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January 16, 2004

Les Grober
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

**SUBJECT: COMMENTS ON PROPOSED BASIN PLAN AMENDMENT AND TOTAL
MAXIMUM DAILY LOAD (TMDL) FOR THE CONTROL OF SALT AND
BORON DISCHARGES INTO THE SAN JOAQUIN RIVER**

Dear Mr. Grober:

Thank you for the opportunity to comment on the proposed Basin Plan Amendments for the control of salt and boron discharges into the San Joaquin River as described in the November 2003 Public Review Draft and the December 5, 2003 workshop. In general, the City of Modesto is encouraged by the Regional Water Quality Control Board (RWQCB) staff's analysis and the overall flexibility of the proposed control plan. However, even as an acknowledged "small" contributor to the salt and boron loading into the San Joaquin River, the City of Modesto Wastewater Treatment Facility would be required to make unreasonable and expensive plant modifications to implement the proposed limits. Such modifications are difficult for the City to justify to its citizens and ratepayers since their sacrifices to build expensive plant modifications would not result in a detectable change in the River salinity. Additionally, the City views the use of the downstream Vernalis water quality objectives as effluent limits as constituting new water quality objectives; new water quality objectives must be adopted pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne). Finally, though the City is supportive of pollutant credit trading because it has potential to offer more environmental benefit per ratepayer resource as compared to plant modifications, a trading program is not in place and is not likely available as an alternative before the City renews its NPDES permit.

I. CITY'S INABILITY TO ACHIEVE OBJECTIVES AS EFFLUENT LIMITS

When applied to the last few years of City effluent data, the proposed effluent limitations (700 $\mu\text{S}/\text{cm}$ from April through September and 1,000 $\mu\text{S}/\text{cm}$ from October through March) would have been achieved less than 5% of the time using the proposed 30-day rolling averages. Figure 1 below shows the proposed limits superimposed over the historical conductivity since the cannery segregation project came online (1999). The City effluent is typically just above 1,000 $\mu\text{S}/\text{cm}$, and is permitted to discharge to the river only during wet weather months (November through May) at a minimum dilution of 20:1. Because of the treatment process and the large volume of on-site storage, the conductivity variability is very low (std. dev. = 49 $\mu\text{S}/\text{cm}$) and is likely most heavily influenced by weather conditions. Under the proposed limits, the City would need to reduce the conductivity of the discharged effluent by 30 to 40% during April and May discharge periods. Conductivity reductions of this magnitude are not possible through source control measures alone, and would require the plant to upgrade to a reverse osmosis (RO) treatment train. RO treatment is expensive, energy intensive, and results in large volumes of brine that would need to be exported elsewhere at a very high ongoing cost.

The City has put in place a number of successful control programs including the cannery segregation project, which diverted a large fraction of the salt load out of the discharge effluent. The cannery segregation project has diverted approximately 10 million pounds of salt per year from the discharged effluent.¹ Because the major cannery industries are now diverted, there are few remaining dischargers to target besides domestic sources. The City's water supply is both surface water and groundwater with more reliance on groundwater during warm weather periods of higher demand. Additional surface water is not currently available to reduce the overall conductivity of the source water. A City ordinance banning the use of self-regenerating water softeners would reduce the influent conductivity, but not to the levels necessary to comply with the proposed irrigation season effluent limit.

The treatment plant discharge is permitted only between November and May, which excludes the City from contributing salinity during the more critical summer irrigation periods. The discharge is also limited to a 20:1 river flow to effluent flow dilution. The large volume of storage and real-time management of discharge volume already in place is precisely the type of infrastructure and discharge management that the proposed amendments are asking for from many of the agricultural, non-point sources.

