



City of Tacoma
Environmental Services Department

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APR 29 2015

WA State Department
of Ecology (SWRO)

April 27, 2015

Ms. Carey Cholski
Washington State Department of Ecology
P.O. Box 47775
Olympia, WA 98504-7775

Subject: Central Wastewater Treatment Plant NPDES Permit Renewal Application – Permit No. WA0037087

Dear Ms. Cholski:

The City of Tacoma is submitting an application for renewal of the Central Wastewater Treatment Plant's NPDES Permit No. WA0037087. The permit renewal application package is enclosed.

The Permit Renewal Application requires in Part A.9 to provide information on each outfall (including bypass points) through which effluent is discharged. The attached application includes two constructed emergency overflows located at the Central Wastewater Treatment Plant: Outfall Nos. 002 and 003. These overflow points have not been used since the Declaration of Construction issued in June 2008 as a result of building the Peak Wet Weather Flow Treatment (PWWFT) Facility during the Phase III Central Treatment Plant Upgrade.

In addition, the Five-Year Peak Wet Weather Facility Report showed a substantial reduction in sanitary sewer overflows pre- and post-construction. The three years prior to the PWWFT system in operation resulted in five sanitary sewers overflows while the five years post construction only resulted in one sanitary sewer overflow. The one sanitary sewer overflow occurred during January 2009. The 2009 wet weather event was declared a Presidential disaster resulting in over \$22 million in public assistance to Washington communities and disaster assistance to homeowners and businesses according to FEMA records.

The City of Tacoma's investment in the building of the PWWFT infrastructure at the Central Wastewater Treatment Plant has proven to provide a greater level of protection to the environment. The sampling requirements from the operations of the PWWFT system as stipulated in our current permit are onerous to the City. The City requests as part of this application process to reduce monitoring requirements specific to the PWWFT system. We would request that our sampling and analysis during flow blending events be daily while flow blending for BOD5, TSS, fecal coliform, pH, total residual chlorine and dissolved oxygen. All these parameters are the normal measurements we take weekly and daily as part of our permit compliance monitoring for environmental protection.

Ms. Carey Cholski, WSDOE

April 27, 2015

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We look forward to your review of our permit renewal application. If have you have any questions please contact Jody Bratton, P.E., Assistant Division Manager, Environmental Services, at (253) 502-2188.

Sincerely,



Michael P. Slevin III, P.E.
Environmental Services Director

MPS:jb:aal

Enclosure: CTP 2015 NPDES Permit Renewal Application Package

cc: Daniel Thompson PhD., Business Operations Division Manager
Judy Scott, Operations & Maintenance Division Manager
Jody Bratton, Operations & Maintenance Division Manager, Assistant

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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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 City of Tacoma Central Wastewater Treatment Plant

Mailing Address 2201 Portland Avenue
Tacoma, WA 98421

Contact Person Dan C. Thompson, Ph.D.

Title Environmental Services Division Manager

Telephone Number (253) 502-2191

Facility Address 2201 Portland Avenue
(not P.O. Box) Tacoma, WA 98421/Tacoma, WA 98421

UBI Number _____

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

Applicant Name City of Tacoma, Environmental Services Department

Mailing Address 2201 Portland Avenue
Tacoma, WA 98421

Contact Person Michael P. Slevin III, P.E.

Title Environmental Services Director

Telephone Number (253) 591-5525

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 WA0037087 PSD PSCAA Reg #16330

UIC _____ Other SO3000711D NPDES

RCRA _____ Other WN-R0576

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>City of Tacoma</u>	<u>90450</u>	<u>Separate</u>	<u>Municipal</u>
<u>City of Fircrest</u>	<u>5693</u>	<u>Separate</u>	<u>Municipal</u>
<u>Pierce County</u>	<u>6393</u>	<u>Separate</u>	<u>Municipal</u>
<u>City of Fife</u>	<u>7393</u>	<u>Separate</u>	<u>Municipal</u>

Total population served 109,929

Use F11 to navigate through fields.

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

**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).

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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).

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of Ecology (CWRO)

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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 60 mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>18.9 mgd (2013)</u>	<u>22.3 mgd (2014)</u>	<u>23.5 mgd (thru 3/2015)</u>
c. Maximum daily flow rate	<u>53.3 mgd (2013)</u>	<u>89.3 mgd (2014)</u>	<u>26.8 mgd (thru 3/2015)</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 N/A %

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 N/A
iv. Constructed emergency overflows (prior to the headworks) 19
v. Other N/A N/A

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: N/A

Annual average daily volume discharge to surface impoundment(s) N/A 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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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).

N/A

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

Transporter Name N/A

Mailing Address N/A

Contact Person N/A

Title N/A

Telephone Number (N/A)

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

Name N/A

Mailing Address N/A

Contact Person N/A

Title N/A

Telephone Number (N/A)

If known, provide the NPDES permit number of the treatment works that receives this discharge N/A

Provide the average daily flow rate from the treatment works into the receiving facility. N/A 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):

N/A

Annual daily volume disposed by this method: N/A

Is disposal through this method continuous or intermittent?

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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 Tacoma 98421
(City or town, if applicable) (Zip Code)
Pierce WA
(County) (State)
47 degree 16' 41.47" N 122 degree 25' 18.6" W
(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) 1236 ft.
- d. Depth below surface (if applicable) 125 ft.
- e. Average daily flow rate 22.7 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: N/A
Average duration of each discharge: N/A
Average flow per discharge: N/A mgd
Months in which discharge occurs: N/A
- g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

- a. Name of receiving water Commencement Bay, Puget Sound
- b. Name of watershed (if known) WRIA 10
United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): Puyallup - White
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110014
- d. Critical low flow of receiving stream (if applicable)
acute Not Known cfs chronic Not Known cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): Not Known mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

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

- Primary Secondary
 Advanced Other. Describe: Peak Wet Weather Treatment

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

Design BOD5 removal <u>or</u> Design CBOD5 removal	<u>85</u>	%
Design SS removal	<u>85</u>	%
Design P removal	<u>N/A</u>	%
Design N removal	<u>N/A</u>	%
Other <u>N/A</u>	<u>N/A</u>	%

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

Chlorination (Sodium 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)	6.3	s.u.			
pH (Maximum)	7.3	s.u.			
Flow Rate	88.8	mgd	22.7	mgd	365
Temperature (Winter)	69	Degree C	59	Degree C	182
Temperature (Summer)	72	Degree C	65	Degree C	183

* 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	48.3	mg/l	19.5	mg/l	158	SM5210B	5
	CBOD5							
FECAL COLIFORM		1850	#/100 ml	102.9	#/100 ml	365	SM9222D	N/A
TOTAL SUSPENDED SOLIDS (TSS)		42	mg/l	13.1	mg/l	210	SM2540D	0.51

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

- c. Outfall number 002 - Emergency Overflow Event Only
- d. Location Tacoma 98421
(City or town, if applicable) (Zip Code)
- Pierce WA
(County) (State)
- N 47.24751 W 122.41196
(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) 0 to 4 ft.
- e. Average daily flow rate N/A 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: 0
- 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.

- d. Name of receiving water Puyallup River in Indian Country re Section A.5.b
- e. Name of watershed (if known) WRIA 10
United States Soil Conservation Service 14-digit watershed code (if known): _____
- f. Name of State Management/River Basin (if known): Puyallup - White
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110014
- d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

d. What level of treatment are provided? Check all that apply.

Primary

Secondary

Advanced

Other. Describe: Constructed Emergency Overflow

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

- e. Outfall number 003 - Emergency Overflow Only
- f. Location Tacoma 98421
(City or town, if applicable) (Zip Code)
- Pierce WA
(County) (State)
- N 47.24293 W 122.40548
(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate N/A 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: 0
- 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.

