CALLEGUAS

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May 17, 2004

Frank Roddy
Division of Water Quality
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Comments on California Ocean Plan Triennial Review

Dear Mr. Roddy:

The Calleguas Municipal Water District (Calleguas) appreciates the opportunity to comment on relevant issues that need to be addressed as part of the triennial review of the California Ocean Plan. Calleguas is a member agency of the Metropolitan Water District of Southern California and provides State Water Project water to the southern portion of Ventura County for urban and agricultural uses. Calleguas is also an active participant in the Calleguas Creek Watershed Management Plan (CCWMP). This is a stakeholder-led program and one of its many objectives is the development of an integrated water resource/water quality management plan for the watershed.

The goals of the integrated water resource/water quality management plan include:

(1) Optimizing local water resources by reclaiming local groundwaters currently unusable due to high salt levels.
(2) Managing water resources to achieve a salts balance within the watershed.
(3) Achieving compliance with water quality objectives and TMDL requirements applicable to the watershed.[1] An essential element of this plan is a brine line to transport brine from groundwater desalting facilities and wastewater treatment plants to the ocean for discharge through an existing ocean outfall owned by Reliant Energy. Calleguas is currently constructing the brine line and plans to have the initial phases and the first groundwater desalting facilities in operation by 2006.

Many other agencies throughout California are facing situations similar to Calleguas', where desalting of inland groundwaters is essential for the long-term management of salts, water resources, and water quality. Groundwater desalting cannot be accomplished without the construction of facilities like the brine line that provide a mechanism to convey brine by-products from inland treatment facilities to the ocean for disposal. As brine lines become increasingly important to water resource and salt management strategies in California, it is critical that the Ocean Plan is modified to facilitate permitting of these types of discharges, while providing adequate protection of the aquatic environment.

[1] Calleguas Creek and its tributaries are listed as impaired for salts on the current Section 303(d) List.

The Ocean Plan Triennial Review provides an excellent opportunity for the State Board to consider the many issues associated with ocean discharge of groundwater desalting brines and Calleguas urges the State Board to add "Site-Specific Implementation Procedures to Address Brine Waste Discharges" to the list of issues to be considered during this triennial review. The State Board previously considered a related concept as Issue C.3.d, "Water Quality Objectives to Address Specific Pollutants in Waste Discharges from Desalination Facilities."

Currently, compliance with the Ocean Plan is based on concentrations at the edge of the zone of initial dilution. While a dilution ratio is applied to the outfall, it only considers the dilution achieved by the force of the discharge exiting the outfall. It is assumed that the ocean is entirely still with no wave action, currents, or tides, which is not representative of the actual physical situation and may result in overly restrictive discharge limitations. Site-specific implementation procedures would enable permit limits to more completely consider the physical realities of the discharge, including the impact of external forcing functions, such as currents, tides, and wave action. Many commonly used and widely accepted plume models have the capability to consider the effects of currents, tides, and wave action. Applicants already use these models to evaluate the impacts of their discharges, but cannot include the mitigating effects of external forcing functions when submitting their application to the Regional Board for permitting. These modified implementation procedures would facilitate the permitting of groundwater desalting brines.

The use of site-specific implementation procedures would not endanger aquatic life or human health. The current Ocean Plan is more restrictive than other State and federal policies governing the implementation of water quality standards. Specifically, the Ocean Plan requires that all water quality objectives be achieved at the edge of the zone of initial dilution, whereas other State Board and EPA policies[2] recognize that different mixing zones and dilution credits are appropriate for different types of water quality objectives, based on their averaging periods.[3] Those policies recognize that acute aquatic life objectives are based on a 1-hour averaging period, chronic aquatic life objectives are based on a 4-day averaging period, and human health objectives are based on a 30-day averaging period. The Ocean Plan, by requiring compliance at the edge of the zone of initial dilution, treats these objectives as if they were all instantaneous maximums. Therefore, the Ocean Plan could incorporate provisions that allow brine line dischargers, on a site-specific basis, to demonstrate that Ocean Plan objectives are not exceeded outside mixing zones consistent with their respective averaging periods without endangering aquatic life or human health.

The insertion of a simple paragraph could provide brine line dischargers with the flexibility to develop alternative site-specific mixing zones. The following paragraph is presented for illustration purposes:

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[2] The State Policy for Implementation of Toxics Standards for Inland Surface Waters and Enclosed Bays and Estuaries ("SIP"); the EPA Water Quality Standards Handbook; and the EPA Technical Support Document for Water Quality-based Toxics Control all recognize different mixing zones for different types of objectives.

[3] The fact that Table B has different averaging periods for objectives (e.g., 6-month median, daily maximum and instantaneous maximum) is not the same as basing effluent limits on appropriate averaging periods. These limits still apply to the zone of initial dilution, which is appropriate only for instantaneous maximum concentrations.

Alternative Implementation Procedures Available to Brine Waste Discharges

Any discharger of brine wastes may request approval of alternative site-specific mixing zones upon completion of technical and scientific studies demonstrating that the requested alternative(s) will fully protect aquatic life and human health. The State Board, after public hearing, may approve the requested alternative(s) providing, after independent peer review, the Board determines that the alternative mixing zones are consistent with federal and State law, fully protective of beneficial uses and in the best interest of the people of the State.

Calleguas appreciates the opportunity to submit these comments. Please contact me at (805) 576-7113 if you have any questions.

Sincerely,

Donald Kendall, Ph.D., P.E.
General Manager

cc: Larry Walker, Larry Walker Associates
Don Zylstra, Kennedy/Jenks Consultants