

CITY OF



PORT ANGELES

WASHINGTON, U. S. A.

Public Works & Utilities Department

March 26, 2013

Carey Cholski
SW Regional Office
Department of Ecology
P.O. Box 47775
Olympia, WA 98504-7775

Re: NPDES Permit No. WA-002397-3 Renewal Application

Dear Ms. Cholski:

Enclosed is the City of Port Angeles's Permit Renewal Application for the Wastewater Treatment Plant for your review and approval.

If you have any questions regarding this submittal, please contact me at 360.417.4802, or e-mail: mabed@cityofpa.us

Sincerely,

A handwritten signature in black ink, appearing to read "Maher M. Abed". The signature is fluid and cursive.

Maher M. Abed, P.E.
Deputy Director of Operations

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MAR 29 2013

WA State Department
of Ecology (SWRO)

Use F11 to navigate through fields.

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

This form is equivalent to EPA NPDES Form 3510-2A

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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FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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 Port Angeles Wastewater Treatment Plant
Mailing Address City of Port Angeles
321 East 5th St. Port Angeles, WA, 98362
Contact Person Gary Richmond
Title Interim Superintendent; Wastewater Treatment Division
Telephone Number 360.417.4845
Facility Address (not P.O. Box) Port Angeles WWTP
1509 East Colombia Street, Port Angeles, WA 98362
UBI Number _____

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

Applicant Name Dan McKeen, City Manager
Mailing Address City of Port Angeles
321 E. 5th St. Port Angeles, WA 98362
Contact Person Gary Richmond
Title Interim Superintendent; Wastewater Treatment Division
Telephone Number (360) 417.4845

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

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>WA0023973</u>	PSD	_____
UIC	_____	Other	<u>ORCAA County#9 Source#13</u>
RCRA	_____	Other	<u>Reg. Class RC5 File #587</u>

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>Port Angeles</u>	<u>19,100</u>	<u>Combined</u>	<u>Municipality</u>
<u>Western UGA</u>	<u>865</u>	<u>Separate</u>	<u>Municipality</u>
<u>Eastern UGA</u>	<u>1600</u>	<u>Separate</u>	<u>Municipality</u>
Total population served	<u>21,565</u>		

FACILITY NAME AND PERMIT NUMBER:

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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 6.7 mgd

	Two Years Ago	Last Year	This Year
b. Annual average daily flow rate	<u>2.32</u>	<u>2.56</u>	<u>2.64</u>
c. Maximum daily flow rate	<u>5.93</u>	<u>7.47</u>	<u>7.52</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 67 %
- Combined storm and sanitary sewer 33 %

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 _____
- iii. Combined sewer overflow points 4
- iv. Constructed emergency overflows (prior to the headworks) _____
- 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: _____

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: _____

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 001
- b. Location Port Angeles 98362
(City or town, if applicable) (Zip Code)
Clallam WA
(County) (State)
48 deg 07'38"N 123 deg 23'53"W
(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) 3500 ft.
- d. Depth below surface (if applicable) -53 ft.
- e. Average daily flow rate 2.64 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 Strait of Juan De Fuca
- b. Name of watershed (if known) WRIA 18 Elwha-Dungeness Watershed
United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____
- d. Critical low flow of receiving stream (if applicable)
acute _____ cfs chronic _____ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of CaCO₃

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A.11. Description of Treatment

a. What level 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 N/A %

Design N removal N/A %

Other _____ %

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

Chlorination with Hypochlorite

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: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.4	s.u.			
pH (Maximum)	7.7	s.u.			
Flow Rate	7.52	MGD	2.64	MGD	365
Temperature (Winter)	15.6	deg C	11.1	deg C	183
Temperature (Summer)	19.1	deg C	16.2	deg C	182

* 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						
	CBOD5	9	Mg/L	4	Mg/L	104	SM 5210 B 0.1
FECAL COLIFORM	656	co/100ml	27	Co/100	156	SM 9222 D	1.0
TOTAL SUSPENDED SOLIDS (TSS)	20	Mg/L	8	Mg/L	104	SM 2540 D	1.0

END OF PART A.

