



**California Regional Water Quality Control Board
Lahontan Region**



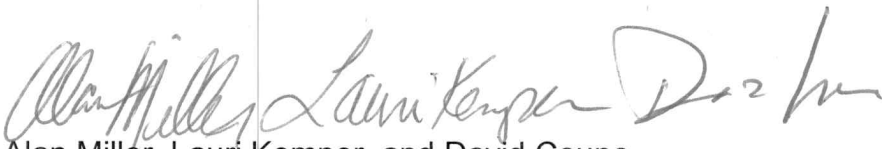
Linda S. Adams
Secretary for
Environmental Protection

2501 Lake Tahoe Boulevard, South Lake Tahoe, California 96150
(530) 542-5400 • Fax (530) 544-2271
<http://www.waterboards.ca.gov/lahontan>

Arnold Schwarzenegger
Governor

TO: Harold Singer and Steven Blum, Prosecution Team Members

Nicole Granquist and Ray Tremblay, Los Angeles County
Sanitation Districts No. 14 and 20

FROM: 
Alan Miller, Lauri Kemper, and David Coupe
Advisory Team Members

DATE: April 20, 2007

SUBJECT: ADVISORY TEAM COMMENTS, QUESTIONS, AND
SUGGESTED FINDINGS CONCERNING PROPOSED
SETTLEMENT

On February 23, 2007 and as revised on April 3, 2007, the Lahontan Water Board Prosecution Team and Los Angeles County Districts No. 14 and 20 published for public comment a Settlement Agreement and Mutual Release (Agreement). The Agreement includes Water Board adoption of a proposed order for administrative civil liability (ACL) to Los Angeles County Sanitation District No. 14 and 20, and two revised cease and desist orders (CDOs), one for District No. 14 and one for District No. 20. This memorandum serves to document the Advisory Team's questions, comments, and some suggested findings concerning the proposed settlement.

The Advisory Team is requesting written responses to the identified comments, questions, and suggested findings outlined below by **May 4, 2007 at 5:00 p.m.** The Advisory Team believes that consideration of these matters will allow the Water Board to make a more thoughtful and fully informed decision concerning the Proposed Settlement.

California Environmental Protection Agency

I. QUESTIONS, COMMENTS, AND SUGGESTED FINDINGS
CONCERNING THE PROPOSED ADMINISTRATIVE CIVIL LIABILITY
(ACL) ORDER FOR DISTRICTS 14 AND 20

A. Facts – District 20

1. There is a citation to WDRs in Board Order No. 6-93-31, which is a rescission of a CDO against South Tahoe Public Utility District. The 1993 WDRs for District 14 are in Board Order No. 6-93-18 (rescinded 2000).

B. Violations – Basin Plan Prohibition – District 20

1. The Advisory Team suggests replacing Finding No. 8 on page 10 of the Proposed ACL Order with the following:

District 20 violated the following regionwide waste discharge prohibitions specified in the Basin Plan, adopted pursuant to Water Code section 13243.

1. The discharge of waste¹ which causes violation of any narrative water quality objective contained in this Plan, including the Nondegradation Objective, is prohibited.
2. The discharge of waste which causes violation of any numeric water quality objective contained in this Plan is prohibited.
3. Where any numeric or narrative water quality objective contained in this Plan is already being violated, the discharge of waste which causes further degradation or pollution is prohibited.

District 20 monitoring data indicates that ground water nitrate concentrations began to exceed the nitrate MCL, a numerical water quality objective, below or adjacent to the Site as early as May 1990, with a significant period of degradation occurring in violation of the narrative Nondegradation Objective before 1990. District 20 continued to discharge wastewater to the Site in 1990 and thereafter, causing further nitrate degradation or pollution of ground

¹ Waste” is defined to include any waste or deleterious material including, but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material) and any other waste as defined in Water Code section 13050, subdivision (d).

water in violation of prohibition no. 3, above. Pollution of the ground water by nitrate above the MCL has existed for at least 4,950 days, as detailed in Finding No. 4.

