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Central Valley Regional Water Quality Control Board

30 May 2018

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NOTICE OF APPLICABILITY (NOA); MUNICIPAL GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0085 (NPDES NO. CAG585001); CITY OF ATWATER, ATWATER REGIONAL WASTEWATER TREATMENT FACILITY, MERCED COUNTY

The Central Valley Regional Water Quality Control Board Report (Central Valley Water Board) received a Report of Waste Discharge (ROWD) for the Atwater Regional Wastewater Treatment Facility (Facility) on 29 June 2016 from the City of Atwater (hereinafter Discharger), for discharge of tertiary-treated domestic wastewater from the Facility to Peck/Atwater Drain. The Central Valley Water Board also received a Notice of Intent for the Facility on 12 January 2018 requesting enrollment under General Order R5-2017-0085 for *Municipal Wastewater Dischargers That Meet Objectives/Criteria at the Point of Discharge to Surface Water* (Municipal General Order). Based on the application packet and subsequent information submitted by the Discharger, Central Valley Water Board staff has determined that the Facility is eligible for coverage under the Municipal General Order. This Facility's discharge is hereby authorized under the terms and conditions of the Municipal General Order and assigned Municipal General Order **R5-2017-0085-001** and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG585001. Please reference your Municipal General Order enrollee number, R5-2017-0085-001, in your correspondence and submitted documents.

This NOA, effective immediately, enrolls the Facility under the Municipal General Order and authorizes the discharge of tertiary-treated domestic wastewater from the Facility to Peck/Atwater Drain and to the onsite Storm Water Retention Pond/Emergency Storm Water Basin. The Facility's current individual order (Order R5-2011-0082; NPDES No. CA0085308) expired on 1 January 2017; however, the Central Valley Water Board Executive Officer administratively continued Order R5-2011-0082 in a letter dated 28 December 2016. The 28 December 2016 letter acknowledged the Facility was identified as a good candidate for enrollment under the, at the time proposed, Municipal General Order. As of the date of this NOA, Order R5-2011-0082 is no longer effective. Staff plans to have the Central Valley Water Board consider rescinding Order R5-2011-0082 at its 31 May/1 June 2018 Board Meeting.

The duration of this NOA is limited to two years 30 May 2020. The Discharger is required to conduct quarterly chronic toxicity monitoring using the dilution series specified in the Municipal General Order. By 31 March 2020, Central Valley Water Board staff will conduct a new reasonable potential analysis for chronic toxicity using the Facility's new chronic toxicity data. If the chronic toxicity data demonstrate reasonable potential, staff will either revise this NOA to include the chronic toxicity effluent limitation specified in the Municipal General Order or draft

individual waste discharge requirements for the Facility. If individual waste discharge requirements are deemed necessary, the Discharger will not be expected to submit a new ROWD.

The enclosed Municipal General Order may be viewed at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2017-0085.pdf

You are urged to familiarize yourself with the contents of the entire document. The Municipal General Order prescribes mandatory discharge monitoring and reporting requirements.

Table 1. Facility Information

WDID	5B24NP00017
CIWQS Facility Place ID	747519
Discharger	City of Atwater
Name of Facility	Atwater Regional Wastewater Treatment Facility
Facility Address	530 South Bert Crane Road
	Atwater, California 95301
	Merced County
Facility Contact, Title and Phone	Brian Shaw, Interim Public Works Director (209) 357-6372
Authorized Person to Sign and Submit Reports	Brian Shaw, Interim Public Works Director (209) 357-6372 Steven Pound, Chief Plant Operator (209) 357-3451
Mailing Address	470 Aviator Drive, Atwater, CA 95301
Billing Address	Same as mailing address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	B
Pretreatment Program	Yes
Recycling Requirements	Not Applicable
Facility Permitted Flow	6.0 million gallons per day (MGD)(average dry weather daily discharge flow)
Facility Design Flow	6.0 MGD
Watershed	San Joaquin Valley Floor Hydrologic Unit, El Nido-Stevinson Hydrologic Area (No. 535.70)
Receiving Water	Peck/Atwater Drain
Receiving Water Type	Inland surface water

FACILITY DESCRIPTION

The Discharger is the owner of the Facility but currently contracts Veolia Water North America – West, LLC to operate and maintain the Facility. The Facility provides sewerage service for the City of Atwater (population of 29,022 based on 2014 estimate), the unincorporated community of Winton (population of 10,613 based on 2010 census), and both the Federal Bureau of Prisons – Atwater and the Castle Airport Aviation and Development Center (combined population of approximately 1,500). A Site Location Map is included in Attachment A.

The Facility provides full nitrification and denitrification for nitrogen removal and uses ultraviolet light (UV) for disinfection. A Liquid Flow Schematic is included in Attachment B and a Solids Flow Schematic is included in Attachment C. The components of the Facility include:

- A headworks with fine screening and grit removal;
- Two oxidation ditches providing nitrification and denitrification;
- Three secondary clarifiers;
- Three cloth-media tertiary filters;
- An UV disinfection system;
- Two aerobic digesters;
- A solids holding day tank;
- Three rotary presses;
- A biosolids storage/drying area; and
- An unlined emergency storage basin also used as a stormwater retention pond for onsite stormwater runoff.

The Facility has a design flow of 6.0 MGD. For the 2017 calendar year, the Facility received an annual average influent flow of 3.33 MGD. The Facility's UV system consists of three UV chambers each containing five banks. Sludge wasted from the secondary clarifiers is either returned to the oxidation ditches as returned activated sludge (RAS) or wasted to the aerobic digesters as waste activated sludge (WAS). According to the 2016 ROWD, biosolids are stored and dried at the Facility for a minimum of three months. In 2015, the Facility generated 324 dry metric tons of biosolids.

RECEIVING WATER BENEFICIAL USES

The Facility discharges disinfected tertiary-treated wastewater to Peck/Atwater Drain at Discharge Point 001 (37° 16' 49.3" N; 120° 38' 00.7" W). Peck/Atwater Drain is hydraulically connected to the San Joaquin River, a water of the United States, between Sack Dam and the mouth of the Merced River within the El Nido-Stevinson Hydrologic Area of the San Joaquin Valley Floor Hydrologic Unit (Hydrologic Area No. 535.70).

Peck Drain is a manmade, unlined channel constructed to convey water from Atwater Drain to Joseph Gallo Farms (Gallo Ranch). Atwater Drain empties into Peck Drain at the eastern boundary of the Gallo Ranch property just south of State Route 140 and along Bert Crane Road. The historic alignment of Atwater Drain is abandoned at this location. Peck Drain rejoins the original Atwater Drain alignment on the southwest side of Gallo Ranch.

Beyond Gallo Ranch, Atwater Drain borders a few large agricultural parcels and two managed wetland areas. Atwater Drain is also a man-made, unlined channel originally constructed by Merced Irrigation District to dispose of groundwater pumped to lower the groundwater table in agricultural lands. The Drain was later modified to also collect and disperse agricultural tail waters from surrounding properties, overflow from the adjacent irrigation supply channels, and storm water drainage from the City of Atwater. Gallo Ranch, as part of its agreement with the Discharger, has the right to all wastewater discharged to Peck Drain. Any water not extracted for use by Gallo Ranch flows into Atwater Drain. Atwater Drain terminates at the Arena Plains Unit of the Merced National Wildlife Refuge. Water in the Merced National Wildlife Refuge can flow into the San Joaquin River via the East Side Canal.

Starting in 2016, the United States Bureau of Reclamation has entered into one-year agreements to purchase up to 6,000 acre-feet per year of tertiary-treated wastewater from Gallo Farms. The treated wastewater is pumped out of Peck/Atwater Drain into Bear Creek. Bear Creek is used to convey the treated wastewater to the East Bear Creek Unit of the San Luis

National Wildlife Refuge complex. Water in Bear Creek, if not diverted, will flow into the San Joaquin River.