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

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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.

84,666 gpd

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

The City has a continuing CSO disconnection program (\$50,000 per year on average) for storm inlets/catch basins and incorporates disconnections into adjacent public works projects. In addition, an annual Sanitary Sewer Line I&I Reduction project was initiated in 2012, and is funded at \$300,000 per year.

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.

001 and an industrial outfall purchased from Rayonier that will become the City's primary outfall in 2014.

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).

Agreed Order #3853, issued in 2006, to achieve compliance with state standards for CSO events within the City, stipulates that the CSO reduction projects must be complete by the end of 2015. The City is committed to addressing CSOs as detailed in the approved 2006 CSO Reduction Facilities Plan/General Sewwer Plan, which was subsequently amended in 2007, 2010, and 2012, and approved by Ecology. Construction of the Phase 1 projects is currently underway and on schedule. Design of the Phase 2 projects began in 2013. The City's ability to complete Phase 2 hinges on obtaining timely low-interest loans to finance the project. A separate addendum to this application will be submitted in one month, detailing the specific changes in the wastewater conveyance and treatment system that should be addressed by the Permit.

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 MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	<u>08/08/2012</u>	<u>08/08/2012</u>
- End Construction	<u>03/27/2014</u>	<u> / /</u>
- Begin Discharge	<u>10/01/2013</u>	<u> / /</u>
- Attain Operational Level	<u>03/27/2014</u>	<u> / /</u>

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

Describe briefly: Cultural Resources Memorandum of Agreement for Section 106 National Historic Preservation Act Compliance, ESA Section 7 Biological Assessment Concurrence, Corps of Engineers Section 404 Nationwide Permit, Water Quality Certification(WDOE Section 401), WDFW Hydraulics Project Approval (HPA), WDOE NPDES Permit to Discharge Stormwater, City of Port Angeles Environmentally Sensitive Areas Review and Wetland Permit, Shoreline Substantial Development Permit

B.6. EFFLUENT TESTING DATA (GREATER THAN 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 on-half years old.

Outfall Number: 001

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)	26.7	mg/L	16.7	mg/L	52	SM 19/20 4500-NH3 D	0.0112
CHLORINE (TOTAL RESIDUAL, TRC)	.47	mg/L	.10	mg/L	365	SM 4500-Cl G	0
DISSOLVED OXYGEN	N/A	mg/L	N/A	mg/L	N/A	SM 4500- OG	N/A

TOTAL KJELDAHL NITROGEN (TKN)	13.9	mg/L	11.13	mg/L	4	SM4500-Norg C	0.063
NITRATE PLUS NITRITE NITROGEN	12.49	mg/L	8.65	mg/L	4	SM4500- NO3F	.0005
OIL and GREASE	4.3	mg/L	1.1	mg/L	4	1664	1.4
PHOSPHORUS (Total)	3.63	mg/L	2.77	mg/L	4	SM 4500 P F	0.0061
TOTAL DISSOLVED SOLIDS (TDS)	NR	mg/L		mg/L			
OTHER		mg/L		mg/L			

END OF PART B.

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

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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)

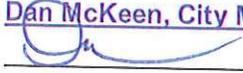
Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

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.

Name and official title Dan McKeen, City Manager

Signature 

Telephone number (360) 417-4501

Date signed March 25, 2013

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 TO:

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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: 001 (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	ND	mg/L	ND	lbs	ND	mg/L	ND	lbs	4	200.8/3010A	.00002
ARSENIC	0.001	mg/L	.063	lbs	<.001	mg/L	.022	lbs	4	200.8/3010A	.00028
BERYLLIUM	ND	mg/L	ND	lbs	ND	mg/L	ND	lbs	4	200.8/3010A	.0000092
CADMIUM	ND	mg/L	ND	lbs	ND	mg/L	ND	lbs	4	200.8/3010A	.000024
CHROMIUM	.005	mg/L	.31	lbs	.0015	mg/L	.033	lbs	4	200.8/3010A	.00016
COPPER	.152	mg/L	9.53	lbs	.062	mg/L	1.37	lbs	4	200.7/3010A	.003
LEAD	.0099	mg/L	.62	lbs	.002	mg/L	.044	lbs	4	200.8/3010A	.0000291
MERCURY	.00014	mg/L	.0088	lbs	.00004	mg/L	.00088	lbs	4	245.1	.0000473
NICKEL	.008	mg/L	.50	lbs	.0039	mg/L	.086	lbs	4	200.8/3010A	.00012
SELENIUM	ND	mg/L	ND	lbs	ND	mg/L	ND	lbs	4	200.8/3010A	.0003
SILVER	.0006	mg/L	.038	lbs	.00015	mg/L	.0033	lbs	4	200.8/3010A	.0002
THALLIUM	.0009	mg/L	.056	lbs	.0002	mg/L	.0044	lbs	4	200.8/3010A	.0000228
ZINC	.261	mg/L	16.37	lbs	.0968	mg/L	2.13	lbs	4	200.7/3010A	.0095
CYANIDE	.007	mg/L	.439	lbs	.0033	mg/L	.073	lbs	4	SM 4500-CN C	.0019
TOTAL PHENOLIC COMPOUNDS	.060	mg/L	3.76	lbs	.0335	mg/L	.737	lbs	4	420.4	.005
HARDNESS (AS CaCO3)	89.5	mg/L	5613	lbs	87.1	mg/L	1933	lbs	3	6010B	50

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

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

Outfall number: 001 (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	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.59
ACRYLONITRILE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.93
BENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.14
BROMOFORM	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.09
CARBON TETRACHLORIDE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.31
CHLOROBENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.13
CHLOROBIBROMOMETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.12
CHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.22
2-CHLOROETHYL VINYL ETHER	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.87
CHOLOROFORM	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.14
DICHLOROBROMOMETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.13
1,1-DICHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.14
1,2-DICHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.1
1,2-DICHLOROETHYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.22
TRANS-1,2-DICHLOROETHYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.22
1,1-DICHLOROETHYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.27
1,2-DICHLOROPROPANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.12
1,3-DICHLOROPROPYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.14TO
ETHYLBENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.21
METHYL BROMIDE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.26
METHYL CHLORIDE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.16
METHYLENE CHLORIDE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.16
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.15

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

Outfall number: 001 (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		
TETRACHLOROETHYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.34
TOLUENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.18
1,1,1-TRICHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.35
1,1,2-TRICHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.11
TRICHLORETHYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.35
VINYL CHLORIDE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.33

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

ND

ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.69
2-CHLOROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
2,4-DICHLOROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
2,4-DIMETHYLPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
4,6-DINITRO-O-CRESOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
2,4-DINITROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.4
2-NITROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
4-NITROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.5
PENTA CHLOROPHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.21
PHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.08
2,4,6-TRICHLORO PHENOL	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.16

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

BASE-NEUTRAL COMPOUNDS

ACENAPHTHENE	ND	ug/L	ND	lbs	ND	ug/L	ND	lbs	1	EPA 625	.2
ACENAPHTYLENE	ND	ug/L	ND	lbs	ND	ug/L	ND	lbs	1	EPA 625	.2
ANTHRACENE	ND	ug/L	ND	lbs	ND	ug/L	ND	lbs	1	EPA 625	.2
BENZIDINE	ND	ug/L	ND	lbs	ND	ug/L	ND	lbs	1	EPA 625	-

FACILITY NAME AND PERMIT NUMBER:

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Outfall number: 001 (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		
BENZO(A) ANTHRACENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
BENZO(J)FLUORANTHENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.4
BENZO(r,s,t)PENTAPHENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.7
BENZO(A)PYRENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
3,4 BENZO-FLUORANTHENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
BENZO(GHI)PERYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.11
BENZO(K)FLUORANTHENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
BIS (2-CHLOROETHOXY) METHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
BIS (2-CHLOROETHYL)-ETHER	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.19
BIS (2-CHLOROISOPROPYL) ETHER	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.15
BIS (2-ETHYLHEXYL) PHTHALATE	NR	ug/L	NR	lbs	NR	ug/L	NR	lbs	1	EPA 625	-
4-BROMOPHENYL PHENYL ETHER	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.14
BUTYL BENZYL PHTHALATE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.17
2-CHLORO NAPHTHALENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.11
4-CHLORPHENYL PHENYL ETHER	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.09
CHRYSENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
DIBENZO(a,j)ACRIDINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
DIBENZO(a,h)ACRIDINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.9
DI-N-BUTYL PHTHALATE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
DI-N-OCTYL PHTHALATE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.16
DIBENZO(A,H) ANTHRACENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.18
1,2-DICHLORO BENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.13
1,3-DICHLORO BENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.11

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Outfall number: 001 (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		
1,4-DICHLORO BENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 624	.13
3,3-DICHLORO BENZIDINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.5
DIETHYL PHTHALATE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
DIMETHYL PHTHALATE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.4
2,4-DINITROTOLUENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
2,6-DINITROTOLUENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
1,2-DIPHENYLHYDRAZINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.08
FLUORANTHENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
FLUORENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.11
HEXACHLORO BENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
HEXACHLOROBUT ADIENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.17
HEXA CHLOROETHANE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
INDENO(1,2,3-CD) PYRENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
ISOPHORONE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.11
3-METHYL CHOLANTHRENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
NAPHTHALENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
NITROBENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
N-NITROSODI-N-PROPYLAMINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.18
N-NITROSODI-METHYLAMINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.08
N-NITROSODI-PHENYLAMINE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.15
PERYLENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.3
PHENANTHRENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2
PYRENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.1
1,2,4-TRICHLOROBENZENE	ND	ug/L	NO	lbs	ND	ug/L	NO	lbs	1	EPA 625	.2

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

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

Outfall number: 001 (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.

2 chronic 18 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

%

%

%

LC₅₀

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: Quarterly Results, 2008, 2009,2010,2011,2012
 Summary of results: (see instructions)
All outfall #001 samples collected quarterly for WET and twice in 2012 for Chronic. WET alternated c dubia and p promelas in time frame. All results submitted to Ecology.

**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:

City of Port Angeles WA0023973

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. -0-

b. Number of CIUs. -0-

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).

EPA Hazardous Waste Number

Amount

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/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

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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.

FACILITY NAME AND PERMIT NUMBER:

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G.3 Description of Outfall.

- a. Outfall number 006
- b. Location Port Angeles 98362
(city or town, if applicable) (Zip Code)
Clallam WA
(County) (State)
48 deg 07'18" N 123 deg 26'02."W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) <20 ft.
- d. Depth below surface (if applicable) -2 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

Monitoring Data Note: CSO flow volume, frequency and duration are continuously monitored at each overflow location. The monitoring instrumentation configuration, detailed drawings of each site, and any data issues are provided to Ecology in the Annual CSO Report. Site computation methodology papers for each site have also been developed. Values shown are actual measured events, within the accuracy of our monitoring system.

Precipitation is monitored continuously at Port Angeles City Hall, and daily rainfall is also recorded at the wastewater treatment plant. CSO pollutant concentrations in the Harbor are sampled in response to specific CSO events.

- f. How many storm events were monitored during the last year? _____

G.4. CSO Events. *Data shown are 2011. Compiled data from 2012 will be submitted within one month.*

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

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- c. Give the average volume per CSO event.
0.222449 million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
0.01 Inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: Port Angeles Harbor / Strait of Juan de Fuca
- b. Name of watershed/river/stream system: WRIA 18 Elwha Dungeness Watershed
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).

Since July 2008, CSO sampling data is reported to Ecology each month with the DMRs, and summarized in the Annual Combined Sewer Overflow reports.

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

G.3 Description of Outfall.