- g. Name of receiving water Puyallup River in Indian Country re Section A.5.b
- h. Name of watershed (if known) WRIA 10
- United States Soil Conservation Service 14-digit watershed code (if known): _____
- i. Name of State Management/River Basin (if known): Puyallup - White
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110014
- d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

g. What level of treatment are provided? Check all that apply.

Primary

Secondary

Advanced

Other. Describe: Constructed Emergency Overflow

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

g. Outfall number 004

h. Location 2301 East B Street, Tacoma 98421
(City or town, if applicable) (Zip Code)

Pierce WA
(County) (State)

(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate N/A 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: 2009 (1)

Average duration of each discharge: 2009 (31 hrs)

Average flow per discharge: 2009 (3.2) mgd

Months in which discharge occurs: January 2009

g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

j. Name of receiving water Foss Waterway/Puget Sound

k. Name of watershed (if known) Puget Sound

United States Soil Conservation Service 14-digit watershed code (if known): _____

l. Name of State Management/River Basin (if known): _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110019

d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

j. What level of treatment are provided? Check all that apply.

Primary

Secondary

Advanced

Other. Describe: Constructed Emergency Overflow

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other N/A _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

- i. Outfall number 017
- j. Location 3001 Taylor Way, Tacoma 98421
(City or town, if applicable) (Zip Code)
Pierce WA
(County) (State)
- (Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate N/A 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: 2011 (1)
- Average duration of each discharge: 2011 (0.5 hrs)
- Average flow per discharge: 2011 (<100 gal) mgd
- Months in which discharge occurs: August 2011
- g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

- m. Name of receiving water Hylebos Waterway/Puget Sound
- n. Name of watershed (if known) Puget Sound
- United States Soil Conservation Service 14-digit watershed code (if known): _____
- o. Name of State Management/River Basin (if known): _____
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110019
- d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

m. What level of treatment are provided? Check all that apply.

Primary

Secondary

Advanced

Other. Describe: Constructed Emergency Overflow

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other N/A _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

- k. Outfall number 022
- l. Location South 30th and Huson Street, Tacoma 98405
(City or town, if applicable) (Zip Code)
Pierce WA
(County) (State)
- (Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate N/A 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: 2008 (1), 2009 (1), 2010 (1)
- Average duration of each discharge: 2008 (1.5 hr), 2009 (19 hr), 2010 (0.5 hr)
- Average flow per discharge: 2008 (0.15), 2009 (2.5), 2010 (0.02) mgd
- Months in which discharge occurs: Nov 2008, Jan 2009, June 2010
- g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

- p. Name of receiving water Leach Creek/Puget Sound
- q. Name of watershed (if known) Puget Sound
- United States Soil Conservation Service 14-digit watershed code (if known): _____
- r. Name of State Management/River Basin (if known): _____
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110019
- d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

p. What level of treatment are provided? Check all that apply.

Primary

Secondary

Advanced

Other. Describe: Constructed Emergency Overflow

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other N/A _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

m. Outfall number 2010

n. Location 8427 6th Ave, Tacoma 98465
(City or town, if applicable) (Zip Code)

Pierce WA
(County) (State)

(Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)

c. Distance from shore (if applicable) N/A ft.

d. Depth below surface (if applicable) N/A ft.

e. Average daily flow rate N/A 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 f times per year discharge occurs: 2009 (1), 2010 (1), 2015 (1)

Average duration of each discharge: 2009 (unknown), 2010 (1.5 hrs), 2015 (3.75 hrs)

Average flow per discharge: 2009 (0.2), 2010 (.008), 2015 (.0091) mgd

Months in which discharge occurs: Jan 2009, Dec 2010, Jan 2015

g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

s. Name of receiving water Puget Sound

t. Name of watershed (if known) Puget Sound
United States Soil Conservation Service 14-digit watershed code (if known): _____

u. Name of State Management/River Basin (if known): _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17110019

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

A.11. Description of Treatment

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

Primary Secondary

Advanced Other. Describe: _____

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

Design BOD5 removal or Design CBOD5 removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other _____ %

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

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: _____

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

* 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						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

7,600,000 gpd

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

The City of Tacoma has an ongoing inflow and infiltration reduction program in place. This program includes flow monitoring, smoke testing, roof drain and catch basin separation, manhole inspection and substantial continuing efforts to rebuild/replace failing segments of the collection system.

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 1/4 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: N/A

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

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

Yes No

PROBLEM SET 10: ELECTROLYTES AND MEMBRANES

1. Consider a binary electrolyte consisting of a cation of valence z_+ and an anion of valence z_- . The electrolyte is dissolved in a solvent of dielectric constant ϵ . The concentration of the electrolyte is c (in moles per liter). The Debye-Hückel parameter κ is defined as

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} \sum_i z_i^2 c_i}$$

where N_A is Avogadro's number, e is the elementary charge, k_B is Boltzmann's constant, T is the absolute temperature, and c_i is the concentration of the i -th ion species. For a binary electrolyte, this simplifies to

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} (z_+^2 c_+ + z_-^2 c_-)}$$

where c_+ and c_- are the concentrations of the cation and anion, respectively. For a binary electrolyte, $c_+ = z_- c$ and $c_- = z_+ c$. The Debye-Hückel parameter κ is a measure of the screening length of the electrostatic interactions in the electrolyte.

2. Consider a binary electrolyte consisting of a cation of valence z_+ and an anion of valence z_- . The electrolyte is dissolved in a solvent of dielectric constant ϵ . The concentration of the electrolyte is c (in moles per liter). The Debye-Hückel parameter κ is defined as

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} \sum_i z_i^2 c_i}$$

where N_A is Avogadro's number, e is the elementary charge, k_B is Boltzmann's constant, T is the absolute temperature, and c_i is the concentration of the i -th ion species. For a binary electrolyte, this simplifies to

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} (z_+^2 c_+ + z_-^2 c_-)}$$

where c_+ and c_- are the concentrations of the cation and anion, respectively. For a binary electrolyte, $c_+ = z_- c$ and $c_- = z_+ c$. The Debye-Hückel parameter κ is a measure of the screening length of the electrostatic interactions in the electrolyte.

3. Consider a binary electrolyte consisting of a cation of valence z_+ and an anion of valence z_- . The electrolyte is dissolved in a solvent of dielectric constant ϵ . The concentration of the electrolyte is c (in moles per liter). The Debye-Hückel parameter κ is defined as

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} \sum_i z_i^2 c_i}$$

where N_A is Avogadro's number, e is the elementary charge, k_B is Boltzmann's constant, T is the absolute temperature, and c_i is the concentration of the i -th ion species. For a binary electrolyte, this simplifies to

$$\kappa = \sqrt{\frac{4\pi N_A e^2}{\epsilon k_B T} (z_+^2 c_+ + z_-^2 c_-)}$$

where c_+ and c_- are the concentrations of the cation and anion, respectively. For a binary electrolyte, $c_+ = z_- c$ and $c_- = z_+ c$. The Debye-Hückel parameter κ is a measure of the screening length of the electrostatic interactions in the electrolyte.