Beneficial uses applicable to Peck/Atwater Drain are carried over from Order R5-2011-0082. See Section I.A of Attachment D of this NOA for how surface water beneficial uses were established. The following beneficial uses are applicable to Peck/Atwater Drain:

- Municipal and domestic supply (MUN);
- Agricultural supply (AGR);
- Water contact recreation (REC-1);
- Warm freshwater habitat (WARM);
- Wildlife habitat (WILD); and
- Groundwater recharge (GWR).

Groundwater underlying the Facility is in the El Nido-Stevinson Detailed Analysis Unit (DAU) No. 212. The beneficial uses of groundwater for this DAU are designated in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised July 2016 (Basin Plan) as follows:

- Municipal and domestic supply (MUN);
- Agricultural supply (AGR);
- Industrial service supply (IND); and
- Industrial process supply (PRO).

RECEIVING WATER TOTAL MAXIMUM DAILY LOADS (TMDLs)

As specified in the Municipal General Order, section IV.D of Attachment F (Fact Sheet), and in accordance with section 303(d) of the Clean Water Act, U.S. EPA requires the Central Valley Water Board to develop TMDLs for each 303(d) listed pollutant and water body combination.

On 26 June 2015, U.S. EPA gave final approval to California's 2012 section 303(d) List of Water Quality Limited Segments (WQLSs). Peck/Atwater Drain is not listed as a WQLS in the 2012 303(d) List. However, the San Joaquin River and Bear Creek are both listed as WQLSs. Bear Creek (from Bear Valley to the San Joaquin River) is listed as a WQLS for E.coli and unknown toxicity. The San Joaquin River segments between Bear Creek and Mud Slough are listed as a WQLS for arsenic, boron, chlorpyrifos, DDT, diazinon, electrical conductivity, E. coli, Group A pesticides, mercury, selenium, and unknown toxicity. As specified in this NOA, the Municipal General Order includes monitoring for all these constituents, except E.coli. However, this NOA includes total coliform effluent limitations and monitoring requirements and requires the Discharger to provide treatment equivalent to Title 22 disinfected tertiary recycled water, which means the Facility is required to produce an essentially pathogen-free effluent by maintaining a 5-log virus removal/inactivation barrier through filtration and disinfection.

The Basin Plan includes waste load allocations for diazinon and chlorpyrifos applicable to all NPDES dischargers that discharge directly or indirectly to the lower San Joaquin River. The Municipal General Order, section V.A.1.c.ix. includes an average monthly and average weekly effluent limitation for chlorpyrifos and diazinon for discharges to the San Joaquin River and its tributaries downstream of the major dams and reservoirs. These chlorpyrifos and diazinon limitations are included in this NOA.

DISCHARGE PROHIBITIONS AND OTHER REQUIREMENTS

Discharge prohibitions applicable to the discharge are specified in section IV of the Municipal General Order. There are no additional site-specific prohibitions for this discharge.

EFFLUENT LIMITATIONS

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001. Only the following effluent limitations are applicable to Discharge Point 001. Unless otherwise specified, compliance shall be measured at Monitoring Location EFF-001, as described in the Monitoring and Reporting section of this NOA.

1. The Discharger shall maintain compliance with the effluent limitations specified in Table 2 below.

Table 2. Effluent Limitations

Parameter	Units	Effluent Limitations			Municipal General Order Section Reference
		Average Monthly	Average Weekly	Maximum Daily	
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	15	--	V.A.1.a.ii.(a) (pg. 12)
Total Suspended Solids	mg/L	10	15	--	V.A.1.a.ii.(a) (pg. 12)
Copper, Total Recoverable	µg/L	5.8	--	9.7	V.A.1.b.iii. (pg. 20)
Zinc, Total Recoverable	µg/L	57	--	86	V.A.1.b.iii. (pg. 32)
Ammonia Nitrogen, Total (as N)	mg/L	1.0	2.6	--	V.A.1.c.v.(b) (pg. 50)
	lbs/day	50	130	--	
Nitrate + Nitrite, Total (as N)	mg/L	10	22	--	V.A.1.c.vi (pg. 70)

2. **Percent Removal (Municipal General Order section V.A.1.a.ii.(b); pg. 13)**
The average monthly percent removal of 5-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS) shall not be less than 90 percent.
3. **Total Coliform Organisms (Municipal General Order section V.A.1.a.ii.(c); pg. 13)**
Effluent total coliform organisms shall not exceed:
 - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
 - ii. 23 MPN/100 mL, more than once in any 30-day period; and
 - iii. 240 MPN/100 mL, at any time.
4. **Flow (Municipal General Order section V.A.1.a.iii; pg. 13)**
The average dry weather daily discharge flow shall not exceed 6.0 MGD.
5. **Whole Effluent Toxicity, Acute (Municipal General Order section V.A.1.c.i; pg. 49)**
Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:
 - i. 70%, minimum for any one bioassay; and
 - ii. 90%, median for any three consecutive bioassays.
6. **pH (Municipal General Order section V.A.1.c.iv.(a); pg. 49)**
The pH shall at all times be within the range of 6.5 and 8.2.

- 7. Diazinon and Chlorpyrifos (Municipal General Order section V.A.1.c.ix; pg. 73)**
Effluent diazinon and chlorpyrifos concentrations shall not exceed the sum of one (1.0) as identified below:

i. **Average Monthly Effluent Limitation**

$$S_{AMEL} = \frac{C_{DM-avg}}{0.079} + \frac{C_{CM-avg}}{0.012} \leq 1.0$$

C_{DM-avg} = average monthly diazinon effluent concentration in $\mu\text{g/L}$.

C_{CM-avg} = average monthly chlorpyrifos effluent concentration in $\mu\text{g/L}$.

ii. **Average Weekly Effluent Limitation**

$$S_{AWEL} = \frac{C_{DW-avg}}{0.14} + \frac{C_{CW-avg}}{0.021} \leq 1.0$$

C_{DW-max} = average weekly diazinon effluent concentration in $\mu\text{g/L}$.

C_{CW-max} = average weekly chlorpyrifos effluent concentration in $\mu\text{g/L}$.

RECEIVING WATER LIMITATIONS

1. **Surface Water Limitations (Municipal General Order section VI.A).** The discharge shall not cause the following in Peck/Atwater Drain (Municipal General Order section given in brackets):
- Bacteria (VI.A.2);
 - Biostimulatory Substances (VI.A.3);
 - Chemical Constituents (VI.A.4);
 - Color (VI.A.5);
 - Dissolved Oxygen (VI.A.6.a.i, ii, iii);
 - Floating Material (VI.A.7);
 - Oil and Grease (VI.A.8);
 - pH (VI.A.9.a);
 - Pesticides (VI.A.10);
 - Radioactivity (VI.A.11);
 - Suspended Sediments (VI.A.12);
 - Settleable Substances (VI.A.13);
 - Suspended Material (VI.A.14);
 - Taste and Odors (VI.A.15);
 - Temperature (VI.A.16.g);
 - Toxicity (VI.A.17); and
 - Turbidity (VI.A.18.a).
2. **Groundwater Limitations (Municipal General Order section VI.B).** Release of waste constituents from any storage, treatment, or disposal component associated with the Facility shall not cause the underlying groundwater to contain waste constituents in concentrations greater than background water quality or water quality objectives, whichever is greater.

MONITORING AND REPORTING

Monitoring and reporting program requirements are contained in Attachment E of the Municipal General Order as applicable, and as specified in this NOA.

