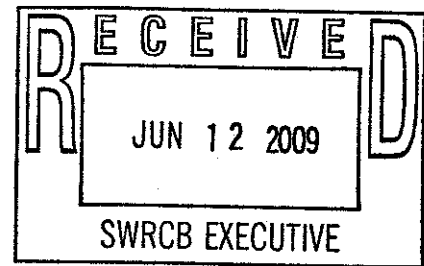


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VIA EMAIL AND HAND DELIVERY - COMMENTLETTERS@WATERBOARDS.CA.GOV

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
Cal/EPA Headquarters  
1001 "I" Street, 1st Floor  
Sacramento, CA 95814

Re: **2009 Periodic Review Staff Report Comments - Bay/Delta Plan**  
Client-Matter No. 07547.00004

Dear Ms. Townsend and State Water Board Members:

The City of Tracy has the following comments on the 2009 Draft Staff Report for the Periodic Review of the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Bay-Delta Plan").

**A Timetable for Salinity Objective Modification Must be Adopted**

The City of Tracy appreciates that the 2009 Draft Periodic Review document states that the State Water Board has committed to undertake a review of the southern Delta salinity objectives in the Bay-Delta Plan, but the City has serious concerns that there are no time parameters set for that review or a final result. As the Electrical Conductivity (EC) objectives have not been closely reviewed or modified since their initial adoption, the City feels that a timely and serious look needs to be undertaken and completed within the next year. This is particularly true when the State Board recently adopted an order requiring the City's permit to include final effluent limitations to implement these outdated objectives (*see* SWRCB Order No. WQ 2009-03), which were never intended to apply to municipal discharges.

Federal law requires that the Water Boards review and amend their Basin Plans and state-wide plans, like the Bay-Delta Plan, which contain "applicable water quality objectives" as defined by federal law, every three years. This triennial review has not resulted in any substantive changes to the numeric objectives for EC contained in the Bay-Delta Plan since at least 1991. The triennial review process is instead being used to set workplan priorities, rather than focusing on reviewing and modifying water quality standards under Water Code sections 13000 and 13241.

Courts have found this paper exercise of merely listing potential priority projects inadequate and not in compliance with law. Instead, a Superior Court declared that the Triennial Review required a public hearing for the express purpose of reviewing and, as appropriate, modifying water quality standards or adopting new standards. *See Cities of Arcadia, et al, v. SWRCB and LARWQCB*, Orange County Superior Court Case No. 06CC02974. Moreover, the Superior Court held that this process should not be considered concluded until the modified or new water quality standards are adopted.

Section 303(c)(1) of the Clean Water Act (CWA) expressly requires the State water pollution control agency (in California, the State and Regional Water Boards) to, at least every three years, hold public hearings "for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator." 33 U.S.C. §1313(c)(1); *see also* Water Code §13240 (requiring periodic review of all basin plans). Instead of conducting the requisite triennial water quality standards review, the State Board's Draft Staff Report appears to have transformed this review into a priority setting process simply identifying issues for further review. While priority setting is an important task for any agency, this priority setting process does not comply with the triennial review requirements of the CWA.

As such, the City of Tracy requests that the State Board take action to specifically review the appropriateness of the water quality standards in the Bay-Delta Plan, particularly the agricultural uses and related EC objectives, and to take action to revise inappropriate uses and objectives set to protect those uses so that the Water Code's mandate of reasonable water quality regulation is upheld. *See* Water Code §13000, §13241; *see also* State Board Order No. WQ 2002-0015 (discussing removal of inappropriate uses). A schedule for when these actions are anticipated to occur should also be established so that all stakeholders can accurately calendar and participate in the process.

### **Proposed Modifications to the Salinity Objective**

**Alternative Constituents of Salinity:** As stated to the State Water Board before, the City believes that, instead of focusing on EC, the actual constituents that predominantly make up the measurement of EC (*e.g.*, sodium, sulfur, metals, etc.)<sup>1</sup> and potentially adversely affect salt-sensitive agriculture should be the focus of the water quality objective review. Since not all constituents measured by EC affect salt-sensitive agriculture, regulating through EC is overbroad and imprecise. For this reason, the *scope* of the potential salinity objectives, not just the EC objective, should be explored.

