6/26/07 Scoping Mtg.
CA Ocean Plan Amend.
Deadline: 7/27/07 Noon

July 26, 2007

Ms. Tam M. Doduc, Chair & Members
State Water Resources Control Board
Executive Office
P.O. BOX 100
Sacramento, CA 95812-0100

Attention: Ms. Song Her, Clerk to the Board
commentletters@waterboards.ca.gov

Re: California Ocean Plan Amendment

Dear Chair Doduc & Members of the Board

The California Association of Sanitation Agencies (CASA), Tri-TAC, the Bay Area Clean Water Agencies (BACWA), and the Southern California Alliance of POTWs (SCAP) appreciate the opportunity to provide comments on the *Scoping Document Amendment of the Water Quality Control Plan Ocean Waters of California, June 2007*. SCAP is a non-profit association organized to ensure that regulations affecting local public agencies are reasonable and in the best interest of the public. Tri-TAC is a technical advisory group jointly sponsored by CASA, the California Water Environment Association, and the League of California Cities. CASA is a statewide association of cities and special districts providing wastewater collection, treatment, and water recycling services to millions of Californians. The constituent agencies of Tri-TAC, BACWA, SCAP, and CASA serve most of the sewered population in California.

Many of our members agencies discharge to the Pacific Ocean based on the requirements of the California Ocean Plan (COP). As such, these public agencies are interested in the proposed amendments. Representatives from some of these agencies were able to participate in the workshop held in San Francisco on June 26th, 2007. Thank you for hosting that important dialogue to engage your staff as well as Member Spivey-Webber on this important topic. The following comments are submitted for your consideration as you move forward to update the COP.

Issues 14-18: Proposed Standard Monitoring Procedures

Summary of Comments and Recommendation

We support the inclusion of a model monitoring framework into the Standard Monitoring Procedures in the California Ocean Plan. However, the staff recommended that Alternative # 3 would place unnecessary and arbitrary minimum monitoring requirements that potentially counteract the effectiveness and efficiency provided by the model monitoring framework. Therefore, we strongly urge the State Board to support Alternative # 2, which would adopt the model monitoring framework without minimum monitoring requirements which are better left defined by local entities more familiar with the issues and needs of their region. A more detailed discussion of this recommendation is below.

Specific Comments on the Proposed Model Monitoring Framework

The model monitoring framework proposed for use in the California Ocean Plan, consisting of core monitoring, regional monitoring, and special studies, is strongly supported by Tri-TAC/CASA. Some of our member agencies with ocean discharges have successfully used this framework as the basis for their NPDES permits. The resulting monitoring programs are more efficient and adaptive to the specific environmental issues important to the region. For example, the County Sanitation Districts of Los Angeles County (CSDLAC) has conducted extensive core monitoring focused on potential impacts associated with their White Point outfall off the coast of Palos Verdes since the early 1970s. Through these efforts, the CSDLAC has 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 CSDLAC's core monitoring efforts in several programs (bacteriology, benthos, and epibenthic) to levels that were more appropriate for measuring status and trends where little current impact is observed or predicted.

The reductions in CSDLAC's 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 CSDLAC NPDES permit also requires annual consultation with the Regional Board to discuss the need for special studies related to wastewater impacts which arise from core or regional monitoring, technological advancements, or public interest. As a result, CSDLAC, in coordination with the other major POTWs discharging to the Southern California Bight, funded a collaborative study through the Southern California Coastal Water 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 CSDLAC (as well as the ongoing core monitoring) are greatly valued by scientists, regulators, environmental advocacy groups, and the general public because they represent a more effective use of monitoring resources to address current environmental concerns. However, this work is only possible because the model monitoring framework allows for an adaptive monitoring design where local entities, who know best the information and research needs of the region, are allowed to design the monitoring program. The need for such flexibility and non-specificity is supported in the SCCWRP Model Monitoring Program for Large Ocean Discharges in Southern California report (the inspiration for the proposed amendment), 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 California Ocean Plan 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 preliminary recommendation to include minimum monitoring frequencies (Alternative # 3) is inconsistent with the fundamental principles of the model monitoring framework. Such prescriptive monitoring requirements, even listed as minimums, have the potential to unnecessarily waste resources that could be better spent answering more relevant questions. Removal of the minimum monitoring requirements would not result in significantly inconsistent monitoring programs because the State Board's proposed amendment establishes the exact environmental management questions every ocean monitoring program must address to be compliant with the California Ocean Plan. These questions are the appropriate level of guidance for the development of site or regional monitoring programs and decisions as to how to answer them should be left to the Regional Board. Therefore, we strongly urge the State Board 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 to meet their needs.

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 24: Acute Toxicity Definition

Tri-TAC/CASA strongly supports the State Board's preliminary recommendation to modify the acute toxicity definition to account for control survival and eliminate the potential for zero TUa values. 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 corrects a mathematical limitation in the definition.