Monitoring Locations – The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements:

Table 3. Monitoring Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	A location where a representative sample of the Facility's influent can be obtained prior to any additives, treatment processes, and plant return flows.
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to Peck/Atwater Drain.
--	RSW-001	Peck/Atwater Drain approximately 500 feet upstream of Discharge Point 001
--	RSW-002	Peck/Atwater Drain approximately 250 feet downstream of Discharge Point 001
--	SLG-001	A location where a representative sample of the sludge can be obtained.
--	FIL-001	Influent to the tertiary treatment filters
--	FIL-002	Location after the tertiary treatment filters and prior to the ultraviolet light disinfection system
--	UVS-001	Ultraviolet light disinfection system
--	PND-001	Storm Water Retention Pond/Emergency Storage Basin

Influent Monitoring – The Discharger shall monitor the influent at Monitoring Location INF-001 as follows:

Table 4. Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite ¹	1/Week	2
Total Suspended Solids	mg/L	24-hr Composite ¹	1/Week	2

¹ 24-hour flow proportional composite.

² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Resources Control Board (State Water Board).

Effluent Monitoring – The Discharger shall monitor the Facility's disinfected tertiary-treated effluent at Monitoring Location EFF-001 as follows:

Table 5. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite ¹	1/Week	2
pH	standard units	Grab ³	1/Day ^{4,5}	2

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Total Suspended Solids	mg/L	24-hr Composite ¹	1/Week	2
Priority Pollutants				
Copper, Total Recoverable	µg/L	24-hr Composite ¹	1/Month	2, 8
Zinc, Total Recoverable	µg/L	24-hr Composite ¹	1/Month	2, 8
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N)	mg/L	Grab ³	1/Week ⁴	2
	lbs/day	Calculate	1/Week	--
Nitrate Nitrogen, Total (as N)	mg/L	Grab ³	1/Week	2
Nitrite Nitrogen, Total (as N)	mg/L	Grab ³	1/Week	2
Nitrate plus Nitrite, Total (as N)	mg/L	Calculate	1/Week	--
Nitrogen, Total (as N)	mg/L	Grab ³	1/Week	2
Chlorpyrifos	µg/L	Grab ³	1/Year	2,9
Diazinon	µg/L	Grab ³	1/Year	2,9
Dissolved Oxygen	mg/L	Grab ³	3/Week ⁵	2
Electrical Conductivity @ 25°C	µmhos/cm	24-hr Composite ¹	1/Week ⁵	2
Hardness, Total (as CaCO ₃)	mg/L	24-hr Composite ¹	1/Month ⁶	2
Temperature	°C	Grab ³	3/Week ^{4, 5}	2
Total Coliform Organisms	MPN/100 mL	Grab ³	5/Week ⁷	2
Total Dissolved Solids	mg/L	24-hr Composite ¹	1/Month	2

¹ 24-hour flow proportional composite.

² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

³ A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

⁴ pH and temperature shall be recorded at the time of ammonia sample collection.

⁵ A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

⁶ Hardness samples shall be collected concurrently with metals samples.

⁷ Samples for total coliform organisms may be collected at any point following disinfection.

⁸ For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (See Municipal General Order, Attachment E, section IX.F).

⁹ Chlorpyrifos and diazinon shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent GC/MS method.

Whole Effluent Toxicity Monitoring – The Discharger shall conduct acute and chronic toxicity testing to determine if the effluent is contributing toxicity to the receiving water. The Discharger shall meet the acute and chronic toxicity testing requirements contained in the Municipal

General Order, Monitoring and Reporting Program, Attachment E, section V, and as specified below:

Table 6. Whole Effluent Toxicity Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Required Analytical Test Method
Acute Toxicity ¹	% survival	24-hr Composite ³	1/Year	2
Chronic Toxicity	TUc	24-hr Composite ⁴	1/Quarter	5

- ¹ Test species shall be fathead minnows (*Pimephales promelas*).
- ² Acute toxicity samples shall be analyzed using EPA-821-R-02-012, Fifth Edition.
- ³ 24-hour flow proportional composite.
- ⁴ Effluent samples shall be 24-hour flow proportional composite at Monitoring location EFF-001. Receiving water control shall be a grab sample obtained at Monitoring Location RSW-001. A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- ⁵ Chronic toxicity samples shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002.

Receiving Water Monitoring – The Discharger shall monitor the receiving water at Monitoring Locations RSW-001 and RSW-002 for the constituents identified in Table 7 below. If there is no upstream flow in the receiving water during the designated monitoring period, monitoring is not required at RSW-001 during that period. Whenever monitoring is not required, the Discharger shall state so in the monthly SMR.

Table 7. Receiving Water Monitoring

Parameter	Units	Sample Type	Monitoring Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	standard units	Grab ^{1,2}	1/Week	3
Non-Conventional Pollutants				
Dissolved Oxygen	mg/L	Grab ^{1,2}	1/Week	3
Electrical Conductivity @ 25°C	µmhos/cm	Grab ^{1,2}	1/Month	3
Hardness, Total (as CaCO ₃)	mg/L	Grab ¹	1/Month	3
Temperature	°C	Grab ^{1,2}	1/Week	3
Turbidity	NTU	Grab ^{1,2}	1/Month	3

- ¹ A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- ² A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- ³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

Pond Monitoring – The Discharger shall keep a log regarding the use of the Storm Water Retention Pond/Emergency Storm Water Basin (Monitoring Location PND-001). In particular, the Discharger shall record the following when any type of wastewater is directed to the basin:

- i. The date(s) when the wastewater is directed to the basin;
- ii. The type(s) of wastewater (e.g., untreated due to plant upset, tertiary treated, etc.) directed to the basin;
- iii. The total volume of wastewater directed to the basin (volume may be estimated);
- iv. The duration of time wastewater is collected in the basin prior to redirection back to the other units of the wastewater treatment plant; and
- v. The daily freeboard in the basin.

When wastewater (treated or untreated) is stored in the Storm Water Retention Pond/Emergency Storm Water Basin, the Discharger shall monitor the basin at Monitoring Location PND-001 as follows:

Table 8. Pond Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	standard units	Grab ^{1,2}	1/Month	3
Non-Conventional Pollutants				
Dissolved Oxygen	mg/L	Grab ^{1,2}	1/Month	3
Odor	--	Observation	1/Month	--

- ¹ A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- ² A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- ³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Board.

Filtration System Monitoring – The Discharger shall monitor the influent to the tertiary treatment filters at Monitoring Location FIL-001 (only when not using coagulation) and the effluent of the tertiary treatment system filters at Monitoring Location FIL-002 as follows:

Table 9. Filtration System Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Turbidity ³	NTU	Meter	Continuous	1,2

¹ For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results. For Dischargers that utilize UV disinfection, the Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.

² Report daily average and maximum turbidity.

³ The Discharger shall indicate in their monthly self-monitoring report which days coagulation was used.

Ultraviolet Light (UV) Disinfection System Monitoring – The Discharger shall monitor the UV disinfection system at Monitoring Location UVS-001 as follows:

Table 10. UV Disinfection System Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	1
Number of UV banks in operation ²	Number	Observation	Continuous	1
UV Transmittance ³	Percent (%)	Meter	Continuous	1
UV Dose ⁴	mJ/cm ²	Calculated	Continuous	1

¹ For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results. The Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.

² Report daily minimum and daily maximum number of UV banks in operation.

³ Report daily minimum hourly average UV transmittance and daily average transmittance. The minimum hourly average transmittance shall consist of lowest average transmittance recorded over an hour of a day when flow is being discharged. If the system does not operate for an entire hour interval on a given day or if effluent flow is not discharged for an entire hour, the transmittance will be averaged based on the actual operation time when discharges are occurring.