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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

N/A

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>11/12/2014</u>	<u> / / </u>
- End Construction	<u>03/31/2017</u>	<u> / / </u>
- Begin Discharge	<u>N/A/ / </u>	<u> / / </u>
- Attain Operational Level	<u>N/A/ / </u>	<u> / / </u>

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

Describe briefly: Plant Control System Upgrade

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)	54.5	mg/l	33.9	mg/l	53	SM 4500-NH3	2.5/1.1
CHLORINE (TOTAL RESIDUAL, TRC)	.25	mg/l	.05	mg/l	365	SM4500-CI G	.02
DISSOLVED OXYGEN	11.6	mg/l	7.1	mg/l	365	SM4500-O G	
TOTAL KJELDAHL NITROGEN (TKN)	52.92	mg/l	32.82	mg/l	24	SM 4500-Norg B	1/0.35
NITRATE PLUS NITRITE NITROGEN	1.58	mg/l	1.08	mg/l	12	EPA 353.2	0.1/0.008
OIL and GREASE	2.6	mg/l	1.85	mg/l	4	EPA 1664A	5/1.2
PHOSPHORUS (Total)	4.87	mg/l	3.00	mg/l	12	EPA 365.4	0.01/0.008
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER Total Nitrogen	43.5	mg/l	34.0	mg/l	12	COT ATP WAR04-4003	0.1/0.02

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

Faint, illegible text, possibly bleed-through from the reverse side of the page.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
540 EAST 58TH STREET
CHICAGO, ILLINOIS 60637
TEL: 773-936-3700
WWW: WWW.CHEM.UCHICAGO.EDU

Page 1 of 1

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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 T.C. Broadnax, City Manager

Signature _____

Telephone number (253) 591-5130

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 TO:

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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	0.965	ug/l			0.67	ug/l			4	EPA 200.8	1/0.079
ARSENIC	2.27	ug/l			1.98	ug/l			4	EPA 200.8	1/0.107
BERYLLIUM	0.058*	ug/l			0.019	ug/l			4	EPA 200.8	1/0.058
CADMIUM	0.073*	ug/l			0.046	ug/l			4	EPA 200.8	1/0.073
CHROMIUM	1.52	ug/l			0.74	ug/l			4	EPA 200.8	1/0.082
COPPER	13.2	ug/l			10.4	ug/l			4	EPA 200.8	1/0.051
LEAD	.734	ug/l			0.44	ug/l			4	EPA 200.8	1/0.044
MERCURY	0.018	ug/l			0.014	ug/l			2	EPA 245.2	.05/0.006
NICKEL	3.21	ug/l			2.31	ug/l			4	EPA 200.8	1/0.062
SELENIUM	0.25	ug/l			0.17	ug/l			4	EPA 200.8	1/0.047
SILVER	0.129	ug/l			0.086	ug/l			4	EPA 200.8	1/0.124
THALLIUM	0.119	ug/l			0.084	ug/l			4	EPA 200.8	1/0.058
ZINC	40.1	ug/l			34.7	ug/l			4	EPA 200.8	5/0.2
CYANIDE	0.012	mg/l			.0045	mg/l			4	EPA 335.4	0.01/0.002
TOTAL PHENOLIC COMPOUNDS	0.071	mg/l			0.071	mg/l			4	EPA 420.2	0.1/0.071
HARDNESS (AS CaCO3)											

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

Molybdenum	6.08	ug/l			3.38	ug/l			4	EPA 200.8	1/0.073
Mercury	6.5	ng/l			4.72	ng/l			4	EPA 245.2	5/0.9
Mercury	8.22	ng/l			6.24	ng/l			4	EPA 1631	0.41/0.15

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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		
ETHANE											
TETRACHLORO-ETHYLENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
TOLUENE	0.2	ug/l			0.15	ug/l			3	EPA 624	1/0.2
1,1,1-TRICHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,1,2-TRICHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 624	2/0.5
TRICHLOROETHYLENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
VINYL CHLORIDE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,2,4-Trichlorobenzene	ND	ug/l			ND	ug/l			3	EPA624	1/0.7

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	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
2-CHLOROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.3
2,4-DICHLOROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
2,4-DIMETHYLPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
4,6-DINITRO-O-CRESOL	ND	ug/l			ND	ug/l			3	EPA 625	5/1.9
2,4-DINITROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	5/1.5
2-NITROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5
4-NITROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	5/2.2
PENTA CHLOROPHENOL	ND	ug/l			ND	ug/l			3	EPA 625	5/1.7
PHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
2,4,6-TRICHLORO PHENOL	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7

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	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
ACENAPHTYLENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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			ND	ug/l			3	EPA 624	10/2
ACRYLONITRILE	ND	ug/l			ND	ug/l			3	EPA 624	10/2
BENZENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
BROMOFORM	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
CARBON TETRACHLORIDE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
CHLOROBENZENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
CHLOROBIDBROMO-METHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
CHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.3
2-CHLORO-ETHYLVINYL ETHER	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
CHOLOROFORM	2	ug/l			1.73	ug/l			3	EPA 624	1/0.2
DICHLOROBROMO-METHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,1-DICHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.1
1,2-DICHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,2-DICHLOROETHYLENE											
TRANS-1,2-DICHLOROETHYLENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,1-DICHLOROETHYLENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
1,2-DICHLOROPROPANE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.1
1,3-DICHLOROPROPYLENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
ETHYLBENZENE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2
METHYL BROMIDE	ND	ug/l			ND	ug/l			3	EPA 624	1/0.5
METHYL CHLORIDE	0.1	ug/l			0.1	ug/l			3	EPA 624	1/0.1
METHYLENE CHLORIDE	ND	ug/l			ND	ug/l			3	EPA 624	1.9/1.9
1,1,2,2-TETRACHLORO-	ND	ug/l			ND	ug/l			3	EPA 624	1/0.2

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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		
1,2-DICHLORO BENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
1,3-DICHLORO BENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.8
1,4-DICHLORO BENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
3,3-DICHLORO BENZIDINE	ND	ug/l			ND	ug/l			3	EPA 625	5/2.9
DIETHYL PHTHALATE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5
DIMETHYL PHTHALATE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
2,4-DINITROTOLUENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
2,6-DINITROTOLUENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.6
1,2-DIPHENYLHYDRAZINE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
FLUORANTHENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
FLUORENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
HEXACHLORO BENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
HEXACHLOROBUT ADIENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
HEXACHLOROCYCLO-PENTADIENE	ND	ug/l			ND	ug/l			3	EPA 625	1/1
HEXA CHLOROETHANE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
INDENO(1,2,3-CD) PYRENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
ISOPHORONE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
3-METHYL CHOLANTHRENE											
NAPHTHALENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5
NITROBENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
N-NITROSODI-N-PROPYLAMINE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
N-NITROSODI-METHYLAMINE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5
N-NITROSODI-PHENYLAMINE	ND	ug/l			ND	ug/l			3	EPA 625	5/2.5
PERYLENE											
PHENANTHRENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.3

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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		
ANTHRACENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
BENZIDINE	ND	ug/l			ND	ug/l			3	EPA 625	10/6.3
BENZO(A) ANTHRACENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.3
BENZO(J)FLUORANTHENE											
BENZO(r,s,t)PENTAPHENE											
BENZO(A)PYRENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
3,4 BENZO-FLUORANTHENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
BENZO(GHI)PERYLENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
BENZO(K)FLUORANTHENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
BIS (2-CHLOROETHOXY) METHANE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.8
BIS (2-CHLOROETHYL)-ETHER	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
BIS (2-CHLOROISOPROPYL) ETHER	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
BIS (2-ETHYLHEXYL) PHTHALATE	14	ug/l			5.1*	ug/l			3	EPA 625	1/0.8
4-BROMOPHENYL PHENYL ETHER	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
BUTYL BENZYL PHTHALATE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7
2-CHLORO NAPHTHALENE											
4-CHLOROPHENYL PHENYL ETHER	ND	ug/l			ND	ug/l			3	EPA 625	1/0.5
CHRYSENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.3
DIBENZO(a,j)ACRIDINE											
DIBENZO(a,h)ACRIDINE											
DI-N-BUTYL PHTHALATE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
DI-N-OCTYL PHTHALATE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9
DIBENZO(A,H) ANTHRACENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.9

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

8 chronic **28** 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: 3/19/2013

Test number: 3/19/2013

Test number: 9/10/2013

Test Species & test method number	<i>Americamysis bahia</i> , EPA 821-R-02-014	<i>Atherinops affinis</i> , EPA-600-R-95-136	<i>Americamysis bahia</i> , EPA 821-R-02-014
Age at initiation of test	7 days	10 days	7 days
Outfall number	1	1	1
Dates sample collected	3/18, 3/20, 3/22/2013	3/18, 3/20, 3/22/2013	9/9, 9/11, 9/13/2013
Date test started	3/19/2013	3/19/2013	9/10/2013
Duration	7 days	7 days	7 days

b. Give toxicity test methods followed.

