



CHINO BASIN WATERMASTER

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PETER KAVOUNAS, P.E.
General Manager

April 5, 2017

Joe LeClaire, PhD
CDM Smith
111 Academy Way, Suite 150
Irvine, CA 92617

Subject: Substitute Environmental Documents for Proposed Basin Plan Amendment for Chino South Groundwater Management Zone

Dear Dr. LeClaire:

Thank you for the opportunity to comment on the Substitute Environmental Documents (SED) for the proposed Basin Plan Amendment (BPA) to increase the nitrate (as nitrogen) anti-degradation objective for the Chino South Groundwater Management Zone (Chino South GMZ). The Basin Plan Amendment must be carefully designed to ensure the protection and equitable use of our water resources. The SED for the proposed BPA shows that raising the water quality objective will not have an adverse impact, and claims that it will lead to benefits to the region by accommodating and encouraging the continued discharge of "large quantities" of treated wastewater discharges to reaches of the Santa Ana River that recharge the Chino South GMZ. The BPA provides no minimum flows requirement for said "large quantities" of discharges to continue. Based on recycling that is planned to occur in the upper watershed, the SED should quantify how the planned reduction in POTW discharges and the proposed increase in nitrate objectives will affect the water quality in the GMZ and then estimate the economic benefits associated with the increase in the nitrate objective. ①

The SED refers to an economic analysis, prepared by CDM, of the compliance alternatives. Based on the CDM economic analysis, that under the "No Project Alternative" Alternative Option 1, the avoided cost of compliance from the proposed increase to the water quality objective for nitrate would be up to \$75 million per wastewater plant (capital cost) if the alternative is to improve treatment facilities, or up to \$27 million (capital cost) if pipelines are built to circumvent that stretch of the river in the Chino Basin; and compares these amounts to a potential increase in cost to the Chino Desalter Authority of \$5 to \$15 thousand dollars a year (an annual cost) for treating the excess nitrate at the CDA facilities. Watermaster's initial impression found the analysis to be positive for the discharges as to raising the nitrate objective, however, it lacks a comparable analysis of the allocation of benefits and costs. It would be desirable to have such analysis to know whether or not the CDA and any other potentially impacted parties should be compensated by those who benefit from the increase in nitrate objectives. The comparison of ② ③

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costs and benefits would also be improved if the claimed water quality benefits to the Chino South GMZ were quantified and incorporated into the calculation of the fair allocation of costs and benefits. (4)

A fourth option, No-Project Alternative, could be considered that would conduct a scientifically defensible investigation to review the basis of the existing 50-percent nitrogen loss coefficient and update it if warranted. The existing nitrogen loss coefficient was based on an assessment of existing limited data and best professional judgment. The proposed increase in the nitrate objective in the Chino South GMZ depends in part on the validity of the existing nitrogen loss coefficient. It seems prudent, given the limited data available to estimate the existing nitrogen loss coefficient and accumulation of new data since the assessment, for the Regional Board to conduct an investigation of the data collected since the current nitrogen loss rate was assessed (2005), conduct new field work if required, and update the nitrogen loss coefficient. The affected dischargers could be given a nitrogen offset for the period required to conduct this investigation. And, subsequently, the need to change the objective in the Chino South GMZ could be reassessed. (5)

Finally, the Basin Monitoring Program Task Force is currently updating the Wasteload Allocation, which is scheduled to be completed early next year. It may be prudent to assess the need to increase the nitrate objective after the update is completed later this year. We are interested in understanding what the outcome will be if the updated volume-weighted nitrate concentration in the Santa Ana River recharge in the Chino South GMZ for the most critical 10-year period is greater than 5.0 mg/L. For instance, will the Regional Board need to do a new basin plan amendment within a year to increase the Chino South GMZ objective again? If the updated volume-weighted nitrate concentration in the SAR recharge in the Chino South GMZ for the most critical 10-year period is less than 4.2 mg/L then the current basin plan amendment effort would be unnecessary. (6)
(7)
(8)

Watermaster believes that once these comments are addressed, the document will be ready for the Regional Board's consideration. Thank you, once again, for the opportunity to comment.

If you have any comments or questions please do not hesitate to contact me.

Sincerely,



Edgar Tellez Foster, PhD
Senior Environmental Engineer