⁴ Report daily minimum hourly average UV dose and daily average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in any channel that had at least one bank of lamps operating during the hour interval. For channels that did not operate for the entire hour interval or when effluent flow is not discharged for the entire hour, the dose will be averaged based on the actual operation time when discharges occurred.

Effluent and Receiving Water Characterization Monitoring – The Discharger shall monitor the effluent and receiving water, at Monitoring Locations EFF-001 and RSW-001 respectively, as follows:

Table 11. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Sample Type	Sampling Frequency ¹	Required Analytical Test Method ²
Constituents listed in the Municipal General Order, Attachment E, Table E-10 ^{3,4}	Per Municipal General Order, Table E-10	Per Municipal General Order, Table E-10	1/Year at EFF-001; 2/Permit Term at RSW-001	Per Municipal General Order, Table E-10

¹ Sampling at EFF-001 and RSW-001 shall be conducted concurrently.

² The maximum reporting levels for cadmium, chromium (Total), copper, lead, and nickel are as follows:

- Cadmium 0.5 µg/L;
- Chromium (Total) 10 µg/L;
- Copper 0.5 µg/L;
- Lead 0.5 µg/L; and
- Nickel 5 µg/L.

³ The Discharger does not discharge within the legal boundaries of the Sacramento-San Joaquin Delta; therefore, the Discharger is not required to sample for the constituents labeled with footnote 7 in Table 10, Attachment E, of the Municipal General Order.

⁴ The Discharger is not required to sample the effluent for the following constituents per this section because regular effluent monitoring is already required per Table 5 above (Note: Receiving water monitoring is required for these constituents per this section):

- Ammonia;
- Copper;
- Nitrate;
- Nitrite;
- Total Dissolved Solids; and
- Zinc.

Monitoring Report Submittals – The Discharger shall comply with the Reporting Requirements contained in the Municipal General Order, Monitoring and Reporting Program, Attachment E, section X, and as specified in this NOA. Monitoring in accordance with the Municipal General Order and this NOA shall begin **1 June 2018**. Table 12 below, summarizes the monitoring report due dates.

Table 12. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	NOA effective date	All	Submit with monthly SMR
1/Day	NOA effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	NOA effective date	Sunday through Saturday	Submit with monthly SMR
3/Week	NOA effective date	Sunday through Saturday	Submit with monthly SMR
1/Month	NOA effective date	1 st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/Quarter	NOA effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
1/Year	NOA effective date	1 January through 31 December	1 February of following year
2/Permit Term	30 November 2019	30 November 2019 through 30 May 2022	First day of second calendar month following sampling

ANNUAL PRETREATMENT REPORTING REQUIREMENTS

As specified in this NOA, the Discharger is subject to the pretreatment requirements included in the Municipal General Order. Therefore, the Discharger shall submit an annual pretreatment report as prescribed in the Municipal General Order, Monitoring and Reporting Program, Attachment E, section X.D.5. The annual report shall be submitted by **28 February** and include all items listed in section X.D.5 of the Monitoring and Reporting Program. In accordance with Municipal General Order, Monitoring and Reporting Program, Attachment E, section X.D.5.a the Discharger shall sample the Facility's influent (INF-001), effluent (EFF-001), and sludge (SLG-001) at least **yearly**.

PROVISIONS

Provisions are contained in Municipal General Order, section VII. The following special provisions are applicable to this discharge and the operation of the Facility (Municipal General Order section given in brackets).

- **Toxicity Reduction Evaluation Requirements (VII.C.2)**
- **Salinity Evaluation and Minimization Plan (VII.C.3.c)**
- **Filtration System Operating Specifications (VII.C.4.a.i and iii.).**
- **UV Disinfection System Operating Specifications (VII.C.4.b.i.(a), VII.C.4.b.ii.(a), VII.C.4.b.iii. through VII.C.4.b.vi).**
- **Pond Operating Specifications (VII.C.4.c.i. through VII.C.4.c.x).**
- **Pretreatment Requirements (VII.C.5.a).** The Discharger shall continue to implement its pretreatment program that was approved by the Central Valley Water Board on 22 June 2007.
- **Sludge/Biosolids Treatment or Discharge Specifications (VII.C.5.b except VII.C.5.b.iii)**
- **Collection System (VII.C.5.c)**
- **Title 22, or Equivalent, Disinfection Requirements (VII.C.6.a)**

COMPLIANCE DETERMINATION

The following compliance determinations are applicable to this discharge (Municipal General Order section given in brackets, if applicable):

- BOD₅ and TSS Effluent Limitations (VIII.A);
- Average Dry Weather Flow Effluent Limitation (VIII.D);
- Total Coliform Organisms Effluent Limitations (VIII.E);
- Mass Effluent Limitations (VIII.G);
- Priority Pollutant Effluent Limitations (VIII.H);

- Dissolved Oxygen Receiving Water Limitation (VIII.I);
- Chlorpyrifos and Diazinon Effluent Limitations (VIII.K)
- Period Average, Calendar Month Average, and Annual Average (VIII.N);
- Turbidity Receiving Water Limitation (VIII.O);

ANTI-BACKSLIDING REQUIREMENTS

Anti-backsliding requirements are specified in the Municipal General Order, section V.D.3, of Attachment F (Fact Sheet). The removal or relaxation of the following effluent limitations is justified based on the anti-backsliding provisions contained in Clean Water Act (CWA) sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l):

- Chlorine;
- Copper;
- Electrical Conductivity;
- Lead; and
- Zinc.

A more detailed anti-backsliding analysis is provided in Attachment D to this NOA in section I.C, Satisfaction of Anti-Backsliding Requirements.

ANTIDegradation REQUIREMENTS

Antidegradation requirements are specified in the Municipal General Order, section V.D.4, of Attachment F (Fact Sheet). This NOA does not allow an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not required. This NOA removes or relaxes the effluent limitations for the pollutants listed in the above section. The removal or relaxation of these effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. 131.12 and State Water Board Resolution No. 68-16. A more detailed antidegradation discussion is provided in Attachment D to this NOA in section I.D, Antidegradation Policies.

RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Additional rationale for effluent limitations and monitoring requirements is included in Attachment D of this NOA.

ENFORCEMENT

Failure to comply with the Municipal General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. If discharges do not occur during any report monitoring period, the Discharger must still submit the monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

COMMUNICATION

The Central Valley Water Board is implementing a Paperless Office system to reduce our paper use, increase efficiency, and provide a more effective way for our staff, the public, and interested parties to view documents in electronic form. Therefore, the Discharger is required to submit all self-monitoring, technical, and progress reports required by this NOA via California Integrated Water Quality System (CIWQS) submittal. In general, if any monitoring data for a monitoring location can be submitted using a computable document format (CDF) file upload, then it should be submitted as a CDF file upload, such as characterization monitoring data. However, certain parameters that cannot be uploaded to the CIWQS data tables, such as Annual Operations

Reports, should be uploaded as a Portable Document Format (PDF), Microsoft Word, or Microsoft Excel file attachment. Also, please upload or enter a cover letter summarizing the content of the report to the submittal tab of the CIWQS module for each submittal.

All other documents not required to be submitted via CIWQS shall be converted to a searchable PDF and submitted by email to centralvalleyfresno@waterboards.ca.gov. Please include the following information in the body of the email: Attention: NPDES Section; Discharger: City of Atwater; Facility: Atwater Regional Wastewater Treatment Facility; County: Merced; and CIWQS Place ID: 747519. Documents that are 50 megabytes or larger must be transferred to a DVD or flash drive, and mailed to our office.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Any questions regarding the permitting aspects of the Municipal General Order, shall be directed, via the paperless office system, to the NPDES Permitting Unit, attention Matt Scroggins. Mr. Scroggins can also be reached at (559) 445-6042.

