



CITY OF STOCKTON

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March 17, 2017

Public Comment
2016 Bay-Delta Plan Amendment & SED
Deadline: 3/17/17 12:00 noon

Via Electronic Mail Only

Felicia Marcus, Chair
Members of the State Water Resources Control Board
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
commentletters@waterboards.ca.gov



Re: City of Stockton's Comments on 2016 Phase 1 Bay-Delta Plan Amendment and Substitute Environmental Document

Dear Chair Marcus and Members of the Board:

The City of Stockton (City) appreciates the opportunity to comment on the proposed 2016 Phase I Bay-Delta Plan Amendment and Substitute Environmental Document (SED). The City owns and operates the Regional Wastewater Control Facility (RWCF), which discharges treated wastewater to the San Joaquin River pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board). The SED proposes revisions to the southern Delta water quality objectives for electrical conductivity (EC) in the State Water Resources Control Board's (State Water Board) *Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary* (Bay-Delta Plan). Specifically, the SED proposes an EC objective of 1.0 deciSiemens per meter (dS/m)¹ as a rolling 30-day average for the protection of the agricultural beneficial use in the southern Delta.

Without an appropriate program of implementation, applying a 1.0 dS/m EC objective to the City and other municipal dischargers will result in an unnecessary burden on the City without measurable improvement in salinity in the Delta. Herein, the City describes the RWCF, discharge location, and permitting history. Further, the City explains the ambiguity caused by language indicating that compliance with the EC objective will be determined at the compliance locations, and the impacts analysis in the SED that assumes the proposed EC objective of 1.0 dS/m will be imposed as an end-of-pipe limit. To alleviate these concerns and eliminate any uncertainty, the City supports the recommended implementation language offered by the Central Valley Clean Water Association (CVCWA) and provides the same language here as Attachment 1. Further, this letter reinforces the testimony presented by CVCWA at a panel

¹ Salinity is measured in the Bay-Delta Plan Amendment in EC units, which can be expressed in either deciSiemens per meter or micromhos per centimeter ($\mu\text{mhos/cm}$) (i.e., 1.0 dS/m = 1,000 $\mu\text{mhos/cm}$).

presentation to the State Water Board on December 16, 2016. Additionally, and the City fully supports CVCWA's March 17, 2017 comments on the SED.

1. The City's RWCF, Point of Discharge, and Permitting History

The City provides wastewater treatment service for the City of Stockton, Port of Stockton, and surrounding unincorporated areas of San Joaquin County, serving a population of approximately 326,000. The City owns and operates the RWCF in San Joaquin County, which collects, treats, and discharges treated wastewater to the San Joaquin River. The RWCF provides primary treatment consisting of screening, grit removal, and primary sedimentation, and secondary treatment consisting of high rate trickling filters and secondary clarifiers. Additional treatment is provided by a tertiary treatment facility that consists of facultative oxidation ponds, engineered wetlands, nitrifying biotowers, dissolved air flotation, mixed media filters, and chlorination/dechlorination facilities. The permitted average dry weather flow capacity of the RWCF is 55 million gallons per day (MGD). Currently, the RWCF's annual average effluent discharge rate is 28 MGD.

The City has planned for numerous improvements to the RWCF as identified in the City Council-approved *Regional Wastewater Control Facility Capital Improvement and Energy Management Plan* (CIEMP). A primary purpose of the CIEMP was to identify, budget, and prioritize improvements to the RWCF that are necessary to provide reliable service up to the permitted capacity through 2035. (CIEMP, p. ES-3.) Major rehabilitation and replacement projects include: headworks, secondary treatment facilities to meet the nitrate effluent limitations imposed by the Central Valley Water Board in Order No. R5-2014-0070, and other necessary improvements to include primary sedimentation, solids handling, and support facilities. The City has committed \$150 million in capital expenditures to implement the projects in the CIEMP, and increased wastewater rates by more than 75 percent over a five-year period, beginning in 2010, to fund these necessary plant improvements.

The RWCF's point of discharge to the San Joaquin River is located near the Port of Stockton and the Stockton Deepwater Ship Channel. This location is approximately six miles downstream of the Brandt Bridge location. Brandt Bridge is the furthest downstream compliance location for the southern Delta area.

The City has previously modeled the RWCF discharge to support the City's request for a mixing zone in its 2014 Permit. The Delta Simulation Model II (DSM2) was used to model the permitted discharge rate of 55 MGD for the January 1991 through December 2012 hydrologic period of record to determine the effluent fraction at specific locations in the Delta, including the San Joaquin River at Brandt Bridge. The modeling shows during this period that 92 percent of the time the RWCF effluent is not present at the Brandt Bridge location on a monthly average basis at detectable amounts (i.e., > 1 percent effluent fraction). Thus, most of the time, the RWCF effluent would not be present at Brandt Bridge, and thus would not affect EC at that location. For those months when the RWCF effluent was modeled to be present at an effluent fraction of 1 percent or greater on a monthly average basis, San Joaquin River flows were relatively low during drought-type conditions.

Figure 1: Map of RWCF Discharge Point and Brandt Bridge-Airport Way Compliance Segment



The RWCF previously operated under Order No. R5-2008-0154 issued by the Central Valley Water Board in 2008 (2008 Permit). The 2008 Permit established salinity requirements and EC effluent limitations based on the 2006 Bay-Delta Plan southern Delta EC objectives of 700 $\mu\text{mhos/cm}$ (April through August) and 1,000 $\mu\text{mhos/cm}$ (September through March). These EC effluent limitations were the subject of two petitions for review filed with the State Water Board and ultimately a petition for writ of mandate and complaint for declaratory relief in Sacramento County Superior Court. The Sacramento County Superior Court entered judgment in a related case, *City of Tracy v. State Water Resources Control Board* (Case No. 34-2009-800-392-CU-WM-GDS) (Tracy Decision), attached here as Attachment 2, in which the court enjoined the State Water Board and Central Valley Water Board from applying the southern Delta EC objectives in the 2006 Bay-Delta Plan to municipal dischargers pending compliance with Water Code sections 13241 and 13242. Following the Tracy Decision, the court entered judgment in the action brought by the City, directing the State Water Board to rescind portions of its Order WQO 2009-0012 and directing the Central Valley Water Board to remove the EC effluent limitations from the 2008 Permit. (Notice of Entry of Judgment Granting Peremptory Writ of Mandamus, *City of Stockton v. State Water Resources Control Board* (Case No. 34-2010-80000488-CU-WM-GDS), attached here as Attachment 3; Notice of Entry of Order, *City of Stockton v. State Water Resources Control Board* (Case No. 34-2010-80000488-CU-WM-GDS), attached here as Attachment 4.)

The RWCF currently operates under Order No. R5-2014-0070-02 issued by the Central Valley Water Board (2014 Permit). Consistent with the Sacramento County Superior Court's judgment, the 2014 Permit did not apply the southern Delta EC objectives, and instead established a performance-based EC effluent limitation of 1,300 $\mu\text{mhos/cm}$. The 2014 Permit requires the City to update and implement a pollution prevention plan for salinity in accordance with Water

Code section 13263.3(d)(3). The City's current salinity management plan and latest annual status report are attached here as Attachment 5 and 6, respectively. Under the 2014 Permit, the City is also "responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR Part 403 . . ." (2014 Permit, p. 17.) The City's Municipal Code provisions governing sewer use, adopted in Ordinance No. 2015-12-08-1601, are attached here in Attachment 7.

2. Proposed Southern Delta Water Quality Alternatives

The State Water Board proposes to amend the 2006 Bay-Delta Plan by revising the water quality objectives that protect the agricultural beneficial use in the southern Delta and apply those objectives to publicly-owned treatment works (POTWs) that discharge treated wastewater in the southern Delta pursuant to NPDES permits. The SED includes southern Delta water quality (SDWQ) Alternative 1, the No Project Alternative, and two alternatives that propose a numeric EC objective and associated program of implementation. SDWQ Alternative 2 would establish a numeric objective of 1.0 dS/m as a maximum 30-day running average of mean daily EC for all months. SDWQ Alternative 3 would establish the objective at 1.4 dS/m as a maximum 30-day average of mean daily EC for all months. For both SDWQ Alternatives 2 and 3, the objective would apply in the San Joaquin River between Vernalis and Brandt Bridge; Middle River from Old River to Victoria Canal; and Old River/Grant Line Canal from the Head of Old River to West Canal. (SED, p. 3-40.)

The program of implementation in the draft Revised Water Quality Control Plan in Appendix K of the SED (Draft Plan) proposes to apply the southern Delta EC objective to municipal dischargers. Specifically, the Draft Plan states that the Central Valley Water Board:

. . . shall regulate ~~impose discharge controls on~~ in-Delta discharges of salts by agricultural, domestic, and municipal dischargers consistent with applicable state and federal law, including, but not limited to, establishing water-quality based effluent limitations and compliance, monitoring and reporting requirements as part of the reissuance of National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act and the regulations thereunder. (Draft Plan, pp. 45-46.)

Further, the analysis of the impacts of SDWQ Alternative 2 assumes that the southern Delta EC objective will be applied at the end-of-pipe and result in water quality-based effluent limitations. The Draft Plan notes that POTWs that "discharge salinity constituents above water quality objectives for EC may qualify for a variance of up to ten years pursuant to Central Valley Regional Water Board Resolution R5 2014 0074." (Draft Plan, p. 46.) The Draft Plan and SED identify the following compliance strategies for POTWs: new, less saline sources for water supply, source control, and desalination treatment systems.

3. The City and Other Southern Delta POTWs Have a De Minimis Impact on Salinity in the Receiving Waters

Before addressing the proposed program of implementation in the Draft Plan, it is important to note the relative contribution of POTWs to salinity in the Delta. In multiple sections, the SED identifies the main factors driving salinity levels in the Delta:

EC values in the southern Delta are affected primarily by the salinity of water flowing into the southern Delta from the SJR at Vernalis, salt discharged back into southern Delta channels that was previously diverted for irrigation, the combined CVP and SWP pumping influencing salinity in the southern Delta, and tidal mixing of inflow from the Pacific Ocean. (SED, p. 5-44; see also SED, Appendix C, p. 4-7.)

In comparison, the SED states that the "WWTPs have only a small effect on southern Delta salinity." (SED, p. 13-23; SED, Appendix C, p. 4-7 ["Point sources of salt in the southern Delta have a small overall salinity effect."].)

Given that POTWs have a minimal impact on salinity levels in the southern Delta, compliance strategies, like reverse osmosis (RO) and other desalination treatment systems, that focus on POTWs' impact will not necessarily result in achieving compliance with the objectives in the receiving water. Other contributing factors must be addressed before the State Water Board imposes costly measures on POTWs with little to no water quality benefit.

4. It Is Not Clear Where Compliance Will Be Determined

With respect to the program of implementation that is proposed in the Draft Plan and SED, the Draft Plan contains contradictory language regarding where compliance with the EC objective will be analyzed for POTWs. The compliance location is relevant to two different analyses that occur in NPDES permitting. First, as required by federal regulations, the regional water quality control board (regional water board) must evaluate whether pollutants "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." (40 C.F.R. § 122.44(d)(1).) This is known as the "reasonable potential analysis." For pollutants that have the reasonable potential to cause or contribute to an excursion above a water quality objective, the regional water board must establish a water quality-based effluent limitation. (*Id.*, § 122.44(d)(1)(iii).) Next, if reasonable potential exists, and an NPDES permit includes a water quality-based effluent limitation, the regional water board must determine whether the permittee is complying with the effluent limit. This compliance determination typically involves comparing the concentration of the pollutant in the effluent or the receiving water to the applicable limitation.

The question of where to conduct the reasonable potential analysis and where to determine compliance was at issue in the City of Tracy litigation. In City of Tracy's NDPES permit issued in 2007, the Central Valley Water Board evaluated whether Tracy's discharge complied with the southern Delta EC objectives and the point of Tracy's discharge rather than the applicable compliance location listed in the 2006 Bay-Delta Plan. The court held that this was in error. Noting the language in the 2006 Bay-Delta Plan that "compliance locations will be used to determine compliance with the cited objectives," the court found that this language made the objectives "applicable only at the specified compliance locations." (Tracy Decision, p. 39.) Thus, the Central Valley Water Board was required to conduct the reasonable potential analysis at the Old River/Tracy Road Bridge compliance location rather than at the end of Tracy's discharge pipe. (*Ibid.*) Similarly, under the 2006 Bay-Delta Plan, Brandt Bridge is the appropriate location for reasonable potential analysis for the RWCF.

The Draft Plan includes the same language that the court interpreted in the 2006 Bay-Delta Plan: "water quality objectives cited for a general area, such as for the southern Delta, are applicable for all locations in that general area and compliance locations will be used to determine compliance with the cited objectives." (Draft Plan, p. 12.) The Draft Plan, however, changes the compliance locations to compliance segments. The compliance locations/segments in Table 2 are now listed as: San Joaquin River at Airport Way Bridge, Vernalis; San Joaquin River from Vernalis to Brandt Bridge; Old River from Middle River to Victoria Canal; and Old River/Grant Line Canal from Head of Old River to West Canal. (*Id.*, p. 15.)

The Draft Plan explains that by switching to river segments rather than specific points, "compliance with the southern Delta salinity objective can better be determined in a Delta environment subject to alternating tidal flows." (Draft Plan, p. 43.) The program of implementation tasks the California Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (USBR) with developing "long-term monitoring protocols . . . to assess attainment of the salinity objective in the interior southern Delta." (*Id.*, p. 45.) The monitoring and reporting protocols "shall include specific alternative compliance locations in, or monitoring protocols for, the three river segments that comprise the interior southern delta salinity compliance locations." (*Ibid.*) Prior to State Water Board approval of the monitoring and reporting protocols, "attainment of the salinity objective for the interior southern Delta will be assessed at stations C-6, C-8, and P-12." (*Id.*, p. 43.)

Once again, the language in the Draft Plan indicates that compliance with the southern Delta EC objective will be determined at the compliance locations, whether those locations are the current stations or future compliance points based on the monitoring and reporting protocols prepared by DWR and USBR and approved by the State Water Board. However, the analysis in the SED for SDWQ Alternatives 2 and 3 assumes that the Central Valley Water Board will apply the EC objective at the end-of-pipe and establish effluent limitations equal to the objective. (See SED, pp. 16-215 to 16-284.) With respect to the City specifically, the SED assumes that the City would have to build RO facilities to consistently comply with the proposed 1.0 dS/m objective. (E.g., SED, p. 16-262.) In the City's case, compliance would never be appropriate at the end-of-pipe when the applicable water quality objective does not apply at the actual discharge location but six miles upstream.

The City believes that based on the plain language in the Draft Plan, both reasonable potential and compliance with effluent limitations should be determined at the compliance locations, i.e., Brandt Bridge for the City's discharge from the RWCF. The City, in coordination with CVCWA and other southern Delta POTWs, proposes language for the program of implementation, provided in Attachment 1, to clarify this is the case. However, because the SED analyzes the possible environmental effects of SDWQ Alternatives 2 and 3 as if compliance is determined end-of-pipe, the City's response identifies the problems with such an approach.

5. The Program of Implementation in the Draft Plan Is Inadequate for POTWs

As defined in Water Code section 13050(j), a water quality control plan, like the Bay-Delta Plan, must consist of: (1) beneficial uses to be protected; (2) water quality objectives; and (3) a program of implementation for achieving the water quality objectives. In establishing water quality objectives, the State Water Board must consider, among other factors, environmental

characteristics of the water body, including the quality of water available in the water body; water quality conditions that could reasonably be achieved through coordinated control of all factors which affect water quality in the area; and economic considerations. (Wat. Code, § 13241.) Further, the program of implementation in the water quality control plan must include: (a) a description of the nature of actions which are necessary to achieve the water quality objectives; (b) a time schedule for the actions to be taken; and (c) a description of surveillance to be undertaken to determine compliance with the objectives.

For POTWs, the Draft Plan and SED provide the following actions as the “reasonably foreseeable methods of compliance that service providers may take to comply with salinity requirements of SDWQ Alternative 2”:

- Develop new, less saline source water supplies;
- Implement salinity pretreatment programs that reduce the amount of salts that are discharged to the sewer system; and
- Implement an effluent desalination process at the wastewater treatment plant before treated effluent is discharged to the southern Delta. (SED, p. 16-215.)

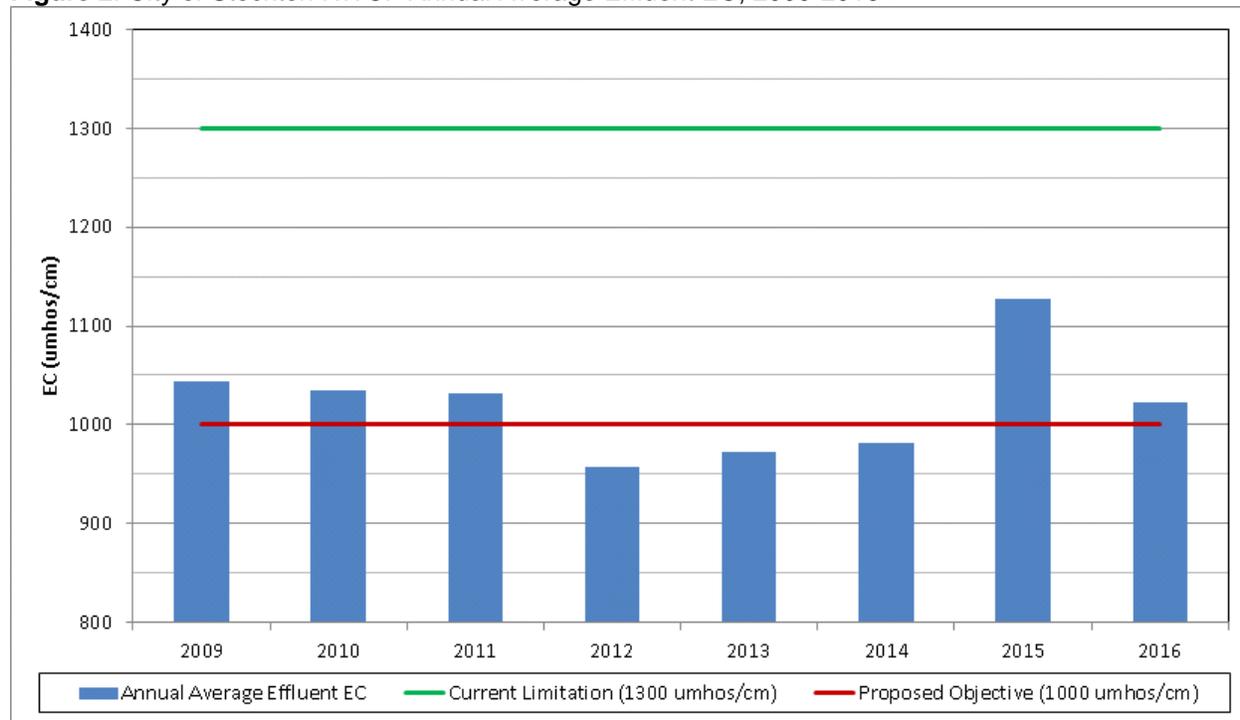
POTWs, and the City specifically, have already implemented these “reasonably foreseeable methods of compliance,” save for desalination.

a. The City Has Developed Surface Water Supplies and Implemented Source Control

For example, the City's water supply is now largely comprised of surface water. The City purchases approximately 6,000 acre-feet per year (afa) from Stockton East Water District (SEWD). (City of Stockton, 2015 Urban Water Management Plan (July 2016) (UWMP), at p. 5-1.) Additionally, the City pursued and completed its Delta Water Supply Project in 2012. For this project, the City acquired rights to divert up to 33,600 afa of surface water supply from the San Joaquin River pursuant to Water Code section 1485. To divert and treat this water supply, the City constructed a new surface water intake, a water treatment plant, pump stations, and pipelines. (SED, p. 16-216.) The City has a contract with Woodbridge Irrigation District to purchase up to 6,500 afa when water from the San Joaquin River is not available due to endangered species protections. The City developed these surface water supplies at a cost of approximately \$230 million to its ratepayers. (*Id.*, p. 16-217.)

With the completion of the Delta Water Supply Project in 2012, the City experienced an immediate reduction in effluent salinity as shown in Figure 2. Since 2012, when the Delta Water Supply Project became operational, the annual average EC concentration in 2012, 2013, and 2014 was lower than the annual average EC concentration in 2009, 2010, and 2011. The annual average EC effluent concentration subsequently increased in 2015 and 2016 due to water conservation in the extreme drought years. This increase in concentration also demonstrates what will likely happen in future drought years when conservation efforts intensify and surface water supplies are curtailed.

Figure 2: City of Stockton RWCF Annual Average Effluent EC, 2009-2016



After the purchase of surface water from SEWD and Woodbridge Irrigation District, and the completion and operation of the Delta Water Supply Project, the remaining portion of the City's water supply is sourced from groundwater. However, this is not a large portion. In 2015, an extreme drought year when surface water was curtailed, the City's total water supply for 2015 was 24,843 acre-feet, and of that total, the City used 6,628 acre-feet of groundwater. (UWMP, p. 5-11.) Thus, any hypothetical conversion to surface water from the remaining portion of the City's water supply composed of groundwater would only have a marginal effect on effluent salinity. The reduction of effluent salinity by moving to less saline water supplies has already been realized.

In addition, the less saline surface water supplies suggested by the SED are hypothetical. The SED states that municipal dischargers could simply "procure and provide alternate low-salinity water sources to water users in a service area," but also admits that the "location, timing of construction, details of operation, and source of low-salinity water are all unknown." (SED, p. 16-217.) The City has experience in pursuing the SED's suggested method of compliance. Any surface water supply must have a reliable, or sufficiently senior, water right to ensure a municipal drinking water supply is not subject to curtailment during summer months, drought years, or shortages based on endangered species protection. Variability in supply obtained under the existing contract from SEWD drove the City to pursue its own water right from the Delta. Stockton invested millions in developing a supplemental surface supply under SEWD's Central Valley Project contract from the New Melones Reservoir only to realize that investment has failed to deliver a reliable supply. Stockton's experience is that contract water is difficult to obtain, highly variable, expensive, and does not satisfy the long term goal of protecting

groundwater sources and improving water quality. Indeed, these factors may be exacerbated by the SED and Draft Plan's proposed unimpaired flow objectives.

For all these reasons, the first suggested method of compliance is not a reasonable method of achieving the objective proposed in SDWQ Alternative 2. The City has already procured and incorporated surface water into its water supply resources and obtained the corresponding reduction in effluent salinity. Similarly, the City already implements a pretreatment program and a salinity minimization plan under its NPDES permit. Both the City's 2008 Permit and the most recently adopted 2014 Permit require the City to submit and implement a pollution prevention plan for salinity that meets the requirements of Water Code section 13263.3(d)(3). (2008 Permit, p. 22; 2014 Permit, p. 16.) Under its NPDES Permit, the City is also responsible for all Control Authority pretreatment requirements under part 403 of title 40 of the Code of Federal Regulations. Thus, the City has long been implementing source control; improvements in salinity from this compliance method are not anticipated.

b. Building RO Will Have Almost No Impact on Salinity in the Receiving Water

The remaining action left in the program of implementation is desalination effluent treatment. The State Water Board has previously recognized that forcing RO technology on POTWs in the southern Delta, before implementing other measures to reduce salt loads in the Delta, is not a "reasonable approach." (State Water Board Order WQ 2005-0005, *In the Matter of the Petition of City of Manteca for Review of Waste Discharge Requirements Order No. R5-2004-0028 [NPDES No. CA0081558] and Cease and Desist Order No. R5-2004-0029 Issued by the California Regional Water Quality Control Board, Central Valley Region* (2005), p. 14.) Yet, the SED and Draft Plan now propose that the City and other POTWs "could implement such programs." (SED, p. 16-262.)

The cost of building and operating RO is significant. For the RWCF to operate reliably to meet a 1,000 $\mu\text{mhos/cm}$ EC effluent limitation as a monthly average, approximately 14.8 MGD of flow would require RO treatment. This estimate is based on the following assumptions:

1. EC cannot exceed 1,000 $\mu\text{mhos/cm}$ as a monthly average;
2. An effluent EC equal to 1,267 $\mu\text{mhos/cm}$, which is the maximum monthly average EC for the period January 1, 2009, through January 1, 2017;
3. Average dry weather flow capacity of 55 MGD;
4. 98 percent removal efficiency (Water Reuse by Metcalf & Eddy, 2007); and
5. A 25 percent safety factor to account for daily and monthly variability flow and EC.

The City estimates the capital costs to construct an RO facility to treat approximately 14.8 MGD of effluent from the RWCF to be approximately \$93.3 million. Annual operation and maintenance costs would total \$9.2 million. These planning level costs are based on technical memorandum prepared by Larry Walker Associates (2012), *Technical Evaluation of a Variance Policy and Interim Salinity Program for the Central Valley Region*, prepared for the Central Valley Water Board Salinity Variance Program Staff Report (June 2014).

Figure 3: Planning Level Costs for Reverse Osmosis (RO) Treatment

	RO Treatment (MGD) required to meet 1,000 µmhos/cm EC limit	Cost (\$ million)		
		Capital	Annual O&M	Total Annual
City of Stockton	14.8	\$93.3	\$9.2	\$15.5
Notes:				
1. Effluent flow requiring RO treatment to meet a 1,000 µmhos/cm (1.0 dS/m) EC effluent limitation using a 25% safety factor to address the range of influent EC concentrations observed for the facility.				
2. Capital and O&M costs developed using: Memorandum: Modification of Flow Basis for Treatment Train Costs as Previously Presented in "Advanced Treatment Alternatives for the Sacramento Regional Wastewater Treatment Plant" (Carollo, March 2009). (Carollo, 2010).				
3. Treatment costs include engineering, administrative, legal, and contingency. All costs in December 2016 dollars (ENRCCI 11026).				
4. Total Annual Cost = Annualized Capital Cost + Annual O&M Cost.				

Figure 4: Additional Greenhouse Gas Emissions Associated with the Operation of RO Treatment Systems

	Effluent Treated with RO (MGD)	Estimated Daily Electricity Usage for RO Treatment (kWh) ¹	Estimated Annual CO ₂ Emissions (metric tons) ²
City of Stockton	14.8	162,800	21,833
1. Daily power usage based on estimate of 11,000 kWh consumed per million gallons treated with RO (Carollo, 2007).			
2. CO ₂ emissions based on 0.81 lbs of CO ₂ produced per kWh of electricity consumed (CCAR, 2007).			

Further, there are significant environmental effects caused by RO facilities. The treatment is energy intensive and would result in increased greenhouse gas emissions. (SED, p. 16-273 [stating that impacts of RO from increased greenhouse gas emissions are significant and unavoidable].) Likewise, the operation of RO facilities produces highly saline brine, which introduces the difficult problem of brine disposal. In this regard, the SED's analysis of brine disposal is inadequate and unrealistic. Given the comprehensive effort in the Central Valley to manage salinity through the Central Valley Salinity Alternatives for Long-Term Sustainability process (CV-SALTS) and other regulatory processes, it seems unlikely that disposing of brine in landfills would be a viable option. For the City, the most likely method of brine disposal would be trucking the waste to an offsite, and likely offshore, disposal facility.

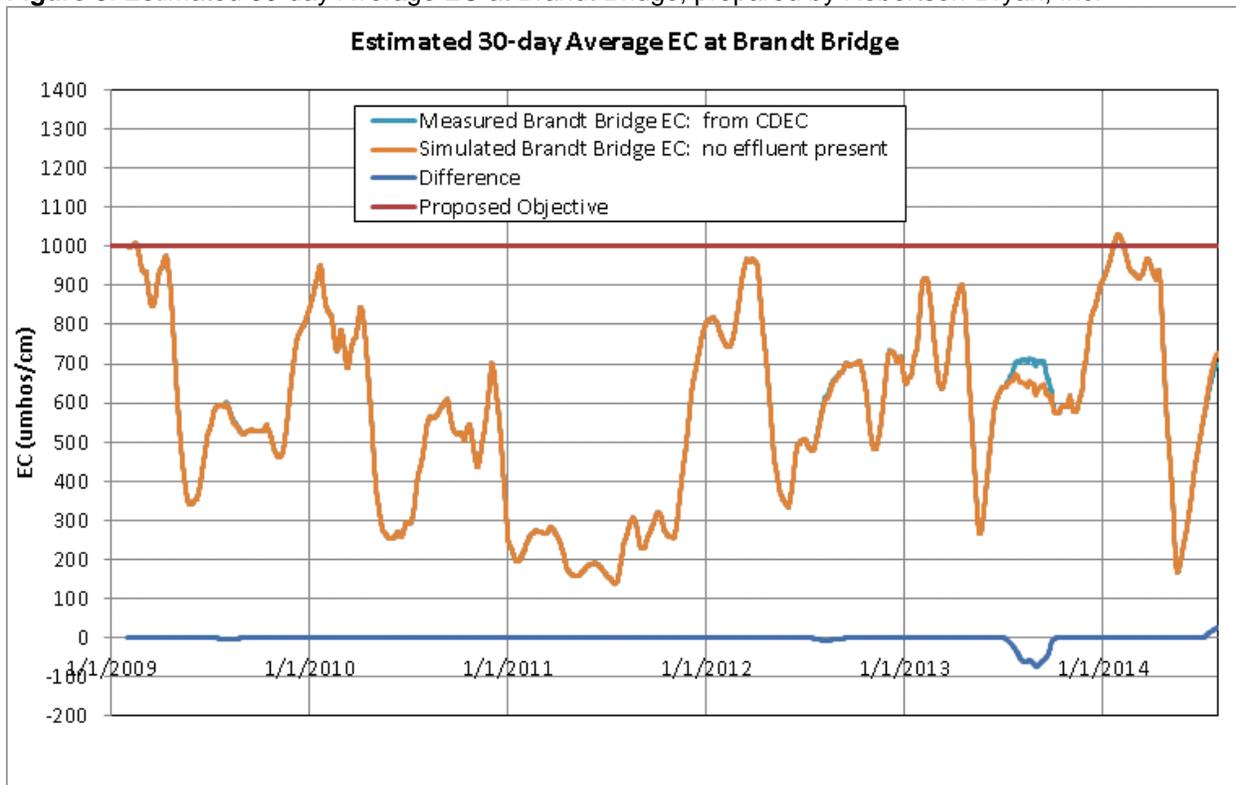
Most importantly, constructing and operating RO facilities will not have an effect on achieving compliance with the proposed EC objective in SDWQ Alternative 2. Analysis of the effect of the RWCF effluent discharge on EC at Brandt Bridge was conducted utilizing modeling results from mixing zone studies previously completed by the City for its 2014 Permit. The mixing zone

studies utilized DSM2 to simulate the historical San Joaquin River flow and RWCF effluent discharge conditions for the period January 2009 through July 2014 in the river upstream and downstream of the outfall. This modeling is documented in reports submitted to the Central Valley Water Board for development of the 2014 Permit. The modeling included simulation of the effluent fraction at Brandt Bridge, which is represented in DSM2 by model node 11.

The plot below shows the San Joaquin River EC at Brandt Bridge for two conditions. The first is the 30-day average EC measured at Brandt Bridge (reported on the California Data Exchange Center, Station ID "BDT"). The second condition shows the simulated EC for a scenario in which the RWCF effluent is not present at Brandt Bridge. The simulated EC was calculated from the modeled EC fraction, historical monthly average effluent EC levels, and historical Brandt Bridge EC according to a mass-balance calculation. As described previously, the RWCF effluent is rarely present at Brandt Bridge; hence, there is no difference in EC for these two scenarios most of time. That is, for 96 percent of the period from 2009-2014, the effluent EC from the RWCF had no effect on EC at Brandt Bridge.

During the brief time when a very small fraction of effluent is present at Brandt Bridge, the effect of the RWCF effluent depends on the ambient background EC at Brandt Bridge, the effluent EC, and the amount of effluent present. The modeling shows that a very small fraction of effluent was present at Brandt Bridge in the summer of 2013, which is illustrated by the difference between the light blue line representing measured EC and the yellow line representing the condition in which it is assumed effluent is not present. Effluent EC was about 950 $\mu\text{mhos/cm}$ during this time, so removing that minor contribution would result in a lower river EC, as shown in the plot. However, in either case, the EC is well below the proposed EC objective of 1,000 $\mu\text{mhos/cm}$.

Figure 5: Estimated 30-day Average EC at Brandt Bridge, prepared by Robertson-Bryan, Inc.



Because effluent from the RWCF rarely reaches the Brandt Bridge compliance location, constructing and operating RO to comply with a 1.0 dS/m effluent limitation would not have an effect on salinity in the San Joaquin River at Brandt Bridge. Forcing the City to construct RO facilities, a project which will have significant and unavoidable impacts, would not help achieve the objective in the receiving water. This proposed method of compliance for POTWs is inadequate and unreasonable.

6. The State Water Board Should Adopt CVCWA's Proposed Implementation Language

To ensure that POTWs are regulated in a manner that is effective and not overly burdensome, the program of implementation for the proposed southern Delta salinity water quality objective should include the provisions recommended by CVCWA and included herein as Attachment 1. The draft language eliminates the ambiguity regarding compliance locations and instructs the Central Valley Water Board to conduct reasonable potential analyses for dischargers at the historic compliance locations: San Joaquin River at Airport Way Bridge, Vernalis; San Joaquin River at Brandt Bridge; Old River near Middle River; and Old River at Tracy Road Bridge. This will ensure that available dilution will be considered, as required by Code of Federal Regulations, title 40, section 122.44(d)(1)(ii).

Further, the draft language addresses how the Central Valley Water Board should calculate water quality-based effluent limitations based on the southern Delta EC objectives and

performance-based effluent limitations. The City, in coordination with CVCWA, recommends that water quality-based effluent limitations be based on mass-based load allocations developed through a watershed loading analysis and facility-specific water quality modeling analysis, akin to the waste load allocation (WLA) process used with total maximum daily loads (TMDL), as described in U.S. Environmental Protection Agency (USEPA) regulations and NPDES permit guidance. This mass-based load allocation can be developed using any reasonable allocation scheme that meets antidegradation requirements and other California water quality standards. (See USEPA, *Technical Support Document for Water Quality-Based Toxics Control* (1991), p. 69.) Water quality-based effluent limitations could also be based on dilution, if the discharger so requests. Finally, NPDES permits for southern Delta POTWs should also include other provisions to ensure that mass loadings of salinity will not unreasonably increase in the future.

7. The SED Does Not Adequately Analyze the Impacts of SDWQ Alternative 2

Finally, the City believes that the State Water Board can address its concerns by adopting the proposed implementation language. These concerns extend to the adequacy of the environmental analysis included in the SED under the standards required by the California Environmental Quality Act (CEQA).

The SED concludes that SDWQ Alternative 2 is the environmentally superior alternative. (SED, p. 18-33.) This alternative was selected after comparing the impacts of a no-project alternative, SDWQ Alternative 2, and SDWQ Alternative 3. (SED, p. 18-32.) CEQA requires that when "the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." (Cal. Code Regs., tit. 14, § 15152.6(e)(2).) As the SED states, this involves evaluating which alternative would result in the fewest significant impacts yet still achieve project objectives. (SED, p. 18-32.) However, the SED selects SDWQ Alternative 2 as the environmentally superior alternative when it will result in significant and unavoidable impacts (on service providers), while SDWQ Alternative 3 will not result in any significant and unavoidable impacts. (SED, p. 18-32.)

The SED attempts to massage its preferred alternative into the environmentally superior alternative by essentially re-evaluating the impacts of the 1.4 dS/m objective proposed in SDWQ Alternative 3. This results in an analysis that is inconsistent with the rest of the SED. Specifically, the SED's evaluation of the SDWQ alternatives' impacts on agricultural uses found that there would be a less-than-significant impact on agricultural uses under both SDWQ Alternatives 2 and 3. (SED, pp. 11-56 - 11-57.) It also concludes that neither alternative is likely to affect historical salinity levels in the southern Delta. (SED, p. 11-56.) Even in evaluating the slightly higher salinity level in SDWQ Alternative 3, the SED finds that the most salt-sensitive crop grown in the southern Delta, dry beans, would not suffer yield losses greater than 10 percent, which is less than the significance threshold identified in the SED. (SED, p. 11-57.) Thus, the SED concludes that SDWQ Alternative 3 would not have a significant impact on agriculture in the southern Delta. (SED, p. 11-57.) Despite this, the SED inexplicably concludes that SDWQ Alternative 3 would not meet the project goal of reasonably protecting agricultural uses, and could not be the environmentally superior alternative. (SED, p. 18-33.) This analysis is inconsistent with the earlier conclusion that SDWQ Alternative 3 would not have a significant impact on agricultural uses.

An even more concerning example of this re-evaluation of SDWQ Alternative 3 is in the SED's discussion of the significant impacts that SDWQ Alternative 2 will have on service providers. The SED first correctly states that SDWQ Alternative 3 "would be considered the environmentally superior alternative because it has fewer significant and unavoidable impacts." (SED, p. 18-32.) Then, it begins to erode the conclusion reached in chapter 13 that SDWQ Alternative 2 would have significant and unavoidable impacts on service providers, but SDWQ Alternative 3 would not. The SED now states that "significant and unavoidable impacts could still occur under SDWQ Alternative 3 because of the program of implementation and the potential for agricultural return flow salinity control or low lift pumping stations." (SED, p. 18-32.) The SED continues and provides that because "the potential combination of methods of compliance under the SDWQ alternatives is unknown, so is the scope, magnitude and location of the significant and unavoidable impacts." (SED, p. 18-32.) This makes no sense. If SDWQ Alternative 3 truly has the potential to result in significant and unavoidable consequences to service providers, then the discussion and analysis in chapter 13 should reflect this. It seems difficult to come to such a conclusion, when the SED is premised on service providers needing to implement RO to reach the objective proposed in SDWQ Alternative 2, which is unnecessary for the cities to do under SDWQ Alternative 3. Additionally, the uncertainty that the SED brings forward about SDWQ Alternative 3's impacts in this chapter should have been raised and discussed in chapters 13 and 16, where the impacts of SDWQ Alternative 3 on service providers were analyzed.

The proposed approach recommended by the City, namely ensuring that the program of implementation provides manageable means for POTW compliance with the proposed salinity objective, could result in a finding in chapter 13 that SDWQ Alternative 2, the State Water Board's preferred alternative, would have less-than-significant impacts on service providers. Everything else being the same, this would put SDWQ Alternative 2 and SDWQ Alternative 3 on equal footing in terms of neither having significant and unavoidable impacts, and it might allow the State Water Board to find that SDWQ Alternative 2 is the environmentally superior alternative.

8. Conclusion

The City appreciates the opportunity to provide comments on the proposed southern Delta EC objectives and offer a recommended approach for ensuring a workable path to compliance.

Sincerely,



Robert L. Granberg, P.E.
Assistant Director
City of Stockton, Municipal Utilities Department

Encs. (Attachments 1 through 7)

cc: Paul S. Simmons, Esq.
Michelle Brown, Robertson-Bryan, Inc.
Tara Mazzanti, Deputy City Attorney

To be inserted in the Revised Water Quality Control Plan, contained in Appendix K to the SED, after section VI.B.1.v, and replacing sections IV.B.1.vi-vii:

- v. DWR's and USBR's water rights shall be conditioned to require continued operations of the agricultural barriers at Grant Line Canal, Middle River, and Old River at Tracy, or other reasonable measures, to address the impacts of SWP and CVP export operations on water levels and flow conditions that might affect southern Delta salinity conditions, including the assimilative capacity for local sources of salinity in the southern Delta. The water right conditions shall require any necessary modifications to the design and operations of the barriers or other measures as determined by the COP.
- vi. In addition to the above requirements, the salinity water quality objective for the southern Delta will be implemented through the Lower San Joaquin River flow objectives, which will increase inflow of low salinity water into the southern Delta during February through June and thereafter under adaptive implementation to prevent adverse effects to fisheries. **This These implementation measures** will assist in achieving the southern Delta water quality objective.
- vii. The Central Valley Regional Water Board shall ~~regulate~~ impose discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers consistent with applicable state and federal law, including, but not limited to, establishing water-quality based effluent limitations and compliance, monitoring and reporting requirements as part of the reissuance of National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act and the regulations thereunder. ~~Publicly-owned treatment works (POTWs) regulated by NPDES permits that discharge salinity constituents above water quality objectives for EC may qualify for a variance of up to ten years pursuant to the Central Valley Regional Water Board Resolution R5-2014-0074. Actions by POTWs to comply with water quality objectives for EC include, without limitation, source control, such as reducing salinity concentrations in source water supplies; pretreatment programs, such as reducing water softener use among water users; and desalination.~~
- viii. **Determining Reasonable Potential To Cause Or Contribute To An Exceedance Of The Southern Delta Salinity Water Quality Objective (Reasonable Potential Analysis):** Federal regulations at 40 C.F.R. 122.44(d)(1)(ii) require that, "When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent . . . , and where appropriate, the dilution of the effluent in the receiving water." To account for the factors identified in 40 C.F.R. 122.44(d)(1)(ii), such as existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the dilution of the

effluent in the receiving water, the Central Valley Regional Water Board shall consider the following factors when conducting the Reasonable Potential Analysis for salinity:

- (a) **Compliance Locations for Reasonable Potential Analysis:** When evaluating whether a discharge by a Publicly-owned treatment works (POTW) regulated by an NPDES permit has the reasonable potential to cause or contribute to an in-stream excursion of the southern Delta EC objectives, the Central Valley Regional Water Board shall consider available dilution of the effluent in the receiving water, as determined at the following compliance location closest to the point of discharge: San Joaquin River at Airport Way Bridge, Vernalis; San Joaquin River at Brandt Bridge; Old River near Middle River; and Old River at Tracy Road Bridge.