<sup>1</sup> *See* Kenneth Barbalace <http://klbproductions.com/>. Periodic Table of Elements - Sorted by Electrical Conductivity. EnvironmentalChemistry.com. 1995 - 2009. Accessed on-line: 4/3/2009  
<http://EnvironmentalChemistry.com/yogi/periodic/electrical.html>

Alternative Objectives/Longer Term Averages: Notwithstanding the above, if a water quality objective for EC is retained, that objective should be re-set at 1600  $\mu\text{mhos/cm}$  (i.e., the highest end of the allowable range of MCL values for EC in 22 C.C.R. Table 64449-B) for municipal wastewater dischargers, which only comprise a small percentage of the flows to the Delta, and this value should apply year round as an annual average.<sup>2</sup>

Applicable Only At Point of Use: Lower objectives in the 700-1000 range should only apply site-specifically where water from the Delta (or a particular waterbody therein) is actually being used for salt-sensitive agriculture and there are no management options that could allow for higher salinity water to be used (e.g., less salty water used for blending, irrigation management techniques, etc.). Blanket application of EC objectives without site specific ground-truthing of the need for such objectives is overbroad, arbitrary, and capricious.

### **The Bay-Delta Plan Must Be Clarified As To Its Application**

The Bay-Delta Plan is considered a water quality control "general plan" for water quality in the Bay-Delta region of the State. It contains the legal standards for surface waters in the region. However, the State Water Board failed to properly conduct a legally required review of these standards as applied to municipal wastewater in 1991, 1995 or in 2006 when it purported to apply the EC objectives to all parts of the Delta, not just the four (4) originally intended compliance points. Therefore, these objectives are inappropriately applied to municipal wastewater discharges.

The originally adopted EC standards in the Bay-Delta Plan (which was last modified, although purportedly not substantively, in 2006) were never intended to apply to municipal wastewater. The record is very clear that these objectives were intended to be complied with by altering flow regimes. Table 1-1 of the 1991 Delta Plan specified water quality objectives for EC to protect agriculture in all areas covered by the plan, whether such protection was necessary or not.<sup>3</sup> The table included water quality objectives for EC applicable only at the Vernalis gauge station--and three other southern Delta locations--of 0.7 millimhos per centimeter (mmhos/cm) or 700

<sup>2</sup> Even the 700  $\mu\text{mhos/cm}$  water quality goal was anticipated to be a long-term average. See Order No. R5-2007-0036 at pg. F-43; *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).

<sup>3</sup> The agricultural (AGR) beneficial use is not a federally required use designation as under the Clean Water Act, only the so-called fishable/swimmable uses are required to be designated, and only where attainable. See 33 U.S.C. §1251(a)(2). Water quality standards under federal law need only consider the use and value of waters for agriculture and other purposes. 33 U.S.C. §1313(c)(2)(A). Agricultural uses also do not meet the federal definition of "existing" beneficial uses. EPA regulations define "existing use" as "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards." 40 C.F.R. §131.3(e). The regulations' reference to "uses actually attained in the water" disqualifies an off-stream agricultural use as an "existing use" under 40 C.F.R. §131.3(e).

$\mu$ mhos/cm from April 1 through August 31, and 1.0 mmhos/cm or 1000  $\mu$ mhos/cm from September 1 through March 31.<sup>4</sup>

Although the Delta Plan was adopted in 1991, it did not require the EC objectives to be fully implemented until 1996. The table also included the statement that, if a contract has been negotiated between the Department of Water Resources, the U.S. Bureau of Reclamation, and the South Delta Water Association, that contract will be reviewed prior to implementation of the specified EC standard for the southern Delta, and appropriate revisions will be made to the objectives after considering the needs of other beneficial uses.

Rather than focusing primarily on meeting water quality objectives through regulation of discharges, the 1991 Delta Plan expressly provided "the State Board recognizes that the flow requirements and salinity objectives are largely to be met by the regulation of water flow." (1991 Delta Plan, pg. 2-2 (emphasis added).) With respect to reducing the quantity of salt in the southern Delta area, the State Board established a goal of reducing the salt load discharged to the San Joaquin River by at least 10 percent and estimated that goal could be met through increased irrigation efficiency to reduce subsurface drainage. The State Board referred to development of a salt load reduction policy, the goals of which "should be achieved through development of best management practices and waste discharge requirements for non-point source dischargers." (1991 Delta Plan pg. 7-5 (emphasis added).)

In May 1995, the State Board adopted a revised water quality control plan for the Delta. ("Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, 95-1WR, May 1995" (1995 Delta Plan). The 1995 Delta Plan delayed the implementation date for the EC objectives in the southern Delta until December 31, 1997. (1995 Delta Plan, pg. 17, Table 2.) In discussing the implementation program for meeting the southern Delta agricultural salinity objectives, the Plan states:

"Elevated salinity in the southern Delta is caused by low flows, salts imported in irrigation water by the State and federal water projects, and discharges of land-derived salts primarily from agricultural drainage. Implementation of the 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."  
Implementation of the agricultural salinity objectives for the two Old River sites shall be phased in so that compliance with the objectives is achieved by December 31, 1997.