Manual title	Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms	Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms
Edition number and year of publication	Third Edition, 2002	First Edition, 1995	Third Edition, 2002
Page number(s)	214-292	71-140	214-292

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

24-Hour composite	Flow	Flow	Flow
Grab			

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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		
PYRENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.4
1,2,4-TRICHLOROBENZENE	ND	ug/l			ND	ug/l			3	EPA 625	1/0.7

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

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

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

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

Test number: 3/19/2013

Test number: 3/19/2013

Test number: 9/10/2013

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

Sample was collected:	Final effluent	Final effluent	Final effluent
-----------------------	-----------------------	-----------------------	-----------------------

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

Chronic toxicity	X	X	X
Acute toxicity			

g. Provide the type of test performed.

Static			
Static-renewal	X	X	X
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	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater

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

	100, 50, 12.5, 2.2, 0.99, laboratory control	100, 50, 12.5, 2.2, 0.99, laboratory control	100, 50, 12.5, 2.2, 0.99, laboratory control

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

pH	Yes	Yes	Yes
Salinity	Yes	Yes	Yes
Temperature	Yes	Yes	Yes
Ammonia			
Dissolved oxygen	Yes	Yes	Yes

l. Test Results.

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

Chronic:

NOEC	Survival 50; Biomass 12.5; Dry Weight 12.5 %	Survival 50; Biomass 12.5; Dry Weight 50 %	Survival 50; Biomass 12.5; Dry Weight 12.5 %
IC ₂₅	%	%	%
Control percent survival	100 %	100 %	92.5 %
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	03/19/2013	03/19/2013	08/27/2013
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)

See attached list

FACILITY NAME AND PERMIT NUMBER:

City of Tacoma Central Wastewater Treatment Plant
Permit No. WA0037087

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.

8 chronic **28** 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: 9/10/2013

Test number: 7/8/2014

Test number: 7/8/2014

a. Test information.

Test Species & test method number	Atherinops affinis, EPA-600-R-95-136	Americamysis Bahia EPA-821-R-02-014	Atherinops affinis EPA-600-R-95-136
Age at initiation of test	10 days	7 days	10 day
Outfall number	1	1	1
Dates sample collected	9/9, 9/11, 9/13/2013	7/7, 7/9 7/11/2014	7/7, 7/9 7/11/2014
Date test started	9/10/2013	7/8/2014	7/8/2014
Duration	7 days	7 days	7 days

b. Give toxicity test methods followed.

Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms
Edition number and year of publication	First Edition, 1995	Third Edition, 2002	First Edition, 1995
Page number(s)	71-140	214-292	71-140

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

24-Hour composite	Flow	Flow	Flow
Grab			

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

Test number: 9/10/2013

Test number: 7/8/2014

Test number: 7/8/2014

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

Sample was collected:	Final effluent	Final effluent	Final effluent
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both			
Chronic toxicity	X	X	X
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal	X	X	X
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	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater
j. Give the percentage effluent used for all concentrations in the test series.			
	100, 50, 12.5, 2.2, 0.99, laboratory control	100, 50, 12.5, 4.5, 0.7 laboratory control	100, 50, 12.5, 4.5, 0.7 laboratory control
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	Yes	Yes	Yes
Salinity	Yes	Yes	Yes
Temperature	Yes	Yes	Yes
Ammonia			
Dissolved oxygen	Yes	Yes	Yes
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

Chronic:

NOEC	Survival 50; Biomass 12.5; Dry Weight 12.5 %	Survival 50; Biomass 12.5 Dry Weight 12.5 %	Survival 50; Biomass 12.5; Dry Weight 12.5 %
IC ₂₅	%	%	%
Control percent survival	100 %	100 %	100 %
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	09/10/2013	07/08/2014	07/08/2014
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)

[See attached list](#)

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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.

8 chronic **28** 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: 2/3/2015

Test number: 2/3/2015

Test number:

a. Test information.

Test Species & test method number	<i>Atherinops affinis</i> EPA-600-R-95-136	<i>Americamysis bahas</i> EPA-821-R-02-014	
Age at initiation of test	10 days	7 days	
Outfall number	1	1	
Dates sample collected	2/2, 2/4, 2/6/2015	2/2, 2/4, 2/6/2015	
Date test started	2/3/2015	2/3/2015	
Duration	10 days	7 days	

b. Give toxicity test methods followed.

Manual title	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms	Short-Term Methods for Estimating the Chronic Toxicity of Effluents & Receiving Waters to West Coast Marine and Estuarine Organisms	
Edition number and year of publication	First Edition, 1995	Third Edition, 2002	
Page number(s)	71-140	214-292	

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

24-Hour composite	Flow	Flow	
Grab			

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

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

Test number: 2/3/2015

Test number: 2/3/2015

Test number:

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

Sample was collected:

Final effluent

Final effluent

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

Chronic toxicity

X

X

Acute toxicity

g. Provide the type of test performed.

Static

Static-renewal

X

X

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

**Crystal Sea Marine Mix
artificial seawater**

**Crystal Sea Marine Mix
artificial seawater**

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

**100, 50, 12.5, 4.5, 0.7
laboratory control**

**100, 50, 12.5, 4.5, 0.7
laboratory control**

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

pH

Yes

Yes

Salinity

Yes

Yes

Temperature

Yes

Yes

Ammonia

Dissolved oxygen

Yes

Yes

l. Test Results.

Acute:

Percent survival in 100%
effluent

%

%

%

LC₅₀

95% C.I.

%

%

%

Control percent survival

%

%

%

Other (describe)

FACILITY NAME AND PERMIT NUMBER:
**City of Tacoma Central Wastewater Treatment
 Plant Permit No. WA0037087**

Chronic:			
NOEC	Survival 50; Biomass 50, Dry Weigh 50%	Survival 50, Biomass 12.5; Dry Weight 12.5%	%
IC ₂₅	%	%	
Control percent survival	100 %	100 %	
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	02/03/2015	02/10/2015	
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)
See attached list