- (b) **Controllable Factors Policy:** Controllable water quality factors are not allowed to cause further degradation of water quality in instances where other factors have already resulted in water quality objectives being exceeded. Controllable water quality factors are those actions, conditions, or circumstances resulting from human activities that may influence the quality of the waters of the State, that are subject to the authority of the State Water Board or Regional Water Board, and that may be reasonably controlled. Where the salinity of a facility's discharge exceeds the southern Delta salinity water quality objective, but sampling and/or modeling demonstrate that the facility's discharge will not cause any meaningful change or degradation of the receiving water (i.e., downstream salinity is determined by upstream conditions), the facility is not meaningfully or 'reasonably' causing or contributing to an exceedance of the southern Delta salinity water quality objective. In these cases, where the cause of the exceedance is due to uncontrollable factors, the cessation of the facility's discharge would not meaningfully impact downstream receiving water conditions. Consequently, the discharge would not have reasonable potential to cause or contribute to an exceedance of the southern Delta salinity water quality objective, and water quality-based effluent limitations are not required.

- (c) **Consideration of Dilution and Assimilative Capacity:** When conducting the Reasonable Potential Analysis, federal regulations allow procedures that account for existing controls on point and nonpoint sources of pollution and that consider dilution of the effluent in the receiving water. DWR's and USBR's water rights are existing controls that provide sufficient flow (i.e., through the Lower San Joaquin River flow objectives) and other measures (e.g., southern Delta agricultural barrier program) to provide dilution and assimilative capacity for local sources of salinity in the southern Delta. When conducting the Reasonable Potential Analysis for NPDES permitted dischargers within the southern Delta, the Central Valley Regional Water Board shall consider these existing controls and dilution by allowing for use of assimilative capacity on an annual average basis.

- (d) **Insufficient Data/Information to Conduct a Reasonable Potential Analysis:** Data may be unavailable or insufficient for the Central Valley Regional Water Board to

conduct the Reasonable Potential Analysis. If data are unavailable or insufficient to conduct the Reasonable Potential Analysis, the Central Valley Regional Water Board shall require additional monitoring at the applicable compliance location in place of a water-quality based effluent limitation. The discharger may satisfy the additional monitoring requirement through participation in a regional monitoring program. In addition, to ensure salinity discharge is minimized, the Central Valley Regional Water Board shall consider including (1) a performance-based effluent limitation derived in accordance with section IV.B.1.ix.b; (2) a salinity evaluation and minimization plan; (3) participation in the Central Valley Regional Water Board's Salinity Management Strategy for the 2017 Central Valley Salinity and Nitrate Management Plan (SNMP) or a similar program as described in subsection IV.B.1.x.f below.

ix. Derivation of Effluent Limitations:

(a) Water Quality-based Effluent Limitations When Reasonable Potential Exists:

1. After considering the factors in section IV.B.1.viii, where a discharge is found to have reasonable potential to cause or contribute to an in-stream exceedance of the southern Delta salinity objectives, a water quality-based effluent limitation is required.
2. Unless otherwise requested by the discharger, the Central Valley Regional Water Board shall calculate a final water quality-based effluent limitation by calculating a mass-based load allocation, using a watershed loading analysis consistent with methods for developing a Wasteload Allocation in the USEPA Technical Support Document for Water Quality-Based Toxics Control (1991) (USEPA TSD), and use the mass-based load allocation as the final water quality-based effluent limitation.
3. At the request of the discharger, the Central Valley Regional Water Board may calculate a final water quality-based effluent limitation by using a steady state model to determine critical ambient conditions as an annual average concentration at compliance locations specified in IV.B.1.viii.a to calculate and apply appropriate dilution factors determined through DWR DSM2 or equivalent modeling; or by using a dynamic model following procedures described in the USEPA TSD to calculate dilution credits.

(b) Performance-based Effluent Limitations: If the Central Valley Regional Water Board determines that a performance-based effluent limitation is necessary because there is insufficient data to conduct a Reasonable Potential Analysis, or because a facility is unable to achieve immediate compliance with a final water quality-based effluent limitation derived in accordance with IV.B.1.ix.a, the performance-based effluent limitation shall be a mass-based limit calculated as an annual average and shall account for water conservation during drought and growth in the service area.

x. Compliance with Water Quality-Based Effluent Limitations: When a POTW regulated by an NPDES permit cannot comply with final water quality-based effluent limitations related to southern Delta salinity objectives calculated in compliance with section IV.B.1.ix.a, the Central Valley Regional Water Board may use the following options:

- (a) Issue a variance pursuant to the Central Valley Regional Water Board Resolution R5-2014-0074, or pursuant to any subsequent salinity variance adopted by the Central Valley Regional Water Board;
- (b) Adopt a narrative or best management practice-based effluent limitation;
- (c) Issue an in-permit compliance schedule for a period of up to 50 years to allow for implementation of the Central Valley Regional Water Board's Salinity Management Strategy contained in the SNMP;
- (d) Require participation in the development of a total maximum daily load (TMDL) for EC in the southern Delta;
- (e) Require participation in efforts to implement the Salinity Management Strategy contained in the SNMP; and/or
- (f) Implement other actions consistent with policies adopted into the Water Quality Control Plan for the Sacramento-San Joaquin River Basin by the Central Valley Regional Water Board (e.g., offsets, alternative compliance projects).

**Department 29
Superior Court of California
County of Sacramento
720 Ninth Street
Timothy M. Frawley, Judge
Frank Temmerman, Clerk**

Hearing Held: Friday, October 1, 2010, 9:00 a.m.

CITY OF TRACY v. CALIFORNIA STATE WATER RESOURCES CONTROL BOARD <hr/> CENTRAL VALLEY CLEAN WATER ASSOCIATION	Case Number: 34-2009-80000392
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Proceedings: Petition for Writ of Mandate and Complaint for Declaratory Relief
Filed By: Melissa Thorne and Leslie Fredrickson, Downey Brand LLP, Attorneys for Petitioner City of Tracy; Paul Simmons and Theresa Dunham, Somach Simmons & Dunn, Attorneys for Intervenor/Plaintiff Central Valley Clean Water Association

On March 3, 2011, the Court issued its Tentative Statement of Decision (Tentative Decision) in this matter. On March 11 and 14, 2011, the parties timely filed objections to the Tentative Decision. On April 15, 2011, the Court held a hearing to discuss the objections.¹ The matter was argued and submitted. Having taken the matter under submission, the Court hereby rules on the objections and issues its Final Statement of Decision.

FINAL STATEMENT OF DECISION

I.
Introduction

Petitioner City of Tracy has filed a petition for a peremptory writ of mandate and complaint for declaratory relief seeking to invalidate certain provisions of the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta related to the regulation of salinity. Tracy also seeks a peremptory writ of

¹ The Court notes that most of the objections are to the conclusions reached, and are therefore technically improper. All that is required is an explanation of the factual and legal basis for the Court's decision on the principal controverted issues at trial. However, because the Court has not yet entered a final judgment in this proceeding, the Court retains inherent constitutional authority to reconsider, correct, or change its ruling, and the Court has exercised that authority where appropriate.

mandamus to invalidate or modify certain provisions of a May 19, 2009, decision and order issued by the State Water Resources Control Board applying the challenged provisions of the 2006 Bay-Delta Plan to Tracy's municipal wastewater treatment plant discharges

Intervenor Central Valley Clean Water Association (Clean Water Association), a non-profit association representing more than 60 publicly-owned wastewater treatment facilities, joins Tracy in seeking to invalidate the contested provisions of the 2006 Bay-Delta Plan and the May 19, 2009, precedential decision applying those provisions to Tracy's municipal wastewater treatment plant.

The Court grants the petition in part, and denies the petition in part. The Court concludes that Respondent State Board failed to undertake the analysis required by Water Code section 13241 when the Board established the water quality objectives for electrical conductivity ("EC"). Accordingly, the Court concludes that a writ shall be granted directing the Board to conduct the required § 13241 analysis and reconsider the EC objectives after the § 13241 factors have been considered.

In addition, the Court concludes that the 2006 Bay-Delta Plan's program of implementation is inadequate in relation to municipal dischargers. Accordingly, the Court shall issue a writ compelling the Board to adopt an adequate program of implementation that describes the nature of the actions necessary for municipal dischargers to achieve the EC objectives (including recommendations for appropriate action by them), provides a reasonable time schedule for the actions to be taken, and includes a description of the surveillance required to determine their compliance.

Having concluded that the EC objectives were not validly adopted, and that the 2006 Bay-Delta Plan's program of implementation is inadequate for municipal discharges, the Court finds the Board prejudicially abused its discretion in applying the 2006 Bay-Delta Plan to Tracy's municipal wastewater treatment plant. In addition, the Board prejudicially abused its discretion in finding the 2006 Bay-Delta Plan authorizes the Board to perform the "reasonable potential" analysis at the end of Tracy's discharge pipe, rather than at the Old River/Tracy Road Bridge compliance location

Accordingly, the Court shall issue a peremptory writ of mandate compelling the Board to vacate the provisions of the May 19, 2009, Order relating to effluent limitations for electrical conductivity, and to reconsider and revise its Order in a manner consistent with this ruling.

In all other respects, the Court denies the challenges to the Board's Water Quality Control Plan and the Board's May 19, 2009 Order applying the Water Quality Control Plan to Tracy's municipal wastewater treatment plant.

The Court shall not require the Board to invalidate the existing EC objectives pending the Board's return to the writ, but shall enjoin the Board from applying the EC objectives to Tracy and other municipal dischargers pending reconsideration of

the EC objectives and adoption of an adequate program of implementation for municipal dischargers, in compliance with this Court's ruling.

The Court denies the request for declaratory relief, as unnecessary.

II.

Background Facts and Procedure

The quality of our nation's waters is governed by a complex statutory and regulatory scheme that implicates both federal and state responsibilities (*City of Burbank v State Water Resources Control Board* (2005) 35 Cal.4th 613, 619.)

The primary federal law governing water pollution in the United States is the Clean Water Act. The Clean Water Act is a comprehensive water quality statute designed to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. (*Id.*) The Act's national goal was to eliminate by 1985 the discharge of pollutants into navigable waters of the United States (*Id.*, see also 33 U.S.C. § 1251(a)(1)) To accomplish this goal, the Act requires compliance with "effluent limitations," which are restrictions on the quantities, rates, or concentrations of chemical, physical, biological, and other constituents discharged from point sources into navigable waters (*City of Burbank, supra*, 35 Cal.4th at p.620; see also 33 U.S.C. §§ 1311, 1362(11).)

The Act provides for two sets of effluent limitations applicable to polluters. First, polluters must comply with technology-based effluent limitations, which are limitations based on the best available or practical technology for the reduction of water pollution. (*Communities for a Better Environment v State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, 1093.)

Second, the polluter must comply with more stringent water quality-based effluent limitations (or WQBELs), where applicable. (*Id.*) Congress supplemented the technology-based effluent limitations with water quality-based effluent limitations so that point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels. (*Id.*) Thus, WQBELs implement water quality standards. (*Id.* at p.1094.)

The Clean Water Act requires WQBELs whenever the permitting agency determines that pollutants are or may be discharged at a level which will cause, or have the *reasonable potential* to cause, or contribute to, an excursion above any established water quality standard.² (*Id.*; see also 40 C F R. § 122 44(d)(1).)

Water quality standards establish the desired condition of a waterway (*Communities for a Better Environment, supra*, 109 Cal App.4th at p.1092.) Water quality standards define the water quality to be attained or maintained for a water body by determining the designated beneficial uses of the water body and setting

² This analysis is commonly referred to as the "reasonable potential" analysis

water quality criteria sufficient to protect those designated uses.³ (*Id.*, see also 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. § 131.3(i).)

Water quality standards are, in general, promulgated by the states. (*Id.* at p 1092.) However, the U.S. EPA provides states with guidance in the drafting of water quality standards and reviews and approves state water quality standards. (*City of Burbank, supra*, 35 Cal.4th at p.621; see also 33 U.S.C. § 1313(c)(2); Water Code § 13245.⁴) If the EPA recommends changes to state water quality standards and a state fails to comply with the recommendation, the Clean Water Act authorizes the EPA to promulgate water quality standards for the state (*City of Burbank, supra*, 35 Cal.4th at p 621; see also 33 U.S.C. § 1313(c)(2))

In California, the governing state law, the Porter-Cologne Water Quality Control Act (Porter-Cologne), assigns the task of establishing water quality standards to the State Water Resources Control Board (State Board) and the nine Regional Water Quality Control Boards, which together comprise the principal state agencies with primary responsibility for the coordination and control of water quality. (Water Code § 13001.)

Porter-Cologne requires regional boards to establish water quality objectives through regional water quality control plans (or basin plans). However, the State Board, which is responsible for overseeing the activities of the various regional boards, also may formulate its own water quality control plans which supersede conflicting regional basin plans (*WaterKeepers Northern California v. State Water Resources Control Bd.* (2002) 102 Cal.App.4th 1448, 1452; Water Code § 13170)

Water quality control plans must (1) identify the "beneficial" uses of the water to be protected, (2) establish "water quality objectives" to protect those uses, and (3) establish a "program of implementation" to achieve those objectives.⁵ The program of implementation must include a description of the nature of the actions necessary to achieve the objectives, including recommendations for appropriate action by any entity, a time schedule for the actions to be taken; and a description of the surveillance to be undertaken to determine compliance with the objectives. (Water Code § 13242.)

A fundamental premise of Porter-Cologne is that water quality regulation must be "reasonable." The goal of Porter-Cologne is to attain the highest quality water which is reasonable, considering all demands being made and to be made on those waters and total value involved, beneficial and detrimental, economic and social, tangible and intangible. (Water Code § 13000.) Consistent with this goal, Porter-Cologne requires water quality control plans to establish such water quality objectives as "will

³ Water quality criteria can be expressed either as numeric quantitative limitations, pollutant concentrations or levels, or as narrative statements (40 C F R § 131 3(b))

⁴ Citations are to California authority, unless otherwise indicated

⁵ Beneficial uses may include, but are not limited to, domestic, municipal, agricultural, and industrial supply, power generation, recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife and other aquatic resources or preserves (Water Code § 13050)

ensure the reasonable protection of beneficial uses" and the prevention of nuisance. (Water Code §§ 13050(f), 13241.)

When establishing water quality objectives, Porter-Cologne imposes an affirmative duty on the State to consider a number of factors, including economic considerations, environmental characteristics of the area, and whether the proposed objective is attainable. (Water Code § 13241; see also RB1545-1549 [Attwater Memo].)

State beneficial uses and water quality objectives are analogous to federal designated uses and water quality criteria. If they are approved by the U.S. EPA, state water quality objectives constitute the water quality standards for purposes of compliance with the Clean Water Act. Thus, in most instances, state water quality objectives, established through the adoption of water quality control plans, are the federal water quality standards.

Under both state and federal law, a permit is required to discharge pollutants from point sources to surface waters. These permits are known under state law as Waste Discharge Requirements (WDRs) and under federal law as National Pollutant Discharge Elimination System (NPDES) permits. (33 U.S.C. § 1342, Water Code § 13374.) WDRs established by the state are the equivalent of NPDES permits required by federal law. (Water Code § 13374.) Thus, WDRs issued by regional water boards ordinarily also serve as NPDES permits under federal law. (*City of Burbank, supra*, 35 Cal.4th at p.631.) The regional boards issue discharge permits in orders adopted through quasi-adjudicatory proceedings.

Discharge permits are the primary means of enforcing the effluent limitations and water quality standards required by the Clean Water Act. (*City of Burbank, supra*, 35 Cal.4th at p.621.) NPDES permits must contain any (technology-based) effluent limitations set by the EPA or the state, as well as any more stringent (water quality-based) effluent limitations necessary to meet applicable water quality standards.

At issue in this case are the water quality criteria (or, to use the state term, objectives) for salinity in the southern portion of the Sacramento-San Joaquin Delta (the "southern Delta salinity objectives"⁶) and the State Board order applying those water quality objectives to the WDR/NPDES permit for the City of Tracy's municipal wastewater treatment plant. Based on the 2006 amendments to the Water Quality Control Plan for Salinity for San Francisco Bay/Sacramento-San Joaquin Delta Estuary (the "2006 Bay-Delta Plan"), the State Board ordered the Central Valley Regional Board to amend Tracy's WDR/NPDES Permit to require final water quality-based effluent limitations to implement the southern Delta salinity objectives.

Petitioner Tracy and Intervenor Clean Water Association (collectively, "Petitioners") challenge whether the southern Delta salinity provisions can be applied to Tracy's wastewater treatment plant or other "publicly owned treatment works" (or "POTWs").

⁶ Because the salinity objectives are expressed as electrical conductivity (EC), the southern Delta salinity objectives are sometimes referred to as the southern Delta EC objectives or the EC objectives

Petitioners contend that the provisions of the Bay-Delta Plan related to the southern Delta salinity objectives were adopted and modified in a manner contrary to law and are, therefore, invalid. Moreover, even if the salinity provisions of the Bay-Delta Plan are valid, Petitioners contend that the State Board abused its discretion in applying them to Tracy's wastewater treatment plant.

A History of the efforts to control salinity in the southern Delta

The Sacramento-San Joaquin River Delta generally describes a large lowland estuary at the confluence of the Sacramento and San Joaquin Rivers. The Delta acts as a funnel for the entire California Central Valley drainage basin, draining thousands of miles of waterways through the Delta, Suisun Bay, San Francisco Bay, to, ultimately, the Pacific Ocean. (*United States v. State Water Resources Control Board* (1986) 182 Cal App 3d 82, 107.)

The Delta serves as the heart of California's massive north-to-south water-delivery projects operated by the U S Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR). (*Id.* at p.97.) In general, the purpose of the water projects is to divert and store water in the water-rich northern half of the state and transport it to water-poor areas in the south. Both the "Central Valley Project" and "State Water Project" (as the water projects are known) divert and store water from the rivers that flow into the Delta during periods of heavy flow. Quantities of this stored water are then periodically released back into the Delta. Pumps situated at the southern edge of the Delta eventually lift water released to the Delta into canals for transport to the San Francisco Bay Area, the San Joaquin Valley, and Southern California. (*Id.*) In normal water years, the water projects export about 30 percent of the water that reaches the Delta. Much of the water exported via the water projects is used for agricultural uses. The rest is used for municipal or industrial purposes, or is released into rivers or wetlands for environmental reasons.⁷

The Delta receives about 50 percent of California's total streamflow runoff. Water from the Delta is used to meet the needs of two-thirds of the population of California and to irrigate 4.5 million acres of farmland. The Delta also provides crucial habitat for fish and wildlife and, because of its aesthetic appeal, is an attractive destination for boating, fishing, hunting, and other recreational activities.

For all of these reasons, improving and maintaining the quality of the water in the Delta is important. (*State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674, 694.)

One of the most significant factors threatening the quality of water in the Delta is salinity (*United States v. State Water Resources Control Board, supra*, 182

⁷ As of 1999, the Central Valley Project (or CVP) supplied water to approximately 19,000 farms covering three million acres. The CVP also supplies water to many urban areas in Northern and Central California, including Redding, Sacramento, most of Santa Clara County, Stockton and Fresno. State Water Project (or SWP) water is used for agricultural uses in the San Joaquin Valley and is transported to Southern California where it is used primarily for municipal and industrial uses.

Cal.App.3d at p 107) Delta lands, situated at or below sea level, are constantly subject to ocean tidal action (*Id*) Salt water entering from San Francisco Bay extends well into the Delta, checked only by the natural barrier of fresh water flowing out from the Delta toward the Pacific Ocean. (*Id.*)

As fresh water increasingly has been diverted from the Delta for agricultural, industrial, and municipal development, saltwater intrusion has intensified, particularly during the dry summer months and in years of low precipitation and runoff. (*Id*) This has resulted in efforts to attempt to control the amount of salinity in the Delta.

1. Efforts to regulate salinity prior to the 1978 Delta Plan

Efforts to control salinity in the Delta date back to at least the 1960's. (*State Water Resources Control Board Cases, supra*, 136 Cal.App 4th at p.694.) At first, the State Water Rights Board (a predecessor to the current State Water Resources Control Board) merely recognized the problem of salinity incursion into the Delta, but did not attach any specific water quality standards to permits. However, the Water Rights Board reserved jurisdiction to revise or formulate additional terms and conditions regarding salinity control in the water rights permits issued to USBR and DWR when the impact of the diversions on the water quality in the Delta became better known. (*Id.* at p.695; see also DP37838, 38203-038204.)

In 1965, various interested parties, including USBR and DWR, reached agreement on water quality criteria for the Delta (the "1965 criteria"). The 1965 criteria did not govern electrical conductivity, but set applicable levels for chloride, one of several ions used to measure salinity. Two years later, in Decision 1275, the State Water Rights Board ordered the SWP's permits to be subject to the 1965 criteria insofar as the criteria do not conflict with the other terms and conditions of the permits. (DP37945)

Thereafter, the Federal Water Pollution Control Act required each state to establish water quality standards applicable to interstate waters by June 30, 1967. Consistent with the requirements of the legislation, on June 23, 1967, the State Water Quality Control Board submitted to the Secretary of the Interior a statement of policy for the control of water quality in California's interstate waters, including the Delta

In July of 1968, the federal government expressed concern that the State's water quality control policy for the Delta did not adequately protect beneficial uses and proposed some supplemental water quality objectives for chloride and total dissolved solids concentrations. Following receipt of the federal government's comments, the State Water Resources Control Board (State Board) adopted a supplemental water quality control policy for the Delta through Resolution 68-17. (DP37360-37362, 37947.) The federal government approved the supplemental standards, but indicated its approval was given in reliance upon a commitment from the State Board to consider supplemental salinity standards

In accordance with the commitment made in Resolution 68-17, a hearing on supplemental salinity standards was initiated in 1969, which culminated with the Board's issuance of Decision 1379 in 1971. (DP37947.) Decision 1379 established

new water quality objectives for the Delta, applicable to both the CVP and SWP projects. However, as a result of litigation, Decision 1379 was stayed pending a final decision in *California v United States*, a case in which the principal issue was the jurisdiction of the State to condition water rights of federal projects. (DP37948.) Thus, the requirements of the earlier water rights decision, D-1275, remained in effect

Also in 1971, the regional water quality control board for the Central Valley Basin (Basin 5) adopted an interim water quality control plan.

Then, in 1973, the State Board held a hearing on proposed supplemental water quality objectives for the Delta and adopted a "Water Quality Control Plan Supplementing State Water Quality Control Policies for Sacramento-San Joaquin Delta." (DP37949 [by Resolution 73-16]) The plan set salinity standards based on chloride. (DP37904.)

Also in 1973, the State Board issued Decision 1422, granting USBR's application for permits to store water at New Melones Reservoir. Decision 1422 permitted USBR to appropriate water from the Stanislaus River for irrigation, municipal, and industrial uses, subject to various conditions and limitations, including the observation of water quality goals on the Stanislaus and lower San Joaquin rivers. Among other things, Decision 1422 required releases of stored water from New Melones Reservoir to maintain a mean monthly concentration of Total Dissolved Solids in the San Joaquin River at Vernalis of 500 parts per million or less (500 mg/l). (DP12004, 38437, 31241)

2. The 1978 Delta Plan and Water Rights Decision 1485

In 1978, the State Board adopted the 1978 Water Quality Control Plan for the Sacramento and San Joaquin Delta (the "1978 Delta Plan"). (DP37876 *et seq*) In the 1978 Delta Plan, the State Board concluded that salinity intrusion is the major water quality factor affecting beneficial uses of Delta water. Therefore the discussion on water quality conditions in the Delta was restricted to salinity intrusion. (DP37901)

According to the Board, the extent of salinity intrusion into the Delta is determined by the relative magnitude of the opposing forces of tidal action and Delta outflows. (See DP 37901; see also DP37951 [beneficial uses of the Delta water are dependent upon adequate outflow of freshwater to repel seawater intrusion and provide suitable habitat for fish and wildlife]) The Board determined the major factors affecting Delta outflows were natural runoff, the regulatory effects of upstream developments, and the SWP and CVP water projects. Thus, the Board found that salinity in the Delta is directly influenced by the operations of the CVP and SWP water projects. (DP37901)

In the 1978 Delta Plan, the Board set new salinity objectives, expressed as electrical conductivity (or "EC"), to protect agricultural uses in the southern Delta (See DP37961, 37990.) The southern Delta EC objectives were based on the calculated

maximum salinity of applied water that would sustain 100% yields of two salt-sensitive crops grown in the southern Delta (beans and alfalfa). (DP37987-37990.)

The 1978 Delta Plan set the following EC objectives for the southern Delta an EC objective of 700 micromhos per centimeter (700 $\mu\text{mhos/cm}$ or 0.7 mmhos/cm) from April 1 through August 31, to protect beans during the summer irrigation season, and an EC objective of 1000 micromhos per centimeter ($\mu\text{mhos/cm}$) from September 1 through March 31, to protect alfalfa during the winter irrigation season (DP16907.) The State Board envisioned that these objectives would be achieved by controlling water quantity/flow through conditions on the water rights permits issued to USBR and DWR. (DP37363.)

Although the 1978 Delta Plan adopted new EC objectives for locations in the southern Delta, the State Board delayed implementation of the objectives pending negotiations concerning the construction of permanent barriers or other physical devices to meet the established water quality objectives in the southern Delta. The Board noted that if the physical facilities are constructed, the flows needed to prevent salinity intrusion may be only a moderate increase above those committed from New Melones Reservoir. (DP37993.) Accordingly, while the Board may have set EC objectives for locations in the southern Delta, it expressly stated that such objectives were "to become effective only upon the completion of suitable circulation and water supply facilities." (DP38000.) In the meantime, the Board concluded that the "Vernalis objective" contained in the Sacramento-San Joaquin Delta Basin (Basin 5B) Plan should be used as the interim water quality standard for the southern Delta (DP37994; see also DP37961.)

In conjunction with the 1978 Delta Plan, the State Board also exercised its earlier reservation of jurisdiction over the USBR and DWR water right permits for the CVP and SWP by adopting Water Rights Decision 1485. In Decision 1485, the State Board amended the water rights permits held by the USBR and DWR for the CVP and SWP projects, exercising the Board's reserved jurisdiction to establish or revise the terms and conditions of those permits for salinity control. Decision 1485 amended the permits to include, as terms and conditions of the CVP and SWP permits, the same water quality objectives adopted in the 1978 Delta Plan to protect beneficial uses of the Delta (except for the southern Delta). (*State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at p 698)

Consistent with the 1978 Delta Plan, Decision 1485 did not incorporate the southern Delta EC objectives into the terms or conditions of the CVP or SWP permits (DP37840-37841; see also DP37837.) Indeed, the Board concluded that there was no evidence that the CVP and SWP facilities were having any direct impact on water quality conditions in the southern Delta (DP37840.) Thus, the Board did not incorporate into its decision any specific provisions for protection of agriculture in the southern Delta. (*State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at p.698.)

As in the 1978 Delta Plan, the Board noted that negotiations were then ongoing between the operators of the water projects and the South Delta Water Agency concerning the construction of physical facilities to meet the established water

quality objectives in the southern Delta. The Board concluded that if the negotiations did not result in an agreement, or if the water projects are otherwise determined to have an effect on water quality in the southern Delta, the Board would use its reserved jurisdiction to amend the terms and conditions of the CVP and SWP permits as appropriate. (DP37842.)

A number of parties filed mandamus petitions challenging the 1978 Delta Plan and Decision 1485. The trial court found the Board's water quality objectives inadequate and issued a writ of mandate commanding the Board to reconsider the Plan (*State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at p.699.)

On appeal, the appellate court concluded that modification of the water projects' permits to implement the water quality objectives was a proper exercise of the Board's water rights authority. However, in establishing objectives that protect only Delta water users, the court concluded that the Board had too narrowly defined the scope of its duty and power to provide water quality protection. Nevertheless, because the Board already had announced its intention to establish new and revised water quality objectives, the appellate court determined that remand to the Board would serve no useful purpose and, as a result, Decision 1485 remained in effect. (*Id.*)

In short, the principal focus of both the 1978 Delta Plan and Decision 1485 was on the effects of the state and federal water projects on the Delta. (DP38205)

3. The 1991 Bay-Delta Plan

In 1987, the State Board began proceedings to review and revise (if necessary) the applicable water quality objectives for the Delta, including the standards for salinity (DP11945, 38206.) The State Board subsequently adopted in 1991 its "Water Quality Control Plan for Salinity for San Francisco Bay/Sacramento-San Joaquin Delta Estuary" (the "1991 Bay-Delta Plan").

The 1991 Bay-Delta Plan included water quality objectives for EC to be implemented over time in the southern Delta at Vernalis and three other specified locations. (DP11967) The Plan included EC levels of 0.7 mmhos/cm EC during the summer irrigation season and 1.0 mmhos/cm EC during the winter irrigation season.

Because negotiations regarding the construction of permanent barriers never were completed, as contemplated in the 1978 Delta Plan, the 1991 Bay-Delta Plan provided for a staged implementation of EC objectives in the southern Delta. Initially, the Plan only imposed a 500mg/l mean monthly Total Dissolved Solids (all year) standard, measured at Vernalis. However, the Plan specified that EC objectives of 0.7 mmhos/cm during the summer irrigation season, and 1.0 mmhos/cm EC during the winter irrigation season, were to be implemented no later than 1996.⁸

⁸ According to the State Board's Resolution 2006-0098, the 1991 Bay-Delta Plan required implementation of the EC objectives at Vernalis and Brandt Bridge by 1994, and required implementation of the EC objectives at Old River (near Middle River and at Tracy Road Bridge)

4. The 1995 Bay-Delta Plan and Water Rights Decision 1641

In 1994, the State Board commenced a series of public workshops to review and revise the 1991 Bay-Delta Plan. The workshops culminated in the State Board's adoption, in 1995, of an amended "Water Quality Control Plan for Salinity for San Francisco Bay/Sacramento-San Joaquin Delta Estuary" (the "1995 Bay-Delta Plan") (DP38396-38399, 38400 et seq.)

The 1995 Bay-Delta Plan indicates that the water quality objectives for salinity are unchanged from the 1991 Bay-Delta Plan, except that the 1995 Plan further delayed, until December 31, 1997, the effective date of the EC objectives for the southern Delta compliance stations on Old River.⁹ (DP38397, 38422, 38425; see also DP38416-38417.)

The 1995 Bay-Delta Plan provides that most of the water quality objectives in the Plan will be implemented by assigning responsibilities to water rights holders because the factors to be controlled were primarily related to flows and diversions. (DP38412.) The Plan specifically provides that implementation of the southern Delta EC objectives will be accomplished through the release of adequate flows to the San Joaquin River and control of saline agricultural drainage to the San Joaquin River and its tributaries. (DP38437) The State Board indicated that it would consider, in a future water rights proceeding, the nature and extent of water rights holders' responsibilities to meet the objectives in the Plan (DP38412.)

In 1997, the Board issued a notice of public hearing for the water rights proceeding in which the Board would allocate responsibility for implementing the objectives in the 1995 Bay-Delta Plan. (DP31165; see also *State Water Resources Control Board Cases, supra*, 136 Cal.App.4th at pp.705-706.) Ultimately, in 1999, the Board adopted Water Rights Decision 1641 In 2000, following consideration of various petitions for reconsideration, on March 15, 2000, the Board issued Revised Decision 1641 pursuant to Order WR 2000-02 (DP81, 31165)

by 1996, unless a three-party agreement was reached among DWR, USBR, and South Delta Water Agency (DP135) However, the language of the 1991 Bay-Delta Plan is not entirely consistent with this interpretation (See DP11967, 11971, 12007, 12062, 12105, 12109, 12124) For example, one section of the Plan required the EC objectives to be implemented no later than 1994, with six identified compliance monitoring stations (namely, the San Joaquin River at Vernalis, Brandt Bridge, and Mossdale, Old River near Middle River and at Tracy Road Bridge, and Middle River at Howard Road Bridge) While the Mossdale and Middle River monitoring locations are mentioned in footnotes to the table of water quality objectives, and in the implementation plan, they are not mentioned in the text of the discussion of the water quality objectives (See DP11967, 11971, 12007, 12105, 12109, 12124) Further, although the Plan speaks of three distinct stages, there does not appear to be any meaningful difference between stage 2 and stage 3

⁹ This language supports the State Board's view that the 1991 Bay-Delta Plan required implementation of the EC objectives at Vernalis and Brandt Bridge by 1994, and implementation of the EC objectives at Old River by 1996, but, as discussed above, this is not clear from the language of the 1991 Bay-Delta Plan itself.

Revised Decision 1641 was an effort by the State Board to allocate responsibility for meeting the southern Delta salinity objective set forth in the 1995 Bay-Delta Plan. (DP31241.) The 1995 Bay-Delta Plan included salinity objectives for the San Joaquin River (at Vernalis and Brandt Bridge) and Old River (near Middle River and at Tracy Road Bridge). As of 2000, USBR was required (at least temporarily) to meet the Vernalis salinity objective in the 1995 Bay-Delta Plan pursuant to Order WR 98-09 (DP31241.) However, no regulatory requirement was in place to assign responsibility for meeting the objectives at the other three locations. (*Id.*)

In Revised Decision 1641, the State Board concluded that the salinity problem at Vernalis is the result of saline discharges to the San Joaquin River, principally from irrigated agriculture, combined with low flows in the river due to activities associated with operating the CVP in the San Joaquin River basin. The State Board concluded that, by reducing the assimilative capacity of the river, the CVP is the "principal cause" of concentrations exceeding the salinity objectives at Vernalis. (DP31242, 31245) Therefore, Revised Decision 1641 amended the CVP permits to require USBR to meet the 1995 Bay-Delta Plan's salinity objectives at Vernalis.¹⁰ (DP31248-31249, 31344.)

The State Board concluded that water quality in the southern Delta downstream of Vernalis is influenced by San Joaquin River inflow; tidal action; diversions of water by the SWP, CVP, and local water users; agricultural return flows; and channel capacity. (*Id.*) The State Board concluded that DWR and USBR are partially responsible for salinity problems in the southern Delta because of hydrologic changes caused by export pumping. Therefore, Revised Decision 1641 amended the export permits of DWR and USBR to require the projects to take actions to achieve construction of permanent barriers (e.g., gates, weirs or wingdams) to enhance water levels and circulation in the southern Delta, by April 1, 2005

Until April 1, 2005, Revised Decision 1641 required DWR and USBR to meet an EC objective of 1.0 mmhos/cm. (DP31249.) After April 1, 2005, DWR and USBR would be required to meet all the southern Delta EC objectives, including the 0.7 mmhos/cm objective, except that if permanent barriers are constructed and an acceptable operations plan is prepared, the 0.7 EC objective would be replaced by the 1.0 EC objective. (DP31344; see also DP31321-31325) Thus, under Revised Decision 1641, the full 1995 Bay-Delta Plan EC objectives were not applicable to DWR and USBR until (at the earliest) April 1, 2005.

By 2005, the USBR and DWR had not constructed the permanent barriers contemplated by Revised Decision 1641. Thus, as of April 1, 2005, USBR and DWR were required to meet the southern Delta salinity objectives of 0.7 mmhos/cm EC during the summer irrigation season and 1.0 mmhos/cm EC during the winter irrigation season.¹¹

¹⁰ It appears that, until April 1, 2005, USBR only was required to meet an EC salinity requirement of 1.0 mmhos/cm (See DP31344)

¹¹ The State Board has taken the position that Revised Decision 1641 did not require SWP to meet the salinity objectives at Vernalis

5. The 2006 Bay-Delta Plan

In December of 2006, the State Board adopted an amended "Water Quality Control Plan for Salinity for San Francisco Bay/Sacramento-San Joaquin Delta Estuary" (the "2006 Bay-Delta Plan"), amending the Water Quality Control Plan originally adopted in 1978 and subsequently amended in 1991 and 1995.

Although the 2006 Bay-Delta Plan amended the program of implementation to achieve the salinity objectives, in the view of the State Board, the 2006 amendments did not make any substantive changes to the objectives themselves. According to the State Board, the 2006 Bay-Delta Plan did not change the agricultural beneficial uses, or the salinity objectives to protect such uses. (DP2, 24, 85.)

During the Plan review, the State Board received comments regarding whether it should modify the southern Delta EC objectives for the protection of agricultural beneficial uses. (DP134.) The State Board concluded, however, that it did not have adequate evidence to support changes in the EC objectives as part of the 2006 Bay-Delta Plan amendments. (DP142.) The State Board indicated that it would receive additional information on the objectives and their program of implementation beginning in 2007. (DP 45, 142 ¹²)

The State Board did make what it characterized as "minor" changes to the table of the EC objectives for agricultural beneficial uses in the southern Delta [Table 2]. Specifically, Footnote 5 of Table 2 in the 1995 Bay-Delta Plan stated that the 0.7 mmhos/cm EC objective would be implemented at the two Old River sites by December 31, 1997. Because USBR and DWR were required by virtue of Revised Decision 1641 to meet both the 0.7 mmhos/cm and 1.0 mmhos/cm EC objectives at these sites as of April 1, 2005, the State Board deleted Footnote 5 from the Bay-Delta Plan as obsolete. (DP142.) The State Board also deleted a statement in Table 2 of the 1995 Bay-Delta Plan regarding the possible implementation of a three party contract among DWR, USBR, and SDWA. (*Id.*)

Prior to 2006, the programs of implementation for the Bay-Delta Plan focused on the federal and state agencies that oversee the CVP and SWP, but the State Board noted that it would use its Clean Water Act section 401 water quality certification authority in "appropriate cases." (See DP 38435.) In regard to the southern Delta agricultural salinity objectives, the 1995 Bay-Delta Plan indicated that implementation of the objectives would be accomplished primarily through the release of flows to the San Joaquin River at Vernalis and by control of saline agricultural drainage to the San Joaquin River and its tributaries

Although the 1995 Bay-Delta Plan indicated that other source control and drainage management measures were expected to contribute to achieving the salinity objectives, municipal discharges were not discussed as a substantial source of

¹² The Plan states that there is a need for an updated independent scientific investigation to address whether the agricultural beneficial uses in the southern Delta reasonably would be protected at higher salinity levels (DP45)

salinity, and the Plan did not discuss municipal discharge controls as a means to achieve the agricultural salinity objectives.

In the 2006 Bay-Delta Plan, the State Board stated that elevated salinity in the southern Delta is caused by a "multitude of factors," including low flows, irrigation return flows, subsurface accretions of groundwater, tidal actions, diversions of water by the SWP, CVP, and local water users, channel capacity, local discharges of land-derived salts, and municipal discharges. (DP134.) Therefore, the State Board stated that implementation of the southern Delta salinity objectives will require a mix of water right actions and water quality control measures, including dilution flows, regulation of water diversions, pollutant discharge controls, improvements in water circulation, and long-term implementation of best management practices to control saline discharges. (DP40-41.)

The Plan notes that the State Board already has conditioned the water rights of the USBR upon implementation of the salinity objectives on the San Joaquin River at Vernalis, and the water rights of the DWR and USBR upon implementation of the salinity objectives at three other (interior) compliance stations (the San Joaquin River at Brandt Bridge, Old River at Middle River, and Old River at Tracy Road Bridge) The Plan further notes that salinity objectives also are being implemented through various non-water right actions, including the San Joaquin Salinity Control Program and the Central Valley Regional Board's Basin Plan Amendment for salt and boron discharges in the San Joaquin River. (DP41.)

The Plan provides that to achieve the southern Delta salinity objectives, the State Board also could require dilution flow releases from non-SWP/CVP reservoirs or use measures that affect circulation of water in the southern Delta (such as permanent operational gates). In addition, to reduce salinity in the southern Delta, the Plan provides that the Central Valley Regional Board shall implement Total Maximum Daily Load (TMDL) and shall impose discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers. (DP41)

For the first time, the State Board's program of implementation for the southern Delta salinity objectives specifically required pollutant discharge controls on in-Delta discharges of salts by municipal dischargers. Prior to 2006, the Bay-Delta Plan indicated that implementation of the objectives would be accomplished primarily through the release of flows by water right holders and, to a lesser extent, by control of agricultural discharges. Municipal discharges, however, were not discussed

In addition, the State Board amended the Bay-Delta Plan to "clarify" that the water quality objectives for a general area (such as the southern Delta) apply to all locations within the general area, and not just at specific monitoring locations used to determine compliance with the objectives (Vernalis, Brand Bridge, and Old River at Middle River and at Tracy Road Bridge). (DP 23, 85, 87.)

Thus, as a result of the 2006 amendments, the Bay-Delta Plan stated, for the first time, that the southern Delta salinity objectives apply to all locations within that general area and that municipal dischargers would be regulated to implement those objectives using pollutant discharge controls.