However, 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. This is a fairly common occurrence due to inherent random mortality of test organisms and has nothing to do with the toxicity of the sample. 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. However, some may try to use it in all cases which will result in an error in the TUa calculation by 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 negative number resulting from subtraction of Sa (105.6) from 100 is undefined.

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

Although not specified 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 (as opposed to an error). However, the resulting TUa value would over estimate 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 (2005)

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

Recommendation:

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 in Alternative # 2 to be rewritten without the requirement for control survival to be greater than survival in 100% sample. Below is an example of how this could be rewritten.

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 ≤ 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 22: Suspended Solids Regulation in Table A

Current POTW dischargers comply with federal Clean Water Act secondary treatment requirements including section 301(h) which allows for certain approved dischargers to discharge at levels less than secondary treatment. It is not necessary to change the Table A Suspended Solids water quality objective to meet the requirements of the Clean Water Act. Additionally, the proposed 5-year time period before the new objective would be implemented is insufficient to allow a publicly owned treatment works to upgrade facilities to meet this proposed new objective.

The Orange County Sanitation District is currently upgrading its secondary treatment facilities to move from a 50% secondary treatment system to 100% secondary treatment for all flows. This process was fast-tracked; and yet it is scheduled to take a total of 10 years to complete this process. In this particular case, the review under the California Environmental Quality Act (CEQA) had already been completed as part of a Strategic Planning Process before the final decision was made. CEQA can add at least one more year to the process.

The Goleta Sanitary District also recently made the decision to upgrade their facilities to meet the secondary treatment requirements. The process is scheduled to take 10 years to complete. The cities of Los Angeles and San Francisco and CSDLAC each required about 10 years to plan, design and construct their secondary treatment facilities. These examples all suggest that the proposed 5-year implementation schedule is insufficient to upgrade a primary treatment plant to meet the secondary treatment requirements of the Clean Water Act.

Issue 2: Fecal Coliform Standard for Shellfish

Tri-TAC supports the adoption of a fecal coliform standard for shellfish in place of the existing total coliform standard. The standard should apply in commercial shellfish harvesting zones and areas specifically designated by the local Regional Water Quality Control Board for shellfish harvesting. Shellfish are generally harvested in limited areas and on a seasonal basis. In particular local health officials will frequently prohibit the harvesting of shellfish during certain

seasonal periods. The Regional Board should be instructed to include these seasonal limitations in adopting uses. Additionally, the SWRCB needs to clarify the implementation as a geometric mean over a reasonable period of time, such as 30-days or monthly.

Tri-TAC supports the SWRCB proposal to address natural background conditions by "not considering those non-human sources of fecal contaminants in determining whether the standard is being attained." Where the local Regional Board believes that fecal coliform are from non-human sources, they should allow local regulated entities to perform studies and demonstrate that permitted discharges are not the source of the fecal coliform found in the shellfish harvesting areas. Tri-TAC supports Alternative # 2 as outlined above.

Issue 13: Review Table B Water Quality Objectives

Tri-TAC recommends that the SWRCB defer the development of a new radioactivity objective in Table B. The genesis of the priority for this issue in the Triennial Review was the comment from EPA to conduct a review for priority pollutants that have EPA recommended criteria that are not currently included in the Ocean Plan. In the Scoping Document, it appeared that the SWRCB decided to focus solely on developing a radioactivity objective because the current objective, which is applicable to human health, might not provide protection for aquatic life and is also difficult to interpret. Staff recommended Alternative # 3; namely, to adopt water quality objectives for aquatic life based on the standards proposed by the U.S. Department of Energy (DOE) in 10 CFR Part 834. The rationale for the alternative was that the DOE had already expended a significant effort to examine the literature (in 1993) and review public comments (which occurred in 1996); and using this information (if it can be obtained) would save the state work in developing the objective.

Tri-TAC has attempted to review the proposed regulation on the DOE website and could not find it. Hence, it is difficult to comment on whether the intent or substance of the work done by DOE is appropriate or not, and it would also be relevant to determine why DOE did not proceed with promulgating the regulation. Also, the work done by DOE is already at least 14 years old, and it is questionable whether it would save the State that much time since it is likely that more recent work may have been done on the impacts of radioactivity on aquatic life.

At the June 26, 2007 Scoping Meeting, staff asked for assistance in working on this issue. Tri-TAC would certainly be willing to help with that effort; however, we would like to point out that this issue is more complex than simply identifying an objective for radioactivity. The ability to comply with an objective is hampered by the lack of control POTWs have over regulating the discharge of radioactive wastes to their systems in California.

