



5/26/07 Scoping Mtg.
CA Ocean Plan Amend.
Deadline: 7/27/07 Noon

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

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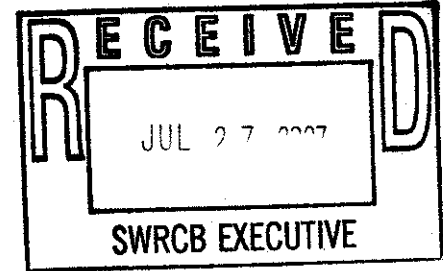
STEPHEN R. MAGUIN
Chief Engineer and General Manager

July 27, 2007
File No. 31-300.25

Ms. Tam M. Doduc, Chair
and Members of the Board
State Water Resources Control Board
PO Box 100
Sacramento, CA 95812-0100

ATTN: Clerk to the Board:

Dear Ms. Doduc:



Comments on the June 2007 California Ocean Plan Scoping Document

The County Sanitation Districts of Los Angeles County (Districts) appreciate the opportunity to provide comments on the June 2007 Scoping Document for amendment of the California Ocean Plan (COP). The Districts are a confederation of 26 independent special districts that provide for the water pollution control and solid waste management needs of approximately five million people in 78 cities and unincorporated areas of Los Angeles County, CA. The Districts own and operate 11 wastewater treatment plants, one of which discharges to the Pacific Ocean one and a half miles offshore of Palos Verdes at a depth of approximately 200 feet.

The Districts have conducted extensive monitoring of coastal conditions near our ocean outfall for more than 35 years. The Districts own and operate several research vessels including the 66-foot *Ocean Sentinel* and employ a staff of 13 marine biologists, geologists, chemists, toxicologists, and engineers to implement our National Pollution Elimination Discharge System (NPDES) permit ocean receiving water monitoring requirements. The monitoring includes physical and chemical water column profiling, surf-zone and nearshore bacteriology, physical and chemical characterization of sediments, benthic infauna and demersal fish and invertebrate assemblage characterization, and assessment of chemical contamination of local fish and invertebrate tissues. The Districts have also provided leadership and field support for the local regional monitoring efforts (Bight surveys) since their inception in 1994. In short, the Districts have considerable experience and knowledge in the assessment of water and sediment quality impacts on coastal conditions. The following comments are respectfully submitted based upon this expertise and with the intent to improve the COP and the coastal waters it protects.

If you have any questions or need further information, please contact Mr. Joe Gully at (562) 908-4288, extension 2818 or jgully@lacsd.org.

Very truly yours,

Stephen R. Maguin

Philip L. Friess
Departmental Engineer
Technical Services Department

Itemized Specific Comments:

Issue 2: Fecal Coliform Standard for Shellfish

The Districts support the adoption of a fecal coliform standard for shellfish in principle, but we would like the proposed amendment to include more specificity regarding how recreational shell fishing areas will be defined under this standard, application of the proposed fecal coliform standard only during shellfish harvesting seasons, and the use of 30 or 60 day geometric means for determining compliance with the standard.

The Districts also strongly support the State Water Resources Control Board (SWRCB) proposal to only consider human sources of fecal contamination when applying this standard, with the following consideration. The science and methodologies to reliably differentiate human from non-human sources of fecal bacteria are still being developed and must be demonstrated for the SWRCB preferred approach (Alternative 2) to be appropriate. If the differentiation science and methodologies cannot be demonstrated, the existing standards (median total coliform shall not exceed 70/100 mL and total coliform shall not exceed a level of 230/100 mL more than 10% of the time) are low enough to be effective at identifying potentially contaminated areas, even if they lack the ability to provide characterization of the source of the contamination.

Issue 6: Vessel Discharges

The Districts support the SWRCB's recommendation to delete the exclusion for vessel wastes and to reflect current state and federal requirements governing vessel wastes (Alternative 2).