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



Scale: 1 : 15,000

Central Treatment Plant Overview

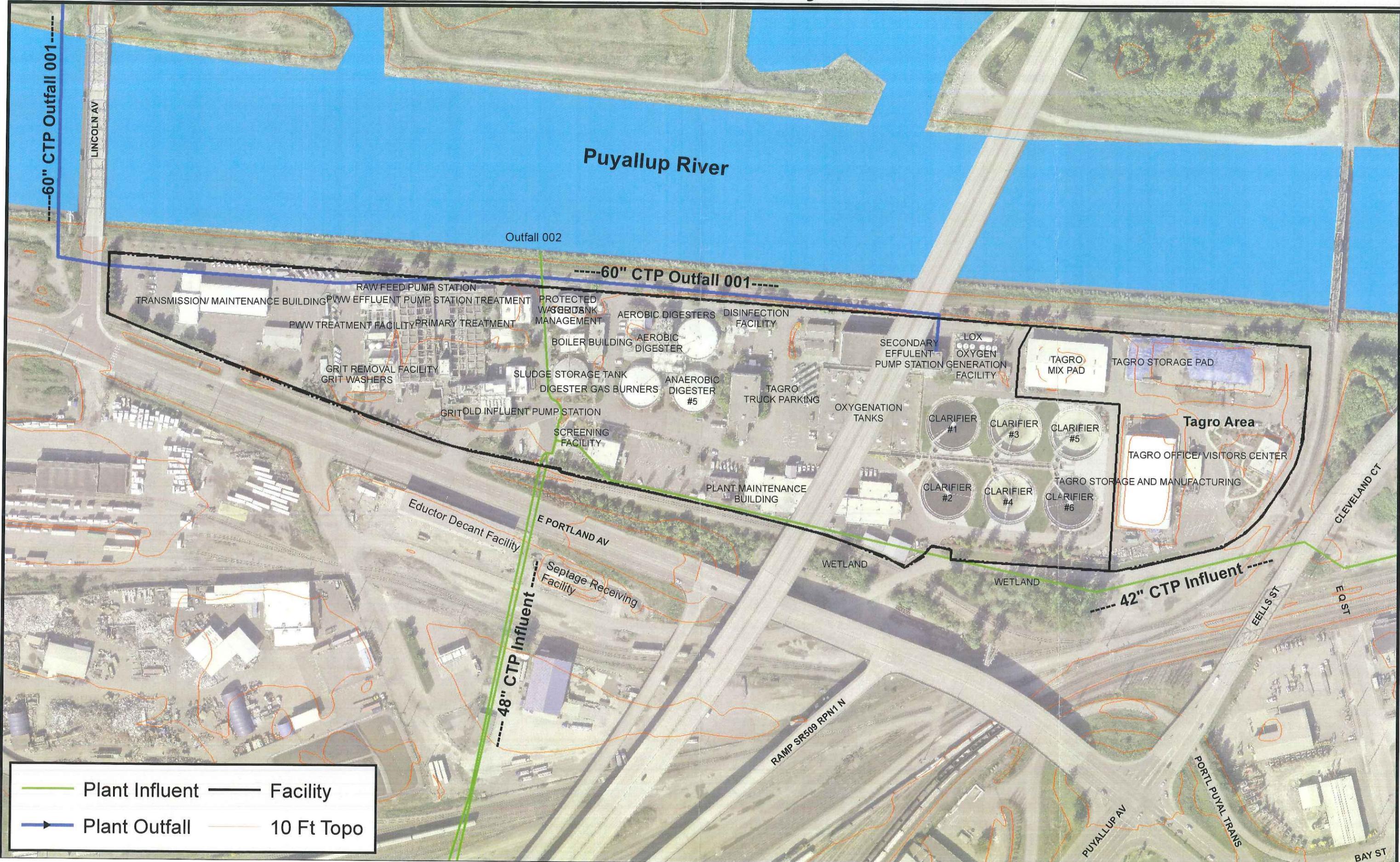


- CTP Influent
- > CTP Outfall
- Facilities
- 10 Ft Topo



Scale: 1 : 2,250

Central Treatment Plant Facility and Processes



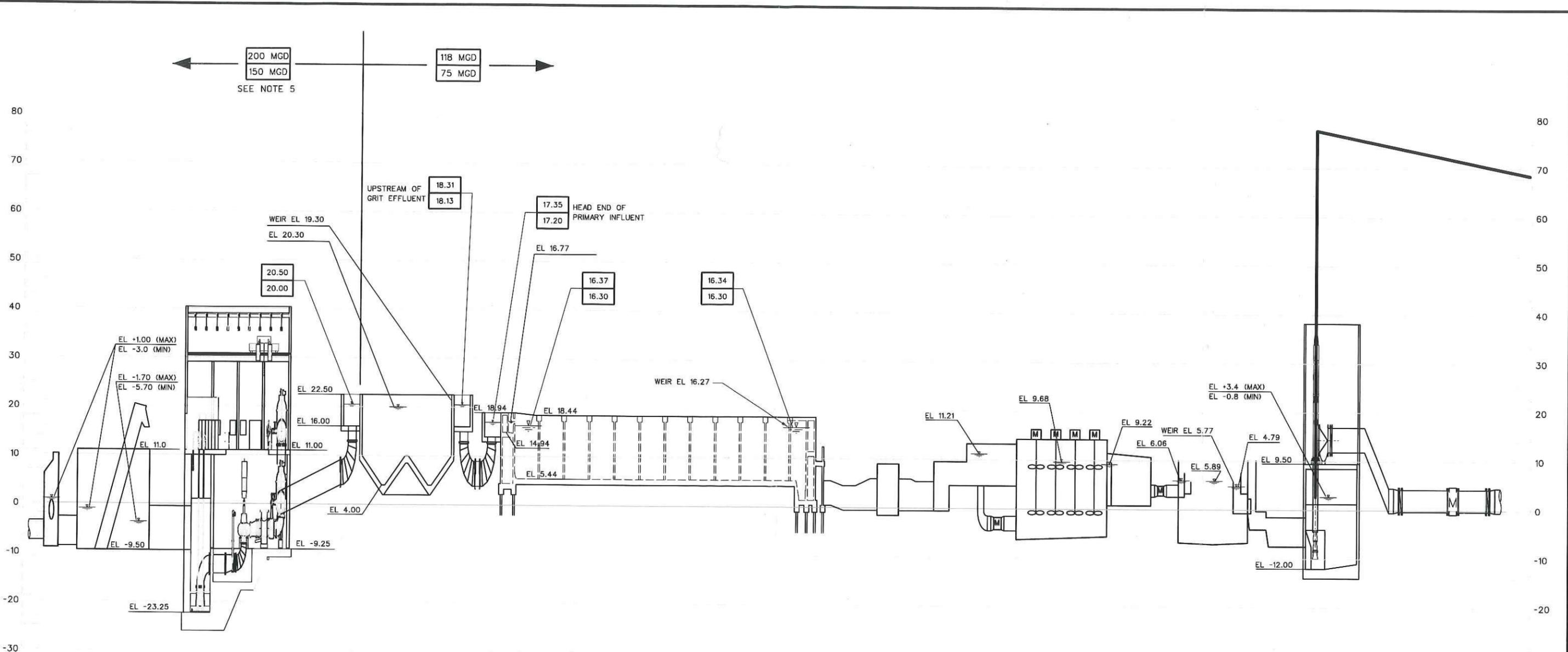
	Plant Influent		Facility
	Plant Outfall		10 Ft Topo

Plot Date: 5/4/2011 7:00:45 AM

User: dgpatrik

Model: G-6 DesignScript: MWH_Matn_Pentable_V85.tbl PlotScale: 1.0000 ' / ' in.

File: ctp00g06.dgn



MECHANICAL SCREENS NEW INFLUENT PUMP STATION AERATED GRIT NEW BASINS EXISTING PRIMARY SETTLING TANKS EXISTING EFFLUENT JUNCTION STRUCTURE EXISTING OXYGENATION TANKS EXISTING FINAL SETTLING TANKS EXISTING EFFLUENT PUMP STATION EFFLUENT FLOW METER

- NOTES:
- 1 WATER SURFACE ELEVATIONS SHOWN FOR THE AERATED GRIT FACILITY ARE BASED ON 118 MGD FLOW AND FOR PEAK WET WEATHER SYSTEM SHOWN FOR 125 MGD HYDRAULIC FLOW. WATER SURFACE ELEVATIONS SHOWN FOR THE PRIMARY SETTLING TANKS ARE BASED ON 75 MGD. WATER SURFACE ELEVATIONS SHOWN FOR THE SECONDARY TREATMENT FACILITIES ARE BASED ON 75 MGD FLOW.
 - 2 ALL REMAINING WATER SURFACE ELEVATIONS ARE CALCULATED BASED ON MAXIMUM FLOW RATES REQUIRED IN SCHEDULES 4 AND 6.
 - 3 ONLY THE NEW INFLUENT PUMP STATION HAS BEEN SHOWN FOR CLARITY.
 - 4 THE VERTICAL DATUM IS BASED ON THE NEW CITY DATUM (NGVD 29).
 - 5 200 MGD IS AN ANTICIPATED TOTAL PEAK FLOW AND 118 MGD IS AN ANTICIPATED PRIMARY/SECONDARY PEAK FLOW.
 - 6 WATER SURFACE ELEVATION DOWNSTREAM OF THE FINAL SETTLING TANK EFFLUENT WEIR (4.79) IS BASED ON A MAXIMUM WATER SURFACE ELEVATION OF 3.4 AT THE EXISTING EFFLUENT PUMP STATION WET WELL.