- a. Outfall number 007
- b. Location Port Angeles 98362
(city or town, if applicable) (Zip Code)
Clallam WA
(County) (State)
48 deg 07'15.63" N 123 deg 25'52.52."W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) <20 ft.
- d. Depth below surface (if applicable) 0 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

Monitoring Data Note: CSO flow volume, frequency and duration are continuously monitored at each overflow location. The monitoring instrumentation configuration, detailed drawings of each site, and any data issues are provided to Ecology in the Annual CSO Report. Site computation methodology papers for each site have also been developed. Values shown are actual measured events, within the accuracy of our monitoring system.

Precipitation is monitored continuously at Port Angeles City Hall, and daily rainfall is also recorded at the wastewater treatment plant. CSO pollutant concentrations in the Harbor are sampled in response to specific CSO events.

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.
50 events (actual or approx.)
- b. Give the average duration per CSO event.
5.53 hours (actual or approx.)
- c. Give the average volume per CSO event.
0.124079 million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
0.01 inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: Port Angeles Harbor / Strait of Juan de Fuca
- b. Name of watershed/river/stream system: WRIA18 Elwha Dungeness Watershed
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): _____

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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).

Since July 2008, CSO sampling data is reported to Ecology each month with the DMRs, and summarized in the Annual Combined Sewer Overflow reports.

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

G.3 Description of Outfall.

- a. Outfall number 008
- b. Location Port Angeles 98362
(city or town, if applicable) (Zip Code)
Clallam WA
(County) (State)
48 deg 07'15.36" N 123 deg 25'44.38."W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) <2 ft.
- d. Depth below surface (if applicable) 0 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

Monitoring Data Note: CSO flow volume, frequency and duration are continuously monitored at each overflow location. The monitoring instrumentation configuration, detailed drawings of each site, and any data issues are provided to Ecology in the Annual CSO Report. Site computation methodology papers for each site have also been developed. Values shown are actual measured events, within the accuracy of our monitoring system.

Precipitation is monitored continuously at Port Angeles City Hall, and daily rainfall is also recorded at the wastewater treatment plant. CSO pollutant concentrations in the Harbor are sampled in response to specific CSO events.

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.
18 events (actual or approx.)
- b. Give the average duration per CSO event.
2.25 hours (actual or approx.)
- c. Give the average volume per CSO event.
0.061277 million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
0.01 Inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: Port Angeles Harbor / Strait of Juan de Fuca
- b. Name of watershed/river/stream system: WRIA18 Elwha Dungeness Watershed
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): _____

FACILITY NAME AND PERMIT NUMBER:

City of Port Angeles WA0023973

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).

Since July 2008, CSO sampling data is reported to Ecology each month with the DMRs, and summarized in the Annual Combined Sewer Overflow reports.

FACILITY NAME AND PERMIT NUMBER:
City of Port Angeles WA0023973

G.3 Description of Outfall.

- a. Outfall number 010
- b. Location Port Angeles 98362
(city or town, if applicable) (Zip Code)
Clallam WA
(County) (State)
48 deg 07'15.36" N 123 deg 25'44.38" W
(Latitude) (Longitude)
- c. Distance from shore (if applicable) <20 ft.
- d. Depth below surface (if applicable) -2 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

Monitoring Data Note: CSO flow volume, frequency and duration are continuously monitored at each overflow location. The monitoring instrumentation configuration, detailed drawings of each site, and any data issues are provided to Ecology in the Annual CSO Report. Site computation methodology papers for each site have also been developed. Values shown are actual measured events, within the accuracy of our monitoring system.

Precipitation is monitored continuously at Port Angeles City Hall, and daily rainfall is also recorded at the wastewater treatment plant. CSO pollutant concentrations in the Harbor are sampled in response to specific CSO events.

- 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.
23 events (actual or approx.)
- b. Give the average duration per CSO event.
3.50 hours (actual or approx.)
- c. Give the average volume per CSO event.
.154925 million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
0.01 Inches of rainfall

G.5. Description of Receiving Waters.