Any questions regarding compliance with the Municipal General Order, shall be directed to the Compliance and Enforcement Unit, attention Warren Gross at warren.gross@waterboards.ca.gov. Mr. Gross can also be reached at (559) 445-5128.



for Pamela C. Creedon
Executive Officer

Enclosures: Municipal General Order R5-2017-0085 (Discharger only)

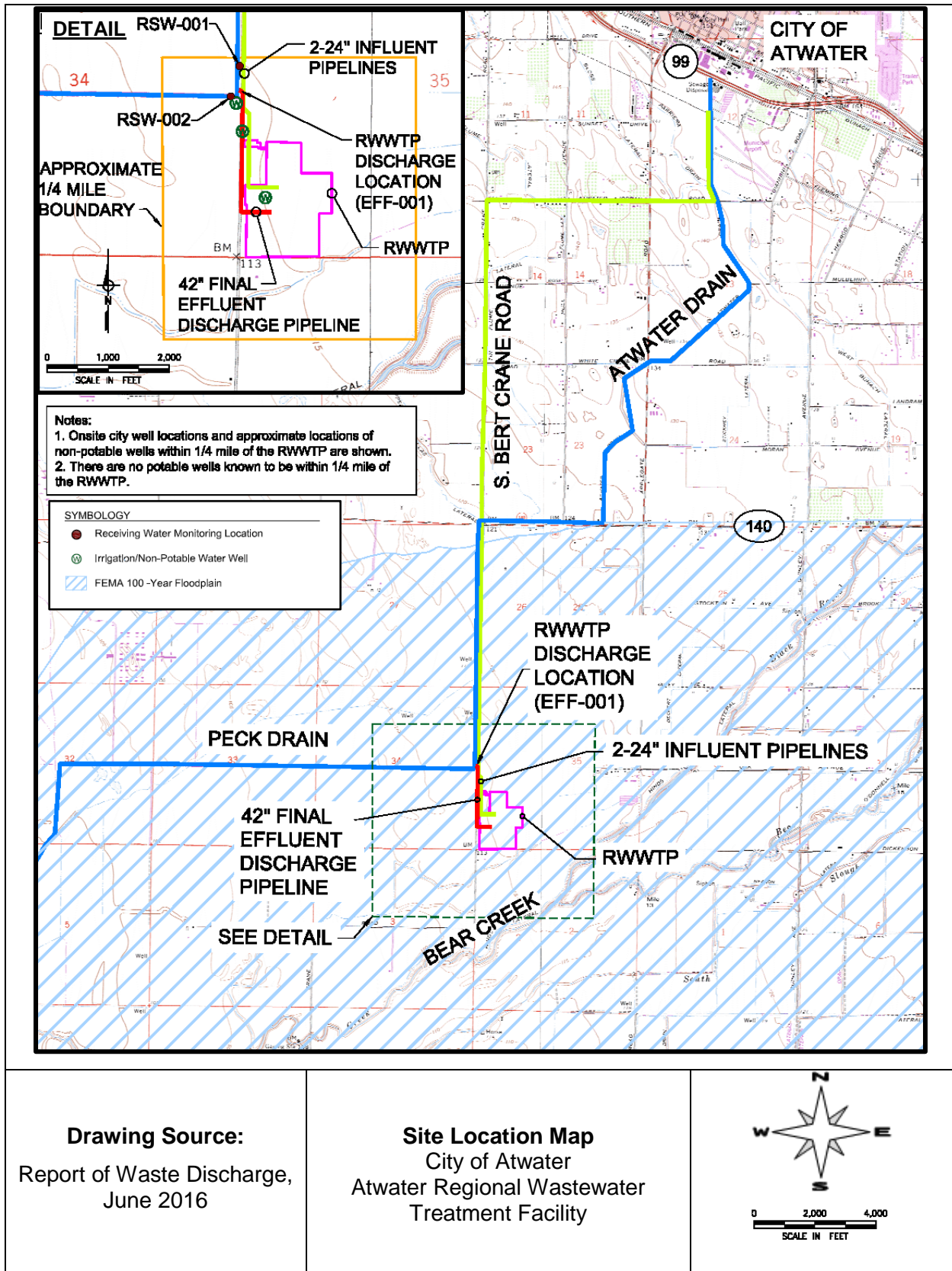
Attachments

- Attachment A – Site Location Map
- Attachment B – Liquid Process Schematic
- Attachment C – Solids Process Schematic
- Attachment D – Rationale for Effluent Limitations and Monitoring Requirements