Issue 10: Desalination Facilities and Brine Disposal

The Districts agree that the COP needs to consider and protect against potential adverse impacts associated with brine waste discharges. However, the proposed amendment establishes an arbitrary, unnecessary, and unclear standard associated with changes in salinity to accomplish this goal. Given the state of knowledge, existing narrative objectives in the COP, and the importance of water reuse/desalination to the State of California, the Districts recommend the SWRCB pursue no action (Alternative 1) at this time. The basis for this recommendation is summarized below.

The proposed amendment is arbitrary given the state of knowledge and tools available to assess brine discharge impacts. Toxicity associated with salinity increases is likely to be site-specific due to many factors including the specific biota in the discharge area, the behavior of the discharge plume, local oceanographic conditions, and the relative concentrations of ions in the brine. Further, dilution models for brine discharges need to be evaluated and approved for use to establish appropriate mixing zones (if allowed). Given the site-specificity of potential brine impacts and the need for proven modeling tools, the establishment of a single, percentage based, salinity change limit to apply to all discharges at this time is premature and unlikely to be effective under all circumstances.

The proposed amendment is unnecessary because the current COP contains sufficient narrative general provisions and biological objectives to protect against adverse impact due to brine waste discharges. These provisions protect against degradation of various marine communities and areas of special biological significance (ASBS), unsafe or unappealing alteration of marine resources used for human consumption, waterborne diseases, and the overall aesthetics of coastal waters. These objectives could be used solely to regulate brine discharges or on an interim basis while better information and tools are obtained to assess and predict brine discharge impacts.

The proposed amendment is unclear in two ways. First, it does not specifically indicate that the numeric water quality objective will be applied after a mixing zone. In fact, Item 5 in Section 10 of Appendix III (Proposed Standard Monitoring Procedures), proposes that the salinity can not change the background salinity "at any time" by more than 10%. This suggests no mixing-zone is allowed for salinity. Was this the intent of the SWRCB? This provision also highlights the second source of uncertainty; whether the standard applies only to increases in salinity. As worded, the no more than 10% change in salinity standard appears to apply to both salinity increases due to brine discharges and decreases due to freshwater discharges (e.g. treated wastewater

effluent). If the intention is to protect against salinity increases due to brine waste discharges, then the proposed standard should be revised as such.

Given the ever-increasing importance of water reuse and desalination to meet the drinking water needs of California, we urge the SWRCB to take a responsible and informed approach to the inclusion of salinity based brine discharge standards. The significant gaps in knowledge and tools should be filled before consideration of specific salinity standards. Until that time, existing COP narrative objectives are protective of adverse impacts associated with brine waste discharges.

Issue 13: Review of Table B Water Quality Objectives

The Districts support the goal of the SWRCB to ensure the radioactivity standards in Table B are protective of marine aquatic life. We also agree that drinking water radioactivity standards developed for human health protection are not likely an appropriate surrogate for the protection of marine aquatic life. However, the recommended alternative is based upon uncertain results of an apparently abandoned study that was never promulgated into regulation. Considering the large number of radioactive compounds listed in federal guidelines, the associated cost increases to analyze for these compounds, and the uncertainty of their protectiveness for marine aquatic life, the Districts recommend the SWRCB take no action on this issue (Alternative 1) until these guidelines can be further evaluated or an assessment can be made to determine whether existing radioactivity limits in the COP are already protective of marine aquatic life.

Issues 14-18: Proposed Standard Monitoring Procedures

The model monitoring framework proposed for use in the COP, consisting of core monitoring, regional monitoring, and special studies, is strongly supported by the Districts. The Regional Water Quality Control Board, Los Angeles Region (Regional Board) and the Districts have successfully used this framework as the basis for our Joint Water Pollution Control Plant (JWPCP) NPDES permit. The resulting monitoring program is more efficient and adaptive to the specific environmental issues important to the Southern California region. For example, we have conducted extensive core monitoring focused on potential impacts associated with our White Point outfall off the coast of Palos Verdes since the early 1970s. Through these efforts, the Districts have clearly and repeatedly demonstrated dramatic reduction or elimination of historic impacts associated with the outfall. Using the model monitoring framework as a guide, the Regional Board reduced our core monitoring efforts in several programs (bacteriology, benthos, and epibenthic) to levels that were appropriate for measuring status and trends where little current impact is observed or predicted.