"..... The SWRCB will evaluate implementation measures for the southern Delta agricultural salinity objectives in the water right proceeding."

<sup>4</sup> The values were specified as maximum 30-day running averages of mean daily EC.

<sup>5</sup> Water Code section 13242 requires implementation plans for all water quality objectives to identify what entities must undertake activities to come into compliance with the objective. Failure to identify particular entities implies that no implementation activities are required by those entities.

(1995 Delta Plan, pg. 29.)

On March 15, 2000, the State Board adopted Revised Water Right Decision 1641, which once again addressed the relationship between water diversions and implementation of Delta water quality objectives and determined that “the actions of the CVP are the principal cause of the salinity concentrations exceeding the objectives at Vernalis. See SWRCB Revised Decision 1641 at pg. 83. This State Board decision also states:

“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. (R.T. pg. 3668; DWR 37, pg. 8.) The salinity objectives for the interior southern Delta can be implemented by providing dilution flows, controlling in-Delta discharges of salts, or by using measures that affect circulation in the Delta....

“Even when salinity objectives are met at Vernalis, the interior Delta objectives are sometimes exceeded. (R.T. pg. 3677; SWRCB 1e, Figures [IX-19]-[IX-26]; SWRCB 76.) Exceedance of the objectives in the interior Delta is in part due to water quality impacts within the Delta from in-Delta irrigation activities. (R.T. pg. 7794.)

“..... In 1987, DWR and SDWA identified flow barriers that could be constructed in the southern Delta to enhance water levels and circulation. The DWR, the USBR and the SDWA have agreed that the salinity problems in the southern Delta can be mitigated using the barrier program.... Since 1991, DWR has been installing and operating temporary barriers to assist SDWA diversions. Permanent barriers are proposed as components of the preferred alternative for the ISDP. (DWR 37.)

“The DWR and the USBR are partially responsible for salinity problems in the southern Delta because of hydrologic changes that are caused by export pumping. Therefore, this order amends the export permits of the DWR and of the USBR to require the projects to take actions that will achieve the benefits of the permanent barriers in the southern Delta to help meet the 1995 Bay-Delta Plan’s interior Delta salinity objectives by April 1, 2005. Until then, the DWR and the USBR will be required to meet a salinity requirement of 1.0 mmhos/cm [equivalent to 1000 µmhos/cm]. If, after actions are taken to achieve the benefits of barriers, it is determined that it is not feasible to fully implement the objectives, the SWRCB will consider revising the interior Delta salinity objectives when it reviews the 1995 Bay-Delta Plan....”

(Revised Water Right Decision 1641, pgs. 86-88, all emphasis added.)

Revised Water Right Decision 1641 summarized the State Board’s conclusions regarding salinity problems in the southern Delta as follows:

“..... Salinity problems in the southern Delta result from low flows in the San Joaquin River and discharges of saline drainage water to the river. The actions of the CVP are the principal causes of the salinity concentrations exceeding the objectives at Vernalis. Downstream of Vernalis, salinity 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. Measures that affect circulation in the Delta, such as barriers, can help improve the salinity concentrations.”

(Revised Water Right Decision 1641, pg. 89.)

Although the 1641 water right decision did not amend the water quality objectives in the 1995 Delta Plan, the decision redefined the responsibilities of the Department of Water Resources and the Bureau of Reclamation for implementation of several provisions of the plan, including the southern Delta EC objectives. Footnote 5 to Table 2 of the decision provides that:

“The 0.7 EC objective [equivalent to 700  $\mu$ mhos/cm] becomes effective on April 1, 2005. The DWR and USBR shall meet 1.0 EC at these stations year round until April 1, 2005. The 0.7 EC objective is replaced by the 1.0 EC objective from August after April 1, 2005 if permanent barriers are constructed or equivalent measures are implemented in the southern Delta and an operations plan that reasonably protects southern Delta agriculture is prepared by the DWR and the USBR and approved by the Executive Director of the SWRCB. The SWRCB will review the salinity objectives for the southern Delta in the next review of the Bay-Delta objectives following construction of the barriers.”

(Revised Water Right Decision 1641, pg. 182.)