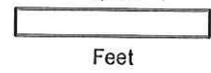
- a. Name of receiving water: Port Angeles Harbor / Strait of Juan de Fuca
- b. Name of watershed/river/stream system: WRIA18 Elwha Dungeness Watershed
United State Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin: _____



Vertical Datum = NAVD 88
Horizontal Datum = NAD 83 91



1,700



Feet

B.2. Topographic Map WWTP Area



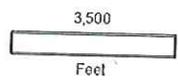
Legend

-  SS WWTP
-  SS WWTP Parc
-  SS Gravity main
-  SS Press Main
-  Edge of road
-  Building
-  Hydrography line
-  Contour

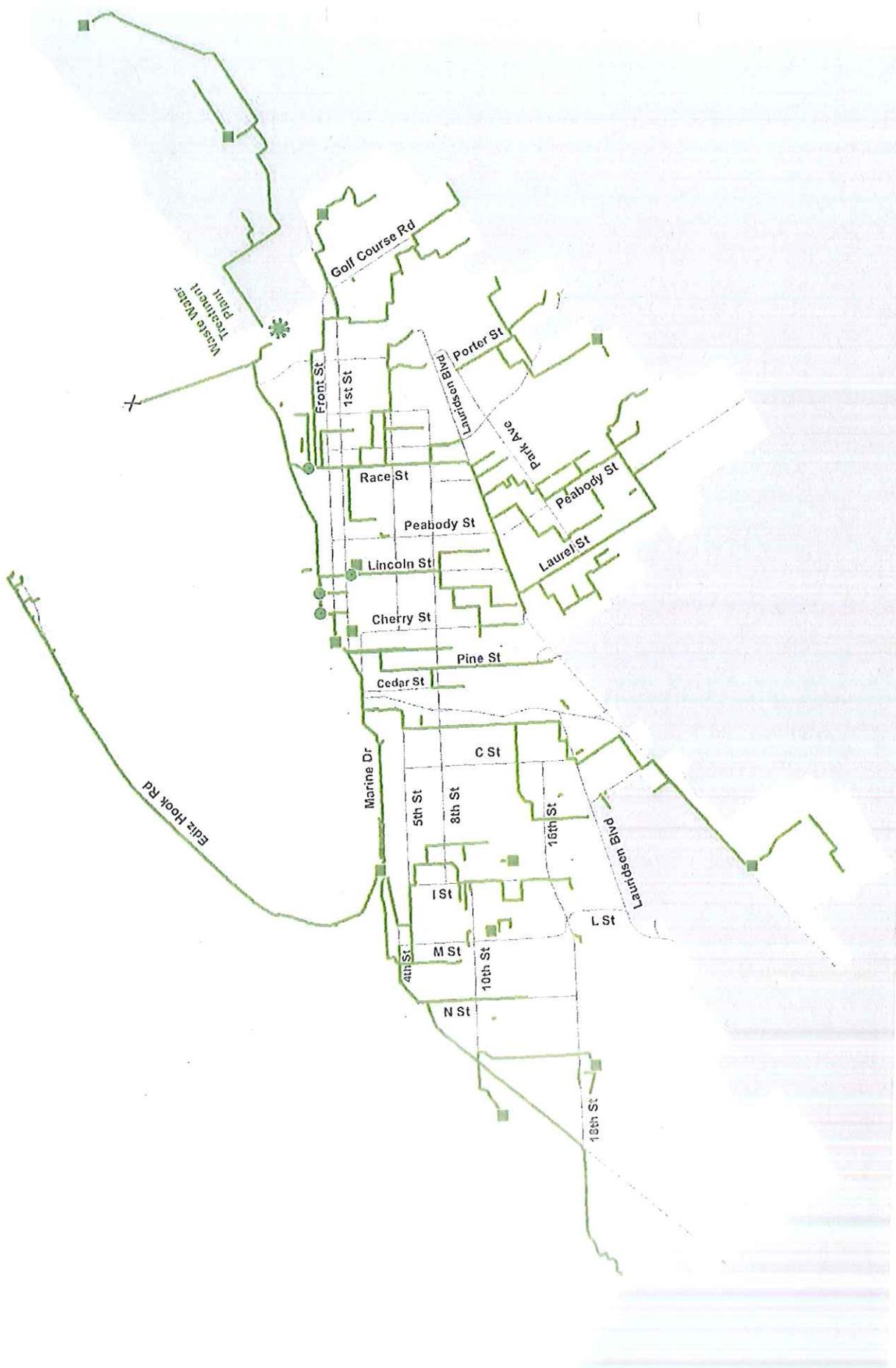
*This map is not intended to be used as a legal description.
This map drawing is produced by the City of Port Angeles for its own use on I purposes.
Any other use of this map drawing shall not be the responsibility of the City.
S: ARCINFO WWater WWTP area map 8x11 topo permitting.mxd*



