers) You may report this parameter as two separate parameters: cis-1, 3-dichloropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
7. Total Benzofluoranthenes - Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
8. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 0.025/0.050.
9. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.
10. An X placed in this box means you must analyze for all pollutants in the group. This may be in addition to NPDES application requirements.

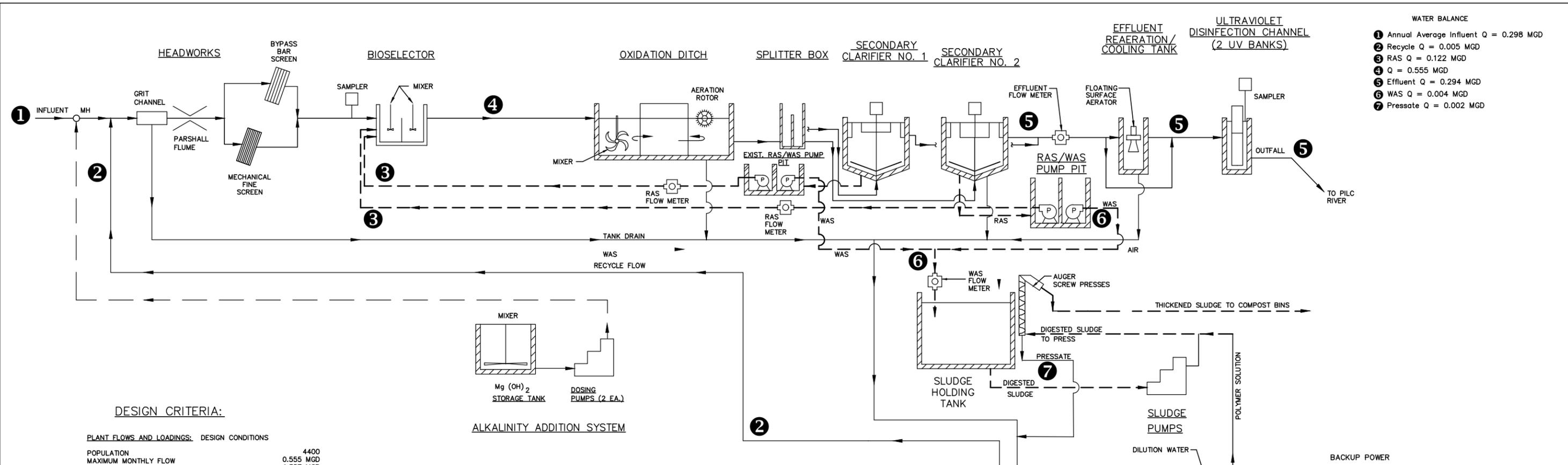
To request ADA accommodation including materials in a format for the visually impaired, call the Water Quality Program at Ecology, 360-407-6600. Persons with impaired hearing may use the Washington Relay Service at 711. Persons with a speech disability may call TTY at 877-833-6341.

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CITY OF GRANITE FALLS
 NPDES APPLICATION
 WA 0021130
 PART B.2-1


Gray & Osborne, Inc.
 CONSULTING ENGINEERS



- WATER BALANCE**
- 1 Annual Average Influent Q = 0.298 MGD
 - 2 Recycle Q = 0.005 MGD
 - 3 RAS Q = 0.122 MGD
 - 4 Q = 0.555 MGD
 - 5 Effluent Q = 0.294 MGD
 - 6 WAS Q = 0.004 MGD
 - 7 Pressate Q = 0.002 MGD

DESIGN CRITERIA:

PLANT FLOWS AND LOADINGS: DESIGN CONDITIONS

POPULATION	4400
MAXIMUM MONTHLY FLOW	0.555 MGD
PEAK HOUR FLOW	1.387 MGD
INFLUENT BOD ₅	1109 LB/DAY
INFLUENT TSS	1109 LB/DAY
INFLUENT AMMONIA	206 LB/DAY

HEADWORKS - DEGRITTING (EXISTING)

QUANTITY	2
TYPE	GRAVITY CHANNEL
WIDTH	12 INCHES
LENGTH	20 FEET
VELOCITY RANGE, FT/SEC	0.99 TO 1.10

HEADWORKS - INFLUENT FLOW MEASUREMENT (EXISTING)

QUANTITY	1
TYPE	PARSHALL FLUME
WIDTH	3 INCHES
CAPACITY @ 2.0 HEAD	1.88 MGD

HEADWORKS - MECHANICAL FINE SCREEN (EXISTING)