The State Board took action with respect to the EC water quality objectives in the southern Delta through the adoption of State Board Resolution No. 2004-0062 on September 30, 2004. The resolution adopted the staff report for the periodic review of the 1995 Delta Plan and affirmed the plan as it then existed until changed by action of the State Board. In adopting the staff report, the State Board accepted the recommendation to receive further information to help decide whether to amend several provisions of the plan, including the southern Delta EC objectives. The State Board also accepted the staff recommendation to consider amending the Program of Implementation section of the plan as necessary for implementation of any changes to the EC water quality objectives for the southern Delta or other revised objectives. See State Board Resolution No. 2004-0062, pgs. 1 and 2.<sup>6</sup>

Review of the documents discussed above leads to several conclusions regarding the southern Delta EC objectives from the 1991 and 1995 Delta Plans. First, the lengthy record of prior State Board decisions and water quality control plans for the Delta establishes that the salinity problems in the southern Delta are the result of many inter-related conditions, including water diversions upstream of the Delta, water diversions within the Delta for export and local use, high levels of salinity in irrigation return flows discharged to Delta waterways and tributaries, groundwater inflow, seasonal flow variations, and natural tidal conditions. Second, although discharges of treated wastewater to the Delta or its tributaries under NPDES permits might be

<sup>6</sup> The staff report adopted in State Board Resolution No. 2004-0062 recommended that the State Board not consider changes to the EC objectives upstream of Vernalis and several other provisions of the 1995 Delta Plan at this time.

demonstrated to affect EC in some very limited areas of the southern Delta near the discharge, previous State Board decisions and water quality control plans and related environmental documents did not discuss treated effluent discharges as a source of salinity in the southern Delta or consider the environmental, economic, or water quality impacts of using these EC objectives as end-of-pipe effluent limits as required under Water Code section 13241,<sup>7</sup> or as part of the implementation plan required under Water Code section 13242.

Similarly, previously adopted implementation programs for complying with the EC objectives in the southern Delta focused primarily on providing increased flows and reducing the quantity of salts delivered to the Delta and its tributaries by irrigation return flows and groundwater. The record also establishes that the implementation date for actions to implement the 0.7 mmhos/cm EC objective [equivalent to 700  $\mu$ mhos/cm] for April through August was repeatedly postponed. In fact, revised Water Right Decision 1641 placed primary responsibility for meeting the EC objectives on the Department of Water Resources and the Bureau of Reclamation, and did not require those agencies to implement the 0.7 mmhos/cm [700  $\mu$ mhos/cm] EC objective until April 1, 2005.

In 2006, the State Water Board purported to amend the Bay-Delta Plan to expand the application of the EC objectives from the four specific compliance locations to "all locations in that general area." (Bay-Delta Plan at p. 10.) Even though deemed a "non-substantive change," the State Board also purported to amend the implementation program to require "discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers." (*Id.* at p. 28.) However, the State Board in taking these actions failed to evaluate the requisite Water Code factors under Water Code section 13241 when modifying these water quality standards. Consequently, the salinity objectives and implementation program of the 2006 Bay-Delta Plan are unlawful and not appropriately applied to municipal dischargers. (*Cities of Arcadia, supra*, No. 06CC02974 at pp. 5-6 (water quality standards required review under factors and requirements of Water Code sections 13000 and 13241 where such standards were not previously considered as applied to stormwater).)

Unless and until these EC objectives and the associated implementation program are reviewed and modified in accordance with Water Code sections 13000 and 13241, these objectives are not properly applied to municipal wastewater. (*Ibid.*) Moreover, these modifications have not been approved by U.S. EPA and cannot be utilized as "applicable water quality objectives" under federal law for impairment determinations under Clean Water Act section 303(d) or for NPDES

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<sup>7</sup> Under Water Code section 13170, the State Water Board must consider the factors in Water Code section 13241 when adopting or amending water quality objectives. Water Code section 13241 sets forth the general duty of reasonableness in that the Board must adopt objectives to "ensure the *reasonable protection of beneficial uses*." See Water Code § 13241 (emphasis added). Further, the State Water Board must consider the past, present and probable beneficial uses of water; environmental characteristics of the hydrographic unit; *reasonably achievable water quality conditions*; *economic consequences*; need to develop housing; and need to develop and use recycled water. *Id.*

permitting decisions under Clean Water Act section 402 and its implementing regulations. See 40 C.F.R. §131.21(c)(2); *Alaska Clean Water Alliance v. Clark*, No. C96-1762R, 1997 W.L. 446499 at \*3 (W.D. Wash. 1997)(overturning a previous EPA regulation *presuming* approval of state water quality standards if not approved by EPA within statutory timeframe, and holding that “Congress did not intend new or revised state standards to be effective until after U.S. EPA had reviewed and approved them.”).