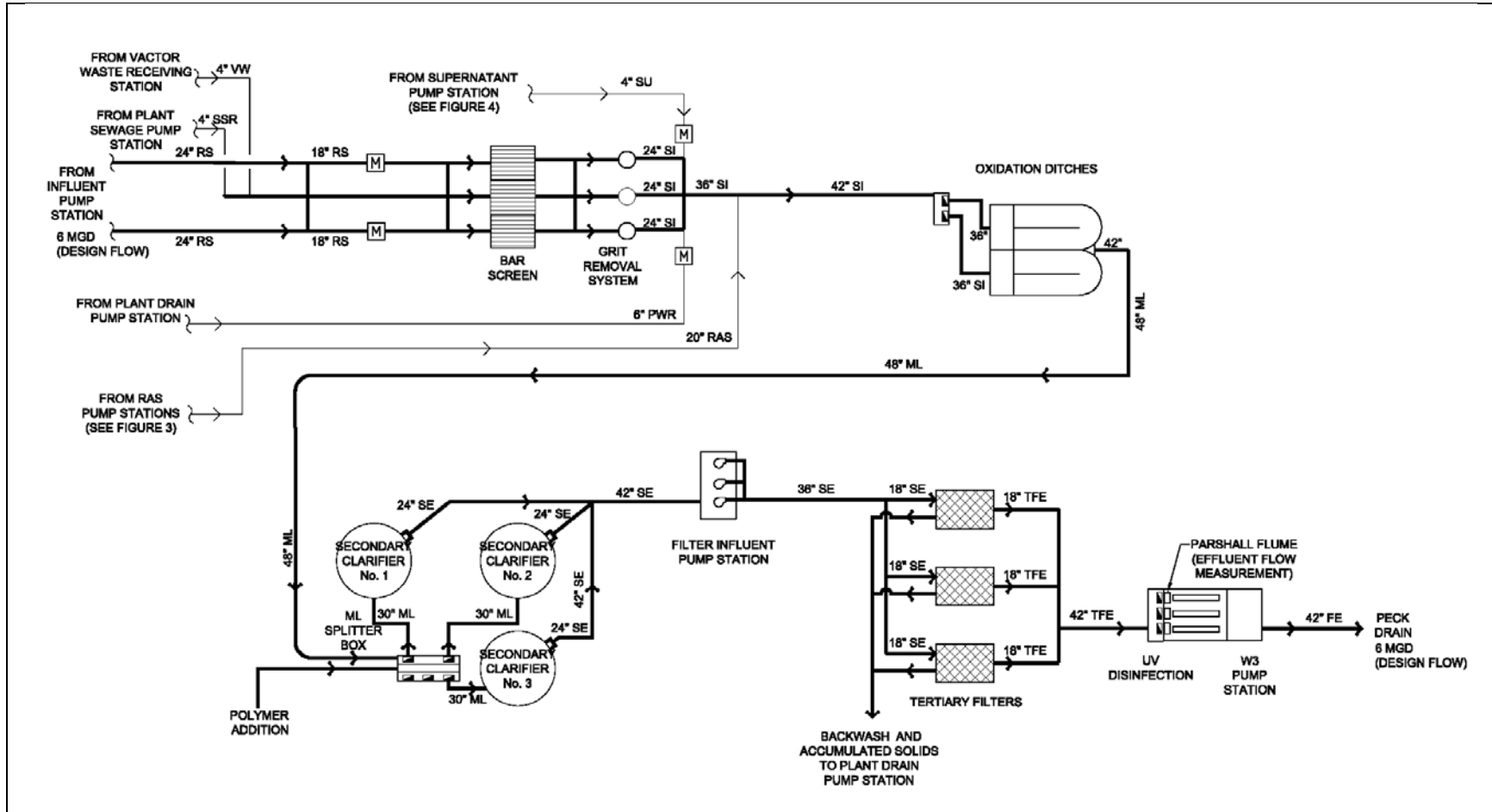
cc: See next page

cc: David Smith, U.S. EPA, Region IX, San Francisco (email only)
Peter Kozelka, U.S. EPA, Region IX, San Francisco (email only)
Linda Colella, Bureau of Reclamation, Sacramento (email only)
U.S. Fish and Wildlife Service, Sacramento
Division of Water Quality, State Water Board, Sacramento (email only)
Julie Vance, Regional Manager, California Department of Fish and Wildlife, Fresno
Carl Carlucci, State Water Resources Control Board, Division of Drinking Water, Fresno
Brian Shaw, Interim Public Works Director, City of Atwater, Atwater (email only)
Merced Irrigation District, Merced
Debbie Webster, Executive Officer, Central Valley Clean Water Association, 700 R Street,
Ste. 200, Sacramento, CA 95811 (email only)
Steve Pound, Veolia Water, Atwater (email only)
Kathryn Gies, West Yost Associates, Walnut Creek (email only)
Michael D. Gallo, Joseph Gallo Farms, P.O. Box 775, Atwater, CA 95301-0775
Bill Jennings, California Sportfishing Protection Alliance, Stockton (and via email)
Michael Garabedian, Placer Group Sierra Club & Friends of the North Fork (and via email)

ATTACHMENT A – SITE LOCATION MAP

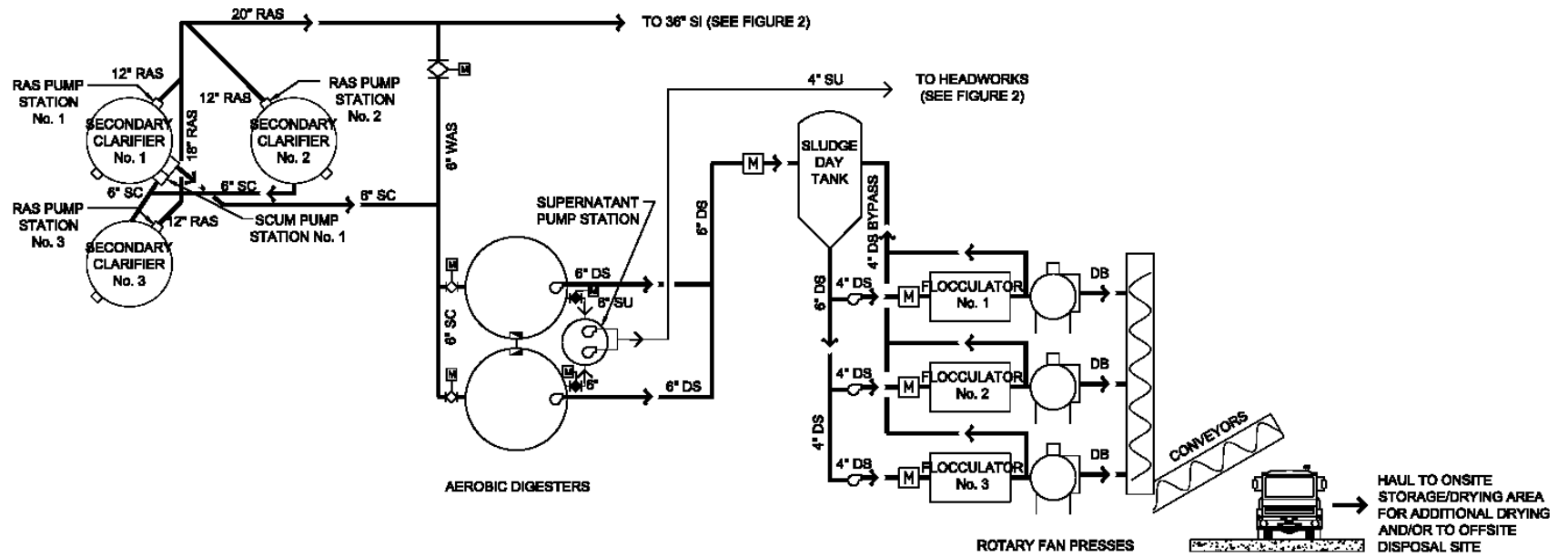


ATTACHMENT B – LIQUID PROCESS SCHEMATIC



<p>Drawing Source: Report of Waste Discharge, June 2016</p>	<p>Liquid Process Schematic City of Atwater Atwater Regional Wastewater Treatment Facility</p>	
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ATTACHMENT C – SOLIDS PROCESS SCHEMATIC



Drawing Source:

Report of Waste Discharge, June
 2016

Solids Process Schematic

City of Atwater
 Atwater Regional Wastewater Treatment Facility

ATTACHMENT D – RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

I. RATIONALE FOR EFFLUENT LIMITATIONS

A. Applicable Beneficial Uses

Peck Drain is a man-made extension of Atwater Drain, which is also a man-made channel. Peck/Atwater Drain provides water that supports wetland ecosystems and wildlife within its reaches and in the Merced National Wildlife Refuge. Furthermore, water from Peck/Atwater Drain can be diverted to the East Bear Creek Unit of the San Luis National Wildlife Refuge via Bear Creek. During a 12 June 2001 inspection, Central Valley Water Board staff observed humans harvesting crayfish and frogs from Atwater Drain. On a 29 June 2005 reconnaissance inspection of Atwater Drain, Central Valley Water Board staff observed crayfish, catfish, carp, and other unidentified fishes. Self-monitoring reports from March 2008 through December 2010 for the old Atwater Wastewater Treatment Facility noted that the facility staff observed fish, birds, frogs, crawdads, minnows, and crayfish in Atwater Drain.

It is not appropriate to use the tributary rule to determine the beneficial uses of Peck/Atwater Drain because it is a man-made storm drain. Given the flow conditions, the beneficial uses actually attained in Peck/Atwater Drain since 1975, information in the case file, and information submitted by the City of Atwater (Discharger), the beneficial uses applicable to Peck/Atwater Drain are listed in the table below. Municipal and domestic supply (MUN) is applied in accordance with the Basin Plan, which states that water bodies that do not have beneficial uses designated in Table II-1 are assigned MUN designations based on State Water Resources Control Board (State Water Board) Resolution 88-63. Agricultural supply (AGR) is applied because water in Peck/Atwater Drain can be diverted to Gallo Ranch for irrigation use. The beneficial use category of agricultural supply includes irrigation of crops for direct human consumption, otherwise known as unrestricted irrigation use. Water contact recreation (REC-1) is applicable because sections of Peck/Atwater Drain are accessible to the public and the people who harvest aquatic life such as frogs and crayfish from the Drain have body contact with the water. Warm freshwater habitat (WARM) is applicable because information available shows Peck/Atwater Drain supports warm freshwater aquatic life. Wildlife habitat (WILD) is applied because Peck/Atwater Drain provides water that supports wetland ecosystems and wildlife within its reaches and in both the Merced National Wildlife Refuge and the East Bear Creek Unit of the San Luis National Wildlife Refuge (via Bear Creek). Groundwater recharge (GWR) is applicable because in areas where groundwater elevations are below the invert of Peck/Atwater Drain, water conveyed in the Drain can percolate to groundwater.