The 2006 modifications to the Bay-Delta Plan were approved by California's Office of Administrative Law in June of 2007

6. The 2006 Cease and Desist Order

On February 15, 2006, the State Board issued a Cease and Desist Order (CDO) (Order WR 2006-0006) against DWR and USBR for a threatened violation of the requirement to meet the 0.7 mmhos/cm interior southern Delta salinity objective. (See State Board Order WR 2010-0002, Ex. A to the Declaration of Melissa Thorne, supporting Tracy's Request for Judicial Notice, at p 4) The State Board ordered USBR and DWR to implement measures to obviate the threat of violation by July 1, 2009, either by constructing permanent barriers in the Delta or implementing equivalent salinity control measures (*Id.*) The State Board required DWR and USBR to submit a compliance plan for approval by the Board's Executive Director. (*Id.*) The Board also imposed several reporting requirements. (*Id.*)

As required by the 2006 CDO, DWR and USBR submitted a proposed compliance plan. The compliance plan proposed to obviate the threatened violation, in part, by constructing permanent, operable gates as part of the South Delta Improvements Program (the Improvements Program). Construction of the gates was a central component of the plan to achieve compliance with the interior southern Delta salinity objectives (See State Board Order WR 2010-0002, Ex. A to Thorne Declaration, at pp.1-7.)

In order to implement the Improvements Program and proceed with construction of the permanent gates, DWR and USBR needed to comply with numerous regulatory requirements, including the state and federal Endangered Species Act, sections 401 and 404 of the Clean Water Act, section 10 of the Rivers and Harbors Act, and sections 1600 through 1616 of the Fish and Game Code. In addition, USBR and DWR needed to comply with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) (*Id.*) In 2006, USBR initiated formal consultation with the NOAA Fisheries (NOAA) and the U.S. Fish and Wildlife Service (USFWS).

In 2009, NOAA released a biological opinion concluding that the permanent gates would degrade critical habitat for the Central Valley steelhead and (potentially) salmon, and directed DWR not to implement the Improvement Program.¹³ (*Id.*)

In May of 2009, DWR and USBR applied for a modification to the 2006 CDO. In 2010, the State Board determined that the deadline for compliance with the interior southern Delta salinity objectives should be extended in recognition of the fact that NOAA prohibited DWR from constructing the permanent gates as part of the Improvement Program. The State Board extended the compliance deadline until after it completes its review of the 2006 Bay-Delta Plan and any subsequent water rights proceeding. (*Id.*)

¹³ USFWS issued a biological opinion allowing operation of the permanent gates, subject to USFWS approval to protect Delta smelt

In the interim, the State Board required DWR to continue to implement a temporary barriers program to improve salinity in the southern Delta, and required DWR and USBR to study the feasibility of alternative salinity control measures. (*Id.*)

B. History of Tracy's Discharge Permit

Tracy owns and operates the Tracy Wastewater Treatment Plant.

The Tracy plant is composed of a main treatment facility and an industrial pretreatment facility. (SB39.) Most of the waste treated by the plant is domestic wastewater from the City's wastewater collection (sewer) system. The plant also accepts industrial wastewater, much of which is food-processing wastewater from a local cheese manufacturer called Leprino Food Company. Leprino's permit allows for a discharge of up to 850,000 gallons per day of industrial food-processing wastewater into Tracy's plant.

The Tracy Plant discharges to Old River, which is part of the southern Sacramento-San Joaquin River Delta. Treated effluent is discharged at Old River approximately 3.5 miles north of the plant near the junction of Paradise Cut, Tom Paine Slough, Salmon Slough, and Sugar Cut Slough. The nearest water quality monitoring station is Old River at Tracy Road Bridge, approximately 4 miles west (downstream) of the discharge point.

Relative to other municipal wastewater discharges, Tracy's effluent discharge is high in salt. The high salinity is partly due to its municipal water supply source, but also due to Leprino's high salt loading. Wastewater from Leprino has an average EC of 3,113 $\mu\text{mhos/cm}$ (3.113 mmhos/cm). Leprino treats its wastewater to reduce the organic loading typical of food processing waste, but provides no specific treatment to reduce salt. (SB148.) Also, before being processed at the main treatment facility, Leprino's industrial wastewater is discharged (along with other high salinity water) into unlined industrial oxidation ponds. While in the ponds, salts are concentrated through evaporation of the wastewater. The high salinity industrial wastewater is then commingled and discharged to the main treatment facility. This results in a significant salt load to the main treatment facility and, ultimately, Old River. (SB149.)

A review of Tracy's monitoring reports from July 1998 through December 2004 shows an average effluent EC of 1753 $\mu\text{mhos/cm}$, with a range of from 1008 $\mu\text{mhos/cm}$ to 2410 $\mu\text{mhos/cm}$. These levels exceed the southern Delta EC objectives of 700 $\mu\text{mhos/cm}$ (during the summer irrigation season) and 1000 $\mu\text{mhos/cm}$ (during the winter irrigation season) (SB147.)

Old River, in the vicinity of the Tracy plant's discharge, is tidally influenced. River flow moves upstream during the incoming (or flood) tide and downstream during the outgoing (or ebb) tide. In addition to tidal influences, the amount of flow in Old River is affected by San Joaquin River releases, the South Delta Temporary Barriers Program, and SWP and CVP pumping at Clifton Court Forebay. (SB107)

In the Permit, the Regional Board stated that the background EC for the receiving water in the vicinity of Tracy's plant averaged 640 µmhos/cm, indicating that the receiving water frequently has no assimilative capacity for EC (SB 147.) According to monitoring reports, the EC of the plant's water supply averaged 739 µmhos/cm, with a maximum of 821 µmhos/cm. (SB175.) This shows that part of Tracy's salinity problem is the high salt load of its municipal water supply (Even if Tracy did nothing more than discharge its municipal water supply into Old River, its discharge would exceed the southern Delta EC objectives during the summer irrigation season. For its discharge to comply with the EC objectives, Tracy would have to "clean" (remove salt from) the municipal water supply)

The discharge from Tracy's Wastewater Treatment Plant previously was regulated by Order No 96-104 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079154.

On November 1, 2000, Tracy filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and NPDES permit. Subsequently, on February 3, 2003, Tracy submitted a revised report of waste discharge, which included a request to expand the capacity of its plant from 9.0 million gallons per day to 16 million gallons per day (SB37, 105-106, 350)

On May 4, 2007, the Central Valley Regional Board adopted a Permit and Time Schedule Order for Tracy in Orders No. R5-2007-0036 and R5-2007-0037 (collectively, the "Regional Board Permit").

Based on the monitoring reports, the Regional Board acknowledged that discharges from the Tracy plant may cause or contribute to exceedances of the water quality objectives for salinity. Nevertheless, upon the recommendation of the Regional Board's staff, the Regional Board did not impose final numeric water quality based effluent limitations (WQBELs) for salinity in Tracy's Permit.

The Regional Board noted that the Tracy discharge has limited impacts on the salinity problems in the southern Delta. (SB150.) Even under reasonable worst-case conditions, the impact of the Tracy discharge is "relatively small" compared to the other salinity sources in the area. (SB151) If the Tracy discharge were entirely removed, it still would not solve the salinity problems in the area. (SB152.)

Because the receiving water frequently has little or no assimilative capacity for EC, the Regional Board found that imposing final numeric WQBELs for salinity would require Tracy to construct and operate a reverse osmosis treatment plant to reduce its salt loading into the Delta. (SB149, 152.) The Regional Board noted that in Water Quality Order 2005-005 (for the City of Manteca), the State Board concluded that construction and operation of a large-scale reverse osmosis treatment plant to reduce the salt load in municipal wastewater discharges "would not be a reasonable approach." (SB149)

Further, because the Regional and State Boards were in the process of developing a new salinity policy for the Central Valley, and because Tracy could not reasonably be expected to achieve compliance with final numeric WQBELs for salinity within the

life of the Permit, the Regional Board concluded that imposing final numeric WQBELs for salinity was not a "reasonable" approach. (SB149-150, 152.)

Instead, the Permit imposed an interim performance-based effluent limitation for Total Dissolved Solids, intended to limit the annual mass loading of salinity to then-current levels. (SB150-152.) The Permit also established a monthly average effluent salinity goal of 1350 $\mu\text{mhos/cm}$ (water supply plus 500 $\mu\text{mhos/cm}$) EC to be achieved during the Permit term, and required Tracy to take steps to reduce the salinity in its discharge. (SB62, 150-152, 174.)

The Permit required Tracy to submit a Salinity Plan to reduce its salinity impacts to the southern Delta. Under the Salinity Plan, Tracy must (1) implement all reasonable steps to obtain alternative, lower salinity, water supply sources for the plant; (2) develop and implement a salinity source control program in an effort to meet the interim salinity goal of a maximum increase of 500 $\mu\text{mhos/cm}$ EC over the plant's water supply; and (3) participate financially in the development of a Central Valley Salinity Management Plan. (SB47.) To ensure compliance with the Salinity Plan requirements, the Permit includes final numeric effluent limitations (WQBELs) for EC, to become effective if Tracy fails to submit and implement an acceptable Salinity Plan.¹⁴ (SB47, 153)

The Permit also required Tracy to implement best practicable treatment or control (BPTC) of its discharge (i.e, tertiary treatment or its equivalent), required the development and implementation of a pollution prevention plan for salinity in accordance with § 13263 3 of the California Water Code; and required Tracy to submit annual reports demonstrating its efforts to reduce salinity. (SB60-61, 110, 112, 150) The Permit included a requirement to study the effects of Tracy's discharge in the south Delta and a reopener provision to allow modification of the Permit requirements, if necessary. (SB150.) The Permit requires that it be reopened to include an effluent limitation for salinity prior to the increase in Tracy's discharge to 16 million gallons per day. (SB112)

Altogether, the Regional Board characterized these measures as "reasonable salinity controls" that put Tracy on the path to reducing its salt loading to the Delta. (SB152, see also SB175)

The City's Regional Board Permit was appealed to the State Board by the California Sportfishing Protection Alliance (CalSPA) and by Tracy. (Tracy's petition was held in abeyance while the CalSPA petition was resolved.) CalSPA argued that the Permit failed to establish an effluent limitation for EC that is protective of applicable water quality objectives. (CSPA397.) The State Board found in Order WQ 2009-0003 that CalSPA's petition has merit. The State Board found that the approach taken by the Regional Board was inconsistent with federal requirements to establish a final effluent limitation in an NPDES permit when a pollutant (in this case, salinity) will be discharged at a level that will cause or contribute to an excursion above a water quality standard. (*Id.*) Thus, the State Board concluded, Tracy's Permit must be

¹⁴ The WQBELs state that the EC in Tracy's discharge shall not exceed 700 $\mu\text{mhos/cm}$ during the summer irrigation season and 1000 $\mu\text{mhos/cm}$ during the winter irrigation season (SB153)

remanded to the Regional Board for inclusion of the final effluent limitations for EC consistent with the water quality objectives applicable to Old River. (*Id*)

After the State Board issued its Order on the CalSPA petition, Tracy removed its own petition for review from abeyance and asked the State Board to rule on that petition. Tracy's petition was reactivated and the Regional Board filed a response to the issues raised. The State Board dismissed Tracy's petition without review.

C. Tracy's Petition for Writ of Mandate

On June 25, 2009, Tracy filed its petition for a peremptory writ of mandate and complaint for declaratory relief in this action. Tracy seeks to have this Court invalidate the provisions of the Bay-Delta Plan relating to the southern Delta EC objectives, as well as the State Board's Order WQ 2009-0003 applying the challenged provisions of the Bay-Delta Plan to Tracy's municipal wastewater treatment plant.

III. Standard of Review

The actions of the State Board challenged in this proceeding involve both quasi-legislative and quasi-adjudicative functions, invoking different standards for review.

In establishing water quality objectives in a water quality control plan, the Board acts in a legislative capacity. The water quality control plan is thus a quasi-legislative decision.

When reviewing quasi-legislative decisions, the scope of review is narrowly limited. A reviewing court will ask three questions: first, did the agency act within the scope of its delegated authority; second, did the agency employ fair procedures; and third, was the agency action reasonable. (*United States v. State Water Resources Control Board, supra*, 182 Cal App.3d at pp.112-113.) Under the third inquiry, the reviewing court does not inquire whether, if it had power to act in the first instance, it would have taken the action taken by the administrative agency. Rather, the authority of the court is limited to determining whether the decision of the agency was arbitrary, capricious, or entirely lacking in evidentiary support. (*Id.*)

In contrast, in applying the challenged provisions of the Delta Plan to Tracy's municipal wastewater treatment plant, the State Board performs an adjudicatory function. Thus, Order WQ 2009-0003 is a quasi-judicial decision.

Quasi-judicial decisions are judged under Code of Civil Procedure section 1094.5. The inquiry in a case under Civil Procedure Code section 1094.5 shall extend to questions whether the respondent has proceeded without, or in excess of jurisdiction; whether there was a fair trial; and whether there was any prejudicial abuse of discretion. Abuse of discretion is established if the agency has not proceeded in the manner required by law, the order or decision is not supported by the findings, or the findings are not supported by the evidence. (Civ. Proc. Code § 1094.5(b).)

In cases in which the court is authorized by law to exercise its independent judgment on the evidence, abuse of discretion is established if the court determines that the findings are not supported by the weight of the evidence. In all other cases, abuse of discretion is established if the court determines the findings are not supported by substantial evidence in the light of the whole record (Civ. Proc. Code § 1094.5(c).)

In this case, California Water Code section 13330(d) specifies that this Court must exercise its independent judgment on the evidence to determine if the State Board abused its discretion under C.C.P. § 1094.5(c). (See Cal. Water Code § 13330(d).) Thus, abuse of discretion is established if the Court determines the findings of the State Board are not supported by the weight of the evidence

When reviewing an agency's interpretation of a statute or regulation, courts must independently judge the text of the statute, taking into account and respecting the agency's interpretation of its meaning. (*Yamaha Corp of America v State Bd. of Equalization* (1998) 19 Cal.4th 1, 7.) It is the duty of the courts to state the true meaning of the law finally and conclusively, even if this requires the courts to overturn an erroneous administrative construction. (*Id* at p 7.)

The agency's interpretation is one among several tools available to the court. Depending on the context, it may be helpful, enlightening, or convincing. Other times, it may be of little worth. (*Id.* at pp.7-8) To quote the statement of the Law Revision Commission, the standard of review of an agency interpretation of law is the independent judgment of the court, giving deference to the determination of the agency *appropriate to the circumstances* of the agency action (*Id.* at p 8 [emphasis added].)

In determining how much weight to give an agency interpretation, courts must analyze two broad categories of factors: those indicating that the agency has a comparative interpretive advantage over the courts, and those indicating that the interpretation in question is probably correct. (*Id* at p 12.) In the first category are factors indicating the agency has special expertise or technical knowledge, especially where the legal text to be interpreted is technical, complex, or entwined with issues of fact, policy, and discretion (*Id.* at p.12.) In the second category are factors suggesting that the agency gave careful consideration to its interpretation (such as adoption of a formal interpretive rule under the APA), factors indicating that the agency's interpretation was adopted contemporaneous with the legislative enactment being interpreted, and factors showing that the agency has consistently maintained the interpretation over time. (*Id.* at pp 12-13)

Where the agency has special expertise or technical knowledge, and the record shows agency officials have reached an interpretation after careful and studied review, the agency's interpretation is entitled to great weight unless unauthorized or clearly erroneous. (*North Gualala Water Co v State Water Resources Control Bd.* (2006) 139 Cal.App.4th 1577, 1607; *Communities for a Better Environment v State Water Resources Control Bd* (2005) 132 Cal.App.4th 1313, 1334.)

IV.
Requests for Judicial Notice

The several requests for judicial notice filed by Tracy and Clean Water Association, which are unopposed, are granted, for background information purposes.

V.
Discussion

A. Tracy's challenge to the EC objectives and the Bay-Delta Plan

1. Were the water quality objectives adopted in a manner contrary to law?

Petitioners Tracy and Clean Water Association contend that the provisions of the Bay-Delta Plan related to the southern Delta EC objectives should be invalidated because they were adopted in a manner contrary to law.

Petitioners contend that the State Board failed to undertake the analysis required by Water Code section 13241 when the State Board initially adopted the EC objectives in 1978 and again when the State Board (purportedly) amended the objectives in 2006. In addition, Petitioners contend the State Board failed to adopt a comprehensive program for implementation of the EC objectives as required by Water Code section 13242. Further, Petitioners allege that the State Board failed to comply with a statutory mandate to periodically review and revise the EC objectives. Therefore, Petitioners seek a declaratory judgment that the contested provisions of the Bay-Delta Plan were adopted and modified in a manner contrary to law, and a peremptory writ of mandate commanding the State Board to set aside those provisions.

Respondent State Board contends that it adequately complied with section 13241 when it adopted the EC objectives in 1978, and that it was not required to conduct the analysis again in 2006 because the objectives did not change (See Opposition, p.9 [citing DP37625-37684])

Further, the State Board argues that even if it failed to conduct the analysis required by section 13241, that failure would at most only be grounds to compel the Board to conduct the required analysis, and would not be grounds to invalidate the EC objectives. The State Board contends that regardless of the outcome of any analysis under section 13241, the State Board is required to maintain the EC objectives to comply with the requirements of the federal Clean Water Act, which does not allow economic considerations to be used as a factor in setting federal water quality standards. The State Board argues that failure to comply with state law in the adoption of water quality objectives is of no consequence where, as here, the water quality objectives are approved water quality criteria under the federal Clean Water Act.

The State Board contends that its program of implementation for the EC objectives complies with the requirements of Water Code section 13242. The State Board

argues that a program of implementation does not need to specifically describe how municipal dischargers like Tracy will comply with the applicable water quality objectives. Neither, according to the State Board, is a Water Code section 13241 analysis required when establishing a program of implementation in a water quality control plan.

Finally, the State Board contends that it complied with the requirements of Water Code sections 13143 and 13240 to periodically review the Bay-Delta Plan, even if the EC objectives did not change. The State Board argues that while the Water Code requires water quality control plans to be periodically reviewed, it does not require that they be periodically revised. Thus, the State Board did not violate the Water Code by retaining the water quality objectives for EC when the Bay-Delta Plan was reviewed.

a. When were the EC objectives "established?"

When establishing water quality objectives, Water Code section 13241 imposes an affirmative duty on the State to consider a number of factors, including economic considerations. (Water Code § 13241.) Petitioners contend that the State Board failed to undertake the analysis required by Water Code section 13241 when the State Board established the EC objectives.

As an initial matter, the Court notes there is some confusion as to when the southern Delta EC objectives were "established." There is good reason for this confusion.

The 1978 Delta Plan, in which the EC objectives were first adopted, provided that the southern Delta salinity objectives would "become effective" only upon the completion of suitable barriers proposed to enhance water levels and circulation. Because the barriers never were completed, the EC objectives were not implemented as part of the 1978 Delta Plan.

The EC objectives also were not implemented – at least not fully – under the 1991 Bay-Delta Plan or the 1995 Bay-Delta Plan. Indeed, the EC objectives were not implemented at all four compliance locations until, at the earliest, April 1, 2005, and even then the objectives were made applicable only to USBR and DWR.¹⁵ It was not until 2006 that the Bay-Delta Plan was amended to make the objectives fully effective at all four compliance locations.

As a result, there is some uncertainty as to when the EC objectives were "established." Were the objectives established in 1978 when the 700/1000 µmhos/cm numeric objectives were selected; in 1991, when the Bay-Delta Plan allegedly required the objectives to be implemented; in 2005, when the full objectives were for the first time made applicable to the DWR and USBR water rights permits;

¹⁵ It is undisputed that USBR and DWR still are not in compliance with the interior southern Delta EC objectives. As recently as 2010, the State Board extended the deadline for their compliance with the interior southern Delta salinity objectives until after the State Board completes its review of the 2006 Bay-Delta Plan and any subsequent water right proceedings.

in 2006, when the Bay-Delta Plan was amended to fully implement the objectives; or all of the above?

The Board asserts that water quality objectives do not have to be "implemented" to be "established." The Court agrees. The dictionary definition of "establish" includes (1) to institute (as a law) permanently by enactment; (2) to make firm or stable, or (3) to bring about or bring into existence. (See Merriam-Webster's Online Dictionary, at <http://www.merriam-webster.com/dictionary/establish> [as of April 29, 2011]) In contrast, the verb "implement" means to "carry out," "accomplish" or "give practical effect to." (*Id.* at <http://www.merriam-webster.com/dictionary/implement> [as of April 29, 2011].) Thus, these definitions support the Board's argument that water quality objectives do not have to be implemented to be established, but they do have to be established (in existence) to be implemented (carried out).

Accordingly, the EC objectives were "established" when they were adopted in 1978, even if the objectives were not fully implemented until many years later.

Petitioners contend that the Board effectively established new objectives when the Board amended its Bay-Delta Plan in 2006 to apply the objectives to "all locations" within the southern Delta.

The Board denies it changed the objectives when it amended its Bay-Delta Plan in 2006. The Board contends that the EC objectives always have applied at all locations throughout the southern Delta. The Board contends its 2006 amendments merely clarified existing law.

Where an agency has special expertise or technical knowledge, and the record shows the agency has reached an interpretation after careful and studied review, the agency's interpretation is entitled to great weight and a court will not depart from the interpretation unless it is unauthorized or clearly erroneous. (*North Gualala Water Co. v. State Water Resources Control Bd.* (2006) 139 Cal App 4th 1577, 1607; *Communities for a Better Environment v. State Water Resources Control Bd.* (2005) 132 Cal App 4th 1313, 1334.) Those factors are present here. Thus, the State Board's interpretation is entitled to great weight and will be followed unless it is clearly erroneous or unauthorized.

With respect to the area covered by the EC objectives, the Board's interpretation is not clearly erroneous or unauthorized.¹⁶ Therefore, the Court concludes that while the 2006 Bay-Delta Plan amended the program of implementation to carry out the objectives, it did not make any substantive changes to the area covered by the objectives.

¹⁶ However, the Court acknowledges some evidence suggesting the EC objectives were intended to be location-specific prior to 2006. (See DP38000, DP11956, DP12049, DP38422, DP38425, DP38428 [footnotes 7 and 8], DP5728, DP5731 [footnotes 7 and 8], DP5742, DP5744, see also SB 147, DP38455, RB1921, RB14740.)

Petitioners contend that even if the 2006 amendments did not change the location of the EC objectives, the 2006 amendments effectively established new objectives by applying the objectives, for the first time, to municipal discharges

Petitioners argue that when the EC objectives were initially adopted in 1978, the focus was on the effects of the state and federal water projects on the Delta. The Board envisioned the objectives would be achieved by controlling water quantity (flow/diversions) through conditions placed on the water rights of USBR and DWR. Because only DWR and USBR would be responsible for meeting the objectives, the Board did not consider, and had no reason to consider, the effect that the EC objectives would have on agricultural, domestic, and municipal dischargers

Unfortunately, the Board proved unable or unwilling to enforce the objectives against DWR and USBR through water rights actions. Thus, nearly twenty years after the objectives were initially adopted in 1978, the Board amended the 1995 Bay-Delta Plan to include, for the first time, controls on in-Delta discharges of salts

At first, the pollutant discharge controls applied only to agricultural dischargers. Municipal dischargers were not discussed as a substantial source of salinity and the Board's Bay-Delta Plan did not discuss municipal discharge controls as a means to achieve the EC objectives. This did not change until 2006 when, nearly thirty years after the EC objectives were initially adopted, the Board amended its program of implementation to include municipal dischargers. In so doing, Petitioners argue, the Board effectively established new EC objectives.

This raises an interesting question as to when, if ever, Water Code section 13241 applies to a program of implementation for achieving water quality objectives. There is limited case authority on this issue.

On one hand, the concurring opinion of Justice Brown in *City of Burbank v. State Water Resources Control Board*, suggests that section 13241 analysis is required whenever the Board adopts a basin or water quality plan. (*City of Burbank, supra*, 35 Cal.4th at p.632; see also *id.* at p.625 [noting Court of Appeal held the board must consider section 13241 when it adopts a water quality plan, but not when it issues a wastewater discharge permit].)

In contrast, in *City of Arcadia v. State Water Resources Control Board* ("*City of Arcadia II*") (2010) 191 Cal.App.4th 156, the Fourth Appellate District Court of Appeal recently concluded that section 13241 applies only when the Board adopts water quality objectives, and not when it adopts or revises a program of implementation needed for achieving such objectives.¹⁷ (*City of Arcadia v. State*

¹⁷ The opinion in *City of Arcadia II* was certified for publication on December 22, 2010. The Board advised this Court of the opinion the following day. However, the decision did not become final as to the Court of Appeal until January 22, 2011, and did not become final for all purposes until the California Supreme Court denied the petition for review on March 16, 2011 – thirteen days after this Court issued its Tentative Decision on March 3, 2011. However, because the Court has not yet entered a final judgment in this proceeding, the Court retains inherent authority to reconsider, correct, or change its ruling.

Water Resources Control Board (2010) 191 Cal.App.4th 156, 177-178; see also *San Joaquin River Exchange Contractors Water Authority v State Water Resources Control Board* (2010) 183 Cal.App.4th 1110, 1119-1120 [stating that 13241 does not apply to a program of implementation for achieving already established objectives]; *City of Arcadia v State Water Resources Control Board ("City of Arcadia I")* (2006) 135 Cal.App 4th 1392, 1415-1416 [declining to decide whether Trash TMDL effectively established new water quality objectives because the basin plan did not contemplate a Trash TMDL and therefore economic considerations of a TMDL were not considered].)

In general, the Court agrees with the language in *City of Arcadia II* and *San Joaquin River Exchange* that 13241 does not apply to a program of implementation.

However, in this Court's view, section 13241 can apply to a program of implementation where the program of implementation is so fundamentally different that it constitutes a de facto revision (or material reinterpretation) of the objective itself. In such a scenario, the changes may effectively "establish" – that is, bring about – a new and different water quality objective.

Consider, for example, what happened in this case. The Board adopted water quality objectives for salinity in 1978 with the understanding that the objectives would be met by regulating the flow of water through the Delta. As a result, the Board did not consider, and had no reason to consider, the cost of compliance of pollutant discharge controls.¹⁸ Tracy could not have objected to the objectives when they were established in 1978 because municipal dischargers were not required to comply with the objectives. Then, thirty years later, the Board required Tracy and other municipal dischargers to comply immediately with the objectives, even though discharge controls for EC and the economic consequences of such controls never have been considered by the Board. This seems unreasonable and contrary to the purposes of section 13241, which requires the Board to consider the economic consequences of its water quality control requirements.¹⁹

Nevertheless, the Court is bound to consider the holding of *City of Arcadia II*. (*Auto Equity Sales, Inc. v Superior Court* (1962) 57 Cal.2d 450, 455 [decisions of every division of the Courts of Appeal are binding upon all superior courts of this state]) The Court in *City of Arcadia II* found that revising a basin plan to include storm water and urban runoff from municipal storm drains discharging into water bodies already covered by that plan did not trigger the need to comply with section 13241. (*City of Arcadia II, supra*, 191 Cal.App.4th 156, 178.) The holding in *City of Arcadia II*

¹⁸ The California Supreme Court has endorsed the view that section 13241 requires consideration of the "cost of compliance" (See *City of Burbank, supra*, 35 Cal 4th at p 625 [finding the "plain language" of section 13241 requires the board to consider the "cost of compliance"])

¹⁹ Alternatively, the Court would have to conclude that the Board was required to consider all possible costs of compliance at the time water quality objectives were first adopted, which would have required the Board to engage in rank speculation about how the objectives would be applied years into the future. This is an equally untenable interpretation.

suggests that revisions to a program of implementation generally will not trigger the need to comply with section 13241.²⁰

The holding in *City of Arcadia II* is further supported by the decision in *San Joaquin River Exchange*, which concluded that the section 13241 factors need not be considered for a basin plan amendment that is merely a program of implementation for achieving an already-established water quality objective. (*San Joaquin River Exchange, supra*, 183 Cal.App.4th at pp.1119-1120.)

Comparing the facts of those cases to the facts of this case, the Court is unable to conclude that those cases are not controlling or, at least, highly persuasive. In *San Joaquin River Exchange*, for example, the Court concluded that section 13241 did not apply even though the Board applied a water quality objective "established" for the southern Delta to discharges upstream of the southern Delta. If those amendments did not establish a new water quality objective, it is difficult to see how the instant amendments do.

Accordingly, the Court is compelled to reject the argument that the Board "established" new EC objectives when it amended its program of implementation in 2006. It follows that a Water Code section 13241 analysis was not required when the Bay-Delta Plan was amended in 2006.

b. Did the State Board comply with Water Code section 13241 when it established the EC objectives in 1978?

As described above, Petitioners contend that the State Board failed to undertake the analysis required by Water Code section 13241 when the State Board established the EC objectives.

Having concluded that the Board established the EC objectives in 1978, the Court now proceeds to consider whether the State Board adequately complied with Water Code section 13241 when it established the objectives.²¹

²⁰ *City of Arcadia II* arguably is distinguishable on the grounds the Court did not decide whether the revised basin plan "effectively established" new water quality objectives. In that case, the Court noted that the parties conceded extending the revised plan to cover storm water and urban runoff was not sufficient to "change" the water quality objectives. (*City of Arcadia II, supra*, 191 Cal App 4th 156, 177.) Moreover, the Court found, as a factual matter, that the revised basin plan at issue in that case had referred to section 13241 and discussed the potential economic impacts of the changes made in the plan. (*Id.* at p 178.) However, even if it is distinguishable, the holding strongly suggests that section 13241 will not apply to most basin plan amendments. On the other hand, if *City of Arcadia II* is construed to stand for the general proposition that amendments to a program of implementation cannot trigger the need to comply with section 13241 under any circumstances, it is this Court's opinion that the case is wrongly decided and should not be followed by other courts of superior jurisdiction.

²¹ One could argue that even if the Board failed to comply with section 13241 when it established the EC objectives in 1978, Petitioners' challenge is too late. However, it should be noted that the EC objectives were not applied to municipal dischargers like Tracy until 2006. Tracy likely would not have had standing to challenge the objectives prior to 2006. Moreover, Respondent Board has waived any defense based on the timing of the petition. Accordingly, the Court proceeds to hear and decide this issue on the merits.

As described above, Water Code section 13241 imposes an affirmative obligation on the State, when establishing water quality objectives, to take into account various factors, including the economic costs of adopting the proposed objective. (Water Code § 13241; RB1545-1549 [Attwater Memorandum].)

In this case, the State Board contends that it adequately complied with section 13241 when it adopted the EC objectives in 1978 because it considered "socioeconomic factors" in the EIR for the 1978 Delta Plan. The Court does not agree.

First, while the EIR for the 1978 Delta Plan purportedly considered socioeconomic effects, the discussion appears to be limited to the economic *benefits* to municipal, agricultural, and industrial water *users* of establishing water quality *requirements*. There was no meaningful discussion of the economic costs of adopting the objectives, and certainly no discussion of the costs associated with the methods identified to meet the objectives.²² Nor was there any consideration of economic factors related to wastewater discharges.

Second, to the extent the EIR included socioeconomic information, it did so only for the purpose of determining whether the project would have significant *environmental* effects under CEQA. (See, e.g., 14 C.C.R. §§ 15064, 15131.) Because there was no consideration of economic factors except in relation to their expected environmental effects, the EIR's analysis was inadequate to meet the requirements of Water Code section 13241

Third, the State Board conceded at oral argument in *United States v State Water Resources Control Board* that it did not comply with the requirements of Water Code section 13241 when it set the southern Delta EC objectives as part of the 1978 Delta Plan. (*United States v State Water Resources Control Board (the "Racanelli Decision")* (1986) 182 Cal.App.3d 82, 122 fn.15.) Based in part on this failure, the First District Court of Appeal concluded in the *Racanelli Decision* that the southern Delta EC objectives were "not established in the manner required by law"²³ (*Id.* at p.123.) The Board is estopped from now contending otherwise.

The record and the history of the Bay-Delta Plan show that the State Board did not comply with section 13241 when it adopted the southern Delta EC objectives in 1978

²² As noted above, section 13241 requires consideration of the "cost of compliance " (See *City of Burbank, supra*, 35 Cal 4th at p 625 [finding the "plain language" of section 13241 requires the board to consider the "cost of compliance"]) Even if the Court's conclusion technically constitutes dicta, it is persuasive and should not be rejected without a compelling reason, which is not present here (*Howard Jarvis Taxpayers Assn v City of Fresno* (2005) 127 Cal App 4th 914, 925)

²³ Because of the Board's stated intention to reconsider the standards for the southern Delta at an upcoming hearing, the Court declined to remand for further proceedings consistent with its opinion (*United States, supra*, 182 Cal App 3d at p 123) Ultimately, however, the Board did not change the numerical objectives. Thus, Petitioners contend, the Board never complied with the requirements of section 13241

Further, the Court finds no merit in the State Board's argument that because Water Code section 13263 requires a regional water board to consider the provisions of section 13241 before issuing waste discharge requirements, a section 13241 analysis should not also be required prior to establishing water quality objectives.

The Board's argument is inconsistent with the language of section 13241, which plainly requires a section 13241 analysis whenever water quality objectives are "established." (Water Code § 13241.)

In addition, the Board's argument is inconsistent with what the State Board itself has argued in defending waste discharge requirements: namely, that because section 13241 factors are considered in connection with the adoption of water quality objectives, the factors do not also have to be considered when issuing waste discharge requirements to implement those objectives. (See *City of Burbank, supra*, 35 Cal.4th at pp.626-627 [federal law forbids regional board from using cost or other section 13241 factors to justify wastewater discharge restrictions that do not comply with federal standards].)

For these reasons, the Court ruled in its Tentative Decision that the Board did not properly consider the Water Code section 13241 factors when it initially established the southern Delta salinity objectives (the "EC objectives") in 1978. Respondent Board subsequently objected to the Court's Tentative Decision on the grounds the Court failed to consider or discuss the Board's efforts to comply with Water Code section 13241 after the *Racanelli Decision*, culminating in its 1991 Bay-Delta Water Quality Control Plan for Salinity (the "1991 Bay-Delta Plan").

Respondent Board is partially correct. The Court did not consider or discuss the Board's efforts to comply with section 13241 between 1978 and 2006. However, the Court had a good reason for not doing so, as it was not a principal controverted issue at trial. (The Court uses the term trial to refer to the hearing on the merits)

The issues at trial are determined by the pleadings. The issues presented by the pleadings in this case were (1) did the Board comply with section 13241 when it adopted the EC objectives in 1978, and (2) did the Board comply with section 13241 when it (purportedly) amended the objectives in 2006.

The Board argues that Petitioners did not challenge the Board's efforts to comply with section 13241 between 1978 and 2006. However, Petitioners alleged that the Board *never* performed the analysis required by Water Code section 13241 for the EC objectives. (See Tracy's Petition, at ¶¶ 41-42.) Petitioners alleged that the Board failed to undertake the analysis required by Water Code section 13241, not only when the Board "initially adopted" the EC objectives, but also "each time" the water quality objectives in the Bay-Delta Plan were reviewed and modified, including in 2006. (*Ibid.*) Petitioners also advanced this argument in their opening briefs. (See, e.g , Tracy's Opening Brief, at p.27.) Thus, Petitioners raised the issue, at least in a general sense, whether the Board ever performed a Water Code section 13241 analysis for the EC objectives.

In response to Petitioners' allegations, the Board argued that it complied with section 13241 when it adopted the EC objectives in 1978. The Board also argued that because the EC objectives have "remained unchanged since 1978," no further analysis under section 13241 was required, in 2006 or at any other time. (See Opposition Brief, at pp. 4, 9, 13, 18.)

The Board did *not* argue that even if it failed to undertake the analysis required by section 13241 in 1978, it performed the required analysis as part of its 1991 Bay-Delta Plan update. The Board raised this argument *for the first time* in its objections to the Court's Tentative Decision.

It should be no surprise, therefore, that the Court did not consider or discuss the Board's efforts to comply with section 13241 as part of its 1991 Bay-Delta Plan update. This was not at issue at trial. Instead, the issue was whether the Board completed the section 13241 analysis prior to the adoption of the EC objectives in 1978. For the reasons described above, the Court concluded it did not.

The question presented here is whether the Board, having lost on this issue at trial, now should be permitted a "second bite at the apple" to show it fulfilled its obligations under section 13241. The Court is persuaded that it should not.

While the Court is loath to invalidate or enjoin the EC objectives based on a failure to undertake a section 13241 analysis if the Board did, in fact, perform one, the Court likewise cannot countenance the Board raising wholly new arguments at this late date. (See *Ralphs Grocery Co v Workers' Comp Appeals Bd* (1997) 58 Cal.App 4th 647, 651 fn.2 [lack of opposition is deemed a concession of the merits].)

Further, if the Court were to consider the Board's belated argument, the Court would reject it. Although the full administrative record for the 1991 Bay-Delta Plan may not be before the Court, the administrative record in this case includes the 1991 Bay-Delta Plan itself as well as the Board resolution adopting that Plan. These documents by themselves are sufficient to show that the analysis done in 1991 did not satisfy the requirements of Water Code section 13241 *for the EC objectives*.

As a general matter, the documents show that the Board acknowledged Water Code section 13241 and the requirement to consider (among other things) the "economic considerations" of its water quality control plan. (DP8520-8521; see also DP8584, 8558.) The Plan states that the only direct evidence of economic consequences related to the costs of changing leaching practices for Delta agriculture. (DP8521) As a result, "all other economic effects were analyzed using water availability as an indicator of economic cost." (*Ibid.*, see also DP8538-8539.)

Water availability studies were run for the various water quality objective alternatives, based on the effects the alternatives would have on the combined CVP-SWP system. Thus, the combined CVP-SWP system was used as a surrogate (or proxy) to reflect the water supply consequences of the alternatives on users in the watershed. (DP8521)

Putting aside the issue of whether a study of CVP-SWP system water availability is a legitimate means to analyze the economic effects of water quality objectives – particularly for dischargers – there is a fundamental problem with the 1991 study it excluded the interior stations for the south Delta from its analysis. (*Ibid.* ["Currently the operations study is not designed to analyze the water needed to meet water quality objectives for the interior stations of the south Delta"]; see also DP8533 ["Without considering the potential impact of meeting the interior objectives of the south Delta"])

In addition, the study assumed that the objectives would be met through the release of flows by the CVP-SWP water right holders. (See DP8539, 8838) The study did not consider the economic consequences of the objectives on dischargers because dischargers were not (at that time) required to meet the objectives. There is no evidence in the record that the Board has ever considered the costs of compliance with the southern Delta EC objectives, to municipal, agricultural, other domestic dischargers, or anyone else.

The Court flatly rejects the argument that it is a matter entirely within the Board's discretion to determine what it means to take "economic considerations" into account. While it is true that section 13241 does not specify precisely how the Board must go about considering the factors in section 13241, this does not mean courts should abdicate their constitutional role to independently construe the meaning of the statute. (See, e.g., *California Hospital Association v. Maxwell-Jolly* (2010) 188 Cal App.4th 559, 570-571, 573-577 [department abused discretion by failing to adequately consider the impact of a contemplated Medicaid rate change on the statutory factors of efficiency, economy, quality, and access to care]) The Board's interpretation is one among several tools available to the court in judging the interpretation of the text of the statute, but the Board's interpretation is not binding. In this case, the Court finds the Board's interpretation that a "socioeconomic" analysis of a project's environmental impacts is sufficient to be clearly erroneous.

The Board may disagree that section 13241 requires consideration of the "cost of compliance," but the California Supreme Court has endorsed the view that it does (See *City of Burbank, supra*, 35 Cal.4th at p.625 [finding the "plain language" of section 13241 requires the board to consider the "cost of compliance"].)

Further, in analogous circumstances, the Supreme Court has acknowledged that "sound policy requires that the economic consequences of pollution control regulations must be taken into account." (See *Western Oil and Gas Association v. Air Resources Board* (1984) 37 Cal 3d 502, 517-518.) In *Western Oil and Gas*, the Court concluded, based on the language of the Mulford-Carrell Air Resources Act, that the Legislature intended local and regional authorities, rather than the State Air Resources Board, to consider the economic consequences of compliance with air quality standards. (*Id.* at pp 517-521.)

Here, the statutory language at issue squarely puts this responsibility on the Board. (Water Code § 13241 [requiring Board to consider, in establishing water quality objectives for the "reasonable" protection of beneficial uses, such things as economics, the water quality conditions that could "reasonably" be achieved, and the

need for housing within the region].) That the Board is required to consider factors like the "need for housing" and the water quality conditions that can "reasonably" be achieved, shows the Legislature intended the Board to consider not just the economic benefits of controlling water pollution, but the economic costs of compliance with the water pollution controls.

Accordingly, the Court stands by its conclusion that the Board has failed to consider the factors set forth in Water Code section 13241 for the EC objectives. The Court now proceeds to consider what this means for the validity of the EC objectives

c Is the State Board's failure to comply with Water Code section 13241 a basis to invalidate the EC objectives?