C. Violations - Basin Plan Prohibition – District 20

1. The Advisory Team suggests replacing the second paragraph on page 14 of the Proposed ACL Order with the following:

For District 20, the maximum civil liability under Water Code section 13350, subdivision (e)(1) is \$26.94 million based upon 4,950 days in which at least one provision in the waste discharge requirements or Basin Plan prohibition was violated, and 438 days (September 15, 2005 through March 14, 2007) in which at least one provision in the CAO was violated. For the purposes of this Order, this liability is based on days of violation instead of gallons discharged in violation, and does not include liability for water quality degradation below the nitrate MCL due to the uncertainties of knowing with an acceptable degree of accuracy the number of gallons and specific time periods that nitrate entered the ground water and degraded water quality or caused groundwater pollution.

D. Evaluation of Liability

1. Were any efforts made to conduct a two-fold evaluation of liability in separately accounting liability for (1) violations directly impacting a water resource; and (2) for violations related to schedules for missed compliance dates? The Advisory Team suggests that such a determination may be helpful to the Board.
2. What impact would a higher administrative civil liability, for example, \$8.7 million or \$26 million, have on the Districts' rate payers?
3. Do the Districts have a contingency plan or some contingency funding mechanism to pay an administrative civil liability or will the payment of any administrative civil liability by the Districts be paid by the Districts' rate payers through a rate increase?
4. Do the Parties believe that the Proposed Settlement will serve to deter possible future violations by the Districts or others? How will the Proposed Settlement deter possible future violations?

E. Findings Concerning "Ability to Pay" and "Effect on Ability to Continue in Business"

1. Initially, findings for "ability to pay," and "effect on ability to continue in business (Proposed ACL Order at p. 16) stated, "this factor was not evaluated since this is a settlement." The Proposed Late Revisions deleted all text to leave these sections blank, with no findings at all. The Advisory Team suggests that some finding be incorporated for each factor, including "Ability to Pay" and "Effect on Ability to Stay in Business" to ensure that each factor is addressed such that the Lahontan Water Board "take[s] into consideration" all the pertinent factors enumerated in Water Code section 13327.

2. Suggested Findings. Concerning "Ability to Pay", the Advisory Team suggests: "The Districts' annual revenue for 2006 was _____ and annual expenses of _____. The Districts have approximately 100,000 rate payers and the cost of liability will be covered by the ratepayers (approximately \$40 per ratepayer). Consequently, the Districts have the ability to pay the proposed liability. Furthermore, because \$4 million represents a settlement between the Parties, the Districts presumably have the ability to pay this amount."

3. Suggested Findings. Concerning "Effect on Ability to Continue in Business", the Advisory Team suggests: "The proposed liability will not affect the Districts' ability to continue in business because the proposed liability represents only _____% of their annual revenue. The Districts have approximately 100,000 rate payers and the cost of liability will be covered by the ratepayers (approximately \$40 per ratepayer). Furthermore, because \$4 million represents a settlement between the Parties, the Districts presumably believe that the proposed liability will not affect their ability to continue in business."

F. History of Violation

1. Was the \$152,000 in payment to the Waste Discharge Permit Fund (WDPF) intended to recover staff costs beyond the \$50,000 cited? Is this amount an accurate reflection of other staff costs that were incurred as a result of staff efforts concerning the Districts' alleged noncompliance?

2. Suggested Findings. Concerning “History of Violation”, the Advisory Team suggests removing the existing findings and replacing them with the following:

District 14 – District 14 has a significant history of violation. The Water Board adopted WDRs and a CDO for District 14 in 1993. The CDO required abatement of wet-weather overflows from the sewage collection system. The 1993 WDRs, Board Order No. 6-93-75, established that, “Overflows from Paiute Ponds to Rosamond Dry Lakes, except as a result of storm runoff, constitute a violation of WDRs because the overflows cause a nuisance condition for the Air Force. . . .” The 1993 WDRs included prohibitions on overflows from Paiute Ponds and recognized the prohibitions were violated at times. The 1993 WDRs established a time schedule to “complete construction of long term disposal alternatives and achieve full compliance . . . specific to Paiute Pond overflows, by **March 1, 2000**.” (emphasis in original) In 2002, the Water Board revised the WDRs, finding that District 14 had not constructed the long term disposal alternative needed to control flows to Paiute Ponds (p. 4, Board Order No. R6V-2002-053). The 2002 WDRs included a revised time schedule to control overflows from Paiute Pond by **August 25, 2005**. On October 13, 2004, the Water Board adopted CDO-14, as stated in Finding no. 3 of this Order, with a compliance date to eliminate effluent-induced overflows by **October 1, 2008**. Thus, District 14 has a history of failing to comply with requirements pertaining to controlling effluent-induced overflows from Paiute Ponds.

District 14 has otherwise violated its WDRs over the years it has been discharging. For example, District 14 recently submitted an incomplete monitoring well installation report, violated its flow limit at the Antelope Valley Tertiary Treatment Plant, and violated a residual chlorine limit at its secondary plant. Other violations were minor relative to those identified in this Order.

District 20 – District 20 has a history of violation. District 20 degraded ground water quality with nitrate for many years, in violation of long-standing prohibitions, policies and requirements to prevent such degradation. As stated in Finding No. 8 of this Order, District 20 monitoring data indicated that nitrate began to exceed the 10 mg/l MCL in 1990, violating health-based water quality standards, yet District 20 did not take action to abate the violation or comply with requirements. The Water Board adopted Board Order No. 6-93-18 in 1993 with requirements

to develop an expanded ground water monitoring program. The Water Board again revised the WDRs in 2000, citing ground water degradation due to elevated nitrate and total dissolved solids (TDS) in two monitoring wells, and threatened pollution due to excess nitrate and TDS in the vadose zone (Board Order No. 6-00-57, p. 4). The 2000 WDRs included "Nondegradation" as a Receiving Water Limit (p. 7), and a time schedule to comply with discharge specifications for toxic water pollutants, including nitrate. District 20 did not comply and the Water Board issued CAO-20 in 2003 and CDO-20 in 2004 to compel compliance with WDRs.

District 20 has otherwise violated its WDRs over the years it has been discharging. Other violations were minor relative to those identified in this Order.

Recent Summary: Between November 2003 and March 2007, District noncompliance resulted in the Water Board taking a tour of certain District facilities, holding a public workshop concerning a proposed connection ban, considering a proposed settlement, considering a CAO, considering CDOs six times, and evaluating 24 compliance status reports. This significant history of violation indicates that the Districts did not comply with discharge requirements and enforcement orders, and shows a pattern of District actions or inactions to avoid or significantly delay compliance. Neither District has attained compliance, and the Districts have jointly initiated litigation against the Water Board to contest the time schedules adopted in CDO-14 and CDO-20.

G. Nature, Circumstances, Extent, and Gravity of Violations

1. It is the stated intent of the State Water Resources Control Board that Regional Water Boards operate within the framework provided by the *Enforcement Policy*. Although not a specific requirement, the *Enforcement Policy* (p. 36) suggests that the beneficial use liability should "if possible, estimate the dollar value of any impacts of the violation on beneficial uses of the affected waters." The Advisory Team suggests a finding that estimates the dollar value of any impacts of the violations on beneficial uses of the affected waters. This finding could be made by evaluating the cost of replacement water, for example, with water purchased from the State Water project, assuming it is available. If such water is unavailable, additional information could be gathered concerning the cost of other potential sources of imported water.