QUANTITY	1
TYPE	SPIRAL SELF-CLEANING
EXISTING CHANNEL WIDTH	19.5 INCHES
SCREEN OPENING	0.25 INCH
CAPACITY	3 MGD

BIOSELECTOR

QUANTITY	1
VOLUME	420 FT ³
ZONE 1, SAX-1	420 FT ³
ZONE 2, SAX-2	420 FT ³
F/M RATIO @ DESIGN	12 LB BOD/LB MLSS/DAY
ZONE 1, SAX-1	6 LB BOD/LB MLSS/DAY
ZONE 2, SAX-2	6 LB BOD/LB MLSS/DAY
HYDRAULIC RETENTION TIME	8.2 MIN
ZONE 1, SAX-1	16.3 MIN
ZONE 2, SAX-2	16.3 MIN
MIXER HP	1

OXIDATION DITCH

QUANTITY	1
HRT DESIGN 0.555 MGD	8.9 HOURS
HRT PEAK 1.387 MGD	3.5 HOURS
DESIGN SRT	5 DAY
VOLUME	205,000 GALLONS
CHANNEL SHAPE	OVAL
SIDE WATER DEPTH (TYPICAL)	10.5 FEET
MAXIMUM WATER DEPTH	10.6 FEET
MINIMUM WATER DEPTH	10.00 FEET
CENTER WALL LENGTH	90 FEET
OVERALL LENGTH	115 FEET
AERATION/MIXING	TWO BRUSH ROTORS
ROTOR LENGTH	9 FEET
ROTOR DIAMETER	42 INCHES
ROTOR HORSE POWER	20 HP
ROTATION SPEED	72 RPM
OXYGEN REQUIREMENT (SOR)	109 LB/HR
DESIGN IMMERSION DEPTH	11.5 INCH

ANOXIC MIXERS (EXISTING)

QUANTITY	2
TYPE	SUBMERSIBLE
HORSEPOWER	4.5
ROTATION SPEED	80 RPM
PROPELLER DIAMETER	48 INCHES

SECONDARY CLARIFIERS

QUANTITY	2
TYPE	CENTER FEED
CLARIFIER DIAMETER	42 FEET
SURFACE AREA (EA.)	1385 FT ²
SIDE WATER DEPTH	14 FEET
SURFACE OVERFLOW RATE (0.555 MGD)	200 GPD/FT ²
SURFACE OVERFLOW RATE PEAK (1.387 MGD)	501 GPD/FT ²
SOLIDS LOADING RATE 0.555 MGD RAS FLOW	3500 MG/L MLSS
3500 MG/L MLSS	11.7 LB/FT ²

RETURN ACTIVATED SLUDGE PUMPS

QUANTITY	2
TYPE	SUBMERSIBLE
CAPACITY @ TDH	300 GPM @ TOTAL 38.5 FEET
HORSEPOWER	5.5 HP
DRIVE	VARIABLE FREQUENCY

WASTE ACTIVATED SLUDGE PUMPS

QUANTITY	2
TYPE	SUBMERSIBLE
CAPACITY @ TDH	240 GPM @ 28 FEET
HORSEPOWER	5 HP
ROTATION SPEED (CONSTANT)	1750 RPM

EFFLUENT FLOW METER

QUANTITY	1
TYPE	MAGNETIC
SIZE	8 INCHES

REAERATION/COOLING TANK

QUANTITY	1
TANK VOLUME	10,000 GALLONS
FLOATING SURFACE AERATOR	3
QUANTITY	3
HORSEPOWER	3 HP
ROTATION SPEED	1,750 RPM
SPRAY DIAMETER	71 INCHES
PUMPING CAPACITY, EACH	1,371 GPM (minimum)

EFFLUENT DISINFECTION

QUANTITY	1
TYPE	LOWER PRESSURE ULTRAVIOLET
CHANNEL DIMENSIONS, W/O BAFFLE	31' Lx2'-3" Wx3' H
CHANNEL DIMENSIONS, W/ BAFFLE	31' Lx1'-3" Wx3' H
NUMBER OF LAMP BANKS PER CHANNEL	2 (1 NEW, 1 EXISTING)
U.V. TRANSMITTANCE @ 253.7 NM	85 %

RAS FLOW METER

QUANTITY	2 (1 EXISTING, 1 NEW)
TYPE	MAGNETIC
SIZE	4 INCHES

WAS FLOW METER

QUANTITY	1
TYPE	MAGNETIC
SIZE	6 INCHES

AEROBIC SLUDGE HOLDING TANK

QUANTITY	1
TANK VOLUME	23,500 GALLONS
SIDE WATER DEPTH	10.0
HYDRAULIC RETENTION TIME @ DESIGN CONDITIONS	7.3 DAYS
DIMENSIONS	20 FT DIA
AERATOR TYPE	TURBINE AERATOR
AERATOR BLOWERS	ONE - 3 HP
BLOWER CAPACITY EACH	75 SCFM @ 5.0 PSI