The State Board contends that even if it failed to conduct the analysis required by section 13241, this is, at most, a basis for issuing a writ of mandate requiring the Board to conduct the required analysis. The Board argues, however, that it is not a basis to invalidate the EC objectives. According to the Board, the State cannot adopt water quality standards that are less stringent than those approved by the federal government. Because the 700/1000 µmhos/cm EC objectives were adopted as federal water quality standards, the Board asserts that it cannot, based on economic (or other § 13241) factors, adopt state water quality objectives that are any less protective than those standards.

Petitioners respond that EPA approval does not excuse a failure to comply with state law in the adoption of state water quality standards. The Court agrees with Petitioners.

The Court's analysis necessarily begins with the supremacy clause of the United States Constitution. The supremacy clause provides that federal constitutional and statutory law is binding on state governments as the supreme law of the land (U.S. Const., art. VI, § 2.) Thus, when Congress passes legislation, state legislation regulating the same subject may be preempted.

Preemption may be express or implied. Preemption is express when Congress has expressly stated in a statute the areas of state law that are preempted. Absent express preemption, there are three bases for finding implied preemption: (1) where it is clear Congress intended to occupy an entire regulatory field, (2) where compliance with both state law and federal law is impossible; and (3) where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. (See *Matthew Bender & Company, Inc., Constitutional Law*, 126A California Forms of Pleading and Practice -- Annotated § 126A.23.)

The question presented here is whether the Clean Water Act preempts Water Code section 13241's requirement that the State consider economic factors before establishing water quality objectives.

Relying on *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal.4th 612, 626-627, the State Board contends that the supremacy clause prohibits

using economic considerations to justify water quality standards that are less stringent than required by federal law.

At issue in *City of Burbank* was Water Code section 13263, which requires regional boards to take various factors, including economic considerations, into account when issuing wastewater discharge permits. To meet a general narrative water quality criteria that waters be maintained "free of toxic substances in concentrations that are [toxic or detrimental to] human, plant, animal or aquatic life," the Los Angeles Regional Board adopted specific numeric requirements setting daily maximum limitations for more than 30 toxic pollutants present in the treated wastewater of the City of Los Angeles. (*Id.* at p 622) The cities of Los Angeles and Burbank filed appeals with the State Board, contending that the board violated section 13263 because it did not consider the economic burden on the cities in meeting the pollutant restrictions. (*Ibid.*)

In affirming the judgment of the Court of Appeal, the California Supreme Court held that because the supremacy clause of the federal Constitution requires state law to yield to federal law, a regional board, when issuing a wastewater discharge permit, may not rely on state law to justify pollutant restrictions less stringent than those required by federal law.²⁴ (*Id.* at p.618.) In other words, state water quality laws cannot be used to impose pollutant restrictions less stringent than required by federal law. As Justice Brown's concurrence aptly points out, that "seems a pretty self-evident proposition " (*City of Burbank, supra*, 35 Cal 4th at p.629.)

However, the issue in this case is different. The issue here is not whether the State can use compliance costs to relax pollutant restrictions necessary to meet water quality standards, but whether the State can consider compliance costs when establishing water quality standards. Contrary to what the State Board argues, the holding in *Burbank* supports the view that it can

As the Court noted in *Burbank*, the Clean Water Act does not preempt state water quality laws. To the contrary, the Clean Water Act is an example of "cooperative federalism," anticipating a "partnership between the States and the Federal Government" to achieve a shared objective. (*Burbank, supra*, 35 Cal.4th at p 620; see also *id.* at p.629.)

Toward this end, the Clean Water Act reserves to the states significant aspects of water quality policy and, in many instances, incorporates state water policy into federal law. (*Id.* at p 627) While (technology-based) effluent limitations are promulgated by the federal government, states have the leading role in establishing water quality standards. (*Id.* at p.620; see also 33 U.S.C. § 1251(b).)

States must adopt water quality standards and submit them to the EPA, which reviews them for compliance with the Clean Water Act. (*Natural Resources Defense Council v. United States EPA* (E.D. Va. 1992) 806 F.Supp. 1263, 1268.) The EPA

²⁴ Only when a regional board is considering whether to adopt permit restrictions more stringent than federal law requires may the board take economic factors into account

may approve the standards or notify the state of specific changes required to meet Clean Water Act requirements. (*Ibid.*)

Federal law does not preempt state procedures for adopting water quality standards. To the contrary, federal law requires water quality standards to be adopted in compliance with state laws. (40 C.F.R. §§ 131.3(b), 131.5, 131.6; 33 U.S.C. § 1313(c)(2).) EPA review includes whether the state has followed its legal procedures for adopting the standards. (*Natural Resources Defense Council, supra*, 806 F.Supp. at p.1269.) Thus, a failure to comply with state legal procedures is a failure to comply with federal procedural requirements.

The Supreme Court acknowledged as much in *Burbank* by affirming the determination of the lower courts that section 13241 requires the State to consider costs of compliance when it adopts water quality standards in a basin or water quality plan. (See *City of Burbank, supra*, 35 Cal.4th at p.623 [affirming conclusion of court of appeal that section 13241 requires a regional board to take economic considerations into account when it adopts water quality standards in a basin plan]) The clear implication of *Burbank* is that the State is free – required even – to consider compliance costs when establishing water quality standards, but cannot relax established requirements merely because an NPDES permit holder alleges compliance will be too costly (*Id* at p 627)

This conclusion also is supported by other language of the federal Clean Water Act, which provides that water quality standards should, *wherever attainable*, provide water quality for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water, and take into consideration the *use and value* of the water for public water supplies, propagation of fish, shellfish, wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation²⁵ (40 C.F.R. §§ 130.3, 131.2, see also 33 U.S.C. § 1313(c)(2) [emphasis added]²⁶)

²⁵ The Act does not define how the "use and value" of the water should be taken into consideration in establishing water quality standards. The only case to have considered this issue concluded that states should take the "use and value" of the water into consideration only when designating the uses for a particular water body, but not when setting the criteria to protect those uses. (See *Mississippi Commission on Natural Resources v. Costle* (5th Cir. 1980) 625 F.2d 1269, 1277.) However, the decision in *Costle* is not binding and this Court does not find it persuasive. The court in *Costle* selectively takes language out of context and ignores the plain directive that "water quality standards" shall be based on the "use and value" of the waters involved. It makes no sense to read the language to mean that the "use" of water shall be based on the "use and value" of the water. Further, if Congress had intended value to be considered only in relation to use, it could have said so. It did not. It is noteworthy that the EPA in *Costle* had examined the economic impact of its criteria, severely undermining EPA's argument that it was under no obligation to do so. In any event, the case at hand involves California, not Mississippi, water quality standards. California law requires the State to consider economic considerations when establishing water quality objectives, and this law predates the 1972 enactment of the federal Clean Water Act. When Congress adopted the Clean Water Act, it expressly required water quality standards to be adopted in compliance with state laws, including, in the case of California, Water Code section 13241. The Court presumes Congress knew what it was doing.
²⁶ In *City of Burbank*, the Supreme Court rejected an argument that consideration of economics was "consistent with federal law" under the Clean Water Act. The Court found "nothing" in the

In sum, the State has it exactly backwards. It argues that federal law prohibits application of state laws when establishing federal water quality standards. The text of the Clean Water Act and the Supreme Court's decision in *Burbank* show that the opposite is true: federal law requires water quality standards to be adopted in compliance with state laws.

In trying to avoid this problem, the State Board argues that because the 700/1000 $\mu\text{mhos/cm}$ EC objectives were approved by the EPA, the EC objectives are "the federal water quality standards," and the supremacy clause prohibits the State from adopting less stringent standards.

This is flawed reasoning. It would mean that water quality standards approved by the EPA never could be lowered – which the State Board conceded at the hearing is not correct.

There are no federally-promulgated water quality criteria for the protection of agriculture in the southern Delta. Federal law does not necessarily require the 700/1000 $\mu\text{mhos/cm}$ numeric objectives. Merely because the 700/1000 $\mu\text{mhos/cm}$ objectives were approved by the EPA does not mean that the State cannot adopt less stringent objectives in the future.

In giving its approval, the EPA merely determined that the 700/1000 $\mu\text{mhos/cm}$ objectives (criteria) were sufficient to protect the designated water uses. The EPA did not determine that only those criteria would be sufficient to protect the designated uses. The EPA's approval does not foreclose the possibility that other criteria also might be sufficient to protect the designated uses.

In establishing the EC objectives, the State Board was required by Water Code section 13241 to consider the factors set forth in that statute. It did not do so. Accordingly, the Court concludes that a writ must be granted directing the Board to

Clean Water Act to suggest that states may weaken federal clean water requirements when a permit holder alleges that compliance will be too costly (*Id.* at p 627). However, that is not the issue here. Also, the Supreme Court's holding is limited by its facts to requirements of waste discharge permits involving "toxic" pollutants. (See 40 C.F.R. § 131.3 [defining toxic pollutants as those pollutants listed by the Administrator under section 307(a) of the Act].) Presumably because the case involved toxic pollutants, the Court did not consider the provisions in 33 U.S.C. section 1312(b)(2). Section 1312(b)(2) allows the Administrator (here, the State) to issue a permit which modifies the effluent limitations that otherwise would be required under the Act "if the applicant demonstrates at [a] hearing that there is no reasonable relationship between the economic and social costs [of the effluent limitations] and the benefits to be obtained (including attainment of the objective of [the Act]) from achieving such limitation." (33 U.S.C. § 1312(b)(2)). By its terms, section 1312(b)(2) of the Clean Water Act does not apply to "toxic pollutants." But for pollutants other than "toxic pollutants," this section expressly allows consideration of economic costs to relax or modify water quality-based effluent limitations in a wastewater discharge permit. Cases are not authority for propositions not considered. Because the issue here involves establishing water quality standards, rather than issuing permits to meet standards, and because the Court in *City of Burbank* did not consider the provisions in section 1312(b)(2), the Court finds that the *City of Burbank* opinion is not contrary to the Court's interpretation here.

conduct the required § 13241 analysis and reconsider the EC objectives after the § 13241 factors have been considered.

However, in recognition of the environmental harm that could occur if the water quality criteria were to be invalidated immediately, the Court's writ shall not require the Board to invalidate the existing objectives pending reconsideration by the Board (*Morning Star Co. v State Bd of Equalization* (2006) 38 Cal 4th 324, 341) The Court shall instead enjoin any action to enforce the existing EC objectives against Tracy and other municipal dischargers pending reconsideration by the Board ²⁷

2. Was the program of implementation adopted in a manner contrary to law?

Petitioners also contend the State Board failed to adopt a comprehensive program for implementation of the EC objectives as required by Water Code section 13242.

Water Code section 13050, subdivision (j) provides that a water quality control plan shall include a program of implementation needed for achieving water quality objectives. (Water Code § 13050(j).) Under Water Code section 13242, the program of implementation shall include (i) a description of the nature of actions necessary to achieve the objectives, including recommendations for appropriate action by public or private entities; (ii) a time schedule for the actions to be taken; and (iii) a description of surveillance to be undertaken to determine compliance with the objectives. (Water Code § 13242.)

Petitioners allege that, while the Bay-Delta Plan includes a program of implementation, the State Board failed to consider how municipal dischargers like Tracy would comply with the EC objectives, failed to include a time schedule for actions to be taken, and failed to describe surveillance to be used to determine compliance. Therefore, Petitioners argue, the State Board's program of implementation is insufficient to meet the requirements of Water Code section 13242.

In its Tentative Decision, the Court found that, on balance, the 2006 Bay-Delta Plan's program of implementation is adequate. The Court specifically referred to the following provisions of the implementation program.

In regard to the southern Delta salinity objectives, the Plan describes a number of measures that can be used to control salinity in the southern Delta, including "state regulatory actions, state funding of projects and studies, regulation of water diversions, pollutant discharge controls, improvements in water circulation, and long-term implementation of best management practices to control saline discharges " (DP41.) Specifically, the Plan refers to the Grasslands Bypass Project, West Side Regional Drainage Plan, San Luis Unit Feature Reevaluation Project, Central Valley Project Improvement Act Land Retirement Program, San Joaquin River Real-time

²⁷ Intervenor Clean Water Association objected to the Tentative Decision because it only enjoined application of the existing EC objectives as to Tracy Intervenor's objection is well taken and the Court has modified the scope of its injunction

Water Quality Management Program, South Delta Improvements Program, and the Delta-Mendota Recirculation program (DP41-45.) The Plan indicates that the State Board has conditioned the water rights of the USBR and DWR, and indicates that the Board also could require releases or other measures be taken by other non-SWP/CVP reservoirs. (*Id.*) The Plan further provides that the Regional Board shall implement a Total Maximum Daily Load (TMDL) for the San Joaquin River at Vernalis, and "shall impose discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers." (DP41.)

The Court further noted that the Plan includes some time schedules and surveillance programs to achieve the objectives. (See DP42-45.) For example, the Plan states that the State Board will conduct a workshop in January 2007 to discuss the need for an updated scientific investigation regarding the southern Delta salinity objectives, the causes of salinity in the southern Delta, and measures to implement the salinity objectives for southern Delta agriculture. (DP42, 45)

While the Court concluded that a more detailed description would be preferable, the Court was not persuaded that the implementation plan was materially deficient

Tracy objected to the Court's Tentative Decision on this issue, arguing that the program of implementation is not adequate in regard to municipal discharges.

Having reconsidered its Tentative Decision, the Court agrees with Tracy. As a general matter, the Court agrees that a program of implementation is not required to describe in detail how particular dischargers (or other parties) will comply with the objectives. However, when a program of implementation changes who is responsible for meeting previously-established water quality objectives, more specificity is required. When a program of implementation is revised to make previously-established water quality objectives applicable to new entities, the program of implementation must specifically address the change. It must describe the nature of the actions necessary for such entities to achieve the objectives, provide a reasonable time schedule for the actions to be taken, and include a description of the (new) surveillance required to determine their compliance with the objectives.

The facts of this case show why such a requirement is necessary.

Here, when the Board initially established the EC objectives in 1978, the Delta Plan envisioned that the objectives would be implemented by managing the flows of the CVP-SWP water right holders. Then, many years later, the Board having failed to implement the objectives against water right holders, the Board decided that the objectives should be achieved through a mix of water right actions and water quality control measures, and, for the first time, made the objectives applicable to municipal (and agricultural) dischargers.

Despite this radical change in how the EC objectives will be achieved, the Board's program of implementation includes virtually no discussion of how municipal dischargers may comply with the objectives, no time schedule for them to achieve the objectives, and no description of how the Board will determine their compliance.

The implementation program's discussion of municipal dischargers consists of a single sentence: "The Central Valley Regional Water Board shall impose discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers." (DP41.) This is not adequate.

While the Court does not deny the Board's authority to revise its program of implementation as necessary for achieving water quality objectives, the Board must do so in a way that conforms to the policies set forth in the Water Code. (Wat Code §§ 13240, 13000.) The Court is persuaded that the Board has not done so here. Accordingly, the Court shall issue a writ compelling the Board to adopt an adequate program of implementation that describes the nature of the actions necessary for municipal dischargers to achieve the EC objectives (including recommendations for appropriate action by them), provides a reasonable time schedule for the actions to be taken, and includes a description of the surveillance required to determine their compliance. Further, the Court shall enjoin any action to enforce the provisions of the 2006 Bay-Delta Plan relating to the EC objectives against Tracy and other municipal dischargers pending an adequate program of implementation that meets the requirements of Water Code § 13242.

3. Did the State Board comply with its mandate to periodically review and revise the EC objectives?

Petitioners contend that the State Board failed to comply with its statutory mandate to periodically review and revise the EC objectives as required by Water Code sections 13143 and 13240 and 33 U.S.C. § 1313(c)(1). This claim lacks merit.

The Water Code and the federal Clean Water Act require that water quality standards be periodically reviewed, but they do not necessarily require that water quality standards be revised. (See Water Code § 13143 [state water quality control policy "shall be periodically reviewed and may be revised"]; Water Code § 13240 [water quality control plans "shall be periodically reviewed and may be revised"]; 33 U.S.C. § 1313(c)(1) [state water pollution control agency shall from time to time hold hearings for the purpose of reviewing applicable water quality standards "and, as appropriate, modifying and adopting standards"], see also *National Wildlife Fed'n v. Browner* (D.C. Cir. 1997) 127 F.3d 1126, 1129.)

The Bay-Delta Plan has been periodically reviewed. The Board was under no legal obligation to revise the southern Delta EC objectives.

B. Tracy's challenge to Order WQ 2009-0003: Were the southern Delta EC objectives properly applied to Tracy's discharge and permit?

Petitioners contend that because the Bay-Delta Plan salinity provisions were improperly adopted and/or modified, the State Board abused its discretion in applying those provisions to Tracy's discharge and Permit²⁸

²⁸ As discussed above, Respondent State Board denies that the 2006 Bay-Delta Plan and its EC objectives were improperly promulgated. But even if the Court finds the 2006 Bay-Delta Plan is

Tracy further contends that even if the Bay-Delta Plan was legally promulgated, the State Board abused its discretion by (1) finding that the water quality objectives for EC are required to be imposed upon Tracy at the end of its discharge pipe; (2) finding that Tracy's Permit fails to include final water quality-based effluent limits for EC; and (3) finding that the EC effluent limitations to be imposed on Tracy must be numeric. Tracy seeks a peremptory writ of mandate directing the State Board to vacate the contested provisions of its Order WQ 2009-0003²⁹

The State Board asserts that federal regulations require water quality based effluent limitations (WQBELs) when a discharge has the reasonable potential to cause or contribute to an excursion above an applicable water quality standard. The State Board argues that because Tracy's discharge consistently exceeds the applicable standard for EC at its point of discharge, and the receiving water frequently has no assimilative capacity for EC, Tracy's discharge has the reasonable potential to cause or contribute to an excursion above the applicable standard. Therefore, according to the State Board, Tracy's NPDES permit is required to include water quality based effluent limitations to achieve the water quality standard

The State Board asserts that it properly ordered the Regional Board to include numeric effluent limits for EC in Tracy's Permit because numeric effluent limits are necessary to assure achievement of the numeric water quality objectives (criteria) for EC.

The State Board rejects the claim that the cost of compliance with numeric effluent limits would be unreasonably high when considered in light of the relatively small potential benefit to water quality. Moreover, the State Board argues that economic considerations are irrelevant when establishing effluent limitations in a permit to meet applicable water quality standards. Because numeric effluent limitations are necessary to comply with the federally-approved numeric water quality objectives, the State Board maintains that Tracy must comply with the numeric effluent limitations, regardless of cost.

Having concluded that the EC objectives were improperly adopted, the Court finds the Board should be enjoined from applying the EC objectives to Tracy's discharge and Permit pending reconsideration of the objectives in compliance with this Court's

deficient, the State Board contends that the EC objectives are still properly applied to Tracy's discharge

²⁹ In addition, Tracy seeks a judicial declaration that the challenged 2006 Bay-Delta Plan provisions were not properly applied to Tracy because the 2006 Bay-Delta Plan had not yet been approved by the State's Office of Administrative Law or the U S EPA at the time Tracy's application was considered. However, insofar as Tracy seeks to challenge the application of the Bay-Delta Plan to its discharge, Tracy is essentially seeking review of the validity of the State Board's quasi-adjudicatory decision. Because an action for declaratory relief is not appropriate to review an agency's quasi-adjudicatory decisions, Tracy's request for declaratory relief regarding application of the 2006 Bay-Delta Plan is denied. Such review is properly brought under the provisions of C C P § 1094.5 (See *County of Los Angeles v State Water Resources Control Bd* (2006) 143 Cal App 4th 985, 1002, *State of California v Superior Court (Veta Company)* (1974) 12 Cal 3d 237, 251)

ruling. Nevertheless, for purposes of providing future guidance, the Court proceeds to consider Tracy's specific challenges to the State Board's Order WQ 2009-0003.

1. Did the State Board prejudicially abuse its discretion by finding that the water quality objectives for EC are required to be imposed upon Tracy at the end of its discharge pipe?

Tracy alleges that even if the 2006 Bay-Delta Plan and EC objectives were legally promulgated, the State Board erred by finding that the Plan requires compliance with the EC objectives to be measured at the end of Tracy's discharge pipe. The Court agrees.

While the Bay-Delta Plan was amended in 2006 to state that water quality objectives cited for a general area shall be "applicable for all locations in that general area," the amendment did not change the requirement that the "compliance locations indicated in the tables will be used to determine compliance with the objectives." (DP87; see also DP23 ["compliance locations will be used to determine compliance with the cited objectives"]) Thus, even if the Board intended the objectives to be applicable at the end of Tracy's discharge pipe, as a practical matter, the language of the Plan made them applicable only at the specified compliance locations.

Since the Board was required to comply with the requirements of its Plan, (Water Code §§ 13247, 13263), the Board was required to conduct its "reasonable potential" analysis at the Old River/Tracy Road Bridge compliance location, instead of at the end of Tracy's discharge pipe

Tracy's discharge pipe is approximately 4 miles upstream of the compliance location Measuring Tracy's "reasonable potential" at its discharge pipe deprived Tracy of a potential "mixing zone" for its discharge

As an aside, the Court gives no credence to the Board's arguments regarding the purported effect of discharges from Tracy's Plant on DWR's and USBR's obligation to release fresh water to the southern Delta. The salt in Tracy's discharge may make compliance for DWR/USBR more difficult, but that does not necessarily mean Tracy is attempting to shirk its responsibility for the salinity problem in the southern Delta. After all, one could argue that the reason there is no assimilative capacity in the Delta is because DWR/USBR have shirked their responsibility to release sufficient fresh water from New Melones Reservoir. If DWR/USBR simply released more fresh water, there would be assimilative capacity, and Tracy's discharge would not have the "reasonable potential" to cause or contribute to an excursion above the applicable water quality objectives.

It is worth noting that, historically, the programs of implementation for the EC objectives focused primarily (or, in some instances, exclusively) on the release of flows by DWR/USBR. Indeed, the Board previously determined that the CVP is the "principal" cause of the salinity problem at Vernalis. Nevertheless, the Board has delayed enforcement of the objectives against DWR/USBR for many years. Viewed from this perspective, Tracy might argue that it is the victim here – because it is

being requested to reduce its salt loading so that DWR/USBR may export more water by means of the SWP/CVP.

In essence, Tracy's discharge and the SWP/CVP water projects are two sides of the same coin: the more water released by DWR/USBR, the less Tracy will be required to reduce its salt load; and the more Tracy reduces its salt load, the less water DWR/USBR will be required to release to meet the salinity objectives (and the more water available for export).

This Court is in no position to determine each party's "fair share" of the salinity problem in the southern Delta. Thus, it makes no value judgments about who is (and who is not) attempting to shirk their "responsibilities" for solving the salinity problem.

In its Tentative Decision, the Court ruled that the Board's error appeared to be harmless since the receiving water frequently has no assimilative capacity for EC and Tracy's discharge exceeds the applicable standard for EC at the point of discharge.³⁰ Tracy objected to the Court's Tentative Decision, disputing that the receiving water does not have any assimilative capacity, and arguing that an analysis of assimilative capacity cannot substitute for a proper reasonable potential analysis. Tracy contends the Court should simply order the Board to perform a reasonable potential analysis at the Old River/Tracy Road Bridge compliance location, rather than speculate what the results of such an analysis would show.

Tracy's objection is well taken. The Court has modified its Decision to require the Board to perform the reasonable potential analysis at the Old River/Tracy Road Bridge compliance location, as required by the 2006 Bay-Delta Plan.

2. Did the State Board abuse its discretion by finding that Tracy's Permit fails to include final water quality-based effluent limits for EC?

Tracy further alleges that the State Board abused its discretion by finding that Tracy's Permit does not include final water quality-based effluent limits (WQBELs) designed to implement the objectives for EC. The Court does not agree.

The Clean Water Act generally requires a permit to contain WQBELs whenever the permitting agency determines that pollutants are or may be discharged at a level which will cause, or have the reasonable potential to cause, or contribute to, an in-stream excursion above the allowable concentration of a numeric criterion within a state water quality standard (40 C F R § 122.44(d)(1).)

³⁰ The Board argued that the receiving water frequently has no assimilative capacity for EC, so essentially any increase in the concentration of salinity would have the reasonable potential to cause or contribute to an excursion above the EC objectives. According to the Board, the assimilative capacity of the receiving water is so low that even removing Tracy's discharge entirely would not solve the salinity problem. For Tracy's discharge to meet the "reasonable potential" test, its discharge would have to improve (or at least not worsen) the salinity conditions in the southern Delta.

As described above, the Court has concluded that the Board failed to conduct its "reasonable potential" analysis at the Old River/Tracy Road Bridge compliance location, as required by the 2006 Bay-Delta Plan. In the absence of a proper reasonable potential analysis, it is premature to determine whether Tracy's Permit is required to include final WQBELs for EC.

Nevertheless, for purposes of providing as much guidance as possible, the Court proceeds to determine whether the Board also abused its discretion by finding that Tracy's Permit does not include final water quality-based effluent limits (WQBELs) designed to implement the objectives for EC

The Board determined that Tracy's Permit is insufficient to meet the requirements of the Clean Water Act. Although Tracy's Permit includes final numeric WQBELs designed to achieve the EC objectives, the limitations are "conditional" and do not apply unless Tracy fails to comply with its own salt reduction plan. The State Board determined that because the final numeric WQBELs are "conditional," they are not protective of the numeric water quality objectives for EC

The Court agrees with the State Board that, where a permit makes final WQBELs contingent on compliance with certain conditions, the permit must stand or fall based upon whether the conditions themselves meet the requirements of the Clean Water Act

In this case, the Tracy Permit's numeric WQBELs were made contingent on the development and implementation of an approved Salinity Plan and various other salinity control requirements in the Permit. Thus, the relevant inquiry is whether the Salinity Plan and other salinity control requirements in the Permit are sufficient to meet the requirements of the Clean Water Act.

The State Board contends that the Salinity Plan is not sufficient because it does not constitute an "effluent limitation" and is not designed to achieve the applicable water quality objectives. The Court disagrees that the Salinity Plan is not an "effluent limitation," but agrees that the Plan is not a final WQBEL designed to implement the southern Delta EC objectives

As an initial matter, the Court rejects any suggestion that effluent limitations are required to be numeric. The definition of "effluent limitation" in the Clean Water Act refers to "any restriction," and may include a "schedule of compliance" (33 U.S.C. § 1362(11); 40 C.F.R. § 122.2.) The term "schedule of compliance" means a "schedule of remedial measures," including an enforceable sequence of interim requirements leading to compliance with an effluent limitation or standard (33 U.S.C. § 1362(17); 40 C.F.R. § 122.2.)

In *Communities for a Better Environment*, the First Appellate District Court of Appeal specifically rejected the argument that the federal regulations mandate numeric WQBELs in all circumstances. Rather, the Court found, Congress intended a "flexible approach" including alternative effluent control strategies. (*Communities for a Better Environment v State Water Resources Control Bd* (2003) 109 Cal.App 4th 1089, 1105, *Communities for a Better Environment v State Water Resources*

Control Bd. (2005) 132 Cal.App 4th 1313, 1318; see also *Divers' Environmental Conservation Organization v State Water Resources Control Bd* (2006) 145 Cal.App.4th 246, 262 [following *Communities for a Better Environment*].) Thus, numeric effluent limitations are not necessary to meet the requirements of the federal Clean Water Act. (*Communities for a Better Environment, supra*, 109 Cal.App.4th at p.1093.) Indeed, federal regulations expressly permit non-numeric effluent limitations -- such as best management practices -- when numeric effluent limitations are "infeasible." (40 C.F.R. § 122.44(k)(3); see also State Board Order WQ 2006-0012, p.16.)

The State Board construes "infeasibility" to refer to "the ability or propriety of establishing" numeric limits. (See State Board Order WQ 2009-0015, p.7; State Board Order WQ 2006-0012, pp.14-16.) Thus, according to the State Board, feasibility turns on the ability and propriety of establishing numeric effluent limitations, rather than the ability of a discharger to comply.

However, this argument is unfounded and is not supported by case law or by the Board's own Water Quality Orders. It will nearly always be *possible* to establish numeric effluent limitations, but there will be many instances in which it will not be feasible for dischargers to comply with such limitations. In those instances, states have the authority to adopt non-numeric effluent limitations.

Communities for a Better Environment makes clear that one factor a board may consider in determining whether a numerical effluent limitation is "feasible" is the "ability of the discharger to comply." (See *Communities for a Better Environment, supra*, 109 Cal.App 4th at pp 1100.) The court expressly approved the regional board's consideration of this factor in upholding the determination that numeric effluent limits were not "appropriate" for the refinery at issue in that case. (*Id.* at p.1105 [approving determination that numeric WQBEL was not feasible "for the reasons discussed above," which included inability of discharger to comply.]

Likewise, in Water Quality Order 2003-0012, the State Board declined to impose numeric effluent limitations in a waste discharge permit because of a concern that numeric limitations would not be appropriate³¹ (State Board Order WQ 2003-0012.)

The Board's Order in this proceeding cited to WQO 2003-0012 with approval, noting that "it is possible to have effluent limitations other than numeric effluent limitations [provided] the effluent limitation is . . . enforceable and designed to implement the water quality objective." (CSPA000398.) The Board remanded the matter to the

³¹ The Board's Water Quality Orders indicate a "preference" for determining the "ability and propriety" of establishing numeric effluent limitations in a regulatory setting, e.g. as part of a basin plan amendment, rather than as part of a permit petition process. (See State Board Order WQ 2003-0012, pp 8-9, State Board Order WQ 2009-0015, p 7 fn 28.) Thus, the Board contends, while the Board may consider dischargers' ability to comply when deciding whether numeric effluent limitations are "appropriate," in general, a discharger's ability to comply should not be considered when setting specific numeric effluent limitations in a permit. (See *ibid.*) However, Water Quality Order 2003-0012 shows that the Board has considered the "ability and propriety" of numeric effluent limitations as part of the permit petition process, at least to give the Board time to address the issue in a regulatory setting. (See State Board Order WQ 2003-0012, p 9.)

Regional Board to further consider whether there are feasible alternatives or methods, other than reverse osmosis, that the City could use to achieve the numeric limits. (CSPA000401.)

Accordingly, the Court rejects the argument that in determining the "propriety" of numeric effluent limitations, the Board may not consider the ability (or inability) of the discharger to comply with such limitations. The ability to comply is a critical factor in determining the "propriety" of numerical limitations.

On the other hand, the Court accepts the Board's assertion that "feasibility" does not depend on the economic costs to comply with numeric effluent limitations. (State Board Order WQ 2003-0012, p.9 fn. 26.) The relevant consideration is whether the discharger can comply, not whether it is cost-effective to do so.

This conclusion is supported by the California Supreme Court's holding in *City of Burbank v State Water Resources Control Board* (*City of Burbank v State Water Resources Control Board* (2005) 35 Cal 4th 613.) That case involved application of Water Code section 13263, which requires regional boards to take economic considerations into account when issuing wastewater discharge permits. The cities of Los Angeles and Burbank filed appeals contending that the board violated section 13263 because it did not consider the economic burden on the cities in meeting the pollutant restrictions in their permits. The Court held that when considering effluent limitations in a waste discharge permit, federal law does not allow a regional board to use economic considerations to impose limitations less stringent than necessary to meet applicable federal standards (*id* at p.618) Important to the Court's holding in *City of Burbank* was its finding that federal law requires dischargers to achieve federal water quality standards "regardless of cost." (*id.* at p.626)

Here, the State Board found that the Regional Board failed to adequately consider the "feasibility" of numeric effluent limitations. Petitioners dispute this finding

The Court finds this is a close question. The evidence in the record could be read either way. On one hand, the evidence shows the Regional Board considered numerous factors before determining that Tracy could not reasonably be expected to achieve compliance with final WQBELs within the five year life of the Order, including that: Old River frequently has no assimilative capacity; Tracy's discharge is one of many contributors (including DWR and USBR) responsible for the salinity problems in the southern Delta; Tracy's impact on salinity is relatively small compared to other salinity sources in the area, that even if Tracy's discharge were entirely removed, it would not solve the salinity problem in the southern Delta; that part of Tracy's salinity problem is the high salt load of its municipal water supply, imposing final numeric WQBELs may and likely would require the construction and operation of reverse osmosis facilities; reverse osmosis facilities are very costly and energy intensive and produce highly-saline brine waste with limited and costly disposal options; and the State is engaged in ongoing efforts to review and revise the salinity control policies for the Delta (including total maximum daily loads for salinity) which might render reverse-osmosis treatment unnecessary

On the other hand, the State Board is correct that the Regional Board did not show that reverse osmosis is the only treatment methodology available and failed to adequately consider whether there are other alternatives/methods available that could be used to meet the EC objectives.

Even where the independent judgment test applies, the findings of the agency come before the court with a strong presumption as to their correctness, and the burden falls on the petitioner to convince the court that the agency's findings are contrary to the weight of the evidence. (*Fukuda v. City of Angels* (1999) 20 Cal 4th 805, 811-12, 817.)

On balance, Petitioners have failed to persuade the Court that the State Board's finding is contrary to the weight of the evidence. Accordingly, the Court upholds the State Board's determination that the Regional Board failed to adequately consider the feasibility of numeric effluent limitations

The Court also upholds the State Board's alternative finding that the Tracy Permit's provisions are not adequately protective of the applicable water quality objectives for EC

The State Board contends that, even if numeric effluent limitations are infeasible, the Tracy Permit does not include water quality-based effluent limitations (WQBELs) designed to achieve the applicable water quality criteria (See 33 U.S.C § 1312; 40 C.F.R. § 122.44.)

Tracy argues that its Permit included appropriate (non-numeric) effluent limitations by virtue of the required Salinity Plan and the various other salinity control requirements in the Permit (such as the requirements for best practicable treatment or control, a pollution prevention plan, a monthly average effluent salinity goal, and an interim performance-based effluent limitations for Total Dissolved Solids).³²

On this issue, the Court agrees with the Board. To the extent the Tracy Permit includes effluent limitations, the effluent limitations are interim, performance-based limitations (such as for TDS) intended to reduce the salinity of Tracy's discharge, not water quality-based effluent limitations (WQBELs) designed to implement the applicable water quality objectives.

While the Permit includes final numeric WQBELs for EC, they are conditional and apply only if Tracy fails to design and implement a Salinity Plan. The Permit allowed – but did not require -- that final numeric WQBELs be established in the future, as

³² Tracy argues that the Regional Board properly approved these non-numeric effluent limitations because the Regional Board concluded that numeric WQBELs would be infeasible, in that they likely would require the construction and operation of extremely costly reverse-osmosis facilities and would not significantly reduce EC levels in the south Delta. As described above, the Court has concluded that the weight of the evidence supports the State Board's finding that the Regional Board did not adequately consider the feasibility of numeric WQBELs and upholds the Board's remand on this basis.

part of a TMDL for example ³³ Nor did it require that the Salinity Plan itself be designed to implement the applicable water quality objectives.

As a result, the adequacy of the Permit turns on the provisions pertaining to best practicable treatment or control (BPTC).

In general, there is nothing preventing states from establishing WQBELs based upon best management practices (BMP) or best practicable treatment or control (BPTC). However, the BMP or BPTC must be enforceable and designed to implement the applicable water quality objectives. There must be an "enforceable sequence of actions or operations" leading to compliance with the applicable water quality objectives. Studies and commitments to studies that do not actually implement the water quality standards do not satisfy federal requirements.

Tracy's Permit falls short of this standard. The Permit contains nothing more than a vague requirement that Tracy prepare a "work plan" and "technical report" to determine the BPTC of its discharge, provide recommendations for necessary modifications to achieve BPTC, and identify sources of funding and a proposed schedule for such modifications. The Permit does not discuss any particular BPTC, and imposes no specific time limitations for the BPTC plan and report. Further, the Permit contains no discussion of *how* BPTC will result in compliance with applicable water quality objectives for EC. In essence, the Permit defers to some uncertain date in the future the determination not only of what BPTC may be required, but also how BPTC will be achieved (if it all).

There is, therefore, no enforceable sequence of actions or operations leading to compliance with applicable water quality standards.

As a result, this case must be distinguished from the situation in *Communities for a Better Environment*, in which the court found that an enforceable "schedule of compliance" leading to the adoption of final effluent limitations designed to achieve water quality standards (at the completion of a TMDL) constituted an acceptable WQBEL for purposes of the Clean Water Act. (*Communities for a Better Environment*, *supra*, 109 Cal.App.4th at pp.1106-1107.)

The State Board did not abuse its discretion in determining that such provisions do not meet the requirements of the federal Clean Water Act. The weight of the evidence supports finding that the Permit fails to establish WQBELs for EC that are designed to implement the applicable water quality objectives

Therefore, assuming arguendo that Tracy's discharge has the reasonable potential to cause or contribute to an in-stream excursion, the State Board did not abuse its discretion in remanding the Permit to the Regional Board for reconsideration of the feasibility of numeric WQBELs and inclusion of final (numeric or non-numeric)

³³ A TMDL assesses responsibilities, identifies specific actions to be taken by identified parties, and results in an allocation of the total allowable pollutant burden. This approach seems well suited for the salinity problem in the southern Delta and is, in any event, required by federal law because the southern Delta is listed as impaired for salinity.

WQBELs designed to implement the numeric water quality objectives contained in the Bay-Delta Plan.

3. Did the State Board abuse its discretion by finding that the EC effluent limitations to be imposed on Tracy must be numeric?

Finally, Tracy alleges that the State Board abused its discretion by finding that the EC effluent limitations to be imposed on Tracy must be numeric.

In its Opposition, the State Board contends that it properly ordered the Regional Board to include numeric effluent limits in Tracy's permit because numeric effluent limitations always are required to achieve the numeric water quality standards. As described above, this is not correct. Narrative effluent limitations can in some circumstances be adequate.

Nevertheless, the Court rejects Tracy's challenge because the Court is not convinced that the State Board ordered the Regional Board to include numeric effluent limits. It merely ordered the Regional Board to reconsider its determination that numeric effluent limitations are not feasible.

C Conclusion

The Court concludes that Respondent State Board failed to undertake the analysis required by Water Code section 13241 when the Board established the water quality objectives for EC in 1978. Accordingly, a writ shall be granted directing the Board to conduct the required § 13241 analysis and reconsider the EC objectives after the § 13241 factors have been considered.

In addition, the Court concludes that the 2006 Bay-Delta Plan's program of implementation is inadequate in relation to municipal dischargers. Accordingly, the Court shall issue a writ compelling the Board to adopt an adequate program of implementation that describes the nature of the actions necessary for municipal dischargers to achieve the EC objectives (including recommendations for appropriate action by them), provides a reasonable time schedule for the actions to be taken, and includes a description of the surveillance required to determine their compliance.

The Court denies the other challenges to the State Board's Water Quality Control Plan.

In light of the Court's conclusions that the EC objectives were not validly adopted, and that the 2006 Bay-Delta Plan's program of implementation is inadequate for municipal discharges, the Court concludes that the Board prejudicially abused its discretion in applying the 2006 Bay-Delta Plan to Tracy's municipal wastewater treatment plant. In addition, the Board prejudicially abused its discretion in finding the 2006 Bay-Delta Plan authorizes the Board to perform the "reasonable potential" analysis at the end of Tracy's discharge pipe, rather than at the Old River/Tracy Road Bridge compliance location. Accordingly, the Court shall issue a peremptory writ of mandate compelling the Board to vacate the provisions of the May 19, 2009,

Order relating to effluent limitations for electrical conductivity, and to reconsider and revise its Order in a manner consistent with this ruling.

In recognition of the environmental harm that could occur if the water quality objectives for electrical conductivity were to be invalidated immediately, the Court shall not require the Board to invalidate the existing EC objectives pending the Board's return to the writ. However, the Court shall enjoin the Board from applying the EC objectives to Tracy and other municipal dischargers pending reconsideration of the EC objectives and adoption of an adequate program of implementation for municipal dischargers, in compliance with this Court's ruling.

The Court denies the request for declaratory relief, as unnecessary.

Counsel for Tracy is directed to prepare a formal judgment and writ consistent with this ruling; submit them to counsel for the State Board and Clean Water Association for approval as to form; and thereafter submit them to the Court for signature and entry of judgment

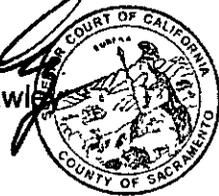
Petitioners Tracy and Clean Water Association shall be entitled to recover their costs of suit upon appropriate application.

Dated. May 10, 2011

Signed.



Honorable Timothy M. Frawley
Superior Court Judge
County of Sacramento



CERTIFICATE OF SERVICE BY MAILING
(C.C.P. Sec. 1013a(4))

I, the Clerk of the Superior Court of California, County of Sacramento, certify that I am not a party to this cause, and on the date shown below I served the foregoing RULING by depositing true copies thereof, enclosed in separate, sealed envelopes with the postage fully prepaid, in the United States Mail at Sacramento, California, each of which envelopes was addressed to

Melissa A. Thorne
Janice Lai
Downey Brand, LLP
621 Capitol Mall, 18th Floor
Sacramento, CA 95814

Matthew Bullock
Deputy Attorney General
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1300 I Street
Sacramento, CA 95814

Steven H Blum
Senior Staff Counsel
CA State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Theresa A. Dunham
Somach Simmons & Dunn
500 Capitol Mall, Ste 1000
Sacramento, CA 95814

I, the undersigned deputy clerk, declare under penalty of perjury that the foregoing is true and correct.