2. Suggested Findings. Concerning “Nature, Circumstances, Extent, and Gravity of Violations”, the Advisory Team suggests deleting the findings in the Proposed ACL Order and including the following:

District 14 –District 14 did not divert the required volumes of wastewater effluent from Paiute Ponds as specified by CDO-14 or other requirements of the Water Board dating from 1993 to the present. These violations resulted in the discharge to Paiute Ponds of the volume of effluent that should have been diverted and thus caused or contributed to wastewater overflows from Paiute Ponds to Rosamond Dry Lake. The circumstances at Paiute Ponds are that District 14 has agreed (with other agencies) to maintain certain wetted acreage for habitat purposes, and overflows are dependent on both seasonal precipitation patterns and wastewater inputs. That is, in wet years or portions of such years, the Paiute Ponds may naturally overflow to Rosamond Dry Lake. To the extent that overflows are caused by wastewater inputs, the uncontrolled wastewater flows constitute a violation of requirements. District 14 has not timely addressed a long term problem, still can not fully control wastewater inputs to Paiute Ponds, and therefore has not complied with WDRs and the CDO.

District 20 – District 20’s nitrogen-rich wastewater discharges have caused or contributed to violations of the nitrate receiving water limitation specified by Board Order No. 6-89-31, Board Order No. 6-93-18, and Board Order No. 6-00-57, as amended. The violations of the MCL for nitrate (10 mg/L) began as early as the second quarter of 1990. The polluted ground water is within an estimated area of approximately two and one-half square miles where the data indicate, and District 20 estimates, that at least the upper 50 feet contains nitrate concentrations of 10 mg/L or greater. A District 20 estimate of the amount of water contaminated above the MCL is _____. In addition, there is a much larger volume of ground water that has been degraded by nitrate and other salts at levels below the applicable MCL, estimated at _____. (One acre-foot of water is the amount typically needed to supply two single-family homes for one year.) Thus, portions of the ground water beneath and adjacent to the Site have been contaminated above a drinking water standard for approximately 16 years to date. Prospects, and a time line, for cleanup are not clear at this time. These waters may be further degraded and are susceptible to violating the nitrate MCL due to ongoing excess waste inputs and discharges of excess nitrogen stored in the vadose zone. (See Factor, Susceptibility to Cleanup or Abatement.)

Based on information provided to date, District 20 anticipates cleanup principally by "natural attenuation," such that water quality is degraded but not polluted (i.e., below MCL), and potential District 20 cleanup costs are externalized to the water environment or other users (i.e., not borne by the District).

The gravity of the violations is significant because the Antelope Valley ground water basin is currently subject to ground water withdrawals in excess of actual recharge (overdraft), and is in a process of adjudication to allocate basin-wide usage. To the extent water to supply municipal and other beneficial uses is not available from the local ground water basin, water must be imported from the State Water Project or other sources, assuming availability. Another alternative is to treat the contaminated water for municipal use. However, the U.S. Environmental Protection Agency indicates the MCL for nitrates has been set at 10 mg/l because it believes, given present technology and resources, this is the lowest level to which public water systems can reasonably be required to remove this contaminant, should it occur in drinking water (Ground Water and Drinking Water *Consumer Factsheet on: NITRATES/NITRITES*; URL http://www.epa.gov/OGWDW/contaminants/dw_contamfs/nitrates.html). In other words, treatment is expensive.

A beneficial use liability assessment to quantify impacts to beneficial uses and harm resulting from the violations was conducted, as recommended in the *Enforcement Policy* to estimate the dollar value of any impacts of the violation on beneficial uses of the affected waters. For waters not meeting nitrate objectives, the cost of replacement is _____ per acre-foot with water purchased from the State Water project, assuming it is available. Estimated costs to replace the water degraded above the nitrate MCL are _____. Estimated costs to replace the water degraded below the nitrate MCL are _____.

After completing a ground water study in 1999, District 20 reported that other non-District sources of nitrogen contributed to the earlier violations of the nitrate MCL. However, it is District 20 that violated the MCL. Furthermore, District 20 continued disposing of wastewater by land spreading in violation of discharge prohibitions and knowing that nitrates in ground water were exceeding the receiving water limit. Until 2002,

approximately 98 percent² of District 20's effluent was disposed by land spreading, with the remainder being reused through agricultural irrigation. (See Factor, History of Violation.)