POLYMER SYSTEM

QUANTITY	1
CAPACITY STOCK SOLUTION	2.5 GPH
CAPACITY, DILUTION SOLUTION	600 GPH

DIGESTED SLUDGE PUMP

QUANTITY	1
TYPE	PLUNGER
CAPACITY @ TDH	57.5 GPM @ 60 FEET
DISCHARGE	4"
HORSEPOWER	1 1/2 HP
DRIVE RPM	VARIABLE

THICKENED SLUDGE FLOW METER

QUANTITY	1
TYPE	MAGNETIC
SIZE	4 INCHES

SLUDGE SCREW PRESS

QUANTITY	3
TYPE	VERTICAL AUGER
FLOW CAPACITY/EACH	5 - 10 GPM
SOLIDS CAPACITY/EACH	36 - 40 LBS/HR
HORSEPOWER	3 HP

PLANT DRAIN PUMP STATION

QUANTITY	1
WET WELL	6' DIA
DIMENSION	20.5 FEET
DEPTH	20.5 FEET
PUMPS	2
QUANTITY	2
TYPE	NON-CLOG WET WELL MOUNTED
CAPACITY @ TDH	130 GPM @ 32 FT
HORSEPOWER	3 HP/ EACH
ROTATING SPEED	1170 RPM

SLUDGE COMPOST BINS

NO. OF COVERED COMPOST BEDS	17
BAY VOL (CY), EACH (16)	12
BAY VOL (CY), EACH (1)	30
COMPLETE COMPOST TIME/BATCH	5 WEEKS (SUMMER) 11 WEEKS (WINTER)

ALKALINITY ADDITION SYSTEM

QUANTITY	1
TYPE	Mg(OH) ₂ STORAGE TANK
VOLUME	6,250 GALLONS
DIAMETER	10 FEET
SHELL HEIGHT	10 FEET 10 INCHES
MIXER HP	5 HP

CHEMICAL PUMPS

QUANTITY	2
TYPE	PERISTALTIC
CAPACITY	0.3-5.0 GPH @ 20 psi

BACKUP POWER

BACKUP POWER IS PROVIDED BY A 450-KW GENERATOR, WHICH UTILIZES A DIESEL ENGINE. THE GENERATOR IS EQUIPPED WITH AN AUTOMATIC ELECTRONIC TRANSFER SWITCH, WHICH TRIGGERS THE GENERATOR TO COME ON IF THE NORMAL POWER SUPPLY TO THE PLANT FAILS. AFTER COMMERCIAL POWER IS RESTORED, THE STANDBY POWER CONTROL SYSTEM WILL DELAY SHUT OFF OF THE STANDBY POWER SYSTEM BY AN ADJUSTMENT TIME DELAY AND WILL RUN UNLOADED DURING THIS TIME TO ALLOW THE ENGINE TO COOL. THE CONTROL SYSTEM IS DESIGNED SO THAT THE STANDBY POWER AND THE NORMAL POWER SOURCE WILL NEVER OPERATE AT THE SAME TIME. THE GENERATOR IS SCHEDULED TO AUTOMATICALLY OPERATE WEEKLY WITHOUT LOAD. THE GENERATOR ENGINE HAS A 722-GALLON FUEL TANK TO ALLOW OPERATION FOR 24 HOURS AT FULL LOAD.

DESCRIPTION OF PROCESS SCHEMATIC

INFLUENT WASTEWATER IS MEASURED, SAMPLED, DEGRITTED AND SCREENED AT THE HEADWORKS. MAGNESIUM HYDROXIDE IS ADDED TO THE INFLUENT TO HELP INCREASE ALKALINITY AND PH. SCREENED WASTEWATER FLOWS TO A BIOSELECTOR THEN ON TO THE OXIDATION DITCH FOR BIOLOGICAL TREATMENT. MIXED LIQUOR FROM THE OXIDATION DITCH FLOWS TO SECONDARY CLARIFIERS FOR SEPARATION OF SOLIDS. SETTLED SOLIDS ARE PUMPED BACK TO THE BIOSELECTOR AS RETURN ACTIVATED SLUDGE. A FRACTION OF THE THE AEROBIC SLUDGE HOLDING TANK AS WASTE ACTIVATED SLUDGE IS WASTED TO SLUDGE. CLARIFIED SECONDARY EFFLUENT IS DISINFECTED IN AN ULTRAVIOLET DISINFECTION FACILITY. EFFLUENT IS DISCHARGED TO THE PILCHUCK RIVER.

CITY OF GRANITE FALLS

NPDES APPLICATION

WA 0021130

PART B.3



Gray & Osborne, Inc.

CONSULTING ENGINEERS