CONSTRUCTION RECORD DRAWING
 This record drawing has been prepared, entirely or in part on the basis of unverified information compiled and furnished by others to the preparer who is not responsible for any inaccuracies, errors or omissions which may have been incorporated into the document as a result

WARNING
 0 1/2 1
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE



NO	REVISION	DATE	APPD

FINAL CONSTRUCTION CHECKED	DATE	SCALE
	5/20/05	NONE
DESIGNED	CHECKED	
GJW	H. DUNHAM	
DRAWN	PROJECT NAME	
DGP	Proj Name	
FIELD BOOKS	DRAWING NAME	
	ctp00g06	

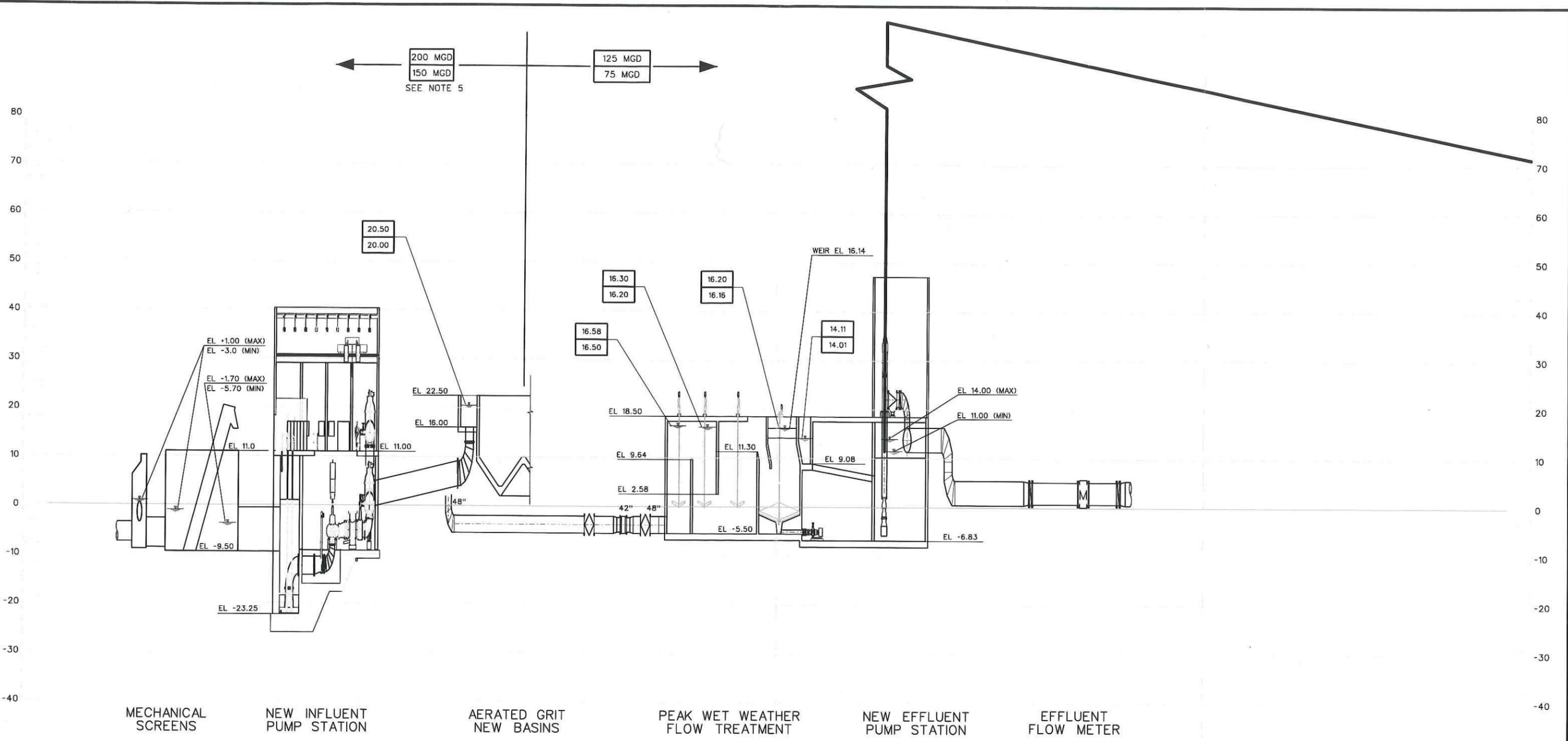
CITY OF TACOMA		G-6
DEPARTMENT OF PUBLIC WORKS		
CTP UPGRADE AND EXPANSION PHASE III		
GENERAL		SHEET NO.
HYDRAULIC PROFILE - SECONDARY		SHEET OF

Plot Date: 5/4/2011 7:01:25 AM

User: dgpairic

DesignScript: MWH_Mstr_Pentable_VB5.tbl PlotScale: 1.0000 1/4 in. Model: G-7

File: ctp00g07.dgn



MECHANICAL SCREENS

NEW INFLUENT PUMP STATION

AERATED GRIT NEW BASINS

PEAK WET WEATHER FLOW TREATMENT

NEW EFFLUENT PUMP STATION

EFFLUENT FLOW METER

- NOTES:
- 1 WATER SURFACE ELEVATIONS SHOWN FOR THE PEAK WET WEATHER SYSTEM SHOWN FOR 125 MGD HYDRAULIC FLOW.
 - 2 ALL REMAINING WATER SURFACE ELEVATIONS ARE CALCULATED BASED ON MAXIMUM FLOW RATES REQUIRED IN SCHEDULES 4 AND 6.
 - 3 ONLY THE NEW INFLUENT PUMP STATION HAS BEEN SHOWN FOR CLARITY.
 - 4 THE VERTICAL DATUM IS BASED ON THE NEW CITY DATUM (NGVD 29)
 - 5 200 MGD IS AN ANTICIPATED TOTAL PEAK FLOW AND 118 MGD IS AN ANTICIPATED PRIMARY/SECONDARY PEAK FLOW
 - 6 WATER SURFACE ELEVATION FOR THE PEAK WET WEATHER EFFLUENT (14.11/14/01) ARE BASED ON MAXIMUM WET WELL ELEVATION OF 14.00.

CONSTRUCTION RECORD DRAWING

This record drawing has been prepared, entirely or in part on the basis of unverified information compiled and furnished by others to the preparer who is not responsible for any inaccuracies, errors or omissions which may have been incorporated into the document as a result

WARNING
 0 1/2 1
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE



NO.	REVISION	DATE	APPD.