A shift to agricultural reuse began in 2002, after District 20 renegotiated its contract with LAWA and obtained control of the effluent management activities. Simultaneously, District 20 initiated a multi-phase project described in Finding No. 4. However, the above-referenced condition of ground water pollution could have been avoided or at least significantly mitigated with earlier planning, financing, construction, and operation of treatment, storage and disposal facilities. (See Factor, History of Violation.)

H. Susceptibility to Cleanup

1. A July 2005 status report to the Water Board says, "The primary mechanism [proposed by District 20] for nitrate reduction is natural attenuation. The mass of nitrate removed by groundwater extraction through 2015, when nitrate concentrations are expected to be less than 10 mg/L, is 85 tons. The total mass of nitrate in the polluted groundwater plume is greater than 290 tons. Additional nitrogen will be added to groundwater by continued land spreading (525 tons) through 2009." Greater amounts are proposed through 2010 as part of extending the compliance dates in the CDOs as part of the proposed settlement. Given this information, have unit-cost estimates for treatment been used to determine beneficial use liability and whether the discharge is susceptible to cleanup before it mixes with and degrades additional ground water resources?

2. A February 9, 2005 status report to the Water Board indicates a four square-mile area has nitrate concentrations above 10 mg/L, with a ten square-mile area where nitrate is above 2 mg/L. Elevated nitrate was cited as present in the upper 150 feet of the aquifer and District 20 estimated 190,000 acre-feet of water is affected by nitrate above 2 mg/L and 21,000 acre-feet is above 10 mg/L. ACL Order Finding #4 says only that District 20 estimates the upper 50 feet of ground water in a two and one-half square mile area has N above 10 mg/L (ACL Order, p. 5), a substantially smaller region in terms of area and volume contaminated.

² p16. Quarterly Status Report – 3rd Quarter 2005. Palmdale Water Reclamation Plant, LACSD, October 2005.

Given this information, will it be 2015 or later that the groundwater beneath Palmdale will be impaired by N for MUNICIPAL beneficial use? The estimates cited in 2005 appear to differ substantially from current estimates, and the discrepancies should be clarified and explained.

3. What is the projected timing and cost to clean up and remove nitrate to meet the 10 mg/L standard?
4. Between now and 2015, will the nitrate contamination in the groundwater get worse before it gets better if the proposed settlement is approved by the Board? More specifically, what do the models cited in the cleanup and abatement order (CAO) predict will happen to nitrate concentration through 2015 under the projected nitrogen loading through 2010?
5. If the degraded ground water was treated to a nitrate level of 2 mg/L using currently available technology, what will be the projected cost to pump, treat, and re-inject the water that is currently contaminated by nitrate, how quickly could that be done, and at what cost?
6. Will the cleanup plan currently being developed involve ground water pumping and reuse on the current effluent management site, and, if so, how will such an approach affect total nitrogen loading on the reuse site where excess nitrogen is currently being applied?
7. Is the Supplemental Environmental Project (SEP) being promoted as a future means to eliminate N that would, in combination with applied water from the cleanup, exceed the nitrogen requirement in the currently available land areas?

I. Supplemental Environmental Project

1. Is there any relationship between the SEP and local regulations and policies (water conservation/planning)? If so, the Advisory Team suggests that this information be included as a finding in the proposed ACL Order.
2. Is there an ability to use the projected amounts of wastewater beneficially? If so, the Advisory Team suggests that this information be included in the proposed ACL Order.

3. What is the relationship between the County Sanitation Districts and the County Water Districts? Is the relationship one of recycled water user to supplier within arguably the same County government structure?

4. The Advisory Team suggests that additional information be provided in the Proposed ACL Order concerning how payments to an escrow or impoundment account will be managed and under what conditions they can be withdrawn. Although there are final end dates concerning when a SEP will be agreed upon, when payments will be made to the account, and under what conditions they may be withdrawn, additional assurances could be provided to ensure that there is no disagreement or potential litigation concerning withdrawal of the funds from the account.

5. The Advisory Team suggests that there may be some value in having the Parties extend the due dates for the proposed SEP and extend the ACL payments in like kind, in view that these projects often take longer than expected, as well as to prematurely avoid having to seek an alternative SEP.