The table below lists the beneficial uses applicable to Peck/Atwater Drain, and the beneficial uses the Basin Plan designates for groundwater beneath the Atwater Regional Wastewater Treatment Facility (Facility) and discharge point.

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Peck/Atwater Drain	MUN, AGR, REC-1, WARM, WILD, GWR
--	Groundwater	MUN, AGR, industrial service supply (IND), industrial process supply (PRO)

B. Chronic Toxicity

The Municipal General Order, Attachment F, Section V.C.5.b. states the following:

No dilution has been granted for the chronic condition in this General Order. Therefore, chronic toxicity testing results exceeding 1.3 chronic toxicity unit (TUC) and exceeding 25% effect demonstrates the discharge has a reasonable potential to cause or contribute to an exceedance of the Basin Plans' narrative toxicity objective, if the cause of toxicity has not been addressed by the time of issuance of the Notice of Applicability.

Using the Municipal General Order's basis for determining reasonable potential for *chronic toxicity*, the City has not had a result that exceeded 1.3 TUC and 25% effect. Therefore, the Facility's discharge has not demonstrated reasonable potential to cause or contribute to an excursion of the Basin Plans' narrative toxicity objective. However, the Discharger's February 2017 *chronic toxicity* result was >1 TUC (no dilution series was done or required) and had an effect of 48.56% for the 100% effluent sample. Since a dilution series was not completed for this test, it is unclear if the result demonstrated reasonable potential for the Facility.

The duration of this Notice of Applicability is limited to two years. The purpose of the Notice of Applicability's limited duration is to allow the Discharger to conduct quarterly chronic toxicity monitoring using the dilution series specified in the Municipal General Order. By 31 March 2020, Central Valley Water Board staff will conduct a new reasonable potential analysis for chronic toxicity using the Facility's new chronic toxicity data. If the chronic toxicity data demonstrate reasonable potential, staff will either revise this NOA to include the chronic toxicity effluent limitation specified in the Municipal General Order or draft individual waste discharge requirements for the Facility.

C. Satisfaction of Anti-Backsliding Requirements

The Clean Water Act (CWA) specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l).

The effluent limitations in this NOA are at least as stringent as the effluent limitations in the previous Order R5-2011-0082, with the exception of effluent limitations for chlorine, copper, electrical conductivity, lead, and zinc. The relaxation of effluent limitations for these constituents is consistent with the anti-backsliding requirements of the CWA and federal regulations.

1. **CWA section 402(o)(1) and 303(d)(4).** CWA section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limits "*except in compliance with Section 303(d)(4).*" CWA section 303(d)(4) has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters.
 - a. For waters where standards are not attained, CWA section 304(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on

such TMDL's or WLAs will assure the attainment of such water quality standards.

- b. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

Peck/Atwater Drain is considered an attainment water for chlorine, copper, electrical conductivity, lead, and zinc because the receiving water is not listed as impaired on the 303(d) list for these constituents.¹ As discussed below, removal/relaxation of the effluent limits complies with federal and state antidegradation requirements. Thus, removal/relaxation of the effluent limitations for chlorine, copper, electrical conductivity, lead, and zinc from this NOA meets the exception in CWA section 303(d)(4)(B).

2. **CWA section 402(o)(2).** CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

Updated information that was not available at the time Order R5-2011-0082 was issued indicates that lead and chlorine do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Additionally, updated information that was not available at the time Order R5-2011-0082 was issued indicates that less stringent effluent limitations for copper and zinc are appropriate for the Facility's discharge to Peck/Atwater Drain. The updated information that supports the relaxation of effluent limitations for these constituents includes the following:

- a. **Copper, Lead, and Zinc.** When Order R5-2011-0082 was adopted, the current Facility was not yet constructed. To determine the appropriate criteria/effluent limitations for copper, lead, and zinc for Order R5-2011-0082, staff used the effluent hardness data (prior to dechlorination) for the former Atwater Wastewater Treatment Plant. Based on the ambient hardness data collected since the Facility began operating in 2012, less stringent criteria for copper, lead, and zinc are applicable to the Facility's discharge. The effluent and upstream receiving water data collected from January 2015 to January 2018 indicates the Facility's discharge still exhibits reasonable potential to cause or contribute to an exceedance of the aquatic life criteria for copper and zinc, but not for lead. Therefore, this NOA includes effluent limitations for copper and zinc (less stringent than the effluent limitations in Order R5-2011-0082), but not for lead.
- b. **Chlorine.** The Facility uses a UV system for disinfection. However, at the time of the adoption of Order R5-2011-0082, the Discharger intended to occasionally use chlorine at the Facility for operation and maintenance

¹ "The exceptions in Section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list." State Water Board Order WQ 2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility.

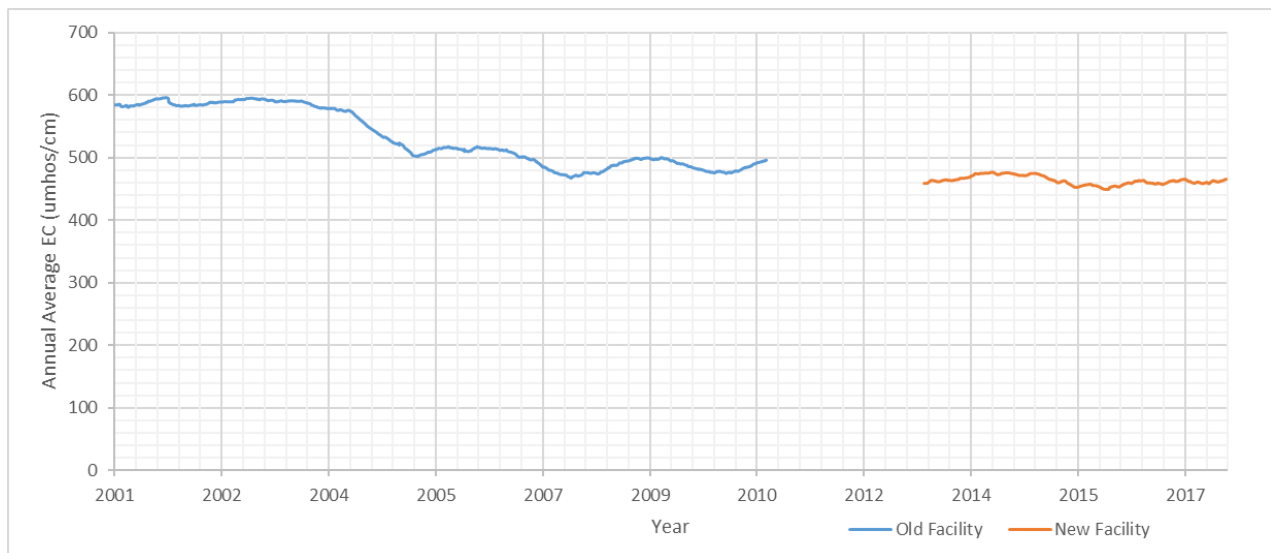
purposes. According to the Discharger's self-monitoring reports and 2016 ROWD, the Discharger has not used chlorine at the Facility since the Facility began operating. The Discharger stated in the ROWD that a non-chlorine disinfectant (e.g., hydrogen peroxide), not chlorine, would be used for operation and maintenance purposes if needed.