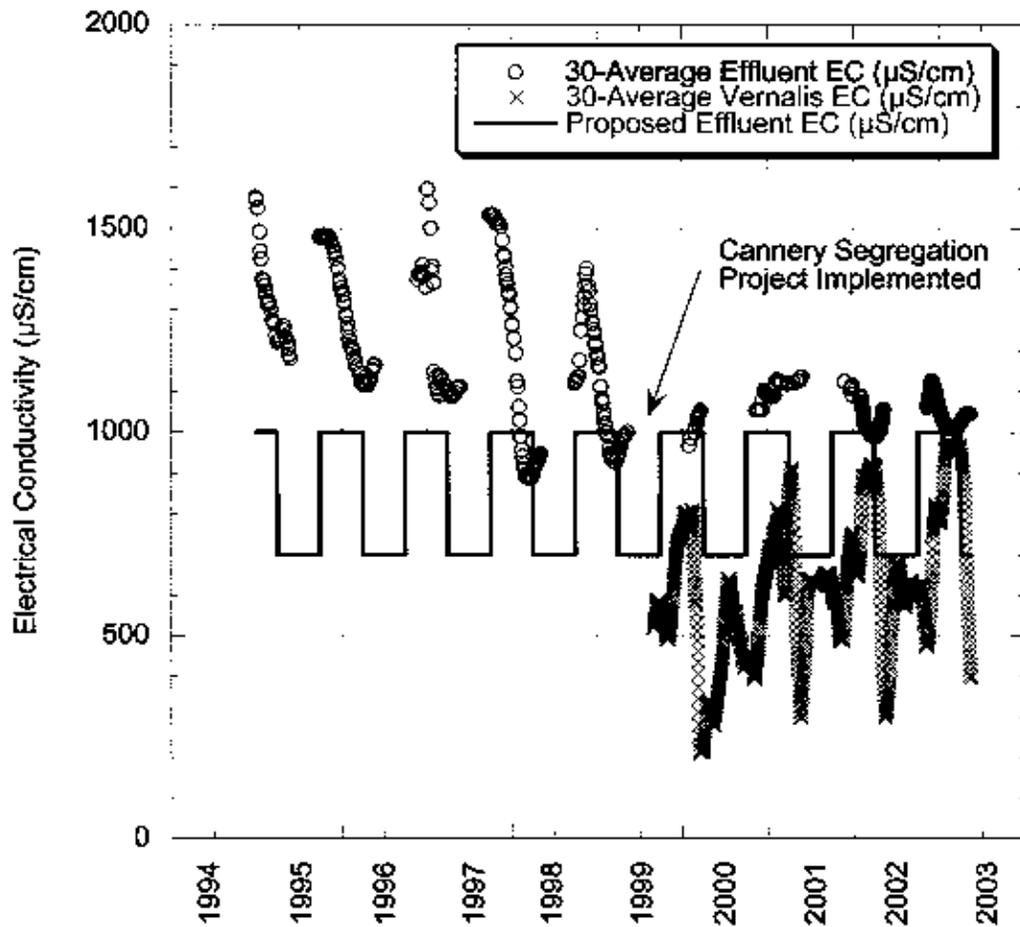


Figure 1. Historic Electrical Conductivity in Modesto WWTF Effluent and Downstream Receiving Water

II. NEW WATER QUALITY OBJECTIVES

¹ Salt Study for the City of Modesto Water Reclamation Facility, Prepared by DJH Engineering in association with CDM, Inc. July 12, 2002

Since the late 1960's, Delta salinity has been a major issue for the Central Valley Regional Board and the State Water Board. For the most part, the focus of the salinity objectives has been on the impact of diversions and flow on Delta salinity. While the salinity objectives for the Delta have been discussed, analyzed and evaluated since the 1960's, implementation of actions to achieve such objectives has primarily been reliant upon river flow and subsequent water rights decisions.² Over this forty-year history of developing salinity objectives and programs of implementation, municipal wastewater has never been identified as a major contributor to salinity in the San Joaquin River. Consequently, no program of implementation has been previously developed to apply these objectives to municipal wastewater treatment plants as end-of-pipe limitations. As a result, the Regional Board and the State Water Board have never subjected or evaluated such actions with regard to the public interest factors as required by Water Code section 13241 or the program of implementation requirements contained in Water Code section 13242.