6. What are the specific time constraints in obtaining sufficient funding for the proposed SEP? To what extent does the SEP depend on federal, state, or other grant money beyond the control of the Districts?

7. Did the Parties consider other SEPs such as (1) site-specific objectives for local groundwater sub-basins; (2) a ground water recharge demonstration project; (3) an aquifer storage and recovery water banking pilot project; (4) a water conservation garden and environmental center?

8. The Advisory Team suggests a specific dispute resolution procedure to resolve disputes about the SEP funding, payments, etc.

II. COMMENTS AND QUESTIONS ON AMENDED CDOS

A. District 14, Lancaster

1. Please clarify the basis for the term "industry standards" used in the Consultant's Report. The Advisory Team suggests that the more appropriate term may be "best professional judgment." In what way, if at all, does the Consultant's Report recognize the Water Board was acting to

require construction of the needed facilities in the shortest feasible time to address conditions in violation of requirements, including extraordinary measures if needed?

B. District 20, Palmdale

1. Please clarify the basis for the term "industry standards" used in the Consultant's Report. The Advisory Team suggests that the more appropriate term may be "best professional judgment." In what way, if at all, does the Consultant's Report recognize the Water Board was acting to require construction of the needed facilities in the shortest feasible time to address conditions in violation of requirements, including extraordinary measures if needed?
2. The Advisory Team believes that there appears to be an inconsistency in Findings #5 and #6 (District 20 Revised CDO, p. 5). Different dates are given for constructing and completing storage facilities needed to eliminate non-agronomic discharges, namely February 1, 2010 and June 18, 2010. Consequently, the Advisory Team suggests that the compliance date be clarified.
3. The Advisory Team suggests that updated information be included in the CDO characterizing the mass and concentration of nitrogen in the ground water and vadose zone in order to consider and better determine the impact of additional proposed waste discharges. The Advisory Team also suggests that the CDO amendments update the findings of the original CDO, which was based on information provided in 2004.
4. What is the basis for Interim Standards II.A.? The Advisory Team notes that the CDO establishes variable nitrogen limitation of 129.5 tons/year (with some reduction in 2010) that essentially allows existing operations until the final compliance date of June 18, 2010. These amounts are stated in the header of Table 2 as "Allowable" discharges of excess N under the CDO. Is the purpose and intent of the Proposed Settlement to allow the Districts to continue to discharge nitrogen as long as those nitrogen levels are within the limits established for each calendar year between 2007 and 2010 and despite the fact that such "allowable" discharges would be in violation of existing waste discharge requirements (WDRs)?

5. The Advisory Team notes that Table 2 values and amounts of N actually discharged since 2004 compare unfavorably to N limits under existing Orders. The Advisory Team suggests that findings to explain the basis for higher mass limits would be helpful. Discharges of excess N in violation of WDRs and prohibitions have occurred or are scheduled to occur. Evaluations should cover and compare the following:

- a. Pre-1990 (Degradation Period is not evaluated)
- b. 1990-2003 (violation period preceding original CDOs)
- c. 2004-2008 (violation period in original CDOs), projected per limits in the CDO as well as actual/projected.
- d. 2007-2010 (Proposed Violation Period in the Revised CDO)

6. Concerning post-2010, is there a reservoir of excess N in vadose zone soil due to the prior discharges being deposited where they cause or contribute to violations of water quality objectives? If so, what is the lag time to reach ground water and what modeling, if any, has been done to make this determination?

7. How are the amounts of N "lost to the atmosphere" determined? Because this variable is necessary to determine future CDO compliance (District 20 Revised CDO at p. 8), is there an agreed-upon model to determine the amounts of N volatilized to the atmosphere?

III. CONCLUSION

Thank you for considering these comments, questions, and suggested findings. Any new findings or amendments to existing findings in one or more of the proposed orders that specifically address these comments and questions will assist the Board in making a more informed decision concerning the merits of the Proposed Settlement.