These reductions in core monitoring were replaced with more currently relevant regional monitoring requirements including participation in the “Bight” studies, the Santa Monica Bay Restoration Commission Comprehensive Monitoring Program, regional seafood safety and predator risk monitoring, and quarterly kelp bed canopy surveys. The JWPCP NPDES permit also requires annual consultation with the Regional Board to discuss the need for special studies related to wastewater impacts arising from core or regional monitoring, technological advancements, or public interest. As a result of this process the Districts, in coordination with the other major POTWs discharging to the Southern California Bight, funded a collaborative study through the Southern California Coastal Research Project (SCCWRP) to evaluate the presence and impact of endocrine disrupting chemicals (EDCs) on flatfish living near coastal outfalls.

The information gathered through the regional monitoring and special studies conducted by the Districts (as well as the ongoing core monitoring) are a more effective use of monitoring resources addressing current environmental concerns and are greatly valued by scientists, regulators, environmental advocacy groups, and the general public. However, this work is only possible because the model monitoring framework allows for an adaptive monitoring design where the local entities, who have the best knowledge regarding information and research needs, are allowed to design the monitoring program. The need for such flexibility is supported in the SCCWRP Model Monitoring Program for Large Ocean Discharges in Southern California report which states;

”The document is built to serve as a blueprint for developing a monitoring program and, as such, is not site-specific. It provides the approach and rationale for designing the monitoring program and often describes recommended strategies for ensuring effectiveness, efficiency, and comparability. It should

serve as the starting point for creating or refining a monitoring program and provide the guidelines for regulators and permittees to discuss site-specific needs and designs.” (Schiff et al. 2002, 3)

Even within the scoping document (page 13), staff included a warning from EPA who “recommended that any modifications to the Appendix III standard monitoring requirements should be worded carefully so as not to lock in sampling, monitoring, or data management protocols that may quickly become outdated”.

Therefore, the current staff recommendation to include minimum monitoring frequencies (Alternative 3) is inconsistent with the fundamental principles of the model monitoring framework. The revisions to the Standard Monitoring Procedures proposed by the SWRCB establish the exact environmental management questions every ocean monitoring program must address to be compliant with the COP. This is the appropriate level of guidance for development of local monitoring programs. Therefore, we strongly urge the SWRCB to support Alternative 2, which retains the fundamental principles of the model monitoring framework but allows local regulators, permittees, scientists, and other stakeholders to design the most appropriate and effective monitoring program for their needs.

The Proposed Standard Monitoring Procedures also include several references to the use of QA/QC and data submission requirements from the Surface Water Ambient Monitoring Program (SWAMP) for ocean monitoring programs. The SWAMP program, as its name implies, was not designed for ocean monitoring but for surface waters. Although many of the QA/QC objectives and data types are appropriate for both ocean and surface water monitoring programs, there are also many key differences that must be considered. The Districts recommend that the SWRCB acknowledge in the Proposed Standard Monitoring Procedures that the SWAMP QA/QC objectives and data submission requirements will need to be reviewed and revised in light of the unique procedures and data associated with ocean monitoring programs.

Reference: Schiff, K.C., J.S. Brown, and S.B. Weisberg. 2002. *Model Monitoring Program for Large Ocean Discharges in Southern California*. Technical Report 357. Southern California Coastal Water Research Project. Westminster, CA. 101 pages.

Issue 19: Expression of Metals in Ocean Plan

The Districts support the SWRCB’s recommendation to clarify that standards for metals in the COP are expressed as total recoverable concentrations (Alternative 2).