**The State Water Board Should De-Designate Salt-Sensitive Agricultural Use or Adopt A Variance Procedure In the Bay-Delta Plan**

Assuming *arguendo* that the salinity objectives in the Bay-Delta Plan were valid and approved, it has not been demonstrated that attainment of these standards is reasonably or feasibly attainable. EPA regulations allow for States to de-designate unattainable uses or to include variances in their State water quality standards policies. See 40 CFR §131.10 and §131.13. Variance procedures are similar to the removal of a designated use, but are discharger and pollutant specific and are time-limited. See 1993 EPA Water Quality Standards Handbook at 5-11. With de-designation, the standard changes along with permit requirements that would no longer be required to meet that standard. With a variance, NPDES permits may be written so long as reasonable progress is made toward attaining the standards without violating Section 402(a)(1) of the Act, which U.S. EPA contends requires that NPDES permits must meet applicable water quality standards.

State variance procedures, as part of a State’s water quality standards, must be consistent with the substantive requirements of 40 CFR Part 131, which is very similar to the use de-designation process. EPA has approved State-adopted de-designations or variances in the past where:

- Variances or de-designation are included as part of a revision to the water quality standard/Basin Plan.
- The standard is unattainable based on one of the grounds set for in 40 C.F.R. §131.10(g). Salinity may warrant an exemption under section 131.10’s subsections:
  - (g)(1)(naturally occurring pollutant concentrations prevent the attainment of the use) Since saline water from the ocean and bay are tidally moved into the Delta, this must be a consideration;
  - (g)(2)(natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use) Given the flow requirements and interconnectivity, this provision may be applicable;
  - (g)(3)(human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied without environmental damage) The vast levee and canal systems of the Delta also contribute to salinity issues. For dischargers, the prescribed salinity levels cannot be met without reverse osmosis, which can be deemed damaging to the environment through excessive energy use and creation of a concentrated brine that must be disposed of.



- (g)(4)(dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in such a way that would result in the attainment of the use) The weirs and other flow controls in the Delta make this provision applicable and the decades of flow modifications demonstrate that the levels needed to protect this use have not been able be consistently attained Delta-wide.

Additional showings would need to be made if a variance was used, instead of a de-designation.

- Dischargers to whom the variance applies for EC would still be required to meet the applicable criteria for other constituents.
- The variance is granted for a specific period of time and must be re-justified upon expiration.
- Dischargers must meet the standard upon the expiration of this time period or must make a new demonstration of "unattainability."
- Reasonable progress is being made toward meeting the standard.
- The variance was subjected to public notice, opportunity for public comment, and public hearing. The public notice should contain a clear description of the impact of the variance upon achieving water quality standards in the affected stream segment.

**For Any Modification of the Salinity Objectives, The State Board Must Include Compliance Schedule Authority.**

If no other changes are made to the Bay-Delta salinity objectives, the State Board must make clear that its Compliance Schedule Policy applies to any modifications to the Bay-Delta Plan (even those made in 2006), or adopt specific compliance schedule authority in the Bay-Delta Plan to apply to dischargers receiving effluent limitations for EC for the first time.

The City of Tracy never had EC limits proposed in its NPDES permit until 2007, despite the fact that these objectives had been in the Bay-Delta Plan for decades. To comply with those standards, the City would have to design, construct and operate a reverse osmosis or other advanced treatment system. It would also have to go through the California Environmental Quality Act's (CEQA) procedural steps. These prerequisites could take years or decades depending on if litigation ensued under CEQA. Given the long lead time, a compliance schedule is warranted and should be explicitly provided, particularly for dischargers not expressly identified previously in the implementation plan for these objectives. Holding dischargers in violation of permit requirements because they cannot accomplish immediate construction and operation of reverse osmosis facilities to treat discharges from municipal wastewater treatment plants without a compliance schedule does not represent a reasonable regulatory approach.

In sum, the City would like to reiterate that the causes and potential solutions to the salinity problems in the southern Delta are highly complex subjects that must receive immediate and continuing attention from the State Water Board in the exercise of its coordinated authority over water rights and water quality. The City of Tracy hopes that the comments and suggestions contained in this letter will be given serious consideration and that no resolution approving the Staff Report be adopted without the modifications requested herein.

Respectfully submitted,

DOWNEY BRAND LLP



Melissa A. Thorne

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