As currently drafted, the basin plan amendment, TMDL, staff report and supporting documentation does not address or consider the cost of complying with the Vernalis water quality objectives for municipal dischargers. In fact, Appendix 4, which is the economic analysis, is over 20 pages long and never once mentions or considers costs for municipal dischargers. The Regional Board's failure to consider costs and the other public interest factors associated with section 13241 is potentially a fatal flaw in the basin plan amendment and TMDL.

Although not controlling as a matter of law over the Central Valley Regional Water Quality Control Board, a recent Superior Court decision addresses the application of Water Code section 13241 to basin plan amendments that incorporate a TMDL and its program of implementation.³ In its decision, the Court found that had the TMDL originally been part of the Basin Plan that it would have received economic considerations pursuant to section 13241. Consequently, it was reasonable to conclude that the same considerations should be made when amended into the Basin Plan. Based on the court's logic, the basin plan amendment being considered for this TMDL must also be analyzed pursuant to section 13241 of Porter-Cologne. That includes considering the cost to municipal dischargers to consistently comply with effluent limits that are set equal to the Vernalis Water Quality Objectives.

III. POLLUTANT TRADING

The proposed amendment document suggests that these conductivity limits could be met using a pollutant trading system. No pollutant trading system currently exists within the Central Valley Region or California. Moreover, similar attempts at water quality based pollutant trading in California have stalled and have been highly contentious because of strong resistance from environmental and other interest groups. While the City of Modesto supports the concept and policy of pollutant trading, it is not appropriate for the Regional Board to deflect municipal cost considerations with such a program until it is viable. In addition, it is not feasible or reasonable to expect that such a system would be in place before the proposed effluent limitations are effective in the City's NPDES permit. Consequently, the Regional Board should not rely upon such an alternative in the implementation program until the framework for a pollutant trading system has been universally accepted.

IV. SCHEDULE OF COMPLIANCE

The proposed amendment identifies the City of Modesto effluent discharge as a low priority for compliance with a compliance schedule of 16 years (wet through dry year types) and 20 years (critical year type). While the City

² Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, 95-1WR, (May 1995) at page 4; "Most of the objectives in this plan will be implemented by assigning responsibilities to water rights holders because the factors to be controlled are primarily related to flows and diversions. This plan, however, is not to be construed as establishing the responsibilities of water rights holders. Nor is this plan to be construed as establishing the quantities of water that any particular water rights holder or group of water rights holders may be required to release or forgo to meet objectives in this plan. The SWRCB will consider, in a future water rights proceeding or proceedings, the nature and extent of water rights' responsibilities to meet these objectives."

³ *Cities of Arcadia, Baldwin Park, etc. v. State Water Resources Control Board*, Statement of Decision, Superior Court, County of San Diego, Judge Wayne L. Peterson, December 24, 2003.

appreciates the Regional Board's generous time schedule for low priority dischargers, we are concerned that as currently drafted the language does not clarify that it supersedes other time schedule provisions within the Basin Plan. The City requests that the language be amended accordingly.

V. DILUTION FROM TUOLUMNE AND STANISLAUS RIVERS

Finally, the proposed plan applies a downstream water quality objective to an upstream effluent discharge effectively creating a new water quality objective. Application of this downstream objective does not consider the significant effects of dilution provided by the Tuolumne and Stanislaus Rivers. Moreover, the RWQCB is in the process of developing upstream water quality objectives through the appropriate rulemaking process. Establishing a new water quality objective should consider the best scientifically defensible information and the economic impact for implementation. It is premature for the Regional Board to adopt this basin plan amendment and total maximum daily load (TMDL) until the Regional Board has completed its process of adopting upstream water quality objectives.

In summary, while the City has made significant strides to reduce its salt load to the river through its cannery segregation project and elimination of critical river period discharge, we are concerned with our ability to achieve consistent compliance with the Vernalis water quality objectives as effluent limits. To achieve consistent compliance, the City would need to spend millions of dollars on reverse osmosis. Such a cost is difficult to justify since the City's discharge does not have a measurable impact on river salinity in either direction.

Thank you for considering our comments. If you need further information or clarification, please do not hesitate to contact myself (209-577-6387) or John Rivera (209-577-6381).

Regards,



Robert Howard
Deputy Director Operations and Maintenance