Issue 22: Suspended Solids Regulation in Table A

The SWRCB has proposed to make the Table A suspended solids limit consistent with suspended solids standards required under the Clean Water Act. The recommended alternative only allows five years for implementation of treatment processes (i.e. full secondary treatment) to meet this objective. As an agency who recently upgraded to full secondary treatment, we can say from first hand experience that five years is insufficient to make such a significant upgrade. If Table A is amended, the handful of POTWs who have not converted to full secondary should be allowed at least 10 years to become compliant with this standard, particularly since they have all successfully obtained 301(h) waivers by demonstration that their discharges are not causing sufficient environmental impact to warrant such treatment upgrades.

Issue 23: Plastic Debris Regulation

We support the staff-recommended Alternative 2 which would amend the Ocean Plan to include require that waste streams are essentially free of trash including plastic debris.

Issue 24: Acute Toxicity Definition

The Districts strongly support the State Board’s preliminary recommendation to modify the acute toxicity definition to account for control survival and eliminate the potential for TUa values of zero. These changes will improve the accuracy of TUa calculations and allow for better statistical analysis of acute toxicity data, including the recently adopted State procedure for calculating reasonable potential. The recommended changes

to the acute toxicity definition do not decrease the protectiveness of the acute toxicity standard, but simply correct a mathematical limitation in the definition that will allow for better interpretation of these results.

However, a comprehensive review of the revised definition found that under certain test conditions, the proposed definition would not properly account for control survival. Specifically, the control survival adjustment does not account for situations where the survival in the control is less than the survival in 100% effluent. As written, the recommended definition is unclear how such data would be analyzed, but the two likely options are both problematic.

Option 1: Apply control mortality adjustment as written

The formula for calculating the control adjusted survival term (Sa) appears to limit this adjustment to cases where the control survival is greater than the survival in 100% sample, some may try to use it in all cases. Such usage will result in an error in the TUa calculation from trying to take the log of a negative number.

Example:

If control survival (Sc) = 90% and 100% sample survival (S) = 95% then

Control adjusted survival (Sa) is: $Sa = 100(95/90) = 105.6$ and

$TUa = \log(100-105.6)/1.7$

The TUa cannot be calculated because the log of the resulting negative number from subtracting Sa (105.6) from 100 is undefined

Option 2: Ignore control mortality adjustment and use original TUa definition

Although not specific in the revised definition, it is likely that when the control survival is less than the survival in 100% sample, users would revert to the original definition of TUa to generate an actual result. However, the resulting TUa value would overestimate the true toxicity by ignoring the control response which is precisely one of the issues the proposed amendment is attempting to correct.

Example:

If control survival (Sc) = 90% and 100% sample survival (S) = 95% then according to the current COP

$TUa = \log(100-95)/1.7 = 0.41$

This result suggests that the sample had some low level acute toxicity even though the survival in 100% sample was better than the survival in the control. It makes intuitive toxicological sense that such a situation should result in a finding of no toxicity.

In order to remedy this problem, we suggest the following. First, require the adjustment for control mortality (Sa) under all conditions as long as the minimum test acceptability criteria (TAC) for the test are met. This would require the definition of Sa to be rewritten as such:

If $Sc >$ minimum control survival TAC then

$Sa = 100(S/Sc)$ where: S = Survival in 100% sample
Sc = Survival in control

Second, apply the proposed TUa definitions as written below.

If $Sa \leq 98$ then $TUa = \log(100-Sa)/1.7$

If $Sa > 98$ then $TUa = <0.18$

In cases where the control survival is less than the survival in 100% sample, Sa will be greater than 98 (actually greater than 100) and would result in a TUa value of <0.18 indicating no detectable toxicity in the sample.

Issue 25: Non-Substantive Administrative Changes

The Districts support the SWRCB's recommendation to make non-substantive improvements to the COP as proposed in the Scoping Document (Alternative 2).