Dated: May 10, 2011

Superior Court of California, County of
Sacramento

By: F. Temmerman,
Deputy Clerk

SOMACH SIMMONS & DUNN
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10 Attorneys for Petitioner and Plaintiff CITY OF STOCKTON

11 SUPERIOR COURT FOR THE STATE OF CALIFORNIA

12 COUNTY OF SACRAMENTO

14 CITY OF STOCKTON, a municipal corporation,

15 Petitioner and Plaintiff,

16 v.

17 STATE WATER RESOURCES CONTROL
BOARD and CALIFORNIA REGIONAL
18 WATER QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION,

19 Respondents and Defendants.

Case No. 34-2010-80000488-CU-WM-GDS

**NOTICE OF ENTRY OF JUDGMENT
GRANTING PEREMPTORY WRIT OF
MANDAMUS**

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

21 TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

22 PLEASE TAKE NOTICE that the Judgment Granting Peremptory Writ of Mandamus in
23 the above-entitled matter was entered on November 5, 2013; a true and correct copy of which is
24 attached hereto as Exhibit A.

SOMACH SIMMONS & DUNN

26 DATED: November 13, 2013

27 By 
Paul S. Simmons, Attorneys for
28 Plaintiff / Petitioner CITY OF STOCKTON

FILED
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FEES PURSUANT TO
GOV. CODE, § 6103
2013 NOV 13 PM 1:58

LEGAL PROCESS #2

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Case No. 34-2010-80000488-CU-WM-GDS

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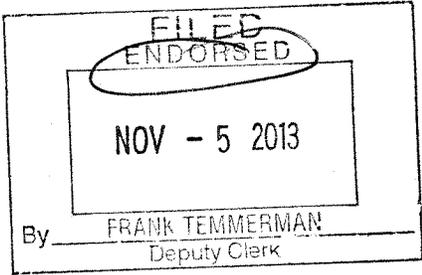
SOMACH SIMMONS & DUNN

25
26 DATED: November 13, 2013

By 
Paul S. Simmons, Attorneys for
Plaintiff / Petitioner CITY OF STOCKTON

EXHIBIT A

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SUPERIOR COURT FOR THE STATE OF CALIFORNIA
COUNTY OF SACRAMENTO

CITY OF STOCKTON, a municipal corporation,
Petitioner and Plaintiff,
v.
STATE WATER RESOURCES CONTROL
BOARD and CALIFORNIA REGIONAL
WATER QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION,
Respondents and Defendants.

Case No. 34-2010-80000488-CU-WM-GDS

**JUDGMENT GRANTING
PEREMPTORY WRIT OF MANDAMUS**

DATE: February 28, 2014
TIME: 9 a.m.
DEPT: 29

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

The Court having issued its Order Granting Motion for Judgment and Peremptory Writ of Mandamus,

IT IS HEREBY ADJUDGED, DECLARED, and ORDERED that:

1. Judgment is entered in favor of Petitioner and against Respondents consistent with the terms herein.
2. A Peremptory Writ of Mandamus shall issue under seal of this Court, directing the Respondent State Water Resources Control Board (State Board):
 - a. To modify State Board Order WQ 2009-0012 in the manner indicated in Exhibit A to this Court's Peremptory Writ of Mandamus.

1 b. To make and file with this Court a return demonstrating the Respondent
2 State Board's compliance with paragraph 2(a) of this Judgment. The return shall be served and
3 filed within 120 days from the date of service by Petitioner of the Notice of Entry of Judgment.

4 3. A Peremptory Writ of Mandamus shall issue under seal of this Court, directing the
5 Respondent California Regional Water Quality Control Board for the Central Valley Region
6 (Regional Board):

7 a. To modify section IV .A.1.j and Attachment F (Fact Sheet) of Waste
8 Discharge Requirements Order No. R5-2008-0154 (NPDES No. CA0079138) related to the
9 southern Delta agricultural electrical conductivity water quality objectives provided in the Water
10 Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta, in the manner
11 indicated in Exhibit B to this Court's Peremptory Writ of Mandamus, with such action to be taken
12 prior to consideration of any other action to rescind, modify, renew, or otherwise affect Order
13 No. R5-2008-0154 or NPDES No. CA0079138.

14 b. To make and file with this Court a return demonstrating the Respondent
15 Regional Board's compliance with paragraph 3(a) of this Judgment. The return shall be served
16 and filed within 180 days from the date of service by Petitioner of the Notice of Entry of
17 Judgment.

18 4. Petitioner, as the prevailing party in this action, is entitled to recover costs in this
19 proceeding, but has represented that there are no recoverable costs.

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5. The Court has granted the relief requested in Petitioner's Motion for Judgment and Peremptory Writ of Mandamus. The Court finds any further relief requested in Petitioner's Petition for Writ of Mandate and Complaint for Declaratory Relief to be unnecessary, and no further relief shall be granted on such Petition and Complaint or any causes of action therein.

Dated: 11-5, 2013

Timothy M. Frawley
Honorable Timothy M. Frawley
Judge of the Superior Court

Judgment entered on _____, in the Judgment Book,
Volume No. _____ page _____.

/s/ Chris Volkers, Clerk

Frank Temmerman, Deputy Clerk

FRANK TEMMERMAN



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PROOF OF SERVICE
(State)

I am employed in the County of Sacramento; my business address is 500 Capitol Mall, Suite 1000, Sacramento, California; I am over the age of 18 years and not a party to the foregoing action.

On November 13, 2013, I served the following document(s):

NOTICE OF ENTRY OF JUDGMENT GRANTING PEREMPTORY WRIT OF MANDAMUS

XX (by mail) on all parties in said action, in accordance with Code of Civil Procedure § 1013a(3), by placing a true copy thereof enclosed in a sealed envelope, with postage fully paid thereon, in the designated area for outgoing mail, addressed as set forth below.

XX (electronically) I served the above listed document(s) by electronically transmitting a true copy to the person(s) at the electronic mailing addresses as set forth below (based on a court order or an agreement of the parties to accept service by email or electronic transmission).

Kamala D. Harris, Attorney General
Matthew Bullock, Deputy Attorney General
California Department of Justice
Natural Resources Law Section
455 Golden Gate Avenue, Suite 11000
San Francisco, CA 94102-7004
Email: Matthew.Bullock@doj.ca.gov

Attorneys for Respondents/Defendants
STATE WATER RESOURCES
CONTROL BOARD and
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION

John Luebberke, City Attorney
CITY OF STOCKTON
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Email: john.luebberke@ci.stockton.ca.us

Attorneys for Petitioner/Plaintiff
CITY OF STOCKTON

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 13, 2013, at Sacramento, California.



Crystal Rivera

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**EXEMPT FROM FILING
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FILED
ENDORSED
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LEGAL PROCESS #2

10 Attorneys for Petitioner and Plaintiff CITY OF STOCKTON

11 SUPERIOR COURT FOR THE STATE OF CALIFORNIA

12 COUNTY OF SACRAMENTO

13
14 CITY OF STOCKTON, a municipal corporation,
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17 STATE WATER RESOURCES CONTROL
BOARD and CALIFORNIA REGIONAL
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Case No. 34-2010-80000488-CU-WM-GDS

NOTICE OF ENTRY OF ORDER

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

20
21 TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

22 PLEASE TAKE NOTICE that the [Revised Proposed] Order Granting Motion for
23 Judgment and Peremptory Writ of Mandamus in the above-entitled matter was entered on
24 November 5, 2013; a true and correct copy of which is attached hereto as Exhibit A.

SOMACH SIMMONS & DUNN

25
26 DATED: November 13, 2013

By



Paul S. Simmons, Attorneys for
Plaintiff / Petitioner CITY OF STOCKTON

27
28 Attachment 4 - Page 1 of 35

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10 Attorneys for Petitioner and Plaintiff CITY OF STOCKTON

11 SUPERIOR COURT FOR THE STATE OF CALIFORNIA

12 COUNTY OF SACRAMENTO

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Case No. 34-2010-80000488-CU-WM-GDS

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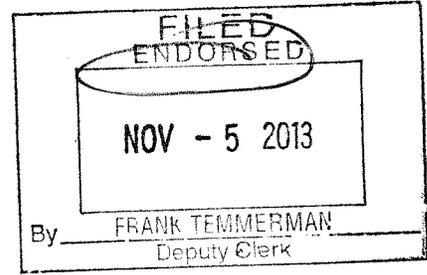
SOMACH SIMMONS & DUNN

26 DATED: November 13, 2013

27 By *Paul S. Simmons*
Paul S. Simmons, Attorneys for
28 Plaintiff / Petitioner CITY OF STOCKTON

EXHIBIT A

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SUPERIOR COURT FOR THE STATE OF CALIFORNIA
COUNTY OF SACRAMENTO

CITY OF STOCKTON, a municipal corporation,
Petitioner and Plaintiff,

v.

STATE WATER RESOURCES CONTROL
BOARD and CALIFORNIA REGIONAL
WATER QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION,

Respondents and Defendants.

Case No. 34-2010-80000488-CU-WM-GDS

**[REVISED PROPOSED] ORDER
GRANTING MOTION FOR JUDGMENT
AND PEREMPTORY WRIT OF
MANDAMUS**

DATE: February 28, 2014
TIME: 9 a.m.
DEPT: 29

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

Petitioner/Plaintiff City of Stockton's Motion for Judgment and Peremptory Writ of Mandamus came before this Court on _____, _____, for hearing. All filings of the parties have been examined by the Court, and the Court has previously entered a Final Statement of Decision (filed May 20, 2011) and Judgment Granting Peremptory Writ of Mandamus (filed June 1, 2011) in the matter entitled *City of Tracy v. California State Water Resources Control Board*, Sacramento County Superior Court Case No. 34-2009-80000392 (Tracy Decision), in which judgment is final and no longer appealable.

1 IT IS HEREBY DETERMINED, DECLARED, and ORDERED that:

2 1. This Court previously considered the application and validity of the southern Delta
3 agricultural electrical conductivity water quality objectives provided in the Water Quality Control
4 Plan for the San Francisco Bay/Sacramento–San Joaquin Delta (Bay-Delta Plan) (hereinafter
5 “Bay-Delta EC Objectives”) in the Tracy Decision, and concluded the following:

6 a. The Bay-Delta EC Objectives may not be applied to municipal dischargers,
7 pending reconsideration of the Bay-Delta EC Objectives by Respondent State Water Resources
8 Control Board (State Board) and adoption of an adequate program of implementation for
9 municipal dischargers, in compliance with this Court’s ruling in the Tracy Decision; and

10 b. The Bay-Delta Plan requires that the reasonable potential analysis to
11 determine compliance with the Bay-Delta EC Objectives be performed at the compliance locations
12 provided in the tables of the Bay-Delta Plan.

13 2. It is undisputed that:

14 a. Petitioner City of Stockton is a municipal discharger within the meaning of
15 the Tracy Decision.

16 b. In adopting Order No. R5-2008-0154 and Order WQ 2009-0012,
17 Respondent California Regional Water Quality Control Board for the Central Valley Region
18 (Regional Board) and Respondent State Board applied the Bay-Delta EC Objectives to Stockton
19 and imposed and required specific water quality-based effluent limitations for electrical
20 conductivity.

21 c. In adopting Order No. R5-2008-0154, Respondent Regional Board
22 determined compliance with the Bay-Delta EC Objectives at the end of Petitioner City of
23 Stockton’s discharge pipe rather than at the San Joaquin River—Brandt Bridge compliance
24 location, and in Order WQ 2009-0012, Respondent State Board concluded that it was proper to do
25 so.

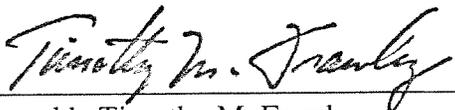
26 3. Accordingly, Petitioner City of Stockton’s Motion for Judgment and Peremptory
27 Writ of Mandamus is GRANTED.
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4. Judgment shall be entered in this case in the form provided in Attachment 1 to this Order.

5. A peremptory writ of mandamus shall issue under seal of this Court in the form provided in Attachment 2 to this Order.

Dated: 11-5, 2013



Honorable Timothy M. Frawley
Judge of the Superior Court

Attachment 1

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SUPERIOR COURT FOR THE STATE OF CALIFORNIA
COUNTY OF SACRAMENTO

CITY OF STOCKTON, a municipal corporation,

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v.

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BOARD and CALIFORNIA REGIONAL
WATER QUALITY CONTROL BOARD FOR
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Respondents and Defendants.

Case No. 34-2010-80000488-CU-WM-GDS

**JUDGMENT GRANTING
PEREMPTORY WRIT OF MANDAMUS**

DATE: February 28, 2014

TIME: 9 a.m.

DEPT: 29

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

The Court having issued its Order Granting Motion for Judgment and Peremptory Writ of Mandamus,

IT IS HEREBY ADJUDGED, DECLARED, and ORDERED that:

1. Judgment is entered in favor of Petitioner and against Respondents consistent with the terms herein.

2. A Peremptory Writ of Mandamus shall issue under seal of this Court, directing the Respondent State Water Resources Control Board (State Board):

a. To modify State Board Order WQ 2009-0012 in the manner indicated in Exhibit A to this Court's Peremptory Writ of Mandamus.

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5. The Court has granted the relief requested in Petitioner's Motion for Judgment and Peremptory Writ of Mandamus. The Court finds any further relief requested in Petitioner's Petition for Writ of Mandate and Complaint for Declaratory Relief to be unnecessary, and no further relief shall be granted on such Petition and Complaint or any causes of action therein.

Dated: _____, 201____
Honorable Timothy M. Frawley
Judge of the Superior Court

Judgment entered on _____, in the Judgment Book,
Volume No. _____ page _____.

_____, Clerk
_____, Deputy Clerk

Attachment 2

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SUPERIOR COURT FOR THE STATE OF CALIFORNIA
COUNTY OF SACRAMENTO

CITY OF STOCKTON, a municipal corporation,
Petitioner and Plaintiff,

v.

STATE WATER RESOURCES CONTROL
BOARD and CALIFORNIA REGIONAL
WATER QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION,
Respondents and Defendants.

Case No. 34-2010-80000488-CU-WM-GDS

PEREMPTORY WRIT OF MANDAMUS

DATE: February 28, 2014
TIME: 9 a.m.
DEPT: 29

Assigned for all purposes to
Judge Timothy M. Frawley
Dept. 29

Action Filed: November 16, 2009

To STATE WATER RESOURCES CONTROL BOARD, Respondent and Defendant
(State Board), and CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD FOR
THE CENTRAL VALLEY REGION, Respondent and Defendant (Regional Board):

Judgment having been entered in this action ordering that a Peremptory Writ of Mandamus
be issued from this Court:

IT IS HEREBY ADJUDGED, DECLARED, and ORDERED that State Board Order
WQ 2009-0012 is remanded to Respondent State Board with the following instructions:

RESPONDENT STATE BOARD IS HEREBY ORDERED to immediately, upon receipt
of this writ, modify State Board Order WQ 2009-0012, as set forth in Exhibit A hereto.

///

1 RESPONDENT STATE BOARD IS FURTHER ORDERED to make and file with this
2 Court a return demonstrating that Respondent State Board has revised portions of State Board
3 Order WQ 2009-0012 in conformance with this Court's Peremptory Writ of Mandamus. The
4 return shall be served and filed within 120 days from the date of service by Petitioner of the Notice
5 of Entry of Judgment.

6 Furthermore, IT IS HEREBY ORDERED that Regional Board Order No. R5-2008-0154 is
7 remanded to Respondent Regional Board with the following instructions:

8 RESPONDENT REGIONAL BOARD IS HEREBY ORDERED to modify section IV.A.1
9 and Attachment F (Fact Sheet) of Regional Board Order No. R5-2008-0154, as set forth in
10 Exhibit B hereto, with such action to be taken prior to consideration of any other action to rescind,
11 modify, renew, or otherwise affect Regional Board Order No. R5-2008-0154 or NPDES Permit
12 No. CA0079138.

13 RESPONDENT REGIONAL BOARD IS FURTHER ORDERED to make and file with
14 this Court a return demonstrating that Respondent Regional Board has revised portions of
15 Regional Board Order No. R5-2008-0154 in conformance with this Court's Peremptory Writ of
16 Mandamus. The return shall be served and filed within 180 days from the date of service by
17 Petitioner of the Notice of Entry of Judgment.

18 _____, Clerk
19 _____, Deputy Clerk
20

21
22 LET THE FOREGOING WRIT ISSUE.

23
24 Dated: _____, 201__
25 _____
26 Honorable Timothy M. Frawley
27 Judge of the Superior Court
28

EXHIBIT A

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2009-0012

In the Matter of the Petitions of

**CITY OF STOCKTON, CALIFORNIA SPORTFISHING PROTECTION ALLIANCE, SAN LUIS
& DELTA-MENDOTA WATER AUTHORITY AND WESTLANDS WATER DISTRICT**

For Review of Waste Discharge Requirements Order No. R5-2008-0154
[NPDES No. CA0079138] for the City of Stockton Regional
Wastewater Control Facility, San Joaquin County
Issued by the
California Regional Water Quality Control Board,
Central Valley Region

SWRCB/OCC FILES A-1971, A-1971(a), and A-1971(b)

BY THE BOARD:

In this order, the State Water Resources Control Board (State Water Board) remands a National Pollutant Discharge Elimination System (NPDES) permit (Permit) to the Central Valley Regional Water Quality Control Board (Central Valley Water Board) for revisions. The City of Stockton (City), California Sportfishing Protection Alliance (CALSPA), and San Luis & Delta-Mendota Water Authority and Westlands Water District (Water Agencies) have raised a number of objections to the Permit issued by the Central Valley Water Board for the wastewater treatment plant owned and operated by the City. The contentions addressed in this order deal with ~~effluent limitations and control measures for electrical conductivity (EC), permit provisions related to tertiary treatment facilities, dissolved oxygen and ammonia limitations, monitoring for emerging contaminants, and creation of a mixing zone for human health criteria.~~¹

Based on the record before the Central Valley Water Board and our technical review, we conclude that ~~(1) the provisions of the Permit limiting the application of the EC water-quality-based limitations and (2) the mixing zone for human health criteria should be remanded~~

¹ To the extent petitioners raised issues that are not discussed in this order, such issues are hereby dismissed as not substantial or appropriate for review by the State Water Board. (See *People v. Barry* (1987) 194 Cal.App.3d 158, 175-177; *Johnson v. State Water Resources Control Board* (2004) 123 Cal.App.4th 1107; Cal. Code Regs., tit. 23, § 2052, subd. (a)(1).)

to the Central Valley Water Board, and that in all other respects discussed in this Order the Permit is appropriate and proper.²

I. BACKGROUND

The City owns and operates a Regional Wastewater Control Facility (Facility) that provides tertiary wastewater treatment. The Permit involves discharges into the San Joaquin River, within the Sacramento-San Joaquin River Delta (Delta). The discharge point is in the southern portion of the Delta, just upstream of the Stockton Deep Water Ship Channel (Channel). The discharge is subject to the Central Valley Water Board's Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins (Basin Plan). The discharge is also subject to the State Water Board's Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan; December 2006). Both the Delta area and the Channel where the discharge occurs have water quality impairments. The impairing pollutants are chlorpyrifos, DDT, diazinon, dioxin, EC, exotic species, furan compounds, group A pesticides, mercury, pathogens, PCBs, and unknown toxicity. The Central Valley Water Board adopted a total maximum daily load (TMDL) for oxygen demanding substances in the Channel, which was approved by the State Water Board and by the United States Environmental Protection Agency (U.S. EPA). The TMDL established wasteload allocations for oxygen demanding substances, including ammonia, carbonaceous biochemical oxygen demand (CBOD), and dissolved oxygen (DO).

A. The Treatment Plant

The City owns and operates the Facility, which serves the City and discharges intermittently up to 55 million gallons per day (MGD). The average daily flow rate is approximately 31.7 MGD, and the maximum annual average effluent discharge is 36.37 MGD. The Facility provides primary treatment, consisting of screening, grit removal, and primary sedimentation, and secondary treatment consisting of high rate trickling filters and secondary clarifiers. The secondary treated effluent is then piped under the San Joaquin River to a tertiary treatment facility, which consist of facultative ponds, engineered wetlands, nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination and dechlorination facilities. Treated wastewater discharges to the San Joaquin River at Discharge Point 001.

² The deadline for resolution of these petitions has passed. This order is issued on the State Water Board's own motion, pursuant to Water Code section 13320.

B. The Receiving Waters

The San Joaquin River is a water of the United States, and the discharge occurs in the lower Delta, just upstream of the Channel. The beneficial uses of the receiving waters include municipal and domestic supply; agricultural supply; industrial process supply; industrial service supply; water contact recreation; non-contact water recreation; migration of aquatic organisms; cold and warm freshwater aquatic habitat; spawning, reproduction, and early development; wildlife habitat; and navigation. The receiving waters—the Delta where the discharge occurs and the Channel—are water quality limited segments, impaired by numerous constituents. The Central Valley Water Board has adopted TMDLs for some of these constituents.

C. Applicable Plans, Policies, and Regulations

There are several water quality control plans and policies applicable to the discharge, including the Basin Plan; U.S. EPA National Toxics Rule (NTR) and California Toxics Rule (CTR)³; State Water Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP); Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan); and the Bay-Delta Plan.

D. The Petitions

In October 2008, the Central Valley Water Board adopted waste discharge requirements for the Facility in Order No. R5-2008-0154 [NPDES No. CA0079138]. In November 2008, the State Water Board received three timely petitions challenging the Permit. The City challenged provisions regarding EC and salinity reduction. CALSPA challenged numerous provisions in the Permit, including provisions regarding EC and provisions related to tertiary treatment. The Water Agencies challenged provisions regarding EC and ammonia, and monitoring requirements. In this Order, we address various contentions concerning ~~EC and salinity~~, the provisions relevant to tertiary treatment, and the need to address new or emerging contaminants.

³ 40 C.F.R. §§ 131.36 & 131.38.

II. CONTENTIONS AND FINDINGS

A. Electrical Conductivity

~~**Contentions:** All of the petitioners assert various claims regarding EC. Some of these claims we addressed recently in Order WQ-2009-0003 (*Tracy*), concerning a petition filed by CALSPA challenging the NPDES permit for the Tracy sewage treatment plant. Because the City raises somewhat different contentions, we shall discuss those in more detail. CALSPA contends, as it did in its Tracy petition, that the Permit fails to establish an effluent limitation for EC that is protective of applicable water quality objectives and that the Permit instead contains a "conditional" final limit that imposes no numeric requirements as long as the City submits a salinity reduction plan for approval by the Central Valley Water Board and carries out the plan once it is approved. The Water Agencies generally make similar contentions as CALSPA, pointing out that the salinity plan requirements are vague and undermine the numeric effluent limitations. The City, on the other hand, challenges the numeric effluent limitation for EC, claims that the State Water Board's Bay-Delta Plan does not apply to the City, objects to the salinity plan, and challenges inclusion of a salinity reduction goal and monitoring to show progress toward that goal.~~

~~**Discussion:** In our recent *Tracy* order, we found that our Bay-Delta Plan did apply to the discharge from that city's treatment plant. We further concluded that the numeric effluent limitations, which incorporated the water quality objectives from that Plan but were contingent on submittal of and compliance with a salinity reduction plan, were inappropriate and improper. The substance of our finding was included in the following statement:~~

~~Thus, if the City timely submits a plan, and, if the City implements the plan (after the Central Valley Water Board approves it), the 700/1,000 $\mu\text{mhos/cm}$ will not be the final effluent limitation. If the plan is approved and implemented, there is neither a final numeric effluent limitation nor even a final effluent limitation for EC.⁴~~

~~We need not discuss this issue thoroughly, as our discussion and conclusions there are applicable here. We do note, though, that in the case of Stockton, the performance-based requirement is 1,300 μmhos . Thus, unlike Tracy, Stockton may be able to achieve compliance with the winter effluent limitations without significant modifications. The Central Valley Water Board should consider this factor in developing the appropriate EC requirements for the City.~~

⁴ *Tracy* at p. 7.

~~As discussed below, we conclude here that the Central Valley Water Board appropriately applied the EC objectives in the Bay-Delta Plan as numeric effluent limitations, but that, as we held in the Tracy order, these should not have been made contingent on submittal and compliance with a salt reduction plan. In answer to the City's contentions, we clarify that the requirements for the plan and the associated monitoring requirements are appropriate.~~

~~The Facility discharges directly into the San Joaquin River, just upstream of the Channel, within the Sacramento-San Joaquin Delta. The Central Valley Water Board's Basin Plan requires protection of the receiving waters for domestic and municipal supply and for agricultural use, among other beneficial uses. The Bay-Delta Plan established 30-day running average salinity objectives for the protection of agricultural uses at 700 µmhos/cm from September through March and at 1000 µmhos/cm from April through August in the southern Delta. The compliance locations include: (1) in the San Joaquin River at Brandt Bridge; (2) in Old River near Middle River; and (3) in Old River at Tracy Road Bridge.~~

~~We have already concluded, in the Tracy order, that it was inappropriate for the Central Valley Water Board to include conditional effluent limitations, based on submission and implementation of a salinity plan. While we did not specifically address the claim that Stockton makes, that the Permit should not contain effluent limitations for EC, it is clear from our precedential order that we believe that it is appropriate to establish effluent limitations to ensure compliance with the water quality objectives in the Bay-Delta Plan.~~

~~The City contends that the water quality objectives in the Bay-Delta Plan apply only at the compliance points specified in the plan. This is incorrect. The water quality objectives in the Bay-Delta Plan apply to waters throughout the legal boundaries of the Sacramento-San Joaquin Delta. As pointed out by the Central Valley Water Board, the plan on its face applies to the general area of the southern Delta; it is not limited to the specific points where compliance will be monitored.⁵ We do acknowledge that the border between the Southern Delta and Middle Delta is not clearly delineated in our plan. While the Stockton discharge occurs between the compliance locations described as interior Delta and southern Delta, it is physically much closer to the latter locations. The Central Valley Water Board considered river morphology, river flows (including major diversions and tributaries), and in-stream and diverted uses of the water at the southern Delta (Brandt Bridge) compliance location~~

~~⁵ The water quality objectives in this plan apply to waters of the San Francisco Bay system and the legal Sacramento-San Joaquin Delta, as specified in the objectives. Unless otherwise indicated, water quality objectives cited for a general area, such as for the southern Delta, are applicable for all locations in that general area and compliance locations will be used to determine compliance with the cited objectives." (Bay-Delta Plan, at p. 10.)~~

~~and concluded that the river conditions that exist at the Facility discharge point are similar. We find that the Central Valley Water Board has properly applied the objectives for the southern Delta. Both the Bay-Delta Plan and the Central Valley Water Board's Basin Plan protect agricultural and domestic uses throughout the Delta. We find that the EC effluent limitations are appropriate for protection of these uses.~~

~~The City also contends that the Permit inappropriately required a salinity reduction plan, required implementation of an approved plan, and required monitoring of salinity reduction. In the Tracy order, we concluded that salinity reduction requirements alone were not sufficient—an effluent limitation or other legally sufficient controls were required. On the other hand, we took note of the difficulties of salinity reduction in the Delta and suggested various methods. The City, on the other hand, makes the radical claim that the City should be under no requirements whatsoever to reduce salinity—it challenges the need for a plan, the need to implement salinity reduction measures, and the need to monitor salinity reduction. The San Joaquin River and the Delta are impaired by salinity. The Facility discharges salinity into these waters. Of course it is appropriate, and indeed necessary, for the Permit to require the City to participate in the steps that will be required to reduce salinity and protect this valuable resource.~~

~~B. Tertiary Treatment~~

Contentions: Several of the contentions by CALSPA and the Water Agencies concern the appropriate effluent limitations for the Facility in light of its tertiary treatment.

Discussion: CALSPA contends that the Permit should have contained effluent limitations for oil and grease. It also contends that, because of the technological capabilities of tertiary treatment, the Permit should have included a more stringent effluent limitation for CBOD. CALSPA challenges the decision to move the turbidity limitations from the effluent limitations section of the Permit to the Special Provisions section. As we will explain, in each of these cases, the Permit contains appropriate requirements for publicly owned treatment works (POTWs) that employ tertiary treatment.

As discussed previously, the Facility provides tertiary treatment to sanitary sewage. After the wastewater leaves the main facility, where it receives primary and secondary treatment and sludge is removed, the effluent is piped under the River to the tertiary treatment facilities. Those facilities consist of unlined facultative oxidation ponds, engineered wetlands, two nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination/dechlorination facilities. Some of the ponds are operated as necessary, to achieve improved

effluent quality by decreasing solids loading and by maintaining stable ammonia loading to the nitrifying biotowers.

The federal Clean Water Act⁶ contains a technology based requirement that publicly owned treatment works must attain secondary treatment.⁷ In addition, permits must include more stringent limitations necessary to meet water quality standards, treatment standards, or schedules of compliance.⁸ Tertiary treatment is not specifically required for POTWs by federal law, but it may be a reasonable requirement where the treatment is necessary to achieve compliance with water quality standards. It is appropriate to include provisions that require tertiary treatment where necessary to protect water quality.⁹ The exercise of discretion in adopting appropriate permit requirements includes requiring tertiary treatment and including requirements to ensure that the Facility is operated properly.¹⁰

In establishing the specific requirements for a tertiary treatment plant, the permit must, of course, include water quality-based effluent limitations as necessary to protect water quality. The regional water board also has discretion to include other requirements to ensure that the facility is operating properly. But there is no legal requirement to adopt technology-based effluent limitations for tertiary treatment.

Turning to the specific contentions of CALSPA, we first address the contention that every POTW must have effluent limitations for oil and grease. Oil and grease are not part of the federal technology-based requirements for POTWs.¹¹ An alternative basis for including an effluent limitation for oil and grease would be if there was reasonable potential for oil or grease to cause or contribute to an excursion above a water quality standard.¹² It is true that, in the prior permit, the Central Valley Water Board had included such effluent limitations. The record reveals that Stockton made upgrades to its tertiary train that resulted in improved effluent quality. Based on existing monitoring data, there is not a reasonable potential for the effluent from the Facility to cause or contribute to an excursion above applicable water quality standards for oil and grease. It was appropriate in this situation to remove effluent limitations for oil and

⁶ Federal Water Pollution Control Act, 33 U.S.C. § 1251 and following.

⁷ 33 U.S.C. § 1311(b)(1)(B). This requirement applies to publicly owned treatment works that discharge to surface water pursuant to an NPDES permit.

⁸ 33 U.S.C. § 1311(b)(1)(C).

⁹ State Water Board Order WQO 2004-0010 (*Woodland*).

¹⁰ *Id.*

¹¹ Cf. 33 U.S.C. § 1311(b)(1)(B) and 40 C.F.R. Part 133.

¹² 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d).

grease in the Permit upon finding that there was no reasonable potential for these constituents to cause or contribute to exceedance of water quality objectives.

We also reject CALSPA's contention that, because of the technological capabilities of tertiary treatment, the Permit was required to include a more stringent effluent limitation for CBOD. In fact, the CBOD effluent limitations in the Permit are far more stringent than the required technology-based requirements for POTWs. They reflect treatment plant performance following installation of upgraded nitrifying treatment, which is indeed beyond treatment that was attained by a lower level of secondary treatment. The turbidity limitations in this Permit are not water quality-based effluent limitations. Instead, the provisions are intended as a check to ensure that the tertiary treatment is operating properly. The Central Valley Water Board properly exercised its discretion in labeling these requirements as "Special Provisions" rather than effluent limitations.

G. Dissolved Oxygen and Ammonia Effluent Limitations

Contention: The Water Agencies contend that the effluent limitations for dissolved oxygen and ammonia should have been strengthened over those of the prior permit in light of new scientific information about the declining health of the Delta and a salmon fish kill in 2007.

Discussion: As we stated in our *Tracy* order, ammonia is known to cause chronic toxicity to aquatic organisms in surface waters. The Central Valley Water Board has also concluded that dissolved oxygen threatens aquatic life. The Central Valley Water Board included effluent limitations for both ammonia and dissolved oxygen, and these limitations were unchanged from the prior permit. The Water Agencies contend that our Strategic Workplan for Activities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Strategic Workplan), adopted July 16, 2008, points to potential impacts to delta smelt from ammonia, including from POTWs. The Water Agencies also argue that there was a significant fish kill of salmon in May 2007 near the City's discharge point, at a time when the facility was in compliance with its prior permit. They conclude that the prior permit was not sufficiently stringent.

The Central Valley Water Board included a thorough discussion in the Fact Sheet to the Permit justifying the calculation of the ammonia and dissolved oxygen effluent limitations. The Board also discussed current studies on ammonia in the Delta and effects of algal blooms associated with lowered dissolved oxygen. The Central Valley Water Board concluded that no definite conclusions could be drawn from the studies and stated its intention

to modify permits in the future as more definitive information is available. Our Strategic Workplan also pointed to the need for further studies to clarify the need for further controls on ammonia. Our review of the existing studies and documents in the record indicate that the Central Valley Water Board did consider new scientific information, and acted properly in retaining the existing effluent limitations and including a reopener provision. As to the fish kill cited by the Water Agencies, there was never a final determination as to the cause of the kill and there is no established link between the Facility's discharge, or the permit terms, and the event.

~~D~~ Emerging Contaminants of Concern

Contention: The Water Agencies contend that recent scientific investigations have found detectable levels of pharmaceuticals in drinking water supplies across the country. They conclude that the City should be required to monitor and test for such substances in its discharge. They also point to language in the Strategic Workplan concerning the need for improved monitoring and (separately) the concern for emerging contaminants.

Discussion: The issue of pharmaceuticals and other emerging contaminants is of concern to this Board. In September 2008, we held a workshop to discuss and encourage reduction of pharmaceutical waste discharges to POTWs. At this point in time, however, the science is too uncertain to require each POTW to monitor for a host of materials that have the potential to be found in its discharge. The Central Valley Water Board acted appropriately by including a reopener provision to allow for coordinated monitoring of emerging constituents under a regional program.

~~E~~ Mixing Zone

Contention: CALSPA contends that the Permit inappropriately grants a mixing zone for certain constituents.

Discussion: In an order on the City's prior permit, the State Water Board stated that it is the discharger that bears the burden to justify a mixing zone.¹³ In the Fact Sheet, the Central Valley Water Board states that the City did not submit studies to justify dilution credits for acute and chronic aquatic life criteria. But for human health criteria, the Central Valley Water Board concluded that "critical environmental impacts are expected to occur far downstream from

¹³ In the prior permit, the Central Valley Water Board had denied Stockton's requests for a mixing zone and dilution credit. In an order reviewing that permit (WQO 2003-0002), the State Water Board upheld that action, noting that the burden was on the City to prove the existence of dilution.

the source such that complete mixing is a valid assumption."¹⁴ The Central Valley Water Board makes a similar assumption regarding available dilution for agricultural water quality objectives. The Permit grants mixing zones for human health criteria for chlorodibromomethane, dichlorobromomethane, manganese, and nitrate plus nitrite. A mixing zone for protection of irrigated agriculture is granted for molybdenum.¹⁵

Concerning the mixing zone for human health criteria, the Permit increases the dilution credit from 10:1 in the prior permit to 13:1 in this Permit. As we have stated in other orders, dilution credit can be granted for a completely-mixed discharge, but if the discharge is not completely-mixed, the discharger must conduct a study to support the dilution credit.¹⁶ The SIP states: "completely-mixed discharge condition means not more than a 5 percent difference, accounting for analytical variability, in the concentration of a pollutant exists across a transect of the water body at a point within two stream/river widths from the discharge point." In applying this definition, it is important that there be confirmation that the discharge is completely-mixed across the river transect at the downstream mixing zone boundary. Our prior order concerning this Facility's discharge discusses that the Central Valley Water Board found numerous flaws and areas of uncertainty regarding the reliability of dilution studies and adequacy of existing models at that time to support a mixing zone and dilution credits.¹⁷ In this case, the record does not include any more recent field study or modeling to confirm that the discharge is completely-mixed. Instead, upon granting a mixing zone that extends into the Channel, the Central Valley Water Board simply assumed that there would be complete mixing at some location "far downstream". It is quite possible that there is complete mixing, in light of the size of mixing zone granted, the turbulence within the river, and the river bends and channel configuration. But there is no diffuser from the Facility and it is certainly possible that the discharge would not completely mix, even after a lengthy river transport. The issue should be remanded to the Central Valley Water Board for confirmation. The boundaries of the mixing zone are also not clearly defined.¹⁸ This should also be corrected in the remand.

¹⁴ Fact Sheet, at F-19.

¹⁵ The mixing zone information for molybdenum appears to be in error, because the Fact Sheet states that there is only one agricultural intake "in the vicinity." (Fact Sheet, at p. F-21.) In fact, there are numerous diversions for crop irrigation in the area. The "performance-based" effluent limitation is, however, much more stringent than an effluent limitation based on 13:1 dilution credit. There is initial mixing at the discharge and assimilative capacity for molybdenum. Therefore, granting the mixing zone for molybdenum appears to be harmless error.

¹⁶ See, e.g., *Tracy*, at pp. 10-13.

¹⁷ Order WOO 2003-002, pp. 3-4.

¹⁸ The mixing zone also does not correspond to data the City submitted in a study. (See "Human Carcinogenic Mixing Zone Evaluation Program for the Stockton Regional Wastewater Control Facility Waste Discharge (Continued)")

ORDER

IT IS HEREBY ORDERED that this matter be remanded to the Central Valley Water Board to make revisions to the Permit that are consistent with this order.

~~1. The Central Valley Water Board must revise the effluent limitation for electrical conductivity so that they are not contingent on submission of and compliance with a salinity plan.~~

~~2. The Central Valley Water Board must clarify whether there is a basis for a mixing zone for human health criteria and, if so, to specify the boundaries of the mixing zone. If necessary, the effluent limitations for chlorodibromomethane, dichlorobromomethane, manganese, and nitrate plus nitrite should be revised.~~

CERTIFICATION

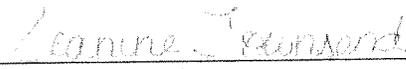
The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 6, 2009.

AYE: Chairman Charles R. Hoppin
Vice Chair Frances Spivy-Weber
Board Member Arthur G. Baggett, Jr.
Board Member Tam M. Doduc

NAY: None

ABSENT: None

ABSTAIN: None



Jeanine Townsend
Clerk to the Board

Requirement Order No. R5-2002-0083, May 17, 2005," at pp. 9-10.) This document states that the downstream tidal movement extends 1.5 miles to the Channel and then about 0.75 miles into the Channel. Accordingly, the downstream mixing zone boundary corresponding with this extent of tidal movement would be located 2.25 miles downstream, or mile 39 of the San Joaquin River.

EXHIBIT B

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

**ORDER NO. R5-2008-0154
NPDES NO. CA0079138**

**WASTE DISCHARGE REQUIREMENTS FOR THE
CITY OF STOCKTON
REGIONAL WASTEWATER CONTROL FACILITY
SAN JOAQUIN COUNTY**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	City of Stockton
Name of Facility	Regional Wastewater Control Facility
Facility Address	2500 Navy Drive
	Stockton, CA 95206
	San Joaquin
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the City of Stockton Regional Wastewater Control Facility from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary treated municipal wastewater	37° 56' 15" N	121° 20' 5" W	San Joaquin River

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	23 October 2008
This Order shall become effective on:	12 December 2008
This Order shall expire on:	1 October 2013
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	<u>180 days prior to the Order expiration date</u>

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 23 October 2008.

Original signed by Pamela C. Creedon

PAMELA C. CREEDON, Executive Officer

- h. **Dissolved Oxygen.** The daily average effluent dissolved oxygen concentration shall not be less than 6.0 mg/L from 1 September through 30 November and 5.0 mg/L throughout the remainder of the year.
 - i. **Aluminum.** The discharge of total recoverable aluminum shall not exceed a concentration of 200 µg/L as an annual average.
 - j. **Electrical Conductivity.**
 - i. The electrical conductivity in the discharge shall not exceed an annual average of 1,300 µmhos/cm;
 - ii. ~~If the Discharger fails to comply with the requirements in 1) or 2), below, the electrical conductivity in the discharge shall not exceed a monthly average of 700 µmhos/cm (1 April to 31 August), and 1000 µmhos/cm (1 September to 31 March):~~
 - 1) The Discharger shall develop and submit a Salinity Plan as specified in Provision VI.C.3.c; and
 - 2) The Discharger shall timely implement the Salinity Plan upon the Regional Water Board's approval. The proposed Salinity Plan will be circulated for no less than 30 days of public comment prior to the Regional Water Board's consideration of the Salinity Plan. The Regional Water Board may revise the Salinity Plan prior to final approval.
- ~~Upon determination by the Regional Water Board that the Discharger has materially failed to comply with the approved Salinity Plan due to circumstances within its control, the monthly average effluent limitations for electrical conductivity specified in j.ii., above, shall become effective immediately.~~
- k. **Chronic Whole Effluent Toxicity.** There shall be no chronic toxicity in the effluent discharge.