Vertical Datum = NAVD 88
Horizontal Datum = NAD 83/91



City of Port Angeles



G-1 & G-2 system map & diagram

-  WWCSO
-  WW Outfall
-  WW Pump
-  WWTP
-  Creeks
-  County Jurisdiction

Addendum to

NPDES Permit No. WA-002397-3 Renewal Application

The following document is supplemental to the referenced renewal application. This addendum provides greater details on the City's in-progress CSO Program facility improvements and links the completion of those improvements to permit requirements.

This is in response to Permit Application item 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.

Kathryn: section B.5

Also address items A8 and A9

Also address S4 F of the permit, I&I

CSO Program description with respect to NPDES permitting:

The City's May 2006 *Combined Sewer Overflow Reduction Facilities Plan and General Sewer Plan* (CSO Plan) was developed to meet the requirements of the NPDES permit for the Port Angeles Wastewater Treatment Plant (WWTP), an Administrative Order issued by the Washington Department of Ecology (Ecology) on April 23, 2004, and Section 173-245-040 of the Washington Administrative Code (WAC), which establishes the requirements for CSO reduction plans. The Plan identified several projects needed to limit discharges from the City's four CSO outfalls to not more than once per year, on average, as required by the WAC. The CSO Plan was amended in July 2007 to provide better definition of the planned improvements, revise their schedule for funding, identify and describe treatment plant operational revisions, identify and justify use of a different outfall (former Rayonier outfall) and identify the need for a new CSO location consistent with the Plan. **The 2007 Amendment was approved by Ecology in 2008.**

The 2007 Amendment increased the quantity of flow transferred from the downtown area to the City treatment plant and the new storage tank. This required increasing the capacity of the planned new, replacement of the Pump Station 4 to 28 mgd. Use of storage was optimized (i.e. overflows from that facility minimized) by allowing higher flows through the treatment plant. During extreme, storm-related flow events up to 20 mgd would pass through the treatment plant, bypassing the secondary treatment process that is limited to 13.4 mgd. The by-passed flow would be screened, settled in primary clarifiers and chlorinated before discharge to the outfall.

The 2007 Amendment recognized the permit implications of this operation and identified that the future operating permit would need to include:

1. Approval of a new CSO discharge location to be included within the City's NPDES permit. The basis for this request will be recognition that this new location essentially replaces the ~~three~~ two of the three downtown permitted overflows. *(or did the Plan promise 3? NO 2 is correct)*

Design characteristics of the new outfall, formerly owned and operated by Rayonier LLC for their Port Angeles pulp mill, are attached. (new Section A.9) The existing outfall 001 will become an intermittent discharge, and will be active only under high tide high flow scenarios that would otherwise flood the wastewater treatment plant. The change will be effective after the CSO Phase 1 projects are placed in service, in 2014.

2. Approval to operate the treatment plant with pollutant removal rates less than 85 percent for limited durations during high flow events.

Based on process evaluations, it was concluded that the plant can accommodate sustained flows of 13.4 mgd and short-term, peak hydraulic flow rates up to 20 mgd and still meet effluent quality limits. However, the 85 percent pollutant removal required by the City's NPDES permit may be compromised when multiple, extended, high-flow events dilute influent pollutant concentrations. The City's NPDES permit will need to relax the 85 percent requirement for those months when substantial flows occur that continually or frequently cause operation above the 13.4 mgd peak day capacity.