Thus, relaxation the copper and zinc effluent limitations and removal of the lead and chlorine effluent limitations in this NOA is in accordance with CWA section 402(o)(2)(B)(i), which allows for the relaxation/removal of effluent limitations based on information that was not available at the time Order R5-2011-0082 was issued.

D. Antidegradation Policies

This NOA does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The NOA requires compliance with applicable federal technology-based standards and with water quality-based effluent limitations (WQBELs) where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted surface water discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

This NOA removes effluent limitations for chlorine and lead based on updated monitoring data demonstrating that the effluent does not cause or contribute to an exceedance of the applicable water quality criteria or objectives in the receiving water. In addition, this NOA relaxes the effluent limitations for copper and zinc based on new ambient hardness data. Finally, this NOA removes the electrical conductivity performance-based effluent limit of 700 $\mu\text{mhos/cm}$ included in Order R5-2011-0082. The effluent electrical conductivity level has consistently been well below the 700 $\mu\text{mhos/cm}$ average monthly effluent limitation in Order R5-2011-0082 as well as the 900 $\mu\text{mhos/cm}$ secondary maximum contaminant level for electrical conductivity. The figure below graphs both the old and new wastewater treatment facility's rolling annual average electrical conductivity concentration.



The relaxation of the WQBELs for these parameters will not result in an increase in pollutant concentration or loading, a decrease in the level of treatment or control, or a reduction of water quality. Therefore, the Central Valley Water Board finds that the relaxation of the effluent limitations does not result in an increase in pollutants or any additional degradation of the receiving water. Thus, relaxation of the effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

II. RATIONALE FOR EFFLUENT AND RECEIVING WATER MONITORING REQUIREMENTS

A. Effluent Monitoring

1. CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Municipal General Order, Attachment E, establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the NOA for discharges of treated municipal wastewater to Peck/Atwater Drain.
 - a. Effluent monitoring frequency for flow (continuous), pH (1/day), ammonia (1/week), nitrate + nitrite (1/week), boron (1/year), copper (1/month), zinc (1/month), electrical conductivity (1/week), dissolved oxygen (3/week), hardness (1/month), temperature (1/day), total dissolved solids (1/month), and chronic toxicity (1/quarter) have been retained from existing Order R5-2011-0082 to determine compliance with effluent limitations for these parameters, where applicable, and to characterize effluent.
 - b. Monitoring data collected over the permit term for Order R5-2011-0082 for chloride, iron, lead, manganese, and total residual chlorine did not demonstrate reasonable potential to exceed water quality objectives/criteria. Therefore, specific monitoring requirements for these parameters have not been retained from Order R5-2011-0082.
 - c. Order R5-2011-0082 required effluent monitoring for aluminum twice a year. Monitoring data collected over the permit term for Order R5-2011-0082 for aluminum did not demonstrate reasonable potential to exceed water quality objectives/criteria. This NOA relaxes the aluminum effluent monitoring requirement to once a year.
 - d. Order R5-2011-0082 required effluent monitoring for total kjeldahl nitrogen (1/month). This NOA replaces the total kjeldahl nitrogen monitoring requirement with total nitrogen (1/week).
 - e. Monitoring data collected over the permit term for Order R5-2011-0082 showed the discharge consistently complied with the chlorpyrifos and diazinon effluent limitation. Therefore, this NOA reduces the effluent monitoring requirement for chlorpyrifos and diazinon from once per quarter to once per year.
 - f. Order R5-2011-0082 required monitoring once every quarter for acute toxicity. Acute toxicity monitoring results did not exhibit reasonable potential

for toxicity in the discharge. Therefore, this NOA reduces acute toxicity monitoring to once per year.

- g. This NOA does not carry over the general minerals monitoring requirement (1/year) in Order R5-2011-0082 consistent with the Municipal General Order Monitoring and Reporting Program. However, most of the general minerals are required during the effluent and receiving water characterization monitoring.
- h. Order R5-2011-0082 required effluent monitoring for priority pollutants and other pollutants of concern once per year. This NOA requires effluent characterization monitoring (see Table 11) once per year. The Central Valley Water Board finds that this frequency is sufficient to characterize the discharge.

B. Receiving Water Monitoring

1. Peck/Atwater Drain

- a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge to Peck/Atwater Drain.
- b. Order R5-2011-0082 required receiving water monitoring at three separate locations in Peck/Atwater Drain. The purpose of the furthest downstream monitoring location, RSW-003, was to determine compliance with the receiving water limitations for temperature based on the Discharger's report entitled *Assessment of Water Temperatures and Characterization of Aquatic Biological Resources in the Atwater Drain and Peck Drain to Determine Temperature Controls for the Atwater Wastewater Treatment Facility*, June 2009. The Discharger's 2016 ROWD requested the receiving water monitoring location RSW-003 be removed. The ROWD states that the consultant who prepared the June 2009 report confirmed that applying the temperature receiving water limits at Monitoring Location RSW-002 instead of RSW-003 would be appropriate. Therefore, this NOA only includes receiving water monitoring requirements for Monitoring Locations RSW-001 and RSW-002.
- c. Order R5-2011-0082 required upstream receiving water monitoring for priority pollutants once per year. This NOA requires upstream receiving water characterization monitoring (see Table 11) twice per permit term and concurrent with effluent characterization monitoring. The Central Valley Water Board finds that this frequency is sufficient to characterize the receiving water.

III. SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RP
Aluminum	µg/L	190	510	200	750	--	--	--	--	200	No ⁴
Ammonia Nitrogen, Total (as N)	mg/L	0.84	NA	1.14	8.41 ¹	1.14 ²	--	--	--	--	Yes ³
Bis (2-Ethylhexyl) Phthalate	µg/L	1.8 ⁵	ND	1.8	--	--	1.8	5.9	--	4	No
Copper	µg/L	8.6	14	6.7 ⁶ 1.6 ⁷	--	6.7 ⁶ 1.6 ⁷	9.7 ⁶ 2.0 ⁷	--	--	1000	Yes
Zinc	µg/L	100	83	86 ⁶ 21 ⁷	86 ⁶ 21 ⁷	86 ⁶ 21 ⁷	--	--	--	5000	Yes
Nitrate Plus Nitrite (as N)	mg/L	9.4	6.2	10	--	--	--	--	--	10	Yes ³

General Note: All inorganic concentrations are given as a total recoverable.

MEC = Maximum Effluent Concentration

B = Maximum Receiving Water Concentration

C = Criterion used for RP Analysis

CMC = Criterion Maximum Concentration (CTR or NTR)

CCC = Criterion Continuous Concentration (CTR or NTR)

Water & Org = Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)

Org. Only = Human Health Criterion for Consumption of Organisms Only (CTR or NTR)

Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective

MCL = Drinking Water Standards Maximum Contaminant Level

NA = Not Available

ND = Non-detect

RP = Reasonable Potential

Footnotes:

¹ U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 1-hour average.

² U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 30-day average.

³ Reasonable potential exists due to the biological processes inherent to the treatment of domestic wastewater.

⁴ In accordance with Municipal General Order, Attachment C – Screening Levels, section III, Central Valley Water Board staff determined that the National Ambient Water Quality Criteria (NAWQC) chronic criterion is not applicable to Peck/Atwater Drain. Therefore, a reasonable potential analysis was conducted for aluminum by comparing the maximum observed calendar year annual average effluent aluminum concentration to 200 µg/L.

⁵ The Discharger reported a 4.4 µg/L result from an effluent sample collected on October 2015. However, the result was an estimated value (MDL = 1.9 µg/L, RL = 4.8 µg/L). The maximum quantified value was used for the reasonable potential analysis (1.8 µg/L).

⁶ Criterion applicable to the maximum effluent concentration (MEC).

⁷ Criterion applicable to the maximum upstream receiving water concentration (B)