2. Interim Effluent Limitations

- a. **Mercury.** The total annual mass discharge of total mercury shall not exceed 0.92 pounds. This interim performance-based limitation shall be in effect until the Regional Water Board establishes final effluent limitations after adoption of the Sacramento-San Joaquin Delta Methylmercury TMDL.

B. Land Discharge Specifications

[Not Applicable]

constituents in concentrations that adversely affect beneficial uses. At minimum, "...water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs)" in Title 22 of CCR. The narrative tastes and odors objective states: "Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses."

- b. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs, the Regional Water Board finds that the discharge has a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard for aluminum, ammonia, bis (2-ethylhexyl) phthalate, chlorine (total residual), chlorodibromomethane, cyanide, dichlorobromomethane, ~~electrical conductivity~~, manganese, molybdenum, and nitrate plus nitrite. Water quality-based effluent limitations (WQBELs) for these constituents are included in this Order. A summary of the reasonable potential analysis (RPA) is provided in Attachment G, and a detailed discussion of the RPA for each constituent is provided below.
- c. The Regional Water Board conducted the RPA in accordance with Section 1.3 of the SIP. Although the SIP applies directly to the control of CTR priority pollutants, the State Water Board has held that the Regional Water Board may use the SIP as guidance for water quality-based toxics control.² The SIP states in the introduction "The goal of this Policy is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency." Therefore, in this Order the RPA procedures from the SIP were used to evaluate reasonable potential for both CTR and non-CTR constituents.
- d. WQBELs were calculated in accordance with section 1.4 of the SIP, as described in Section IV.C.4 of this Fact Sheet.
- e. **Aluminum.** The Secondary MCL for aluminum for the protection of the MUN beneficial use is 200 µg/L. In addition, USEPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life for aluminum, and the recommended four-day average (chronic) and one-hour average (acute) criteria are 87 µg/L and 750 µg/L, respectively. However, information contained in the footnotes to the NAWQC indicate that the development of the chronic criterion was based on specific receiving water conditions where there is low pH (below 6.5) and low hardness levels (below 50 mg/L as CaCO₃). The San Joaquin River (SJR) has been measured to have hardness values—typically between 57 and 152 mg/L as

² See, Order WQO 2001-16 (Napa) and Order WQO 2004-0013 (Yuba City).

bb. **Salinity.** The discharge contains total dissolved solids (TDS), chloride, sulfate, and electrical conductivity (EC). These are water quality parameters that are indicative of the salinity of the water. Their presence in water can be growth limiting to certain agricultural crops and can affect the taste of water for human consumption. There are no USEPA water quality criteria for the protection of aquatic organisms for these constituents. The Basin Plan contains a chemical constituent objective that incorporates State MCLs, contains a narrative objective, and contains numeric water quality objectives for EC, TDS, sulfate, and chloride. Table F-5 below summarizes salinity water quality objectives/criteria and effluent concentration values.

Table F-5. Salinity Water Quality Criteria/Objectives

Parameter	Agricultural WQ Goal ¹	Bay-Delta Plan	Secondary MCL ²	Effluent	
				Avg	Max
EC (µmhos/cm)	Varies ³	700 (1 Apr-31 Jul) 1000 (1 Aug-31 Mar)	900, 1600, 2200	1205	1518
TDS (mg/L)	Varies	N/A	500, 1000, 1500	668	730
Sulfate (mg/L)	Varies	N/A	250, 500, 600	120	180
Chloride (mg/L)	Varies	N/A	250, 500, 600	178	210

¹ Agricultural water quality goals based on *Water Quality for Agriculture*, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcott, Rome, 1985)

² The secondary MCLs are stated as a recommended level, upper level, and a short-term maximum level.

³ The EC level in irrigation water that harms crop production depends on the crop type, soil type, irrigation methods, rainfall, and other factors. An EC level of 700 umhos/cm is generally considered to present no risk of salinity impacts to crops. However, many crops are grown successfully with higher salinities.

The State Water Board's Bay-Delta Plan establishes water quality objectives at various "compliance points" in the estuary to protect beneficial uses. The Bay-Delta Plan at page 10 states: "The water quality objectives in this plan apply to waters of the San Francisco Bay system and the legal Sacramento-San Joaquin Delta, as specified in the objectives. Unless otherwise indicated, water quality objectives cited for a general area, such as for the southern Delta, are applicable for all locations in that general area and compliance locations will be used to determine compliance with the cited objectives." What constitutes "in that general area" is not defined in the Plan.

The two nearest Bay Delta Plan compliance points are the San Joaquin River at Brandt Road Bridge, south of the discharge point along the San Joaquin River, and the San Joaquin River at Prisoner's Point, toward San Francisco Bay from the discharge point. Stockton's discharge is located between these two compliance points. The San Joaquin River at Brandt Bridge and at the discharge point is largely unchanged. The River flows in a relatively shallow, winding channel, and there are not major diversions or tributaries to the River between Brandt Bridge and Stockton. ~~The Brandt Bridge compliance point is established to protect agricultural irrigation uses, and seasonally varies from 700 to 1000 µmhos/cm.~~ The primary use of River Water at both locations is agricultural

irrigation. In contrast, the Prisoner's Point compliance point is located along the Stockton Deep Water Ship Channel where the San Joaquin River has been deepened and straightened. At Prisoner's Point there is seasonally a significant flow of Sacramento River water moving cross-Delta to the pumps near Tracy. The Prisoner's Point compliance point requires the April – May salinity to be maintained at 440 μ mhos/cm or less, and is set to protect fish and wildlife beneficial uses. ~~The water quality objectives prescribed for Brandt Road Bridge are judged to be applicable at the site of the Stockton discharge, as being in the "general area" of the compliance point and as having similar River and beneficial use conditions that would make the Brandt Road objective appropriate for beneficial use protection at the discharge point.~~

- i. **Chloride.** The secondary MCL for chloride is 250 mg/L, as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum. The recommended agricultural water quality goal for chloride, that would apply the narrative chemical constituent objective, is 106 mg/L as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D. W. Westcot, Rome, 1985). The 106 mg/L water quality goal is intended to protect against adverse effects on sensitive crops when irrigated via sprinklers.

Chloride concentrations in the effluent ranged from 130 mg/L to 210 mg/L, with an average of 177.5 mg/L, for 12 samples collected by the Discharger from 29 January 2002 through 4 December 2002. Background concentrations in the San Joaquin River ranged from 38 mg/L to 140 mg/L, with an average of 108 mg/L, for 11 samples collected by the Discharger from 20 March 2002 through 4 December 2002. Both the receiving water and the effluent concentrations exceed the agricultural water quality goal of 106 mg/L.

- ii. **Electrical Conductivity (EC).** The secondary MCL for EC is 900 μ mhos/cm as a recommended level, 1600 μ mhos/cm as an upper level, and 2200 μ mhos/cm as a short-term maximum. The agricultural water quality goal, that would apply the narrative chemical constituents objective, is 700 μ mhos/cm as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). ~~The Bay-Delta Plan's seasonal salinity objectives for the San Joaquin River at Brandt Bridge are 700 μ mhos/cm from April through August, and 1000 μ mhos/cm from September through March. These objectives are applicable throughout the general geographic area, and, therefore, apply to the Facility's discharge.~~

A review of the Discharger's monitoring reports for the last six years (2002 through 2007) shows an average effluent EC of 1205 μ mhos/cm, with a range from 946 μ mhos/cm to 1518 μ mhos/cm for 290 samples. ~~These levels exceed the applicable objectives.~~ The background receiving water EC averaged 602.8 μ mhos/cm in 192 sampling events collected by the

Discharger from 20 March 2002 through 9 January 2007, with a maximum high of 1169 $\mu\text{mhos/cm}$. ~~These data show that the receiving water frequently has no assimilative capacity for EC.~~

- iii. **Sulfate.** The secondary MCL for sulfate is 250 mg/L as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum. Sulfate concentrations in the effluent ranged from 10 mg/L to 180 mg/L, with an average of 119.8 mg/L, for 12 samples collected by the Discharger from 29 January 2002 through 4 December 2002. Background concentrations in the San Joaquin River ranged from 37 mg/L to 130 mg/L, with an average of 86.7 mg/L, for 10 samples collected by the Discharger from 20 March 2002 through 4 December 2002. These concentrations do not exceed the secondary MCL recommended level of 250 mg/L.
- iv. **Total Dissolved Solids (TDS).** The secondary MCL for TDS is 500 mg/L as a recommended level, 1000 mg/L as an upper level, and 1500 mg/L as a short-term maximum. The recommended agricultural water quality goal for TDS, that would apply the narrative chemical constituent objective, is 450 mg/L as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). Water Quality for Agriculture evaluates the impacts of salinity levels on crop tolerance and yield reduction, and establishes water quality goals that are protective of the agricultural uses. The 450 mg/L water quality goal is intended to prevent reduction in crop yield, i.e., a restriction on use of water, for salt-sensitive crops. Only the most salt sensitive crops require irrigation water of 450 mg/L or less to prevent loss of yield. Most other crops can tolerate higher TDS concentrations without harm; however, as the salinity of the irrigation water increases, more crops are potentially harmed by the TDS, or extra measures must be taken by the farmer to minimize or eliminate any harmful impacts.

The average TDS effluent concentration was 668 mg/L; concentrations ranged from 550 mg/L to 730 mg/L for 12 samples collected by the Discharger from 29 January 2002 through 4 December 2002. These concentrations exceed the applicable water quality objectives. The background receiving water TDS ranged from 260 mg/L to 590 mg/L, with an average of 434 mg/L in 10 sampling events performed by the Discharger from 20 March 2002 through 4 December 2002. These data indicate the receiving water frequently exceeds water quality objectives and lacks assimilative capacity for TDS.

As required by previous Order No. R2-2002-0083, the Discharger completed a Wastewater Treatment Feasibility Study (June 2004) and pollution prevention plan (February 2005) for TDS. In the June 2004 report, the Discharger states "it could be argued that the effluent discharge for Stockton's RWCF helps maintain water quality objectives of the Delta.", that "the Discharge will not impact this [Southern one-third of the Delta that is 303(d)

Regional Water Board continue to exercise its authority to regulate discharges of salt to minimize salinity increases within the Central Valley. Dr. Longley stated, "The process of developing new salinity control policies does not, therefore, mean that we should stop regulation salt discharges until a possible interim approaches to continue controlling and regulating salts in a reasonable manner, and encourage all stakeholder groups that may be affected by the Regional Board's policy to actively participate in policy development."

As previously described, effluent data for EC and TDS indicate that effluent concentrations continue to be at levels of concern that may affect beneficial uses of the San Joaquin River. Therefore, this Order includes an annual average performance-based effluent limitation of 1300 µmhos/cm for EC to protect the receiving water from further salinity degradation, based on the highest annual average effluent concentration (see Table F-6 below).

~~However, should the Discharger fail to implement the provisional requirements specified in Provision VI.C.3.c of this Order, then this Order requires the Discharger to comply with the seasonal monthly average EC effluent limits of 700 µmhos/cm from April through August and 1000 µmhos/cm from September through March instead, which are based on the Bay-Delta Plan water quality objectives for this geographical location. The Bay-Delta objectives are under review, but when or if the salinity objectives will be changed is unknown. The Regional Water Board must implement water quality objectives as they exist at this time.~~

Compliance with these effluent limitations and the requirements of Provision VI.C.3.c will result in a salinity reduction in the effluent discharged to the receiving water; ~~however, the discharge may cause or contribute to an exceedance of a water quality objective for salinity until adequate measures are implemented to meet those objectives.~~

Table F-6. Summary of Annual Electrical Conductivity Effluent Concentrations

Electrical Conductivity (µmhos/cm)				
Year	Count	Min	Avg	Max
2002	40	1144	1264	1420
2003	50	1072	1195	1370
2004	50	1073	1209	1455
2005	48	1004	1229	1355
2006	50	968	1180	1518
2007	52	909	1089	1254

cc. **Settleable Solids.** For inland surface waters, the Basin Plan states that "[w]ater shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses. The previous permit, Order No. R5-2002-0083, required a daily maximum effluent limitation of 0.5 ml/L and a monthly average effluent limit of 0.1 ml/L for settleable solids. Analytical monitoring results obtained since issuance of the previous permit

PROOF OF SERVICE
(State)

I am employed in the County of Sacramento; my business address is 500 Capitol Mall, Suite 1000, Sacramento, California; I am over the age of 18 years and not a party to the foregoing action.

On October 10, 2013, I served the following document(s):

[REVISED PROPOSED] ORDER GRANTING MOTION FOR JUDGMENT AND PEREMPTORY WRIT OF MANDAMUS

XX (by mail) on all parties in said action, in accordance with Code of Civil Procedure § 1013a(3), by placing a true copy thereof enclosed in a sealed envelope, with postage fully paid thereon, in the designated area for outgoing mail, addressed as set forth below.

XX (electronically) I served the above listed document(s) by electronically transmitting a true copy to the person(s) at the electronic mailing addresses as set forth below (based on a court order or an agreement of the parties to accept service by email or electronic transmission).

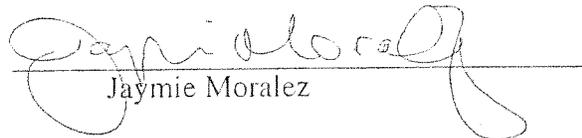
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I declare under penalty of perjury that the foregoing is true and correct. Executed on October 10, 2013, at Sacramento, California.


Jaymie Moralez

PROOF OF SERVICE
(State)

I am employed in the County of Sacramento; my business address is 500 Capitol Mall, Suite 1000, Sacramento, California; I am over the age of 18 years and not a party to the foregoing action.

On November 13, 2013, I served the following document(s):

NOTICE OF ENTRY OF ORDER

XX (by mail) on all parties in said action, in accordance with Code of Civil Procedure § 1013a(3), by placing a true copy thereof enclosed in a sealed envelope, with postage fully paid thereon, in the designated area for outgoing mail, addressed as set forth below.

XX (electronically) I served the above listed document(s) by electronically transmitting a true copy to the person(s) at the electronic mailing addresses as set forth below (based on a court order or an agreement of the parties to accept service by email or electronic transmission).

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Attorneys for Petitioner/Plaintiff
CITY OF STOCKTON

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 13, 2013, at Sacramento, California.



Crystal Rivera

**CITY OF STOCKTON
REGIONAL WASTEWATER CONTROL FACILITY**

**ANNUAL PROGRESS REPORT AND UPDATE
FOR
POLLUTION PREVENTION PLAN FOR SALINITY**

Prepared for:

**REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

On behalf of:

**CITY OF STOCKTON
MUNICIPAL UTILITIES DEPARTMENT**

Prepared by:



May 2015

**CITY OF STOCKTON
REGIONAL WASTEWATER CONTROL FACILITY
ANNUAL PROGRESS REPORT AND UPDATE
FOR
POLLUTION PREVENTION PLAN FOR SALINITY**

Prepared for:

**REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
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On behalf of:

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May 2015

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1 INTRODUCTION

The City of Stockton (City) discharges treated effluent from its Regional Wastewater Control Facility (RWCF) to the San Joaquin River under National Pollutant Discharge Elimination System (NPDES) permit No. CA0079138, Order No. R5-2014-0070 adopted by the Central Valley Regional Water Quality Control Board on June 6, 2014 and amended on October 9, 2014. The permitted discharge rate is 55 million gallons per day (MGD), average dry weather flow. The current annual average dry weather flow discharge rate is approximately 23 MGD.

The NPDES permit establishes an effluent electrical conductivity (EC) limitation of 1,300 µmhos/cm, expressed as a calendar year average. The permit also requires the City to prepare a progress report for the Pollution Prevention Plan (PPP) for salinity that is due June 1, annually beginning June 1, 2015 (Permit Attachment E, section IX.D.1). The PPP for salinity must meet the requirements of California Water Code (CWC) section 13263.3(d)(3). The provisions of CWC section 13263.3(d)(3) specify the following elements for PPPs:

1. An estimate of all of the sources of a pollutant contributing, or potentially contributing, to the loading of that pollutant in the treatment plant influent.
2. An analysis of the methods that could be used to prevent the discharge of the pollutants into the POTW, including application of local limits to industrial or commercial dischargers regarding pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of the pollutant to the POTW. The analysis also shall identify sources, or potential sources, not within the ability or authority of the POTW to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible.
3. An estimate of load reductions that may be attained through the methods identified in #2 above.
4. A plan for monitoring the results of the pollution prevention program.
5. A description of the tasks, cost, and time required to investigate and implement various elements in the pollution prevention plan.
6. A statement of the POTW's pollution prevention goals and strategies, including priorities for short-term and long-term action, and a description of the POTW's intended pollution prevention activities for the immediate future.
7. A description of the POTW's existing pollution prevention programs.
8. An analysis, to the extent feasible, of any adverse environmental impacts, including cross media impacts or substitute chemicals, that may result from the implementation of the pollution prevention program.

9. An analysis, to the extent feasible, of the costs and benefits that may be incurred to implement the pollution prevention program.

This document comprises the annual progress report and salinity PPP update to the salinity PPP prepared and submitted to the Central Valley Water Board in August 2014—*City of Stockton Regional Wastewater Control Facility Salinity Plan Update* (Robertson-Bryan, Inc. 2014). The PPP has been updated to include current RWCF influent and effluent characteristics, updated estimation of sources contributing salinity to the RWCF effluent, including an industrial loading analysis, an updated implementation plan and costs, and updated analysis environmental effects from implementing the PPP.

2 SALINITY CHARACTERISTICS OF THE RWCF EFFLUENT

This section presents the salinity characteristics of the RWCF effluent in terms of both EC and total dissolved solids (TDS). The NPDES permit contains a salinity-related effluent limitation expressed as EC measured as $\mu\text{mhos/cm}$. Expressing salinity in terms of TDS provide allows for mass loading estimates to be determined for allocation to controllable sources. Data available to characterize the RWCF effluent EC levels and TDS concentrations include weekly and monthly data collected under the NPDES permit Monitoring and Reporting Program. A time-series of RWCF effluent EC and TDS from January 1, 2010 through February 28, 2015 is presented in **Figure 1**. As can be seen in Figure 1, calendar year averages of EC levels have been well below the EC limitation of 1,300.

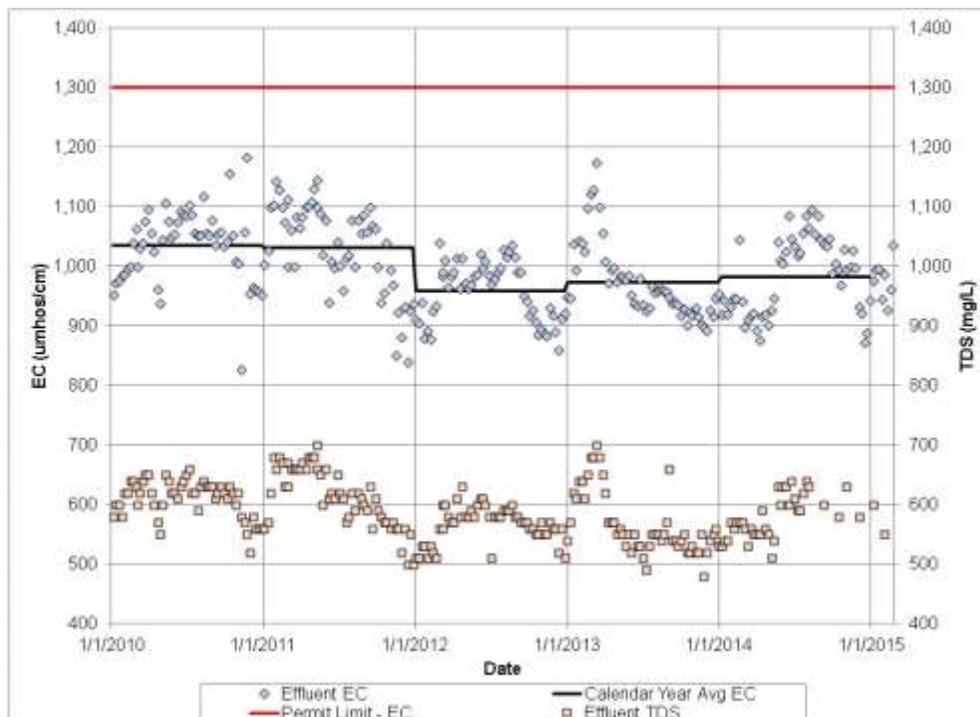


Figure 1. EC levels and TDS concentrations in the RWCF effluent for the period of January 1, 2010, through February 28, 2015.

3 SOURCE IDENTIFICATION

Potential sources of salinity in the RWCF effluent include naturally occurring salinity in the City’s water supply, additions from water users in the RWCF sewershed, inflow and infiltration to the City’s sewer collection system, and the RWCF treatment process. A detailed description of salinity sources within these categories is provided in the following subsections.

3.1 Water Supply

The City’s water supply comes from multiple groundwater and surface water sources: groundwater from City-operated wells, surface water from the Stanislaus and Calaveras rivers treated and delivered by Stockton East Water District, surface water from the Delta treated at the City’s Delta Water Treatment Plant, and groundwater delivered by California Water Service Company. **Table 1** summarizes the average TDS concentrations and EC levels for years 2012, 2013, and 2014 for each water supply source, and the weighted average TDS concentration and EC level for the year. Year 2014 shows a higher percentage of groundwater use due to diminished surface water supplies as a result of an ongoing drought. This has resulted in a higher weighted average TDS and EC relative to prior years, because the groundwater sources have higher TDS and EC.

Table 1. Summary of City of Stockton water supply TDS and EC characteristics for years 2012, 2013, and 2014.

	City of Stockton Wells (groundwater)	California Water Service (groundwater)	City of Stockton Delta Water Treatment Plant (surface water)	Stockton East Water District (surface water)	Weighted Average
2012 Statistics					
Average Annual Flow (MGD) (Percent of Water Supply)	3 (5%)	4 (7%)	8 ^a (15%)	42 (73%)	
Average TDS (mg/L)	315	283	36 ^a	67	90
Average EC (µmhos/cm)	456	410	61 ^a	104	138
2013 Statistics					
Average Annual Flow (MGD) (Percent of Water Supply)	3 (5%)	3 (5%)	24 (35%)	37 (55%)	
Average TDS (mg/L)	304	295	97	51	92
Average EC (µmhos/cm)	446	442	148	77	138
2014 Statistics					
Average Annual Flow (MGD) (Percent of Water Supply)	7 (12%)	9 (16%)	9 (16%)	30 (56%)	
Average TDS (mg/L)	327	293	117	51	135
Average EC (µmhos/cm)	465	434	204	77	203

^a These data represent production from May 2012, when the Delta Water Supply began operating, through December 2012.

3.2 RWCF Service Area

Residential, commercial, and industrial users discharge to the City’s wastewater collection system and are potential sources of salinity. Each source is further characterized and quantified below.

3.2.1 Residential

Human and food wastes discharged to the sewer contribute salts to wastewater. The use of any type of chemical for daily household sanitation also serves as a source of salts. Soaps and cleaning products such as those used for washing hands, laundry, or surfaces in homes can add salt to the wastewater discharge of residential uses.

Another residential source of salinity is the use of water softeners. Water softeners are typically used to prevent carbonate deposits from forming on home appliances and glassware and to improve the effectiveness of home laundering. The self-regenerating ion exchange-type water softeners that are typically used at residences require the use of a brine water to regenerate the water softener. The brine contains high concentrations of salts, particularly chloride, which is generally discharged to the wastewater collection system. The extent of water softener use in the RWCF service area is unknown. Effluent chloride concentrations, which can be an indicator of water softener use, ranged from 150–180 mg/L in years 2010–2011 (Robertson-Bryan, Inc. 2013). These chloride levels are well below applicable water quality criteria and alone do not indicate high water softener use.

3.2.2 Commercial and Industrial

Similar to residential uses, commercial and industrial uses can contribute to salinity in the wastewater through the use of cleaning products or the rinsing of processed products. Types of commercial and industrial uses that can contribute salinity to the City's wastewater system include food processing facilities, restaurants, laundromats, carwashes, and photo-developing facilities. The City regulates commercial dischargers along with significant industrial users (SIUs) under its Industrial Pretreatment Program. SIUs are dischargers that are subject to categorical pretreatment standards defined by the United States Environmental Protection Agency (USEPA), or dischargers with wastewater characteristics or quantities that have a reasonable potential for adversely affecting the RWCF operation or violating any pretreatment standard or requirement (USEPA 1999). These existing industrial uses include but are not limited to: waste haulers, groundwater dischargers, transportation facilities, medical facilities, truck-washing facilities, jet engine repair, commercial laundry, water bottling, and a variety of other manufacturing, finishing, or processing facilities.

Self-monitoring data collected in year 2014 by SIUs in the City's sewershed was used to quantify the flow and TDS contributions to the RWCF. **Table 2** provides average TDS concentrations, average actual flows (as opposed to permitted flows), and average TDS loads from each discharger, listed according to the percent TDS load contribution to the RWCF. Measured TDS concentrations may include biodegradable TDS. Therefore, TDS concentrations and loads cited in Table 2 may be higher than the actual contribution of inorganic TDS to the RWCF influent and effluent.

Table 2. Summary of Industrial TDS Loads to the RWCF in year 2014.

Company	Average TDS (mg/L)	Average Measured Flow (MG/month)	Average TDS Load (lb/month)	Percent of Total Industrial Flow (%)	Percent of Total Industrial Load (%)
Ingredion	4,650	21	810,289	24	59
Campbell Soup Supply	874	11	117,617	13	8.6
R&B Foods/Unilever	770	9.0	74,254	10	5.4
Zacky Kitchens	4,676	1.7	66,844	2.0	4.9
Stockton Sanitary Wash Rack	27,492	0.14	31,700	0.16	2.3
S.J. County - French Camp	405	7.6	25,748	8.6	1.9
Diamond of California	1,826	1.7	25,354	1.9	1.9
Unifirst Laundry	1,570	1.9	24,543	2.1	1.8
Cintas	958	3.0	23,891	3.4	1.8
Foodliner	9,858	0.29	23,083	0.33	1.7
DTE Stockton	771	3.0	18,745	3.4	1.4
Sodexo	855	2.5	18,148	2.8	1.3
Hormel	275	7.8	18,042	8.9	1.3
Pacific Ethanol	729	2.3	13,910	2.6	1.0
Tankerwash USA	2,373	0.67	13,204	0.76	0.97
Niagara Bottling	323	4.3	12,208	4.9	0.89
Northern Calif. Youth Center	367	3.8	11,772	4.4	0.86
California Tank Lines	1,370	0.56	6,373	0.64	0.47
California Spray Dry	1,621	0.41	4,721	0.47	0.35
Niagara Bottling (Adv. Ref. - 811 Zephyr)	334	1.5	4,154	1.8	0.30
Grimaud Farms	736	0.67	4,105	0.8	0.30
Dole	1,195	0.34	3,485	0.39	0.26
Sumiden Wire Products	1,144	0.36	3,433	0.41	0.25
New Stockton Poultry	410	0.69	2,361	0.78	0.17
Value Products	15,100	0.017	2,119	0.019	0.16
Wilmar Oils and Fats	588	0.24	1,183	0.27	0.087
Synergy Health North America	442	0.16	596	0.18	0.044
Union Pacific Railroad	650	0.11	583	0.12	0.043
American Sunny Foods	903	0.089	567	0.10	0.042
Duraflame	507	0.086	367	0.10	0.027
Victory Blue	188	0.18	267	0.20	0.020
Applied Aerospace Structures	103	0.28	237	0.32	0.017
Premier Finishing	808	0.02	159	0.027	0.012
Midway Corp. Plaza/Crosstown Commons	100	0.15	127	0.17	0.0093
ASCO Power Technologies	1,024	0.00090	8	0.0010	0.00056
ChemStation	140	0.0010	1	0.0011	0.000085
St. Joseph's Hospital	275	N/A	N/A	N/A	N/A
S.J. County - General Hospital	N/A	N/A	N/A	N/A	N/A
Total	--	88	1,364,199	100	100

N/A = no available data

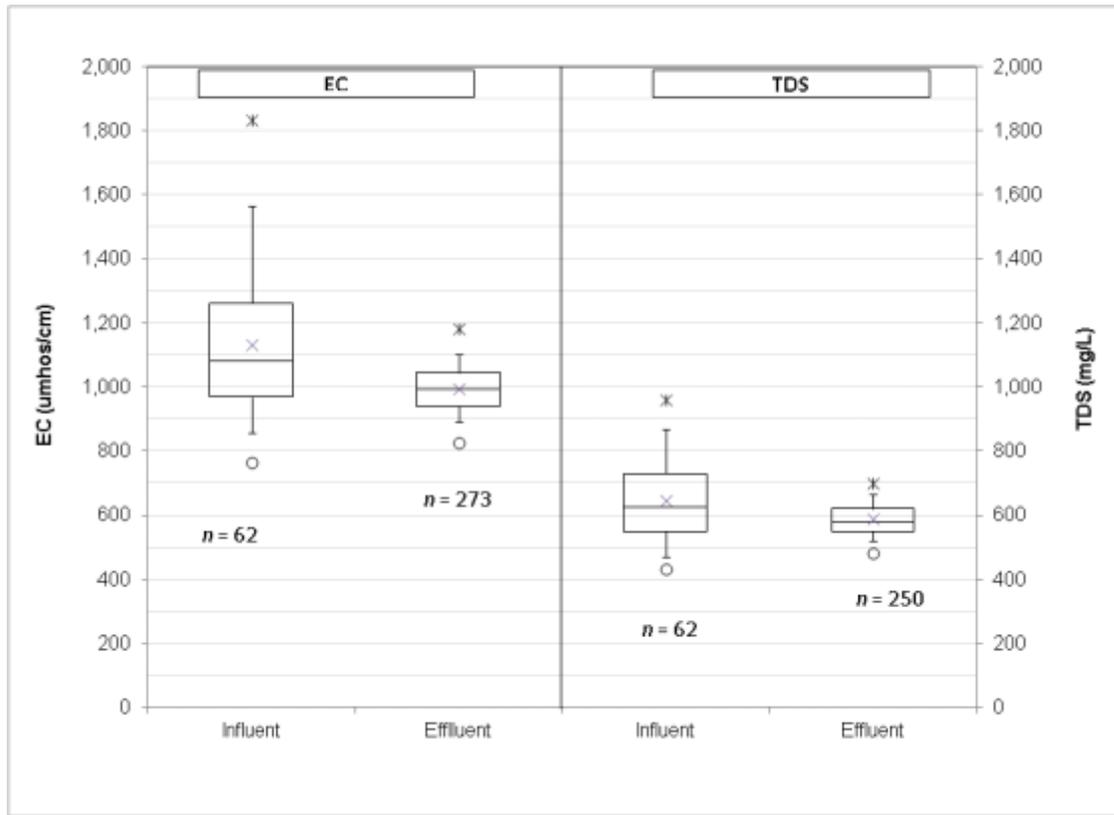
3.2.3 Inflow & Infiltration

Inflow and infiltration can be a potential salinity source. Flows and concentrations of TDS and EC from inflow and infiltration have not been quantified recently. However, inspection of Figure 1 and Figure 2 reveals that TDS concentrations and EC levels in the influent and effluent tend to be highest in the summer months, when inflow and infiltration would be lowest. There may be isolated areas of elevated inflow and infiltration to the City's sewer system, but contributions are not expected to contribute a significant TDS load to the RWCF.

3.3 RWCF Treatment Process

Chemicals currently used at the RWCF include: ferric chloride (solids settling and sulfide reduction in methane gas), caustic (pH control), chlorine (disinfection), polymer (primary sedimentation and solids thickening), aqueous ammonia (disinfection process), and sulfur dioxide (dechlorination). During the treatment process, these chemicals serve as an additional salinity source. In addition to the above described chemical use at the RWCF, the City will be doing a pilot study at two locations in the collection system using 50% caustic to reduce sulfur-producing bacteria to prevent corrosion of sewer system pipes. The potential TDS loading at the plant from this pilot study will be assessed, if successful.

The influent and final effluent TDS data were evaluated to determine whether there is any removal or loss of TDS in the RWCF treatment process. Because TDS concentrations are related to EC, the EC data also were evaluated. **Figure 2** presents a box plot of the minimum (circle), maximum (asterisk), mean (x), 5th and 95th percentile (error bars), and the 25th, 50th, and 75th percentile (box) EC levels and TDS concentrations. The box plots shows that effluent levels of both EC and TDS are lower relative to influent levels. The average effluent TDS concentration is 9% lower than the influent concentration, and the average effluent EC level is 12% lower than the influent EC.



Boxes are interquartiles, x is mean, error bars are 5th and 95th percentiles, asterisk is maximum, and circle is minimum.

Figure 2. EC levels and TDS concentrations in the RWCF influent and effluent for the period of January 1, 2010 through February 28, 2015.

4 SOURCE CONTROL METHODS AND ESTIMATES OF LOAD REDUCTION

Source control methods for the salinity source categories are addressed in the subsections below.

4.1 Water Supply

The City started operating the Delta Water Supply Project (DWSP) in May 2012 as a new supplemental water supply for the City of Stockton Metropolitan Area (COSMA). The DWSP is being used conjunctively with local groundwater resources and other existing surface water supplies to meet the COSMA's water demands. In year 2014, surface water supplies, which have a lower TDS and EC than groundwater supplies, comprised 72% of the City's water supply (Table 1). Thus, the City is currently relying primarily on a relatively low salinity water supply and no other source control methods related to water supply are proposed.

4.2 Residential

Residential sources of TDS are generally not readily controllable, as the primary sources of TDS, beyond human waste, are from use of common household products. The City could regulate or

ban the use of water softeners in its service area, but would have to comply with specific conditions. Local agencies have the authority through California Senate Bill 1006 (SB1006) to regulate the use of residential water softeners in their service areas if they can comply with two conditions. The conditions that the lead agency must meet include: 1) finding that limiting the availability, or prohibiting the installation, of water softeners is a necessary means of achieving compliance with waste discharge requirements; and 2) conducting an independent study of discharges from all sources of salinity, including quantifying the total discharge from each source and identifying remedial actions taken to reduce those discharges. The City is meeting the discharge requirements and has built the \$219 million dollar Delta Water Supply Project which reduced the household water supply TDS. At this time, the City will not be pursuing a household reduction in water softener use, but will include in water conservation messaging the effect of household decisions on salt content of the water sent to the sewer.

4.3 Commercial and Industrial

As described in Section 3.2.2, the City provides discharge permits through its Industrial Pretreatment Program to regulate and control salinity, and other constituents, in the wastewater from industrial and/or nondomestic dischargers in its sewershed. Previously, the City's discharge permits for new SIUs contained an interim TDS concentration limit of 1,000 mg/L daily maximum (24 hour composite) and an interim loading limit (in pounds per month). The interim loading limit for new SIUs was based on an average TDS concentration limit of 800 mg/L and the permitted flow limit, which varies by industry. However, the City found that the discharge from certain types of industry (e.g., industrial laundry, food processing) could not meet these strict limits reducing industrial jobs in the City of Stockton. Therefore, to provide maximum flexibility for the City to allow for economic growth, the City plans to regulate and allocate the overall salinity load to industries with salinity issues rather than allocate by concentration. The subsection below updates the amount of TDS available to allocate to industrial users and still meet the EC limitation. Section 4.3.2 identifies areas of future study for regulating industrial sources of salinity.

4.3.1 Available TDS Load for Allocation to Industry

The USEPA provides guidance on the development of local limits for industrial discharges—*Local Limits Development Guidance* (EPA 833-R-04-002A, July 2004). This guidance was relied upon to calculate the amount of TDS available for allocation to industrial users discharging to the RWCF. The first step in this evaluation is to determine the maximum allowable headworks loading (MAHL). The MAHL is the estimated maximum loading of, in this case, TDS that can be received at the RWCF headworks without causing pass-through or interference that could result in challenges with NPDES permit discharge limitations. The second step in this evaluation is to determine the maximum allowable industrial loading (MAIL) for TDS and the amount remaining to allocate to new industry. The MAIL is the amount of TDS the RWCF can receive from controlled sources (e.g., industrial users, hauled waste).

Maximum Allowable Headworks Loading (MAHL)

As mentioned above, the RWCF NPDES permit contains an effluent limitation for EC, but it is not possible to regulate EC loading; thus the City regulates a related parameter, TDS loading. The allowable headworks loading based on an NPDES permit limitation is calculated as follows:

$$AHL_{npdes} = \frac{(8.34)(C_{npdes})(Q_{potw})}{(1-R_{potw})} \quad (\text{Equation 1})$$

Where:

AHL_{npdes} = allowable headworks loading based on an NPDES permit limitation, lb/day

C_{npdes} = NPDES permit limitation, mg/L

Q_{potw} = POTW average flow rate, million gallons per day (MGD)

R_{potw} = Plant removal efficiency from headworks to plant effluent, as decimal

8.34 = conversion factor

The derivation of each input of the above equation is described below.

NPDES Permit Limit in mg/L

While the salinity-related limitation in the NPDES permit is expressed as EC, TDS is a more practical measure of salinity for regulating controllable loading to the RWCF. Therefore, the historical EC and TDS data were analyzed to convert the EC limitation to an equivalent TDS limitation. Paired final effluent data reported by the City to the online California Integrated Water Quality System (CIWQS) from January 1, 2010 through February 28, 2015 were used for this analysis. Final effluent TDS vs. EC are plotted in **Figure 3**, along with the resulting linear regression equation. Using the regression equation in Figure 3, the TDS limitation that corresponds to the EC effluent limitation is 751 mg/L. In the coming year, the City may begin to monitor organic and inorganic fractions of TDS in the influent and effluent as well as EC. These data will be used to refine this TDS-EC relationship.

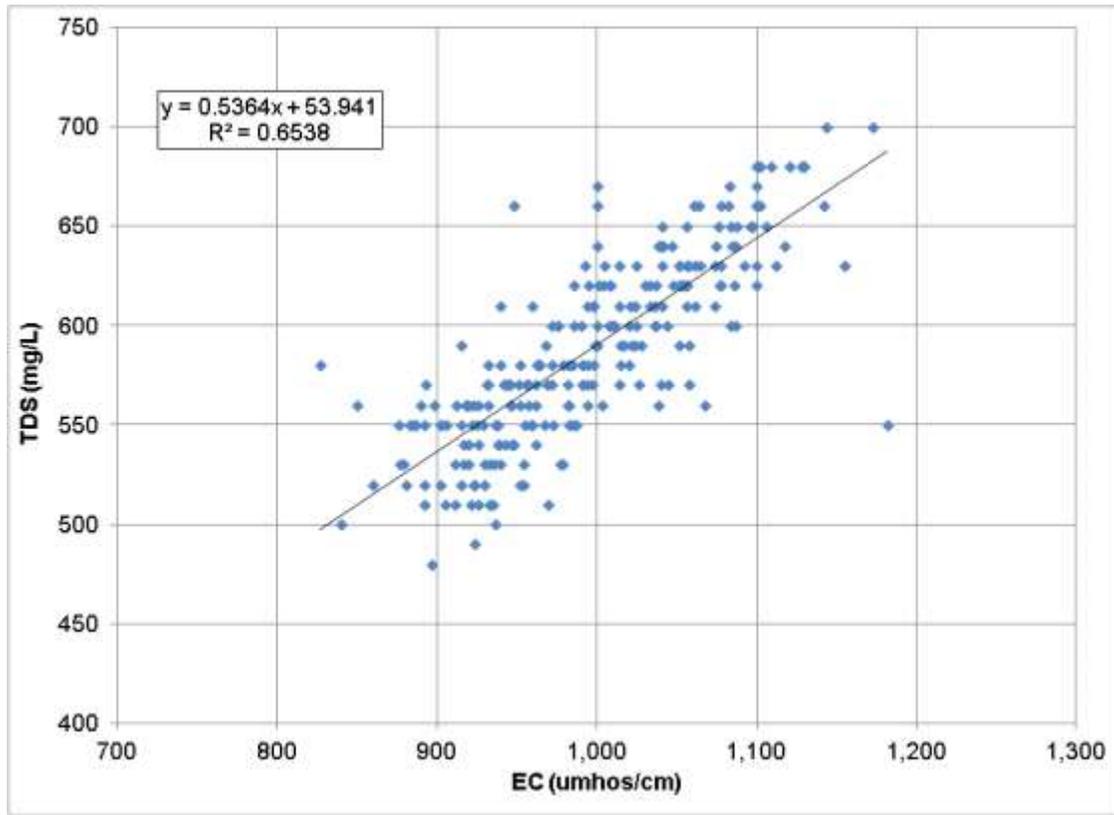


Figure 3. TDS versus EC for the Stockton RWCF final effluent.

Plant Removal Efficiency

The USPEPA guidance on local limits development identifies three methods for calculating removal efficiency: (1) average daily removal efficiency; (2) mean removal efficiency; and (3) decile method. The average daily removal efficiency method could not be used because it requires time-synced influent and effluent data, which is not available. The facultative pond system at the plant provides for further secondary treatment for 35 to 85 days depending upon influent flow rates. Of the two remaining methods, the mean removal efficiency was selected as it is consistent with the EC limitation averaging period, which is a long-term, calendar average limitation. The mean removal efficiency calculation first averages all plant influent values and all plant effluent values separately and then calculates removal efficiency across the entire plant from headworks to effluent. The mean influent TDS for January 2010–February 2015 was 647 mg/L and the mean effluent TDS for this same period was 588 mg/L. The corresponding removal efficiency is 9%.