FINAL CONSTRUCTION CHECKED	DATE	SCALE
	5/20/05	NONE
DESIGNED	CHECKED	PROJECT NAME
GJW	H. DUNHAM	
DATE	DRAWN	DRAWING NAME
	DGP	
FIELD BOOKS	DRAWING NAME	

--	--

CITY OF TACOMA
 DEPARTMENT OF PUBLIC WORKS
CTP UPGRADE AND EXPANSION PHASE III
 GENERAL
 HYDRAULIC PROFILE - PEAK WET WEATHER

G-7

SHEET NO. _____
 SHEET OF _____

City of Tacoma Treatment Plant #1, Permit # WA0037087
Form E.4. Summary of Submitted Biomonitoring Test Information

Outfall Number	Collection Dates of Samples	Dates of Testing	Test Method	Summary of Test Results	Test Animal
1	1/11/2010 to 1/12/2010	1/13/2010 to 1/15/2010	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	1/11/2010 to 1/12/2010	1/12/2010 to 1/19/2010	EPA-821-R-02-014	NOEC Biomass 50% effluent, NOEC survival 100% effluent, NOEC dry weight 50% effluent	<i>Americamysis bahia (mysid shrimp)</i>
1	1/11/2010 to 1/12/2010	1/12/2010 to 1/19/2010	EPA-600-R-95-136	NOEC Biomass 100% effluent, NOEC survival 100% effluent, NOEC dry weight 100% effluent	<i>Atherinops affinis (Pacific topsmelt)</i>
1	3/16/2010 to 3/17/2010	3/17/2010 to 3/19/2010	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	6/15/2010 to 6/16/2010	6/16/2010 to 6/18/2010	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	9/27/2010 to 9/28/2010	9/28/2010 to 9/30/2010	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	12/15/2010 to 12/16/2010	12/16/2010 to 12/18/2010	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	3/21/2011 to 3/22/2011	3/22/2011 to 3/24/2011	EPA-821-R-02-012	LOEC >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	6/13/2011 to 6/14/2011	6/14/2011 to 6/16/2011	EPA-821-R-02-012	LC50 >70.7% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	9/27/2011 to 9/28/2011	9/29/2011 to 10/1/2011	EPA-821-R-02-012	LC50 >76.5% effluent, NOEC 50% effluent	<i>Ceriodaphnia dubia (Freshwater water flea)</i>
1	10/18/2011 to 10/19/2011	10/20/2011 to 10/22/2011	EPA-821-R-02-012	LC50 > 77.8% effluent, NOEC 50% effluent	<i>Ceriodaphnia dubia (Freshwater water flea)</i>
1	1/17/2012 to 1/18/2012	1/19/2012 to 1/21/2012	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Ceriodaphnia dubia (Freshwater water flea)</i>
1	1/24/2012 to 1/25/2012	1/26/2012 to 1/28/2012	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Ceriodaphnia dubia (Freshwater water flea)</i>
1	1/24/2012 to 1/25/2012	1/26/2012 to 2/2/2012	EPA-821-R-02-014	NOEC Biomass 4.5% effluent, NOEC survival 100% effluent, NOEC dry weight 4.5% effluent	<i>Americamysis bahia (mysid shrimp)</i>
1	1/24/2012 to 1/25/2012	1/26/2012 to 2/2/2012	EPA-600-R-95-136	NOEC Biomass 25% effluent, NOEC survival 100% effluent, NOEC dry weight 50% effluent	<i>Atherinops affinis (Pacific topsmelt)</i>
1	5/14/2012 to 5/15/2012	5/16/2012 to 5/18/2012	EPA-821-R-02-012	LC50 >100% effluent, NOEC 50% effluent	<i>Ceriodaphnia dubia (Freshwater water flea)</i>
1	7/23/2012 to 7/24/2012	7/24/2012 to 7/26/2012	EPA-821-R-02-012	LC50 >72.0% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	10/16/2012 to 10/17/2012	10/17/2012 to 10/19/2012	EPA-821-R-02-012	LC50 >93.9% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	1/23/2013 to 1/24/2013	1/24/2013 to 1/26/2013	EPA-821-R-02-012	LC50 >73.5% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	5/14/2013 to 5/15/2013	5/15/2013 to 5/17/2013	EPA-821-R-02-012	LC50 >73.5% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	7/30/2013 to 7/31/2013	7/31/2013 to 8/2/2013	EPA-821-R-02-012	LC50 >72.0% effluent, NOEC 50% effluent	<i>Daphnia pulex</i>
1	9/28/2013 to 9/29/2013	9/30/2013 to 10/2/2013	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	10/28/2013 to 10/29/2013	10/30/2013 to 11/1/2013	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	1/20/2014 to 1/21/2014	1/22/2014 to 1/26/2104	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	4/14/2014 to 4/15/2014	4/16/2014 to 4/18/2014	EPA-821-R-02-012	LC50 >70% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	7/6/2014 to 7/7/2014	7/8/2014 to 7/10/2014	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>
1	10/20/2014 to 10/21/2014	10/22/2014 to 10/24/2014	EPA-821-R-02-012	LC50 >100% effluent, NOEC 100% effluent	<i>Daphnia pulex</i>

FACILITY NAME AND PERMIT NUMBER:

City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087

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 of, 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: See following pages for all SIUs in Tacoma

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?

FACILITY NAME AND PERMIT NUMBER:

**City of Tacoma Central Wastewater Treatment
Plant Permit No. WA0037087**

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/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**

"Categorical"
- pretreatment
+
(Re-issued)
6-1

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: BRADKEN INC (Atlas Foundry) SIC/NAICS
3325

Mailing Address: 3021 SOUTH WILKESON ST, TACOMA WA 98409

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
ZERO 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): Non-ferrous custom castings; non-destructive testing; metal fabrication; heat treating

Raw material(s): Carbon steel, stainless steel, nickel base alloy ingots

F.6. Flow Rate.

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

ZERO 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.

6056 gpd (X continuous or intermittent)

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

a. Local limits X Yes No

b. Categorical pretreatment standards X Yes No

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

PART 464 METAL MOLDING AND CASTING

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode.

"Categorical"
- pretreat

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: BURLINGTON ENVIRONMENTAL, INC. *SIC/NAICS: 562211*

Mailing Address: 1701 ALEXANDER AVE EAST
TACOMA WA 98421

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

TREATMENT OF HAZARDOUS WASTES INCLUDING CHEMICAL OXIDATION OF PHENOLS/SULFIDES; CHEMICAL REDUCTION OF HEXAVALENT CHROMIUM; METALS PRECIPITATION; HEAT TREATMENT; SEDIMENTATION; NEUTRALIZATION

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): N/A

Raw material(s): _____

F.6. Flow Rate.

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

4,741 gpd (_____ continuous or X 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.

659 gpd (X continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards X Yes _____ No

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

PART 437, Subpart D - Multiple wastestreams

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

*"Categorical"
- local limits
- permit modified
6-1*

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: CARAUSTAR MILL GROUP INC (previously Smartfit-Stone)

Mailing Address: 808 EAST 26TH STREET, TACOMA WA 98421 SIC/NAICS: 2631

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
MANUFACTURE PAPERBOARD AND GYPSUM FACING PAPER

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): PAPERBOARD
Raw material(s): RECYCLED PAPER

F.6. Flow Rate.

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

10,521 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.

397 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

(says local limits only on table 6-1)

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

Part 430 The Pulp, Paper and Paperboard Category – Subpart J Secondary Fiber Non-Deink Subcategory

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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. _____

"Re-issued"
6-1
"categorical"
- pretreatment
- permit (re-issued)

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: CARLSON FORMETEC, INC. SIC/NAICS: 3463

Mailing Address: 2202 SOUTH A STREET
TACOMA WA 98402

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

CHEMICAL CLEANING OF TITANIUM; METAL; ELEMENTARY NEUTRALIZATION; NON-DESTRUCTIVE TESTING OF MACHINED PARTS

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): TITANIUM PARTS FOR AEROSPACE INDUSTRY

Raw material(s): ROLLED FEED STOCK; CAUSTIC DEGREASER; NITRIC AND HYDROFLUORIC ACIDS

F.6. Flow Rate.

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

4890 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.

787 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?

40 CFR PART 433, Subpart A - METAL FINISHING CATEGORY

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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. _____

*Non-Categorical
- Local
works*
new
6-1

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: ✓ CLEANER PRESSURE WASHING LLC *SIC/NAICS: 811192*

Site Address: 1820 E PORTLAND AVE

Mailing Address: PO Box 28 / MILTON WA 98354-0028

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
Washing the exteriors of trucks and trailers

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): N/A

Raw material(s): N/A

F.6. Flow Rate.

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

3100 gpd (X continuous or _____ intermittent)
This SIU has only been permitted for 4 months

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.