The plant configuration and operational changes outlined above would provide a hydraulic capacity up to 20 mgd for short periods of time. The trickling filter/solids contact system would always treat up to 13.4 mgd, and any excess primary effluent would be directly conveyed to disinfection and discharge facilities.

With the planned plant improvements in place, during peak flow events, the trickling filter would continue to operate within its original design capacity. Under existing conditions, that system reliably and consistently produces effluent with carbonaceous biological oxygen demand (CBOD) and total suspended solids (TSS) concentrations of 14 and 10 milligram per liter (mg/L), respectively. Based on stress testing results, the primary clarifiers were predicted to have a combined capacity of about 14 to 15 mgd, beyond which CBOD and TSS removal will be diminished. The 13.4 mgd of full secondary treated effluent would be blended with up to 6.6 mgd of primary effluent for disinfection during high flow conditions. The blended effluent would still meet the effluent concentration limits of 30 mg/L. However, the City will need a waiver from the 85 percent removal requirement in its NPDES permit for operation during wet weather, high flows.

A system model was constructed and calibrated to support the 2007 Amendment and updated in 2012 to expand the database with an additional 5 years (13 years total) of rain and flow records. In addition, the model was calibrated from direct flow measurements and from overflow records and observations; producing a low and an upper calibration, i.e. a range of best case to worst case, of expected future events and their frequency. The lower and upper calibration models were run for the 13-year rainfall period of record to simulate the performance of proposed CSO improvements. As a result of the CSO improvements, the lower calibration model results indicate no overflows at CSOs 6 or 7 for the period of record. *(How about CSO 10? 10 wasn't part of the tradeoff with PS capacity BUT the original plan showed post-Phase 1 it would not overflow more than 1/year AND the 2012 update shows it overflowing for the higher calibration model 0.3 times per year – see the table)* For the lower calibration, the storage tank at the WWTP is simulated to overflow six times in the approximately 13-year record, which is about once every 2.5 years. The upper calibration simulation predicts the storage tank at the WWTP to overflow 14 times, or about once every year. The upper calibration model also shows a peak hourly flow of 28.8 mgd arriving at PS4 for the CSO validation scenario and about one overflow every 12 years at CSO 6 and one overflow every 3 years at CSO 7. With CSO 7 removed, the upper calibration model shows 3 overflows (0.2 per year) from CSO 6 during the period of record.

The lower calibration model results indicate that 0.66 percent (8.4 MG/year total, average) of flows entering the WWTP are greater than 13.4 mgd (i.e. bypass secondary treatment). To understand the sensitivity of flow splitting in the flow management scheme, the model was then modified with a lower diversion weir setting from 46.97 feet to an elevation of 46.70 feet. The model results with this modification result in 1.3 overflows per year at the storage tank and 0.50 percent (6.4 MG/year, average) of flows being greater than 13.4 mgd and thus bypassing secondary treatment.

The results of the updated model (with the Upper calibration) are summarized in the following table.

Location	CSO events (events/year)		
	CSO Plan (2007 Amendment)	Validation model, Lower calibration	Validation model, Upper calibration
CSO 6	0.1	0	0.1
CSO 7	0.1	0	0.3
CSO 8	0	0	0
CSO 10	1	0	0.3
WWTP storage tank	1.3	0.5	1.2

The 2007 Amendment addressed outfall capacity needed as well as the plan to direct City plant effluent to the former Rayonier outfall for improved dispersal into the Strait of Juan de Fuca. The CSO Phase 1 improvements are accomplishing this transfer. Because of the high flows to be managed from the treatment plant side of the system it is possible that peak system flows concurrent with highest tides could cause backups capable of flooding the treatment plant structures. For this reason, as part of the Phase 1 improvements, a control structure was built to limit hydraulic elevations by spilling flow to the existing City outfall. While the probability of occurrence of this extreme condition is very low it means the City outfall must remain a permitted feature. Finally, there is predicted an overflow from the storage tank to occur once every one or two years. This untreated overflow is being directly connected to the new outfall pipe downstream of the emergency City outfall diversion such as to always flow to the former industrial diffuser.