AHL-npdes Calculation

The TDS limitation and removal efficiency described above, along with the current average annual discharge rate of 23 MGD, were used in Equation 1 to calculate an allowable headworks loading based on the NPDES permit limitation (AHL_{npdes}) for TDS. As shown in **Table 3**, the actual TDS loading is less than the allowable loading, meaning there is capacity to allocate TDS discharge load to industry without causing exceedance of the NPDES permit limitation for EC. This is further confirmed by the fact that effluent EC levels are well below the limitation of 1,300 µmhos/cm (see Figure 2).

Table 3. Allowable headworks loading of TDS based on compliance with the equivalent TDS NPDES permit limitation.

AHL Input Parameter	Value ^a
TDS Limitation (mg/L)	751
Removal Efficiency	9%
Flow Rate (MGD)	23
AHL-npdes (lb/day)	155,224
Mean Influent Concentration (mg/L) ^b	638
Actual Loading (lb/day) ^c	119,783
Notes:	
^a Calculations performed in MS Excel spreadsheet, with no rounding of numbers between calculation steps	
^c Mean for 1/1/14–12/31/14.	
^b Actual loading calculated using influent TDS data from 1/1/14–12/31/14, the same period for which industrial loading data are available.	

Maximum Allowable Industrial Loading (MAIL)

The TDS MAIL represents the amount of loading that can be received at the RWCF from controlled sources, including industrial users or other discharges that are controlled by the City (e.g., hauled waste). The MAIL is calculated as:

$$MAIL = MAHL(1 - SF) - (L_{UNC} + HW + GA) \quad \text{(Equation 2)}$$

Where:

MAIL = Maximum allowable industrial loading, lb/day

MAHL = Maximum allowable headworks loading, lb/day

SF = safety factor

L_{UNC} = Loadings from uncontrolled sources, lb/day

HW = Loadings from hauled waste, lb/day

GA = Growth allowance, lb/day

The MAHL in the above equation is the AHL_{npdes} calculated in the previous section.

The main purpose of the safety factor is to address uncertainties in the calculation of the loadings and related local limits. The USEPA recommends a minimum safety factor of 10 percent.

The TDS loading from uncontrolled sources was determined as the difference between the total TDS loading to the RWCF headworks and the loading from industrial sources, for which there is flow and concentration data. The industrial loading was determined using data reported by industrial users from January–December 2014, provided by the City for this analysis. The sum of all industrial user average TDS load was 1,364,199 pounds per month (lb/month; see Table 2), which is equivalent to 44,850 lb/day (1,364,199 x 12/365). This industrial user loading was subtracted from the actual loading (provided in Table 3) to calculate the loading from uncontrolled sources. This analysis assumes no hauled waste loading and no growth allowance, but these could easily be incorporated into the derivation of the MAIL. The resulting MAIL is presented in **Table 4**. The difference between the MAIL and the current (2014) industrial load is what is available to allocate to new industry.

Table 4. Maximum allowable industrial loading of TDS based on compliance with the equivalent TDS NPDES permit limitation.

MAIL Input Parameter	Value
MAHL (lb/day)	155,224
Safety Factor (%)	10%
Uncontrolled Sources (lb/day)	74,933
Hauled Waste (lb/day)	0
Growth Allowance (lb/day)	0
MAIL (lb/day)	64,768
Existing (2014) Industrial Loading (lb/day)	44,850
Available Industrial Load (lb/day)	19,918

4.3.2 Future Study

The City will be studying TDS in the industrial discharges to determine the fixed proportion, which may allow individual discharges a higher allocation if portions of the load are found to be readily degradable within the treatment system. To provide additional salinity reductions, the City could reevaluate local limit regulations and continue to include requirements for industry with fixed salinity issues.

Also, the City has contracted with an engineering consultant to provide management and oversight of a team of economists, planners, and engineers that will be involved in options development and feasibility investigations for source control of high salinity industries, over the course of the current NPDES permit term.

4.4 RWCF

The City is in the process of hiring a progressive design-build consultant team to implement optimization and upgrade of the RWCF processes. An outcome of this design process may be implementation of actions, such as changes in chemical usage, which may result in reduced

additions of salinity-contributing chemicals within the treatment process. Because this process is in the beginning stages, it is not possible to identify those changes at this time.

4.5 Inflow & Infiltration

The potential opportunities and limitations for controlling this source are unknown at this time because of the limited quantitative information regarding sources of inflow and infiltration to the City's sewer system. However, the City may be able to reduce this potential salinity source by replacing or updating its collection system and sealing leaky joints.

5 IMPLEMENTATION, MONITORING PLAN, AND COSTS

The City would not have any water supply-related source control costs, because it has already implemented its DWSP and low-salinity surface water comprises approximately 70% of the service area usage. Similarly, the City would not have any residential source control costs, because the City is unlikely to implement a water softener ban given the conditions that must be met and the uncertain and relatively small benefit to salinity load reduction anticipated. Controlling industrial sources and RCWF chemical additions present the most feasible opportunities to achieve measurable reductions in RWCF effluent salinity (i.e., EC) levels.

Controlling industrial sources of salinity would generally consist of the direct costs to develop and implement new or revised TDS limits and/or the indirect costs of implementing pretreatment facilities. Potential costs associated with City staff efforts to implement a TDS limit through the City's permitting process for existing SIUs and/or revisiting TDS limits in the permits of new SIUs would be dependent on the number of SIUs that required new or revised limits. As permits are renewed, industries with significant TDS will be asked to monitor organic and inorganic fractions. In addition, costs of implementing pretreatment facilities at industrial facilities would be dependent on the type and quantity of pretreatment facilities implemented. For instance, a commercial laundry has recently applied for industrial laundry status and is implementing \$10 million of upgrades, including an acid softener to reduce TDS in the discharge to the sewer. Therefore, industrial source control costs are anticipated to fall within the City's current budget for implementation of its Industrial Pretreatment Program.

Potential RWCF and collection system salinity source controls include changes to chemical usage through process optimizations that reduce additions of salinity-contributing chemicals. The costs associated with implementing chemical changes at the RWCF and collection system cannot be estimated at this time, because the City is in the early stages of hiring a progressive design-build team for the work at the plant and doing a pilot study within the collection system.

As the City implements source control measures, monitoring will be performed to further characterize salinity load reductions associated with implementing these controls. Monitoring influent and effluent salinity loads at the RWCF will provide more information about the specific load reductions associated with each of the proposed source controls.

6 ANALYSIS OF ENVIRONMENTAL IMPACTS

Potential impacts of continued regulation of existing industrial sources of salinity to the RWCF would be negligible. Impacts associated with implementation of source control for future high salinity industries (e.g. brine disposal) that may result from the options development and feasibility study to be conducted will be evaluated as part of that investigation. The City is conducting a separate environmental review of its Capital Improvement and Energy Management Plan, which would address changes in chemical addition and associated discharged effluent quality.

7 REFERENCES

Robertson-Bryan, Inc. 2013. Report of Waste Discharge for NPDES Permit Renewal for the City Of Stockton Regional Wastewater Control Facility. Elk Grove, CA. Prepared for Central Valley Regional Water Quality Control Board, Rancho Cordova, CA, on behalf of the City of Stockton Municipal Utilities Department, CA. April.

Robertson-Bryan, Inc. 2014. *City of Stockton Regional Wastewater Control Facility Salinity Plan Update*. Elk Grove, CA. Prepared for Central Valley Regional Water Quality Control Board, Rancho Cordova, CA, on behalf of the City of Stockton Municipal Utilities Department, CA. August.

USEPA (United States Environmental Protection Agency). 1999. *Introduction to the National Pretreatment Program*. EPA-833-B-98-002. February.

USEPA (United States Environmental Protection Agency). 2004. *Local Limits Development Guidance*. EPA 833-R-04-002A. July.



CITY OF STOCKTON

MUNICIPAL UTILITIES • 2500 Navy Drive • Stockton, CA 95206 • 209-937-8700
www.stocktonca.gov

May 6, 2016

WDR Order No. R5-2014-0071-02

Permit Number: CA0079138

Via eMail to:

centralvalleysacramento@waterboards.ca.gov

Mr. Mohammed Farhad
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

CITY OF STOCKTON REGIONAL WASTEWATER CONTROL FACILITY (NPDES PERMIT ORDER NO. R5-2014-0070), SALINITY POLLUTION PREVENTION PLAN ANNUAL PROGRESS REPORT

In accordance with the City of Stockton (City) Regional Wastewater Control Facility (RWCF) National Pollutant Discharge Elimination System (NPDES) permit No. CA0079138, Order No. R5-2014-0070-02 adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on June 6, 2014 and amended on October 9, 2014 and December 11, 2015, we submit this Annual Progress Report for the Pollution Prevention Plan (PPP) for Salinity, due June 1 annually, per Monitoring Reporting Program Table E-12.

In 2015, the City prepared and submitted to the Central Valley Water Board an updated Salinity PPP, which identified the current sources of salinity-related constituents to the RWCF, evaluated source control methods, and provided a plan for implementation and monitoring. Controlling industrial sources and RWCF chemical additions were identified as the most feasible opportunities to control salinity in the RWCF effluent discharge. The City continues to control industrial sources of salinity loading to the RWCF through its Industrial Pretreatment Program and the issuance of TDS limits in industrial permits. Regarding chemical additions at the RWCF, the City is in the process of selecting a design-build firm to implement RWCF treatment processes that will meet current and future anticipated regulatory requirements. Chemical additions that affect salinity in the RWCF discharge will be addressed through this design process.

The RWCF effluent discharge continues to maintain compliance with the NPDES permit limitation for EC. The permit limitation is 1,300 $\mu\text{mhos/cm}$, as a calendar year average. Figure 1 shows that the calendar year average for year 2015 was 1,127 $\mu\text{mhos/cm}$.

CITY OF STOCKTON REGIONAL WASTEWATER CONTROL FACILITY (NPDES PERMIT ORDER NO. R5-2014-0070), SALINITY POLLUTION PREVENTION PLAN ANNUAL PROGRESS REPORT

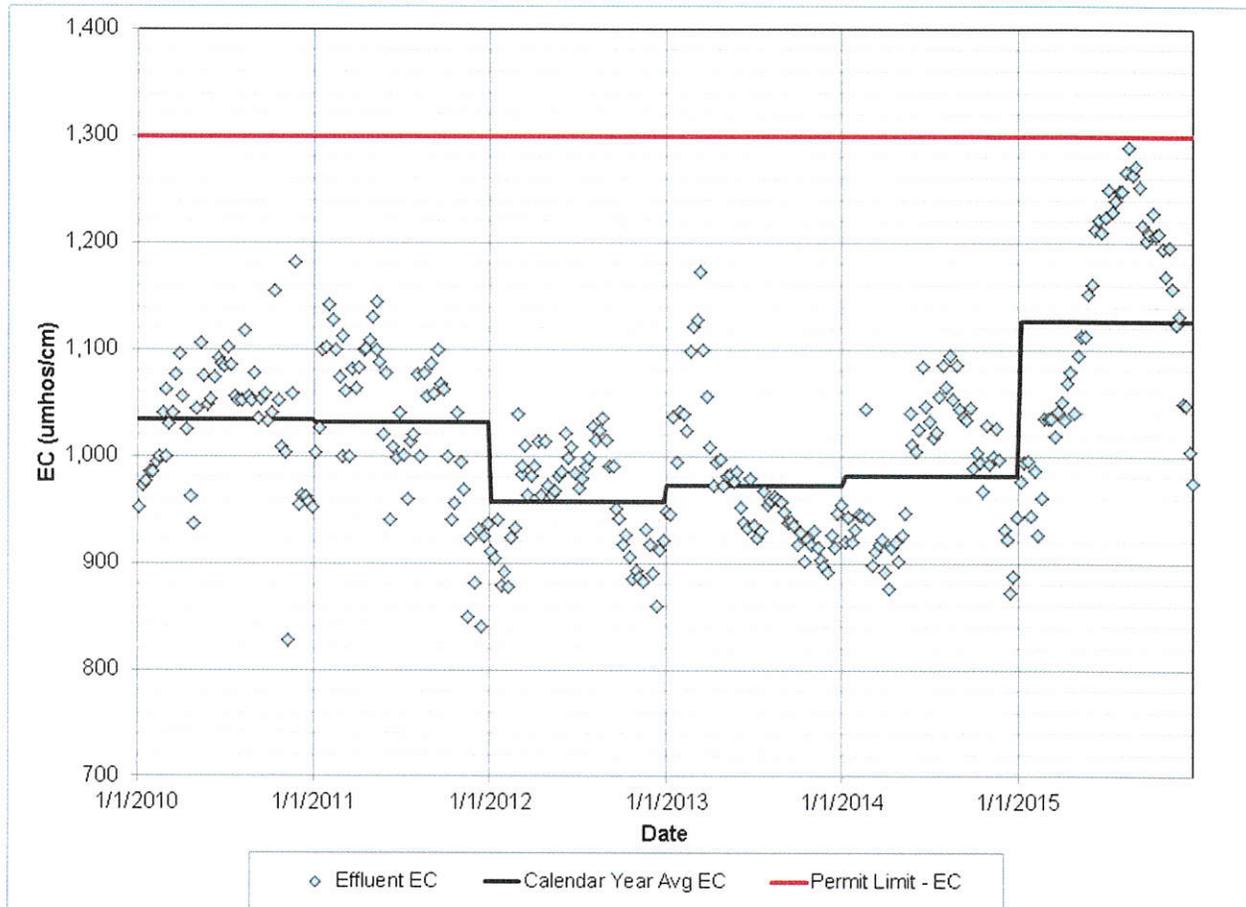


Figure 1. EC levels in the RWCF effluent and weighted average City of Stockton water supply for the period of January 1, 2010, through December 31, 2015.

Figure 1 shows a 145 µmhos/cm annual average increase in RWCF effluent EC in 2015 relative to 2014. As described in the 2015 PPP for salinity, the City’s water supplies are a contributing source of EC to the RWCF effluent. The City’s water supplies come from multiple groundwater and surface water sources, including surface water from the Delta treated at the City’s Delta Water Treatment Plant (DWTP). When the DWTP came online in May 2012, it provided the City with a lower salinity water supply compared to the groundwater sources previously relied upon to meet the City’s potable water demand. This is reflected in the lower effluent EC in 2012, 2013, and 2014, relative to prior years, shown in Figure 1. However, the weighted average water supply EC increased substantially in 2015 relative to 2014. In 2015, the average weighted water supply EC was 331 µmhos/cm, a 141 µmhos/cm increase over the 2014 average weighted water supply, which has a direct correlation to the increase in effluent EC. The increase in weighted average water supply EC is attributable to higher Delta water

CITY OF STOCKTON REGIONAL WASTEWATER CONTROL FACILITY (NPDES PERMIT ORDER NO. R5-2014-0070), SALINITY POLLUTION PREVENTION PLAN ANNUAL PROGRESS REPORT

supply EC, particularly during the months of March through July and in October of 2015, when compared to 2014, as shown in Table 1. This is not a controllable source of salinity to the RWCF. Because the RWCF discharge has been in compliance with the NPDES permit effluent limitation for EC, no additional actions to control salinity are proposed at this time.

Table 1. Delta Water Treatment Plant EC ($\mu\text{mhos/cm}$) for Finished Water

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	547	675	251	77	73	70	74	78	74	78	702	393
2015	472	614	548	528	583	357	314	71	72	330	390	366

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please do not hesitate to contact me at 209.937.8700 if you have any questions regarding this submittal.



ROBERT L. GRANBERG, P.E.
ACTING DIRECTOR OF MUNICIPAL UTILITIES

RLG:DAA:cla

ORDINANCE NO. 2015-12-08-1601

AN ORDINANCE REPEALING TITLE 13, CHAPTER 13.08 IN ITS ENTIRETY AND RENAMING AND REENACTING TITLE 13, CHAPTER 13.08 OF THE STOCKTON MUNICIPAL CODE REGARDING SEWER USE

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

SECTION I. FINDINGS AND INTENT

The City Council of the City of Stockton finds that the audit of the current Stockton Industrial Pretreatment Program by the Regional Water Quality Control Board (RWQCB) requires administrative changes to the Wastewater Discharges and Treatment Works ordinance.

The City Council finds that the current ordinance should be repealed in its entirety and Title 13 Chapter 13.08 should be renamed and reenacted with amendments to comply with the requirements of the Pretreatment Compliance Audit Report by the RWQCB. This reenacted ordinance will incorporate all of the required changes pursuant to the audit, clarify discrepancies in the existing ordinance, and contain updates involving standard operating procedures.

SECTION II. AMENDMENT OF CODE

Title 13, Chapter 13.08 of the Stockton Municipal Code is repealed in its entirety and Title 13, Chapter 13.08 is hereby renamed and reenacted to read as follows:

Chapter 13.08 SEWER USE

Article I. General Provisions

13.08.010 Purpose and policy.

A. This chapter sets uniform requirements for discharges into wastewater collection and treatment system and enables the City to comply with the administrative provisions of the Clean Water Act, the water quality requirements set by the Regional Water Quality Control Board and the applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required or authorized by State or Federal law, and to derive the maximum public benefit by regulating the quality and quantity of wastewater discharged into those systems. This chapter provides for the setting of user charges and fees for the equitable distribution of costs to all users, the issuance of permits to certain users, authorizes monitoring and enforcement activities, and requires user reporting. Revenues derived from the application of this chapter shall be used to defray the City's cost of operating and maintaining an adequate wastewater collection and treatment system and to provide sufficient funds for capital outlay, bond service costs, capital improvements and depreciation.

B. The objectives of this chapter to comply with the Clean Water Act are:

1. To prevent the introduction of pollutants into the municipal wastewater system which will interfere with the operation of the system or contaminate the resulting sludge;
2. To prevent the introduction of pollutants into the municipal wastewater system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system;
3. To improve the opportunity to recycle and reclaim wastewaters and sludges from the system; and
4. To provide for equitable distribution of the cost of the municipal wastewater system.

This chapter shall apply to the "City" and to persons outside the "City" who are, by contract or agreement with the "City," users of the "City" Publicly Owned Treatment Works (POTW). Except as otherwise provided herein, the Director of the Municipal Utilities Department shall administer, implement and enforce the provisions of this chapter

13.08.020 Reference to plumbing ordinance.

All plumbing ordinances shall remain in full force and effect, and nothing contained herein shall be construed as to waive any requirements contained therein.

13.08.030 Delegation of powers.

A power or duty of any City officer hereunder may be exercised by a person authorized pursuant to law by said officer.

13.08.040 Director to enforce.

The Director or designated representative shall enforce the provisions hereof and for such purposes shall have the powers of a peace officer. Such powers shall not limit or otherwise affect the powers or duties of any other City officials.

13.08.050 Minimum standards.

Sewage treatment plants and facilities shall be designated so as to protect underground and surface waters from pollution and prevent the creation of a nuisance or a menace to the public peace, health or safety.

13.08.060 Time limits.

Any time limit provided for herein may be extended by consent of the officer concerned.

13.08.070 City nonliability.

The provisions hereof shall not be construed to relieve from or lessen the responsibility of any person of the damages to life or property in the discharge of industrial wastes nor shall the City, nor any agent thereof, be held as assuming any liability by reason of performance of duties hereunder.

13.08.080 Definitions.

Unless the context specifically indicates otherwise, the following terms and phrases, as used in this chapter, shall have the meanings hereinafter designated:

“Act” or “the Act” means The Federal Water Pollution Control Act, and the Clean Water Act, and any amendments thereto.

“Administrative Fine” means a monetary penalty assessed by the Control Authority.

“Administrative Order” means a formal order which directs the industrial user to undertake or to cease specified activities. Administrative Orders may incorporate compliance schedules, timeframes, administrative penalties and suspension/termination of service orders.

“Approval authority” means the State of California Central Valley Regional Water Quality Control Board (Region 5).

"Authorized or Duly Authorized Representative of the User" means:

1. If the User is a corporation:

(a) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual wastewater discharge permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively;

3. If the User is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs 1 through 3, above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the Director.

“Beneficial uses” means uses of the waters of the State that may be protected against quality degradation include, but are not necessarily limited to: domestic, municipal, agricultural and industrial supply, power generation, recreation, aesthetic enjoyment, navigation and the preservation and enhancement of fish, wildlife and other aquatic resources or reserves, and other uses, both tangible or intangible as specified by Federal or State law.

“Best Management Practices (BMPs)” means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Section 13.08.100 of this Part, and 40 CFR 403.5(a)(1) and (b). BMPs include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

“Biochemical oxygen demand (BOD)” means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures, as described in the current edition of Standard Methods for the Examination of Water and Wastewater.

“Blowdown” means to discharge recirculating water for the purpose of discharging materials contained in the water which if allowed to build up further in the water would concentrate in amounts exceeding limits considered acceptable pursuant to best engineering practices.

“Building sewer” means a sewer conveying wastewater from the premises of the user to the POTW.

“Bypass” means to intentionally discharge wastewater to the sanitary sewer without pretreatment as specified by a Wastewater Discharge Permit.

“Categorical Industrial User” means an industrial user subject to a categorical Pretreatment Standard or categorical Standard.

“Categorical standards” means standards promulgated pursuant to Sections 307(b) and (c) of the Clean Water Act. “Cease and Desist” means a formal order requiring a user to stop violating Waste Discharge Requirements.

“Cesspools” means lined or partially lined underground pits into which raw sanitary sewage is discharged.

“CFR” means Code of Federal Regulations. “Chronic Discharge Limit Violation” means three or more violations of the same discharge limit in a six month period.

“City” means the City or the Stockton City Council. “Civil Action” means a legal action to compel a civil remedy.

“Collection system” means the combined pipes, conduits, manholes, and other structures, either above or underground, used to convey sanitary wastewater or stormwater.

“Color” means the optical density at the visual wave length of the maximum absorption, relative to distilled water with 100 percent transmittance equivalent to zero (0.0) optical density.

“Compliance Schedule” means a schedule of remedial measures included in an enforcement order or agreement including a sequence of interim requirements (milestone events and dates) that lead to compliance with Waste Discharge Requirements.

“Composite sample” means the sample resulting from a combination of individual wastewater samples taken at selected intervals based on increments of flow or time.

“Cooling water” means the water discharged from any uses such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

“Commercial or industrial sewage” means any and all liquids and/or solids contained within liquids from industrial, commercial or institutional processes except liquid borne wastes derived from the ordinary living processes and of such character as to permit satisfactory disposal, without special treatment, into the sanitary sewage system.

“Compatible pollutant” means biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, plus additional pollutants identified in the City’s National Pollution Discharge Elimination System (NPDES) permit.

“Contamination” means any impairment to the quality of the waters of the State by waste to a degree which creates a hazard to the public health through degradation or through the spread of disease. Contamination shall include any equivalent effect resulting from the disposal of wastewater, whether or not waters of the State are affected.

“Control authority” means the Director of the City Municipal Utilities Department or the Director’s duly appointed representative. “Correction Order” means a formal order which directs the industrial user to identify and correct causes of noncompliance.

“Critical user” means a user who is required to obtain an Industrial Waste Permit as defined in Section 13.08.310 of this chapter.

"Daily Maximum" means the arithmetic average of all effluent samples for a pollutant collected during a calendar day.

"Daily Maximum Limit" means the maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily Maximum Limits

are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

“Direct discharge” means the discharge of treated or untreated wastewater directly to the waters of the State.

“Director” means the Director of Municipal Utilities Department of the City.

“Discharge” means any measurable quantity of wastewater released to the public sewer.

“Domestic sewage” means wastewater which does not contain industrial or commercial process wastewater and which is discharged from a residential dwelling.

“Duplex” means a premises which is designated improved or used as a residence for two (2) families and no more, living separately in separate dwelling units, and which is not designed, improved or used for any other purpose.

“Effluent” means the liquid outflow of any facility designed to treat, convey or retain wastewater.

“Environmental Protection Agency (EPA)” means the United States Environmental Protection Agency, or, where appropriate, the term may also be used as a designation for the Administrator or other duly authorized official of said Agency.

“Excursion” means an unintentional and temporary incident in which any pollutant parameters of discharged wastewater exceeds the range set forth in this chapter.

“Existing source” means any source of discharge, the construction or operation of which commenced prior to the publication of proposed categorical pretreatment standards which will be applicable to such source if the standard is thereafter promulgated in accordance with Section 307 of the Act.

“Fats, Oil & Grease (FOG)” means any material that is extractable from an acidified sample of waste by hexane or other designated solvent, or any like material.

“Good Faith Effort” means prompt and vigorous pollution control measures undertaken by the discharger which shows that extraordinary efforts (not a “business-as-usual” approach) have been made to achieve compliance.

“Grab sample” means a sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time or strength.

“Gross Contamination” means any discharge to the sanitary sewer that has caused, or has ability to cause, the POTW to violate its Waste Discharge Requirements.

“Hazardous” means as defined in 40 CFR Part 261.3 or California Administrative Code Title 22 Article 11.

“Hazardous waste” means any wastes identified and or defined as “hazardous wastes,” “extremely hazardous wastes,” or “acutely hazardous wastes” pursuant to any provisions of the California Health and Safety Code, the Resource Conservation and Recovery Act, and any other Federal, State, or local regulation, law, or ordinance.

“Health officer” means the officer of the San Joaquin County Health District, or an authorized representative.

“Health Risk” means to discharge wastewater or other materials to the sanitary sewer that is an immediate health threat to the POTW or the public at large.

“Holding tank waste” means any waste from holding tanks such as vessels, chemical toilets, campers, trailers, boats, septic tanks and vacuum pump tank trucks.

“Incompatible pollutant” means any pollutant which is not a compatible pollutant as defined in this chapter.

“Indirect discharge” means the discharge of pollutants to a POTW from any nondomestic source regulated under Section 307(b), (c), or (d) of the Federal Clean Water Act, including discharges of holding tank waste to the POTW.

“Industrial connection sewer” means the sewer between the property line and the public sewer through which liquid industrial waste is discharged.

“Industrial user” means any source of indirect discharge.

“Industrial waste” means either liquid or solid waste from any industrial or commercial process or activity.

“Inspector” means the authorized inspector or representative of the Director.

“Instantaneous Limit” means the maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

“Institutional owner” means any owner, public or private, operating a public or nonprofit school, church, hospital, lodge, club, fire department, library, memorial building or other public or nonprofit activity.

“Interference” means a discharge which alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW treatment processes, its operations, or its sludge process, use or disposal; and, therefore, causes a violation or increases the magnitude or duration of a violation of the POTW’s NPDES permit, or prevents sewage sludge

use or disposal as required by applicable Federal, State, or local statutes, regulations, or permits, including, but not limited to, permits issued under the Solid Waste Disposal Act (SWDA), Title II more commonly referred to as the Resource Conservation and Recovery Act (RCRA), State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA, the Clean Air Act, or the Toxic Substances Control Act. A user shall be deemed to have contributed to the POTW's permit violation whenever the user:

1. Discharges a daily pollutant loading in excess of that allowed by Federal, State, or local regulations or law or the user's permit, if any, with the POTW;
2. Discharges wastewater which substantially differs in nature or constituents from the user's average discharge; or
3. Discharges when the user knows or has reason to know that its discharge, alone or in conjunction with discharges from other sources, would result in a POTW permit violation or prevent sewage sludge processing, use, or disposal as required by the above-referenced authorities as they apply to the POTW's selected method of sludge management.

"Isolated Discharge Limit Violation" means a single violation of a discharge limit in a six-month period.

"Local Limit" means specific discharge limits developed and enforced by the City upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b).

"Lower explosive limit (LEL)" means the minimum concentration of a combustible gas or vapor in air which will ignite if an ignition source is present.

"Mass emission rate" means the mass of materials discharged to the sewage system during a given time interval. Unless otherwise specified under Federal, State, or local laws or regulations or in the user's permit, if any, with the POTW, the mass emission rate shall mean pound per day of a particular constituent or combination of constituents.

"Medical waste" means isolated wastes, infectious agents, human blood and blood byproducts, pathological wastes, sharps, body parts, fomites, etiologic agents, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes and dialysis wastes.

"Monthly Average" means the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

"Monthly Average Limit" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

“Multiple-family dwelling unit” means a premises which is designed, improved or used as a residence for three (3) or more families, living separately in separate dwelling units, and which is not designed, improved or used for any other purpose.

“National Pollution Discharge Elimination System (NPDES)” means a permit issued by the Approval Authority pursuant to the Act which allows the POTW to discharge to the waters of the State.

“National pretreatment standards,” “pretreatment standards” or “standards” means any regulation containing pollutant discharge limits promulgated by EPA under Sections 307 (b) and (c) of the Clean Water Act applicable to industrial users, including the general and specific prohibitions found in 40 CFR 403.5 and limits established by the City as set forth under Sections 13.08.250 and 13.08.260 of this chapter and any additional pretreatment limitations set forth in any permit issued by the City pursuant to this chapter.

“New source” means:

1. Any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed pretreatment standards under Section 307 (c) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that Section, provided that:

a. The building, structure, facility, or installation is constructed at a site at which no other source is located; or

b. The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

c. The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.

2. Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility, or installation meeting the criteria of paragraph (1)(b) or (c) of this definition but otherwise alters, replaces, or adds to existing process or production equipment.

3. Construction of a new source as defined under this definition has commenced if the owner or operator has:

a. Begun, or caused to begin, as part of a continuous on-site construction program:

i. Any placement, assembly, or installation facilities or equipment, or

ii. Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

b. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this definition.

"Noncontact cooling water" means water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

"Nonpermitted Discharge" means any discharge to the sanitary sewer without first obtaining a Wastewater Discharge Permit.

"Notice of Violation" means an official notice that a violation of Waste Discharge Requirements has occurred.

"Nuisance" means anything which is injurious to health or is indecent or offensive to the senses or an obstruction to the free use of property so as to interfere with the comfort or enjoyment of life or property or which affects at the same time an entire community or neighborhood or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

"Other residential" means a building or group of buildings containing individual guest rooms for one or more guests, including, but not limited to, motels, boarding houses, hotels, rooming houses, dormitories, fraternities, sororities, etc.

"Pass through" means a discharge which exits the POTW in quantities or concentrations which, alone or with discharges from other sources, causes or contributes to a violation or increases the magnitude of the violation of the POTW's NPDES permit. A user shall be deemed to have contributed to the POTW's permit violation whenever the user:

1. Discharges a daily pollutant loading in excess of that allowed by Federal, State, or local law or pursuant to the user's contract, if any, with POTW;
2. Discharges wastewater which substantially differs in nature or constituents from the user's average discharge; or
3. Discharges when such user knows or has reason to know that its discharge, alone or in conjunction with discharges from other sources, would result in a permit violation; or
4. Discharges when such user knows or has reason to know that the POTW is violating the final effluent limitations of its permit and the user's discharge, alone or in

conjunction with discharge or discharges from other sources, increases the magnitude or duration of the POTW's violation.

“Permittee” means the person, firm, or organization to whom a permit has been issued in accordance with this chapter.

“Person” means any individual, partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, and the singular shall include the plural where indicated by the context.

“pH” means the scale of 1 to 14 which measures acidity and alkalinity; 7.0 being neutral, 0-7 being acidic, and 7-14 being basic or alkaline. Technically, it is the logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

“Plumbing fixture” means any item which contains a collection device for wastewater connected directly or indirectly to the sanitary sewage system, including, but not limited to, a toilet, urinal, shower, tub, sink, basin, lavatory, floor drain, or automatic washing machine.

“Point of discharge” means the point at which any private sewer joins the public sewer lateral.

“Pollutant” means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

“Pollution” means an alteration of the quality of the waters of the State by waste to a degree which unreasonably affects either the waters for beneficial uses, or the facilities which serve such beneficial uses. Pollution may include contamination.

“Premises” means a parcel of real estate including any improvements thereon which is determined by the City to be used for the purpose of receiving, using, and paying for a service provided by the City.

“Pretreatment” or “treatment” means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical, or biological processes, or process changes or other means, except as prohibited in 40 CFR.

“Pretreatment requirements” means any substantive or procedural requirement related to pretreatment, other than a national pretreatment standard imposed on an industrial user.

"Pretreatment Standards or Standards" means prohibited discharge standards, categorical Pretreatment Standards, and Local Limits.

"Public corporation" means the City or any political subdivision of the City, County, district, the State, or the United States of America, or any department or agency thereof. The singular shall include the plural.

"Public sewer" means a sewer owned and operated by the City or other public agency tributary to a treatment works operated by the City and dedicated to public use.

"Publicly Owned Treatment Works (POTW)" means a system of conveyances and treatment for sewage and industrial wastes which is owned by the City. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW. It also refers to the government officials responsible for operation and maintenance of the collection system and/or treatment plant and the administration of the pretreatment program.

"Radioactive material" means any material containing chemical elements which spontaneously change their atomic structure with the emission of atomic energy.

"Reclaimed water" means water which, as a result of treatment of waste, is suitable for direct beneficial use or a controlled use that would not otherwise occur.

"Recurring Discharge Limit Violation" means a second violation of the same discharge limit in a six-month period.

"Sanitary sewer" means a main line sewer for the acceptance of any sewage or liquid waste except stormwater, surface water, groundwater, roof runoff or other unpolluted water.

"Septic tank waste" means any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

"Sewage" means water or a combination of liquid or water containing human waste conducted away from residences, business buildings, and institutions which is known as domestic or sanitary, together with the liquid or water carried waste resulting from a manufacturing process employed in commercial or industrial establishments including washing, cleaning, or drain water from such processes which is known as industrial waste.

"Sewerage system" means all sewer treatment plants and all other facilities owned and operated by the City for carrying, collecting, treating, and disposing of sanitary sewage and industrial waste.

"Shall or May": "shall" is mandatory; "may" is permissive.

“Shock Load” means any discharge to the sanitary sewer that has caused interference or pass-through at the POTW, or has caused the POTW to violate its Waste Discharge Requirements.

“Show Cause” means a formal meeting requiring the industrial user to appear and demonstrate why the Control Authority should not take a proposed enforcement action against it. The meeting may also serve as a forum to discuss corrective actions and compliance schedules.

“Significant industrial user” means any categorical or other industrial user which:

1. Discharges 25,000 gallons or more of process wastewater per day, excluding sanitary, noncontact cooling, and boiler blowdown wastewater; or
2. Contributes a process wastewater which makes up five (5) percent or more of the dry weather average hydraulic or organic capacity of the POTW; or
3. Is designated as such by the control authority on the basis that it has a reasonable potential for adversely affecting the POTW’s operation or for violating a pretreatment standard or requirement.

“Significant noncompliance” means as defined by 40 CFR 403.8(f)(2)(viii) and Section 13.08.500 of this chapter.

“Single-family dwelling unit (SFDU)” means a premises which is designed, improved, or used as a residence for one (1) family only, and which is not designed, improved, or used for any other purpose.

“Sludge” means any solid, semisolid, or liquid decant, subnate, or supersubnate produced by any manufacturing process, utility service, or pretreatment facility operation.

“Slug load or slug discharge” means any discharge at a flow rate or concentration which could violate the discharge standards set forth in Section 13.08.100 of this chapter or any discharge of a nonroutine episodic nature including, but not limited to, an accidental spill or a noncustomary batch discharge.

“Standard buffer” means a solution prepared with a known pH, and, when compared with the National Bureau of Standard’s Reference Material, has a tolerance of plus or minus 0.02 pH at 25 degrees Celsius.

“Standard Industrial Classification (SIC)” means a standardized classification of all industrial users according to their primary processes, products or services pursuant to the current edition of the Standard Industrial Classification Manual issued by the Executive Office of the President of the United States, Office of Management and Budget.

“State” means State of California.

“Stored liquid wastes” means liquid wastes that have been collected and held in tanks or containers. Wastes of this category include but are not limited to:

1. Septic tank pumping;
2. Chemical toilet wastes;
3. Trailer, camper, housecar or other recreational vehicle wastes;
4. Cesspool pumping; and/or
5. Leach pit pumping.

“Storm drainage system” means all conduits, pumping plants, collection facilities, and other appurtenances owned and operated by the City for carrying, collecting, pumping and disposing of stormwater, surface water, groundwater, roof runoff or other unpolluted water.

“Stormwater” means any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.

“Temporary Suspension” means the temporary suspension of sewer service pending successful completion, installation, demonstration of treatment equipment or payment of fines and/or fees.

“Termination” means a physical blockage of the sewer connection to a noncompliant user or issuance of a formal order requiring a user to stop discharging process or other wastewater to the sanitary sewer.

“Total suspended solids (TSS)” means as defined in Section 209 of Standard Methods for the Examination of Water and Wastewater, prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, Washington, D.C.

“Total toxic organics (TTO)” means the sum of the masses of concentrations of specific toxic organic compounds in the wastewater discharge at a concentration greater than 0.01 mg/l as referenced in 40 CFR, Part 413.02.

“Toxic pollutant” means any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provision of Clean Water Act Section 307(a) or other acts.

“Unpermitted Discharge” means any discharge to the sanitary sewer not allowed by an existing Wastewater Discharge Permit.

“Unpolluted water” means water to which no pollutant has been added, either intentionally or accidentally, which would render such water unacceptable to the agency having jurisdiction thereof for disposal to storm or natural drainages or directly to surface waters.

“User” means any person who contributes, causes, or permits the contribution of wastewater into the City’s POTW.

“User charge system” means a method for assessing fees for operations and maintenance of the POTW as set forth in 40 CFR, Part 35.

“User classification” means a classification of user based on the current edition of the SIC Manual.

“Waste” means and includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature, including such waste placed within containers of whatever nature prior to, and for purposes of disposal.

“Wastewater” means the liquid portion of industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, which may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.

“Wastewater constituents and characteristics” means the individual chemical, physical, bacteriological and radiological parameters, including volume and flow rate, and such other parameters that serve to define, classify or measure the contents, quality, quantity and strength of wastewater.

“Wastewater discharge permit” means as set forth in Section 13.08.310 of this chapter.

“Waters of the State” means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.

13.08.090 Abbreviations.

The following abbreviations shall have the designated meanings:

AF	-	Administrative Fine
AO	-	Administrative Order
BMP	-	Best Management Practices
BMR	-	Baseline Monitoring Report
BOD		Biochemical oxygen demand
CFR	-	Code of Federal Regulations
CIU	-	Categorical Industrial User
CO		Correction Order

COD		Chemical oxygen demand
EPA	-	Environmental Protection Agency
gpd	-	gallons per day
IU	-	Industrial User
l	-	Liter
mg	-	Milligrams
mg/l	-	Milligrams per liter
NOV	-	Notice of Violation
NPDES	-	National Pollutant Discharge Elimination System
pH	-	Hydrogen ion concentration
POTW	-	Publicly owned treatment works
RCRA	-	Resource Conservation and Recovery Act
SFDU	-	Single-family dwelling unit
SIC	-	Standard industrial classification
SIU	-	Significant Industrial User
SMC	-	Stockton Municipal Code
SNC	-	Significant Noncompliance
SWDA	-	Solids Waste Disposal Act, 42 USC 6901, et seq.
TOC	-	Total organic carbon
TRC	-	Technical Review Criteria
TSS	-	Total suspended solids
TTO	-	Total toxic organics
USC	-	United States Code

Article II. Regulations

13.08.100 General discharge prohibition.

A. The rules and regulations set forth in this chapter shall be in addition to the Uniform Codes title (Title 15) of the Stockton Municipal Code and in no way diminish the authority set forth therein.

B. No user shall contribute or cause to be contributed directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the POTW. These general provisions apply to all such users of the POTW whether or not the user is subject to National Categorical Pretreatment Standards or any other national, State or local pretreatment standards or requirements.

C. For the purpose of verifying compliance with this section, the Director and/or the Director's designated representative may use a single grab sample collected from any tank, treatment unit and sink, holding tank, trench, sump, process or other device which may discharge waste to the sanitary sewer. The above sample may be collected at the source of discharge prior to the dilution with any other streams.

D. A user may not contribute the following substances to any POTW:

1. Pollutants introduced into POTWs by a nondomestic source shall not pass through the POTW or interfere with the operation or performance of the POTW. These general prohibitions and the specified prohibitions in this section apply to all nondomestic sources introducing pollutants into a POTW whether or not the source is subject to other national pretreatment standards or any national, State, or local pretreatment requirements.

2. Any liquids, solids or gases which by reason of their nature or quantity within the waste stream are, or may be, sufficient, either alone or by interaction with other substances, to cause fire or explosion, cause the waste stream to have a closed cup flashpoint of less than 140 degrees F or 60 degrees C when tested following the procedures and methods specified in 40 CFR 261.21, or may be injurious in any other way to the POTW or to the operation of the POTW. At no time shall two (2) successive readings on an explosion hazard meter at the point of discharge into the system (or at any point in the system) be more than five (5) percent nor any single reading more than 10 percent of the lowest explosive limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides.