282 gpd (X continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No
If subject to categorical pretreatment standards, which category and subcategory?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

"Categorical"
- local limits

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: Darling International SIC/NAICS: 2077

Mailing Address: 2045 Marc Avenue, Tacoma WA 98421

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge. Carcass rendering and animal byproduct mfg, used cooking oil recycling, trap grease recycling, wastewater treatment

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): Rendered fats, oils and grease, bone meal; treated wastewater generated by processes

Raw material(s): Fats, oil, and grease from rendering and recycling of cooking oils and trap grease; treatment chemicals: sodium hydroxide, ferric sulfate, aluminum sulfate, polymers, bleach, antifoam, sulfuric acid

F.6. Flow Rate.

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

77,803 gpd (X 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.

667 gpd (X continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

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

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

City of Tacoma Central Treatment Plant WA0037087

"Categorical"
- pretreatment

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: DELTA CAMSHAFT INC

SIC/NAICS: 332812

Mailing Address: ✓ 2366 TACOMA AVE S

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

Conversion coating (Parkerizing)/metal finishing

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): Coated metal parts/camshafts

Raw material(s): N/A

F.6. Flow Rate.

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

Zero 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.

271 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?

Part 433, Subpart A - Metal Finishing Subcategory

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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: _____

"categorical"
- pretreat

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: EDMAN COMPANY SIC/NAMES: 321113

Mailing Address: 2502 MARINE VIEW DR

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge. De-barking and chipping logs with contact stormwater from the processing yard

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): Cleaned logs, chipped wood, and bark

Raw material(s): Logs

F.6. Flow Rate.

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

15,800 gpd (X 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.

240 gpd (X continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No
If subject to categorical pretreatment standards, which category and subcategory?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

City of Tacoma Central Treatment Plant WA0037087

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:

Healthcare Laundry

Mailing Address:

1115 E. 25th Street

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

Commercial Laundry

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): Laundry wastewater

Raw material(s): N/A

F.6. Flow Rate.

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

26,547 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.

2,471 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?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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.

*Non-Categorical
- local limits*

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.

*Reissued
6-1*

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: WSDOT Lilyblad Petroleum Remediation Site
2244 Port of Tacoma Road Tacoma
Mailing Address: 1100 112th Ave. S. Suite 400 Bellevue, WA 98004

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
Groundwater remediation site pump and treat

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): N/A

Raw material(s): N/A

F.6. Flow Rate.

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

1,303 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.

Zero 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?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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. _____

Categorical pretreatment

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: Northwest Etch Technology *SIC/WAICS: 34799*

Mailing Address: PO Box 110610, Tacoma WA 98411-0610

Site Address: 2601 S. Hood St. Tacoma, WA

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

Chemical milling of metal

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): Precision metal parts

Raw material(s): Stainless steel, copper, brass, aluminum, bronze, nickel silver

F.6. Flow Rate.

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

ZERO 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.

1,303 gpd (X continuous or intermittent)

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

a. Local limits X Yes No

b. Categorical pretreatment standards X Yes No

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

40 CFR Part 433, Subpart A – Metal Finishing

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode.

Table
6-2

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:

PERFORMANCE RADIATOR INC
2667 SOUTH TACOMA WAY

Mailing Address:

PO Box 11224 / TACOMA WA 98411-0224

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
Radiator cleaning, testing and repair; lead soldering

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): N/A

Raw material(s): N/A

F.6. Flow Rate.

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

Zero 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.

312 gpd (X continuous or intermittent)

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

a. Local limits X Yes No

b. Categorical pretreatment standards Yes X No

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

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode.

6-1
Re-issued
"categorical"
- pretreat

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:

PHOENIX ENVIRONMENTAL SERVICES INC
1901 E D ST, TACOMA

SIC / NAICS: 562219

Mailing Address:

2212 PORT OF TACOMA RD / TACOMA WA 98421

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.
Used oil reprocessing and transfer

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): Recycled oil

Raw material(s): N/A

F.6. Flow Rate.

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

1,940 gpd (___ continuous or X 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.

294 gpd (X continuous or ___ intermittent)

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

a. Local limits X Yes ___ No

b. Categorical pretreatment standards X Yes ___ No

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

40 CFR Part 437, Subpart B - Oils Treatment & Recovery

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

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.

Handwritten notes:
"categorical"
- pre-treat
re-issued
6-1

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: PM Testing Laboratories *SIC/NAICS: 3479*
Mailing Address: *4500 15th St SE Fife*
3921 Pacific Hwy E., Fife, WA 98424

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

Conversion coating, passivating and anodizing metal finishing; non-destructive testing

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): Finished metal parts
Raw material(s): N/A

F.6. Flow Rate.

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

1777 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.

2400 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?

Zero Discharge Permit for wastewater subject to 40 CFR Part 433 – Metal finishing

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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. _____

*"Categorical"
- Pre treatment
stds*

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: Powder Coating Systems *SIC/NAICS: 3429*

Mailing Address: 3133 S. Lawrence Street, Tacoma WA 98409 ✓

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

Metal finishing for powder coating

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): Powder coated metal parts

Raw material(s): N/A

F.6. Flow Rate.

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

206 gpd (continuous or X 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.

240 gpd (X continuous or intermittent)

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

a. Local limits X Yes No

b. Categorical pretreatment standards X Yes No

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

40 CFR Part 433, Subpart A – Metal Finishing

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode.

"Non-Categorical"
- Local info

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:

Puget Sound Energy – Historical Coal Gassification Superfund Site

Mailing Address:

10827 NE 68TH ST, STE B, KIRKLAND, WA 98033-4000

SIC/UMCS: 4953

Site Address: 2200 E. River Road, Tacoma WA

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

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): Treated groundwater

Raw material(s): Hydrocarbons, metals, toxic organic pollutants, HCl, NaCl

F.6. Flow Rate.

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

7,138 gpd (X 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.

Zero gpd (_____ continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards Yes X No

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

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

*4 More
Categorical "
- local
limits*

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: SEA-TAC INFLITE SERVICES LLC SIC/NAICS 7218

Mailing Address: 5215 SOUTH TACOMA WAY
TACOMA WA 98409

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

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): INDUSTRIAL LAUNDRY AND LINEN SUPPLY

Raw material(s): N/A

F.6. Flow Rate.

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

17,360 gpd (X 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.

472 gpd (X continuous or _____ intermittent)

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

a. Local limits X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No

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

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

"None
Categorical"
- local
limits

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: Superior Linen Service SIC/NAICS: 7213

Mailing Address: 1012 Center Street, Tacoma WA 98409

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

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): Laundered shop towels, uniforms, floor mats, table and bed linens, patient gowns

Raw material(s): N/A

F.6. Flow Rate.

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

84,718 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.

1,250 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?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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. _____

*Categorical
- pretreated*

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: Targa Sound Terminal, LLC

Mailing Address: PO Box 1372, Tacoma WA 98401

SIC/NAICS: 424710

Site Address: 2628 Marine View Drive, Tacoma, WA ✓

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

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): Treated oily wastewater

Raw material(s): N/A

F.6. Flow Rate.

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

11,445 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.

546 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 Discharged 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. _____

City of Tacoma Central Treatment Plant WA0037087

"non-categorical"
- local into

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: Tomlinson Linen Service SIC/NAISC: 812331

Mailing Address: 2902 South 12th Street Tacoma WA 98405

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

Commercial laundry

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): Commercial linen service

Raw material(s): N/A

F.6. Flow Rate.

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

39,559 gpd (X 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.

570 gpd (X continuous or _____ intermittent)

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

a. Local limits: X Yes _____ No

b. Categorical pretreatment standards _____ Yes X No
If subject to categorical pretreatment standards, which category and subcategory?

F.8. Problems at the Treatment Works Attributed to Waste Discharged 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 X No If yes, describe each episode. _____