The issue of regulating radioactive wastes was first raised in the 1980's when sanitary sewer disposal of radioactive material began to be scrutinized with the discovery of elevated levels of radioactive materials in biosolids and biosolids incinerator ash at several POTWs around the country and POTWs determined that their ability to control the discharge of radioactive wastes to

the sewer were limited. In 1995, the Nuclear Regulatory Commission (NRC) and EPA began working together with the formation of a Sewage Sludge Subcommittee through the Interagency Steering Committee on Radiation Standards (ISCORS). In 1994, the General Accounting Office (now known as the Government Accountability Office) released a report entitled: *Nuclear Regulation: Action Needed to Control Radioactive Contamination at Sewage Treatment Plants*. The report found that of the more than 22,000 regulated users of radioactive materials; about 9,000 users have the potential to release radioactive materials to sanitary sewer systems. The report included three recommendations that were the focus of the ISCORS activities:

> Determine the extent to which radioactive contamination of biosolids, biosolids incinerator ash and related by-products is occurring;
>
> Directly notify POTWs that receive discharges from NRC or Agreement State licensees of the potential for radioactive contamination because of radioactive materials' concentrating and of the possibility that they may need to test or monitor their biosolids for radioactive content; and
>
> Establish acceptable limits for radioactivity in biosolids, biosolids incinerator ash and related by-products that should not be exceeded in order to ensure the health and safety of treatment workers and the public.

In 2005, EPA and NRC released final versions of the following two reports concerning radioactivity in sewage sludge (biosolids) and biosolids incinerator ash:

> ISCORS Assessment of Radioactivity in Sewage Sludge: Radiological Survey Results and Analysis; and
>
> ISCORS Assessment of Radioactivity in Sewage Sludge: Recommendations on Management of Radioactive Materials in Sewage Sludge and Ash at Publicly Owned Treatment Works (Recommendations Report).

These reports supplement another ISCORS report, released in November 2003, titled:

> ISCORS Assessment of Radioactivity in Sewage Sludge: Radiological Survey Results and Analysis

As a result of the 10 year evaluation effort, ISCORS did not recommend the establishment of regulatory limits on radioactivity in biosolids or biosolids incinerator ash. Instead, the final *Recommendations Report* provides a screening procedure and some recommended actions for POTWs that have concerns about radioactivity in their biosolids or biosolids incinerator ash, and a guideline level for exposures (10 milligrams/year) above which POTWs should conduct more extensive investigations. The key recommendation is that POTWs are advised to consult with

their state regulatory agency to determine if additional analyses should be conducted or if any response actions need to be considered. These actions included:

Consulting directly with likely industrial dischargers that may routinely discharge radioactive material to the sewer system to explore the possibility of voluntary reductions in such discharges.

Encouraging dischargers to use spill prevention measures to reduce the potential for accidental releases.

Imposing appropriate additional local controls on the dischargers, such as local discharge limits and regular reporting of discharges.

Requiring notification of planned or accidental discharges or requesting notification from the source by a POTW operator when elevated levels of radionuclides are detected.

Working with state regulators on enforcement actions against dischargers who violate license conditions and contribute to the elevated levels, and providing information to state regulators on any interference with operating practices created by discharges.

Correcting infiltration and inflow problems that transport naturally occurring radioactive material (NORM) into the POTW.

It should be noted that the ability to establish local controls is at the discretion of the state regulatory agency. In California, the Department of Public Health (formerly the Department of Health Services) is directed by the State's Radiation Control Law to develop programs for licensing and regulating radioactive materials. In 1962, the State of California ratified and approved entrance into an agreement with the United States Atomic Energy Commission, the predecessor of the NRC, by which the federal agency discontinued its regulatory authority over certain radioactive materials, vesting this authority with the State.

In this action, California became what is known as an "Agreement State," giving the State the ability to regulate radioactive materials, but likewise committing the State to use its best efforts to maintain compatibility between its program and federal guidance or policy. The Department of Pubic Health has adamantly opposed the ability of POTWs to establish local limits for the discharge of radioactive materials to the sewer, even when limits are needed so that POTWs can meet water recycling permits and NPDES permits established by Regional Boards.

Thus, this issue would certainly need to be addressed as part of an effort by the SWRCB to develop a new objective for radioactivity. The SWRCB would also need to address the requirements set forth in Water Code Sections 13170, 13241 and 13242 taking into consideration all the relevant factors such as beneficial uses of the water, water quality conditions that could reasonably be achieved, economic considerations, and the need to develop and use recycled water.

In summary, we recommend that for the time being, the SWRCB defer developing an amendment for Issue 13, and work with Tri-TAC and other stakeholders in more fully exploring options for this issue.

Closing:

Thank you for your consideration of these comments and for hosting the workshop to engage interested stakeholders in a dialogue on these important issues. If you have questions or comments, please contact the undersigned at your convenience.

Jim Colston, Chair
Tri-TAC

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