3. Solids or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities.

4. Any wastewater having a pH less than 5.0, more than 10.0, or in excess of the limitations specified in any more stringent permit or regulation or wastewater the user knows or has reason to know has any other corrosive property capable of causing damage or hazard to structures, equipment and/or personnel of the POTW. Excursions in pH greater than 10.0 but less than 12.5 may be allowed providing the duration of these excursions does not exceed:

- a. A total of 60 minutes continuously for any individual excursion.
- b. An aggregate of no more than seven (7) hours and 26 minutes in any calendar month.

5. Any waste defined as hazardous by any definition set forth in any Federal, State, or local regulation, statute, or ordinance, unless such waste has been delisted or decertified by the agency having authority to do so or a variance has been granted by the appropriate Federal, State, or local agency, including provisions for discharge to the City sewer, which variance must be approved by the Director.

6. Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a categorical pretreatment standard. A toxic pollutant shall include, but not be limited to, any pollutant identified pursuant to the Act.

7. Any noxious or malodorous liquids, gases, or solids which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or hazard to life or health, or is sufficient to prevent entry into the sewerage system for maintenance and repair.

8. Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, or State criteria applicable to the sludge management method being used.

9. Any substance which will cause the POTW to violate its NPDES and/or State disposal system permit or the receiving water quality standards.

10. Any wastewater with objectionable color not removed in the treatment process.

11. Any wastewater with heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW exceeds 40 degrees C (104 degrees F) or exceeds 60 degrees C (140 degrees F) at the point of discharge.

12. Any pollutants, including oxygen-demanding pollutants (BOD, etc.), released at a flow rate and/or pollutant concentration which a user knows or has reason to know will cause interference to the POTW unless the user was in compliance with local limits applicable to its discharge or, if no local limits for parameters discharged exist, can demonstrate that its discharge directly prior to and during the instance of pass through or interference, did not change substantially from its prior discharges when the POTW was in compliance with its NPDES permit. In no case shall a sudden unexpected discharge have a flow rate or contain concentrations or qualities of pollutants that exceed, for any period longer than 15 minutes, more than five (5) times the average 24-hour concentration, quantities, or flow during normal operation.

13. Any wastewater containing radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by applicable State or Federal regulations.

14. Any wastewater which causes a hazard to human life or the environment or creates a public nuisance.

15. Unpolluted water, including, but not limited to, storm water, surface water, ground water, artesian well water, irrigation water, roof runoff, subsurface drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater, unless specifically authorized by the Director.

16. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.

17. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

18. Detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW.

19. Sludges, screenings, or other residues from the pretreatment of industrial wastes.

E. Wastes prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW. All floor drains located in process or materials storage areas must discharge to the industrial user's pretreatment facility before connecting to the POTW.

F. The City may approve the temporary discharge of such water only when no reasonable alternate method of disposal is available.

G. When the Director determines that a user(s) is contributing to the POTW any of the above-enumerated substances in such amounts as to interfere with the operation of the POTW, the Director may take such action as deemed necessary to correct the interference with the POTW.

13.08.110 Quantity of discharge.

The quantity of waste to be discharged from an industry shall be limited to the capacity of the existing public sewerage facilities to handle the flow. Arrangements for additional capacity required shall be negotiated before any such discharge is authorized.

13.08.120 Limitations on point of discharge.

A. No person shall discharge any substance prohibited in Section 13.08.100 of this chapter or any other substance, including, but not limited to, domestic sewage in excess of 50 gallons directly into a maintenance hole or other opening in a public sewer or an approved building sewer, unless a written application for such discharge has been filed with the City, the applicable user charges and fees have been paid, and the City has, in its discretion, issued a permit or letter of acceptance authorizing such direct discharges for the purposes and for the substances specified in the permit/letter of acceptance application.

B. It is unlawful for any applicant for a permit pursuant to this section to knowingly submit an application containing false or inaccurate information. Such submission of a false or inaccurate application shall result in revocation of the permit. In addition, the City Attorney may file criminal charges against any such discharger or pursue any other remedy available pursuant to this chapter or otherwise at law.

13.08.130 Discharges to waters of the State.

Any discharges to the waters of the State which are not indirect discharges to the POTW, shall meet all applicable State and Federal regulations governing these discharges.

13.08.140 Dilution.

No user shall increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or in any other pollutant-specific limitation developed by the City or State.

13.08.150 Accidental and slug load discharges prevention and notification.

A. Detailed Plans.

1. Each user shall provide protection from accidental and slug load discharges of prohibited materials or other substances regulated by this chapter. Facilities to prevent accidental and slug load discharges of prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide protection from any potential problems, including accidental discharges and slug loading, shall be submitted to the City for review and shall be approved by the City before construction of the facility. The plan shall outline the user's discharge practices (including nonroutine batch discharges), describe stored chemicals, and contain procedures for immediately notifying the POTW and preventing adverse impacts from any such discharges.

2. No user who commences contribution to the POTW after the effective date of the ordinance codified in this chapter shall be permitted to introduce pollutants into the system until accidental discharge procedures and slug load plans have been approved by the City. Review and approval of such plans and operating procedures shall not relieve the user from the responsibility to modify the user's facility as necessary to meet the requirements of this chapter. Users are required to notify the Director immediately of any changes at its facility affecting the potential for a slug discharge. In the case of an accidental or slug load discharge, it is the responsibility of the user to immediately notify the POTW of the incident. Notification shall identify the location of the discharge, the type, concentration, and volume of waste, and corrective actions taken and/or anticipated.

B. **Written Notice.** Within five (5) calendar days following an accidental or slug load discharge, the user shall submit to the Municipal Utilities Department a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liabilities which may be imposed by this chapter or other applicable law.

C. Notice to Employees. A notice shall be posted on the user's bulletin board or other prominent place advising employees who to call in the event of an accidental or slug load discharge. Employers shall insure that all employees who may cause such an accidental or slug load discharge to occur are advised of emergency notification procedures.

13.08.160 Holding tank waste.

A user proposing to discharge holding tank waste into a sanitary sewer must secure prior written approval 90 calendar days prior to the anticipated discharge, or at such other time as prescribed by the Director. Unless allowed by the City under the terms and conditions of the approval, a separate written approval must be secured for each separate discharge. Application to the City will State the specific location of the discharge, the time of day the discharge is to occur, the volume of the discharge and the wastewater constituents and characteristics of the discharge. If approval is granted for the discharge of such waste into a sanitary sewer, the user shall pay the applicable user charges and fees and shall meet such other conditions as required by the City.

13.08.170 Wash rack waste.

No person owning or operating a private or public automobile wash rack shall permit any water or effluent therefrom to flow into any public sewer unless such wash rack is roofed over and is equipped with a sand-oil interceptor approved by the Director of Municipal Utilities or his or her representative.

13.08.180 Draining of swimming pools.

Water from swimming pools whether public or private shall not be discharged into a storm sewer or gutter. All swimming pool water must be discharged into a sanitary sewer.

13.08.190 Conditions of laterals and sewer connections.

All persons shall keep their sewer laterals or sewer connections in good order at their own expense and shall be liable for any damages which may result from their failure to do so.

13.08.200 Connection to sanitary sewerage system.

There shall be a separate connection to the sanitary sewerage system for each premises served except when otherwise authorized by the Director.

13.08.210 Encroachment permit and compliance to Plumbing Code.

Connection to the sanitary sewerage system shall be made only after securing an encroachment permit from the Department of Public Works. Permits for sanitary sewer lines constructed on private property shall be obtained in accordance with the provisions of the Plumbing Code of the City.

13.08.220 Users outside of City boundaries.

A. All users of the POTW outside of City boundaries shall comply with the regulations set forth in this chapter, and the regulations shall apply equally to all of the users.

B. The plumbing upon the property and in all buildings that are constructed that are to be connected to the City sewerage system shall comply with the Plumbing Code of the City. The owner or lessee of such property shall make application to connect as hereinbefore provided, obtain a plumbing permit from the Community Development Department, Building Division of the City and pay the inspection fee required by said Plumbing Code.

13.08.230 National Categorical Pretreatment Standards.

All users affected by the National Categorical Pretreatment Standards shall comply with the standards as set forth in 40 CFR Chapter 1, Subchapter N, chapters 405-471. However, with regard to those categorical standards where the POTW has adopted limits more stringent than those contained in the National Categorical Pretreatment Standards, the specific prohibitions or limits on pollutants or pollutant parameters as developed by a POTW in accordance with the general discharge prohibitions as set forth in Section 13.08.100 of this chapter shall be deemed the applicable pretreatment standards. The Director shall notify all affected users of the applicable reporting requirements.

13.08.240 Modification of National Categorical Pretreatment Standards.

Where the City's wastewater treatment system achieves consistent removal of pollutants limited by Federal pretreatment standards, the City may apply to the approval authority for modification of specific limits in the Federal pretreatment standards.

13.08.250 Local Limits.

A. The Director is authorized to establish Local Limits pursuant to 40 CFR 403.5(c).

B. The following pollutant limits are established to protect against pass through and interference. No person shall discharge wastewater containing in excess of the following instantaneous limits and/or daily maximum limits: 6.0 mg/l arsenic, total

2.0 mg/l cadmium, total

6.0 mg/l copper, total

4.0 mg/l cyanide, total

2.0 mg/l lead, total

0.1 mg/l mercury, total

5.0 mg/l nickel, total

- 1.5 mg/l silver, total
- 5.0 mg/l chromium, total
- 7.0 mg/l zinc, total
- 200 mg/l oil & grease, total
- 100 mg/l oil & grease, nonpolar (mineral/petroleum)
- 5.0 - 10.0 pH
- 140 degrees F temperature (at point of discharge)

The Director may impose mass limitations in addition to the concentration-based limitations above.

13.08.260 State requirements.

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this chapter.

13.08.270 City's right of revision.

The City reserves the right to establish by ordinance more stringent limitations or requirements on discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in this chapter.

13.08.280 Discharge of petroleum contaminated groundwater.

It is unlawful for any person to discharge petroleum contaminated groundwater to the sanitary sewer collection system of the City, except as provided for hereunder, and in accordance with the following conditions and restrictions:

A. The maximum allowable concentration of total petroleum hydrocarbons in the discharge entering the sanitary sewer shall be 100 mg/l. Compliance with this provision will be enforced by periodic self-monitoring and laboratory analysis by the discharger for total petroleum hydrocarbons over the course of the discharge. Sample collection, frequency of sampling, point of discharge, volumetric or seasonal restrictions, or other discharge conditions and limitations will be as specified in the discharge permit which shall be issued by the Director of Municipal Utilities.

B. Discharges shall not exceed a concentration of 4.57 mg/l of total toxic organics (as currently listed by the Environmental Protection Agency for categorical electroplating dischargers, 40 CFR 413.02 (i)). Compliance with this provision will be enforced by grab samples obtained no less than once during the permit term. Analytical procedures will be in

accordance with EPA rules in Guidelines Establishing Test Procedures for the Analysis of Pollutants: Final Rule (40 CFR Part 136) Methods 624 and 625. In addition, analysis by the permittee for benzene, toluene, xylene and ethylbenzene (BTXE) will be required at frequencies coinciding with the sampling and analysis for total petroleum hydrocarbons.

C. The discharger shall provide a recording lower explosive limit (LEL) monitor. Installation will be at a location in the discharge system prior to entry into the sanitary sewer. The monitor is to be calibrated in a manner that indicates the percentage of LEL of gasoline and shall be connected to the facility in such a way that an alarm will be triggered at 10 percent of the LEL of gasoline and the entire facility will be automatically shut down. The monitor shall be calibrated and maintained with a quality assurance program satisfactory to the Director of Municipal Utilities. If, after a period of evaluation, it is determined by the Director or a designated representative that continuous recording is no longer needed, the provision of a recorder may be deleted.

D. The Director or a designated representative shall have access to the facility shutdown switch as well as copies of keys to all locked enclosures at the site and shall be provided access to the facility for purposes of inspection.

E. The discharger shall provide flow monitoring and recording equipment and sampling taps or equipment in order to comply with these rules.

F. The discharger shall insure that all pretreatment facilities including, but not limited to, flow measuring and LEL monitors, are maintained in proper working order at all times. All measuring devices are to be calibrated for accuracy at a frequency as prescribed by the manufacturer of the monitoring device by a qualified technician approved by the Director.

G. In the event a required flow measuring device is found to be inoperative or to provide unreliable information as determined by the Director or a designated representative, maximum volumes will be used for billing purposes until such time as the equipment is restored to proper working order and approved by the Department of Municipal Utilities.

H. All costs incurred by the Municipal Utilities Department for administration and treatment of the discharge are to be paid for by the discharger according to the rates specified for the commercial category in the schedule of wastewater service fees in effect at the time of the discharge.

I. Connection fees for dischargers will be assessed monthly in accordance with the rate resolution of the Stockton City Council for the commercial user category, amortized over a 30-year period.

J. Any costs incurred by the Municipal Utilities Department for sampling and analysis of the discharge in accordance with the City's pretreatment program will be paid for by the discharger.

K. All sampling procedures, schedules, and handling provisions must be satisfactory to the Director of Municipal Utilities and all analyses must be conducted by a laboratory certified by the California Department of Health Services for the specific analysis conducted.

13.08.290 Hauled wastewater.

A. Septic tank waste may be introduced into the POTW only at locations designated by the Director, and at such times as are established by the Director. Such waste shall not violate Section 13.08.100 of this Part or any other requirements established by the City. The Director may require septic tank waste haulers to obtain individual wastewater discharge permits.

B. The Director may require haulers of industrial waste to obtain individual wastewater discharge permits. The Director may require generators of hauled industrial waste to obtain individual wastewater discharge permits. The Director also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this Part.

C. Industrial waste haulers may discharge loads only at locations designated by the Director. No load may be discharged without prior consent of the Director. The Director may collect samples of each hauled load to ensure compliance with applicable Standards. The Director may require the industrial waste hauler and/or generator to provide a waste analysis of any load prior to discharge.

D. Waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the waste hauler, truck identification, names and addresses of sources of waste, and volume and characteristics of waste.

Article III. Administration

13.08.300 Establishing rules and regulations.

The City Manager is hereby authorized to establish any rules and regulations necessary for the enforcement of this article. He or she may delegate and appoint members of the City Administration to act on his or her behalf.

13.08.310 Wastewater discharge permits.

A. **Mandatory Permit.** All users proposing to connect to or discharge into a sanitary sewer must obtain a wastewater discharge permit before connecting to or discharging into a sanitary sewer:

Any user who desires to increase or change the nature or constituents of its discharge to its existing connection must notify the control authority and apply for a change to its permit conditions 90 calendar days prior to the effective date of the anticipated change, or at such other time as prescribed by the Director. The user shall not increase or change the flow as indicated in this subsection before receiving authorization to do so from the control authority. Failure to report and obtain prior approval for said increase or change may result in the City's terminating

the existing permit, assessing administrative penalties, or the City availing itself of any other remedy authorized by this chapter.

B. Optional Permits. The Director may issue a wastewater permit to any user, upon application, in accordance with the terms of this section in the following categories:

1. A user who requires the user charges and fees to be based on an estimation of wastewater flow.

2. Any user whose wastewater strength is less than normal range for the user classification to which it is assigned because of pretreatment, process changes, or other reasons.

C. Permit Application. Users required to obtain a Wastewater Permit shall complete and file with the City an application in the form prescribed by the City. Proposed new users or existing users desiring to increase or change their existing flow (as indicated in subsection A of this section of this chapter) shall apply for a permit or change in existing permit conditions 90 calendar days prior to the anticipated connection date or date of increase or change, or at such other time as prescribed by the Director. Failure to file an application in accordance with this section may result in a denial of the user's application, termination of existing connections or permits, the assessment of administrative penalties by the City, or the City otherwise pursuing legal, equitable, or injunctive relief as authorized by this chapter or otherwise available under California or Federal law.

D. Permit Duration. Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than five (5) years or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of 90 calendar days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the City during the term of the permit as limitations or requirements are identified or other just cause exists. The user shall be informed of any proposed changes in its permit at least 30 calendar days prior to the effective date for the required change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

E. Permit Transfer. Wastewater discharge permits are issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned, transferred, or sold to a new owner, new user, different premises, or a new or changed operation, and shall not extend to an increase in usage, discharge, or operations by an existing user without the approval of the City. Any succeeding owner or user shall apply for a wastewater discharge permit 30 calendar days prior to change of ownership and shall also comply with the terms and conditions of the existing permit until a new permit is issued.

F. Users (including Significant Industrial Users). In addition to the provisions set forth above, regarding the duration and transferability of permits, permits issued to users shall specify, in detail, the requirements for self-monitoring, sampling, reporting, notification, and record keeping; the applicable Federal, State, and local effluent limitations, including Best

Management Practices, based on applicable Pretreatment Standards; and the administrative, civil, and criminal penalties which may be pursued in cases of noncompliance.

13.08.320 Reporting and monitoring requirements.

A. The Director shall require users, including Significant Industrial Users, to submit periodic monitoring and compliance reports. Such reports may consist of baseline monitoring reports, compliance schedule reports, reports on compliance with categorical deadlines, periodic reports from categorical users, and periodic compliance reports from significant noncategorical users, and, at a minimum, shall comply with the reporting requirements set forth in 40 CFR 403.12. In addition, industrial users subject to national pretreatment standards shall comply with all requirements governing those standards. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (BMP) or pollution prevention alternative, the user shall submit documentation required by the Director or the Pretreatment Standard necessary to determine the compliance status of the user.

B. All reports and documentation required to be submitted pursuant to this section shall be signed by an Authorized or Duly Authorized Representative of the User and shall contain a certification statement as that required by 40 CFR 403.6(a)(2)(ii) which shall attest to the integrity of the analytical data submitted. Furthermore, all such users must keep records of monitoring activities and results for a minimum of three (3) years, or longer in the case of unresolved litigation or when requested to do so by the approval authority.

C. Industrial users shall notify the POTW at least ten (10) calendar days, if possible, prior to releasing any discharge which differs from the terms of the permit in measurable amounts with regard to the volume or character of pollutants contained in the discharge, including hazardous wastes. In addition, all users shall immediately notify the POTW and the appropriate local, State, and Federal agencies of any discharge which would be considered a hazardous waste if disposed of in a different manner. Any verbal notice given to the POTW as required by this chapter shall be followed by a written report of the particulars of each such incident within five (5) calendar days after the user becomes aware or should have become aware of the discharge. In addition, all industrial users shall promptly notify the POTW at least ten (10) calendar days, if possible, in advance of any substantial change in the volume or character of pollutants in their discharge.

D. Where sampling by a user, conducted pursuant to this section, indicates a violation, the user shall notify the POTW within 24 hours of becoming aware of the violation. Within 30 calendar days of discovering the violation, the user shall resample and submit a report of the results of the resampling to the POTW. The industrial user is not required to resample if the POTW performs monitoring at the industrial user's facility at least once a month or if the POTW performs sampling between the industrial user's initial sampling and when the industrial user receives the results of the initial sampling. If the City performs the sampling and analysis in lieu of the industrial user, the City shall perform the repeat sampling and analysis unless it notifies the user of the violation and requires the user to perform the repeat sampling and analysis.

E. Samples collected to satisfy reporting requirements shall be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

1. Except as indicated in Sections 2 and 3 below, the user shall collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Director. Where time-proportional composite sampling or grab sampling is authorized by the Director, the samples shall be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the Director, as appropriate. In addition, grab samples may be required to show compliance with instantaneous limits.

2. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds shall be obtained using grab collection techniques.

3. For sampling required in support of baseline monitoring and 90 day compliance reports required in Section 13.08.320 and 40 CFR 403.12(b) and (d), a minimum of four (4) grab samples shall be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the Director may authorize a lower minimum. For periodic compliance reports required by Section 13.08.320 and 40 CFR 403.12(e) and (h), the industrial user is required to collect the number of grab samples necessary to assess and assure compliance with applicable Pretreatment Standards and Requirements.

F. If a user subject to the reporting requirement in this section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Director, using the procedures prescribed in this section, the results of this monitoring shall be included in the report.

G. Bypass

1. For the purposes of this Section,

a. Bypass means the intentional diversion of wastestreams from any portion of a User's treatment facility.

b. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

2. A User may allow any bypass to occur which does not cause Pretreatment Standards or Requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (3) and (4) of this Section.

3. Bypass Notifications

a. If a User knows in advance of the need for a bypass, it shall submit prior notice to the POTW, at least ten (10) calendar days before the date of the bypass, if possible.

b. A User shall submit oral notice to the POTW of an unanticipated bypass that exceeds applicable Pretreatment Standards within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) calendar days of the time the User becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Director may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

4. Bypass Prohibition

a. Bypass is prohibited, and the Director may take an enforcement action against a User for a bypass, unless

i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii. The User submitted notices as required under paragraph (3) of this section.

b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in paragraph (4)(a) of this Section.

H. Upset

1. For the purposes of this Section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the User. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate

treatment facilities, lack of preventive maintenance, failure to follow BMPs, or careless or improper operation.

2. An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical Pretreatment Standards if the requirements of paragraph (3), below, are met.

3. A User who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An upset occurred and the User can identify the cause(s) of the upset;
- b. The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures; and
- c. The User has submitted the following information to the Director within twenty-four (24) hours of becoming aware of the upset [if this information is provided orally, a written submission must be provided within five (5) calendar days]:

- i. A description of the indirect discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

4. In any enforcement proceeding, the User seeking to establish the occurrence of an upset shall have the burden of proof.

5. Users shall have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical Pretreatment Standards.

6. Users shall control production of all discharges to the extent necessary to maintain compliance with categorical Pretreatment Standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

I. Baseline Monitoring Reports

1. Within either one hundred eighty (180) calendar days after the effective date of a categorical Pretreatment Standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing Categorical Industrial Users currently discharging to or scheduled to discharge to the POTW shall submit to the Director a

report which contains the information listed in paragraph 2, below. At least ninety (90) calendar days prior to commencement of their discharge, New Sources, and sources that become Categorical Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall submit to the Director a report which contains the information listed in paragraph 2, below. A New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

2. Users described above shall submit the information set forth below.
 - a. All information required in Section 13.08.310 (C).
 - b. Measurement of pollutants.
 - i. The User shall provide the following information:
 - A. The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.
 - B. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by the Director, of regulated pollutants in the discharge from each regulated process.
 - C. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
 - D. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 13.08.320 (E) of this ordinance. Where the Standard requires compliance with a BMP or pollution prevention alternative, the User shall submit documentation as required by the Director or the applicable Standards to determine compliance with the Standard.
 - ii. The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.
 - iii. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula in 40 CFR 403.6(e) to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with 40 CFR 403.6(e) this adjusted limit along with supporting data shall be submitted to the Control Authority;
 - iv. Sampling and analysis shall be performed in accordance with Section 13.08.320 (E);

v. The Director may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

vi. The baseline report shall indicate the time, date and place of sampling and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW.

c. Compliance Certification. A statement, reviewed by the User's Authorized Representative as defined in Section 13.08.080 and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.

d. Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard. A compliance schedule pursuant to this Section must meet the requirements set out in Section 13.08.400 of this ordinance.

e. Signature and Report Certification. All baseline monitoring reports must be certified in accordance with Section 13.08.320 of this ordinance and signed by an Authorized Representative as defined in Section 13.08.080.

13.08.330 Monitoring facilities.

A. The City may require, at the user's expense, monitoring facilities to allow inspection, sampling, and flow measurement of the building sewer and/or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the City may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it may not be obstructed by landscaping or parked vehicles.

B. There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user.

C. Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the City's requirements and all applicable local construction standards and specifications. Construction shall be completed within 90 calendar days following written notification by the City, unless otherwise allowed.

D. All wastewater samples must be representative of the users discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and

maintained in good working order at all times. The failure of a user to keep its monitoring facility in good working order shall not be grounds for the user to claim that sample results are unrepresentative of its discharge.

13.08.340 Inspection, sampling, and photographs.

A. The City shall inspect the facilities of any user to ascertain whether the purpose of this chapter is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the City or the City's representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, examining records, or performing any of their duties. The City, approval authority (where the State is the approval authority), and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring, and/or metering operations.

B. Where a user has security measures in force which would require proper identification and clearance before entry into its premises, the user shall make necessary arrangements with its security guards so that upon presentation of suitable identification, City inspectors, approval authority, and EPA will be permitted to enter without delay for the purpose of performing their specific responsibilities.

C. If the City or the City's representative has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the City designed to verify compliance with this Part or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, the Director may seek issuance of an inspection warrant from a duly authorized magistrate from any court of competent jurisdiction. Should the Director determine that abatement is necessary or testing must occur, and the City cannot get consent by the owner/operator, entry to the property or site will be made for the purpose of abatement under this procedure only upon consent of the owner, or, lacking such consent, pursuant to a warrant issued by a judge of the Superior Court.

D. City inspectors may, in the course of their inspection, photograph any condition on the premises thought by the Inspector to possibly constitute a violation of this chapter or any other local, State, or Federal law and any mechanism, apparatus, means or method thought to contribute to or facilitate the suspected violation, including, but not limited to, the waste treatment drains and pipes, monitoring equipment waste disposal areas, chemical storage tanks, and/or waste container labels.

E. Upon the written requests of the EPA or State or local governmental agencies charged with regulatory jurisdiction, all photographs taken in accordance with this chapter shall be made available to such agencies without reservations. Such photographs may also, upon written request only, be made available to the public or other nongovernmental agencies unless the user specifically requests and is able to demonstrate to the satisfaction of the City that the photographs should be considered confidential in that, if released, they would divulge

information, processes, or methods of production entitled to protection as trade secrets of the user. Photographs accepted by the City as confidential shall not be transmitted to any nongovernmental agency or to the general public by the City until 10 calendar days after notification is given to the user.

13.08.350 Pretreatment.

A. All users affected by the National Categorical Pretreatment Standards shall provide necessary wastewater pretreatment in accordance with the general pretreatment regulations contained in 40 CFR 403 and as indicated elsewhere in this chapter and shall achieve compliance with all Federal categorical pretreatment standards within the time limitations as specified by the Federal pretreatment regulations. Users shall conduct wastewater sampling and analysis using the methods and procedures contained in 40 CFR 136. In addition, all reports required to be submitted in accordance with 40 CFR 403.12(b)(6) or elsewhere in this chapter, including, but not limited to, baseline and other monitoring reports, 90-day compliance reports, and reports pertaining to sampling performed pursuant to this chapter shall contain a certification statement from a qualified professional which indicates that the user is in compliance with applicable categorical standards on a consistent basis and shall specify whether any pretreatment operation and maintenance is required to obtain compliance. The statement shall be signed by an Authorized or Duly Authorized Representative of the User thereby attesting to the accuracy of all information contained in the statement. All records relating to compliance with pretreatment standards shall be made available upon request to officials of the EPA, control authority, or appropriate State agencies or other governmental agencies having regulatory jurisdiction.

B. Facilities required to pretreat wastewater to a level acceptable to the City shall be provided, operated, and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the City for review, and shall be accepted by the City before construction of the facility. The review of such plans and operating procedures shall in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the City under the provisions of this chapter. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and accepted by the City prior to the user's initiation of such changes. The quality of the discharge required in this chapter shall be maintained at all times. Standby facilities may be required to attain this quality.

13.08.360 Confidential information.

A. Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs, and from inspections shall be made available to the EPA, State agencies, and other local governmental agencies without restrictions. Such information and data shall also be made available to the public or other nongovernmental agencies without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the City that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets of the user. However, in no event shall wastewater constituents and characteristics be recognized as confidential information.

B. Information accepted by the City as confidential shall not be transmitted to any nongovernmental agency or to the general public by the City until or unless the request is received in writing and until 10 calendar days after notification of the request has been given to the user by the City. Furthermore, when requested by the person furnishing a report for uses related to this chapter, the National Pollutant Discharge Elimination System (NPDES) Permit, State Disposal System Permit and/or Pretreatment Programs, the portions of a report which might disclose trade secrets or secret processes shall not be made available when requested by the public or nongovernmental agencies. However, such portions of such reports shall be made available, without reservation, to the EPA, State agencies, or local governmental agencies upon the written request of such agency.

13.08.370 Special agreements.

Special agreements and arrangements between the City and any persons or agencies may be established when, in the opinion of the City, unusual or extraordinary circumstances compel special terms and conditions. However, in no event shall any such agreement be interpreted so as to authorize the violation or waiver of applicable pretreatment standards or requirements.

Article IV. Enforcement

13.08.380 Suspension of permit.

A. When a violation hereof creates conditions which are so aggravated that immediate cessation of operation is necessary and the Director so finds that as a fact, he or she may suspend the permit and serve written notice of such suspension on the permittee. The Director may also suspend a permit if objectionable conditions listed in a notice to correct is not corrected within the time stipulated.

B. A person whose permit has been suspended or revoked, as provided for herein, shall immediately discontinue the deposit or discharge of industrial waste, sewage or effluent and shall not resume such deposit or discharge until the permit has been reinstated or a new permit has been issued.

13.08.390 Refusal, discontinuance or termination of service.

The City may, with cause, refuse to furnish sanitary sewer service and may discontinue or terminate such services to any premises where the sewage from such premises is found by the Director to be detrimental or injurious to the sanitary sewerage system of the City or to other premises or where the Director finds that negligent or wasteful use of water exists at any premises which adversely affects the City sanitary sewerage system. The City shall have the right to refuse, disconnect or terminate sewer service to any premises, if necessary to protect the City against abuse or fraud.

The Director, with cause, may issue a cease and desist order to any premises found to be in violation of provisions of this chapter or of their wastewater discharge permit. The Director may include a time schedule for compliance with the cease and desist order and may issue a cease and desist order as a preventative action in the event of a threatened violation. Further

cause for refusal, discontinuance or termination of service may exist for a violation of any provision of this chapter or delinquency in sewer service payment or a discharge of wastewater that causes or threatens to cause a condition of contamination, pollution or nuisance as defined in this chapter. Termination of service to a premises by the Director and with the prior approval of the City Manager shall be accomplished by written notification of termination and the reason(s) sent by certified mail, return receipt requested, to the person to whom notice is given.

Immediate termination of service may be caused by the Director with the approval of the City Manager on any premises if there is an immediate public nuisance. The Director may then, with the approval of the City Manager, enter upon the premises without written notice to do such things and expend such sums as may be necessary to abate such nuisance, hazard or menace and the reasonable value of the work done and the amounts expended in so doing shall be charged against the person or owner of the property so in violation.

13.08.400 Submission of time schedule.

When the City finds that a discharge of wastewater has been taking place in violation of prohibition or limitations prescribed in this chapter, or wastewater source control requirements, effluent limitations or pretreatment standards, or the provisions of a wastewater discharge permit, the City may require the user to submit for approval, with such modifications as it deems necessary, a detailed time schedule of specific actions which the user shall take in order to prevent or correct a violation of requirements.

13.08.410 Appeals.

A. Any user, permit applicant, or permit holder affected by a decision, action, or determination, including suspension, revocation, refusal or termination, cease and desist orders, issued by the Director, interpreting or implementing the provisions of this chapter or in any permit issued herein, may file with the Director a written request for reconsideration within 10 calendar days of such decision, action, or determination, setting forth in detail the facts supporting the user's request for reconsideration.

B. Any person aggrieved by the action of the Director may appeal said decision in accordance with the procedures set forth in Sections 13.08.450 et seq., of this chapter.

13.08.420 Emergency orders and appeals therefrom.

A. The Director of the Municipal Utilities Department may order the abatement of any discharge from any source, including, but not limited to, the discharge of any waste associated with human habitation or of human or animal origin and septic tank or cesspool waste, when, in the opinion of the Director or the Director's designated representative, the discharge causes or threatens to cause a condition which presents an imminent danger to the public health, safety, or welfare; the environment; or the POTW's operations.

B. Said situation shall be abated by service of a notice upon the person responsible for said discharge or the owner of said building and it shall be unlawful for any person to fail to

obey or correct such conditions within 24 hours after being ordered to do so. If said situation is not abated within 24 hours after service of the notice, the City may perform such work or cause to be performed such work as shall be necessary to obtain proper abatement.

C. Any cost incidental to such work may be an assessment upon the property or premises affected and may be collected on the tax rolls in the same manner, by the same person, and at the same time together with or separate from the general taxes. The Director shall follow the procedures for having said charges collected with the general taxes.

D. Any person alleging to have been aggrieved by any emergency action taken by the City pursuant to this section may appeal the propriety of the City's action by first filing a written notice of appeal with the Director of the Municipal Utilities Department within 15 calendar days of the emergency abatement. Thereafter, said persons may file an appeal directly to the City Manager. The City Manager shall fix the date, time and place of the hearing of said appeal, not to exceed 60 calendar days from the filing of the appeal, and shall cause the Municipal Utilities Director to send notice of the hearing to the aggrieved party. The City Manager shall have no obligation to hear any request for appeal filed in excess of 30 calendar days following the denial of the appeal by the Municipal Utilities Director.

13.08.430 Legal action.

If any person discharges sewage, industrial waste or other wastes into the City's wastewater disposal system contrary to the provisions of this chapter, Federal or State pretreatment standards or requirements, or any order of the City or any other local governmental agency having regulatory jurisdiction, or otherwise commits any violation contrary to any of the provisions of this chapter, the City Attorney may commence an action for appropriate legal, equitable, or injunctive relief in the courts of San Joaquin County.

13.08.440 Civil penalties.

A. Any person who violates any provision of any permit issued pursuant to this chapter, who discharges waste or wastewater which causes pollution, or who violates any cease and desist order, prohibition effluent limitations, national standard of performance, or national pretreatment or toxicity standard or any other order of the Director shall be civilly liable to the City in a sum of not less than \$1,000 per violation per calendar day and not to exceed \$25,000 per violation per calendar day. In addition, the City may require the user to pay any excess costs to the system for supplementary treatment plants, facilities, or operations needed as a result of allowing the entry of such discharges into the collection system and/or treatment works.

B. The City may petition the Superior Court of San Joaquin County to impose, assess, and collect any sums levied pursuant to this chapter and Sections 54725, 54739, and 54740, et seq., of the California Government Code. In determining the amount to be recovered, the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs, and corrective action, if any, attempted or taken by the discharger.

Notwithstanding any other provision of law, all civil penalties imposed by the court pursuant to this subsection shall be distributed to the City. Remedies imposed pursuant to this section are in addition to and do not supersede or limit any and all other administrative, civil, or criminal remedies available at law, but no liability shall be recoverable under this section for any violation for which liability is recovered under Section 13.08.470 of this chapter.

13.08.450 Administrative adjudication and penalties.

A. The City may issue an administrative complaint to any person who violates any requirement adopted or ordered by the City pursuant to this chapter. The administrative complaint shall allege with particularity, the act or failure to act that constitutes the violation, the section of the Stockton Municipal Code or wastewater permit provision violated, and the provisions of law authorizing civil liability to be imposed, and the proposed civil penalty, and shall be served by personal delivery or certified mail on the person subject to the discharge requirements. In addition, the administrative complaint shall inform the person served that a hearing before a Hearing Officer as designated by the City Council shall be conducted within 60 calendar days after the person has been served. Persons aggrieved by the provisions of Section 13.08.410 may also avail themselves of the administrative adjudication procedures set forth in this and the following sections. Any person entitled to a hearing to be conducted pursuant to this provision may waive the right to a hearing, in which case the City shall not conduct a hearing.

B. If after the hearing, if any, it is found that the person affected by the administrative decision has violated reporting or discharge requirements, the Hearing Officer may assess a civil penalty against the person. In determining the amount of the civil penalty, the Hearing Officer may take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs, and corrective action, if any, attempted or taken by the discharger. Penalties imposed by the local agency pursuant to this section shall be assessed in accordance with Government Code Section 54740.5.

C. The amount of any civil penalties imposed pursuant to this section which have remained delinquent for a period of 60 calendar days may constitute a lien against the real property from which the discharge originated and which resulted in the imposition of the civil penalty. The lien provided herein shall have no force and effect until recorded with the County Recorder and when recorded shall have the force and effect in priority of a judgment lien and continue for 10 years from the time of recording unless sooner released and shall be renewable in accordance with the provisions of Sections 683.110 to 683.220, inclusive, of the California Code of Civil Procedure. All moneys collected under this section shall be deposited in a special account of the City and shall be made available for the monitoring, treatment, and control of discharges into the City's sanitation or sewer system or for other mitigation measures.

13.08.460 Appeal of administrative decision.

A. The City Council hereby delegates the Council's review powers specified in Government Code Section 54740.5 to the City Manager. Any person dissatisfied with the

decision of the Hearing Officer may, within 30 calendar days of the notice of the Hearing Officer's decision, file a written appeal of such decision with the City Manager. The written appeal shall state with specificity the grounds upon which the appeal is being taken. The review by the City Manager or City Manager's designee shall consist solely of a review of the record of the administrative hearing. Within 30 calendar days of receiving the written appeal, the City Manager shall issue a written decision affirming, modifying, or overruling the decision of the administrative Hearing Officer. The decision of the City Manager shall be final and binding.

B. Unless appealed, orders setting administrative penalties shall become effective and final upon issuance thereof and payment shall be made within 30 calendar days. Copies of these orders shall be served by personal service or by registered mail upon the party served with the administrative complaint and upon other persons who appeared at the hearing and requested a copy. Any party aggrieved by a final order issued by the City Manager pursuant to this section may obtain review of the order in the Superior Court by filing in the court a petition for writ of mandate within 30 calendar days following the service of a copy of the decision and order issued by the City Manager. If no aggrieved party petitions for writ of mandate within the time specified above, an order of the City Manager or Hearing Officer shall not be subject to review by any court or agency pursuant to Section 54740.6 of the California Government Code.

13.08.470 Recovery of penalties.

The City may, at its option, elect to petition the Superior Court to confirm any order establishing civil penalties and enter judgment in conformity therewith in accordance with the provisions of Sections 1285 to 1287.6, inclusive, of the California Code of Civil Procedure. No penalty shall be recoverable under this section for any violation for which civil liability is recovered under Section 13.08.490.

13.08.480 Criminal penalties.

A criminal penalty may be issued to any user in violation of the user's wastewater discharge permit, or an enforcement action issued by the Director or has failed to comply with the requirements or conditions specified in a previous enforcement action. A criminal penalty may also be issued to any user that willfully or knowingly makes any false statements, representations, or certifications in any application, record, report, plan or other document filed or required to be maintained pursuant to Chapter 13.08 or the user's wastewater discharge permit, or which falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under Chapter 13.08. The criminal penalty shall be issued by the City Attorney or County District Attorney and shall include all penalties authorized in this Section. The penalty shall be consistent with the Federal Clean Water Act, 33 U.S.C. 1251, et seq. and amendments thereto, and any relevant State laws. The user shall, upon conviction, be guilty of a misdemeanor, punishable by a fine not to exceed \$1,000 or imprisonment for not more than six months, or both, per violation per day. The penalty shall be consistent with the Federal Clean Water Act, 33 U.S.C. 1251, et seq. and amendments thereto, and shall apply to the exclusion of any other more lenient provisions of Chapter 13.08. A user shall be guilty of a separate violation of each calendar day for a violation of any provision of Chapter 13.08.

13.08.490 Enforcement response plan.

In accordance with 40 CFR 403.8, the Director or the Director's designated representative shall respond to violations of this chapter using the Enforcement Response Plan (ERP) on file with the City Department of Municipal Utilities.

13.08.500 Publication of Users in Significant Noncompliance.

The Director shall publish annually, in the largest daily newspaper published in the municipality where the POTW is located, a list of the users which, at any time during the previous twelve (12) months, were in Significant Noncompliance with applicable Pretreatment Standards and Requirements. The term Significant Noncompliance shall be applicable to all Significant Industrial Users (or any other Industrial User that violates paragraphs (C), (D) or (H) of this Section) and shall mean:

A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all the measurements taken for the same pollutant parameter taken during a six (6)-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits and Daily Maximum Limits, as defined in Section 13.08 of this Part;

B. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six (6) month period equals or exceeds the product of the numeric Pretreatment Standard or Requirement, including Instantaneous Limits and Daily Maximum Limits, as defined by Section 13.08 of this Part, multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a Pretreatment Standard or Requirement as defined by Section 13.08 of this Part (Instantaneous Limit, Daily Maximum Limit, long-term average, or narrative standard) that the Director determines has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public;

D. Any discharge of a pollutant that has caused imminent endangerment to the public or to the environment, or has resulted in the Director's exercise of its emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety (90) calendar days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;

F. Failure to provide within 45 calendar days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment

Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance; or

H. Any other violation(s), which may include a violation of Best Management Practices, which the Director determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION III. SEVERABILITY.

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, that invalidity shall not affect other provisions or applications of the act which can be given without the invalid provision or application, and to this end the provisions of this act are severable.

SECTION IV. EFFECTIVE DATE.

This Ordinance shall take effect and be in full force thirty (30) days after its passage.

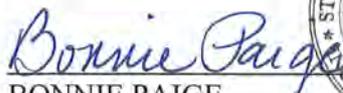
ADOPTED: December 8, 2015

EFFECTIVE: January 7, 2016



ANTHONY SILVA
Mayor of the City of Stockton

ATTEST:


BONNIE PAIGE
City Clerk of the City of Stockton

