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November 30, 2007

Jeanine Townsend
Acting Clerk to the Board
Executive Office
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Dear Ms. Townsend:

Subject: Comment Letter – Sediment Quality Objectives

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review the Sediment Quality Objectives (SQO) for the Water Quality Control Plan for Enclosed Bays and Estuaries, Staff Report, and CEQA checklist. LADWP is a municipality that delivers both water and power to the citizens of the City of Los Angeles. In order to operate and maintain both water and power facilities, activities associated with these operations discharge to areas covered under the proposed objectives. In addition, as LADWP implements climate change and renewable energy initiatives for compliance with the respective regulations and City goals, LADWP will need to maintain backup generating capacity to support periods of high power usage as well as periods when green power usage has limited availability. Thus, LADWP's generating stations have a vital and irreplaceable role in meeting the power needs of the City of Los Angeles.

LADWP appreciates the hard work that the scientists and stakeholders have conducted over several years to discuss their concerns, study existing data, develop the SQOs, and verify their efficacy. LADWP has concerns or comments in the following areas:

- Use of Multiple Lines of Evidence (MLOE)
- Violations of the SQOs
- Benthic Condition near Ocean Discharging Power Plants in Comparison to a Reference Condition
- Responsibility Among Sources
- Stressor Identification

Multiple Lines of Evidence

LADWP supports the use of three lines of evidence for the determination of waterbody impairment. It is well known that determination of impact to benthic life gives uncertain results if one or two lines of evidence are used alone. Use of three lines of evidence provides a stronger indication that toxic pollutant(s) may be present and responsible for any observed effect. However, even the full three lines of evidence may indicate an impact that is not caused by toxic pollutants. For this reason, we support Staff's recommendation that stressor identification be conducted (1) to determine if toxic pollutants are indeed responsible for the observed impacts; and (2) to plan appropriate management actions that target the pollutants responsible for the observed impact. LADWP supports the use of MLOE as a first step in sediment TMDL development, especially when a waterbody was previously listed as impaired with only one or two lines of evidence. LADWP also supports the use of MLOE for future sediment impairment listings on the §303(d) list instead of one line of evidence or best professional judgment.

Recommendation: LADWP suggests that the SQO Plan be revised so that 3 lines of evidence as a confirmation of past impairments are required as the first step of any sediment TMDL development.

Violations of the SQOs

LADWP believes that SQOs should not be implemented as receiving water limits in NPDES permits. In no circumstance should a finding that a station is "clearly impacted", "likely impacted", or "possibly impacted" be considered a permit violation. This is because current techniques to determine causes of toxicity or abnormalities in benthic diversity and population may not always identify a stressor pollutant; indeed, sediment at a station is "impacted" by factors unrelated to toxic pollutants, such as grain size, physical disturbance, changes in salinity, etc. In addition, it is not currently possible to reliably quantify the concentrations of pollutants in the effluent above which impacts would occur.

Recommendation: LADWP recommends that the SQO Plan state that SQOs shall not be implemented as receiving water limits. The SQO Plan should state that SQO assessments may be included in NPDES permits as a part of a monitoring program, but an assessment result of "impacted" should not be identified as a permit violation because methods to relate pollutant concentrations to impacts using MLOE have not yet been developed. If impact is indicated using multiple samples and a binomial distribution method as described in the SQOs, stressor identification should follow. However, if it is not possible to determine a stressor due to analytical uncertainty, regional monitoring should be required to improve local knowledge of the causes of the impact.

Benthic Condition near Ocean Discharging Power Plants in Comparison to a Reference Condition

LADWP has a concern about areas adjacent to ocean-discharging power plants. Such areas may have healthy benthic communities with different characteristics from reference locations that have no power plant discharges. Moreover, the volumes of seawater discharged by generating stations may result in a waterbody with the same characteristics as coastal ocean. Benthic communities may also be different due to permitted temperature ranges allowed in the receiving water. These unusual conditions may cause the benthic community to be improperly evaluated using the benthic indices of the SQO Plan. LADWP believes that appropriate reference locations for coastal and estuarine power plants do not exist, and therefore more work must be done to develop reference conditions and characteristics before the benthic line of evidence may be used in these locations. Test species and receptors should be correctly identified to avoid incorrect stressor identification or impact to the waterbody.

LADWP also believes that determination of benthic species diversity and population impacts in some estuaries of arid Southern California is problematic. This is because ocean benthic communities may develop during dry periods and become washed away during storm conditions. Grain size may also vary seasonally, and the SQOs may be evaluated in sediment samples collected on an intermittent basis, when the percent fines exceed five percent.

> **Recommendation:** LADWP recommends the following: if the SQOs are to be inserted into NPDES permits, the SQOs should contain special assessment requirements to be used for arid regions. Also, since rain storms in arid regions often wash away benthic organisms on a seasonal basis, low benthic populations in these scenarios should not be considered in the impact assessment.

Responsibility Among Sources

LADWP supports the requirement that all sources are responsible to take all necessary and appropriate steps to conduct the required studies and remediate the study site. For generating stations, responsible sources must include both point and non-point sources contributing to the intake water. For automobile non-point sources, there must be participation by the California Air Resources Board and State Water Resources Control Board as well as auto parts, lubricants, and fuel manufacturers. Similarly, both the air and water boards should work jointly to address sources of atmospherically deposited pollutants that are then present in source water.

LADWP is concerned about sources that discharge contaminants primarily during wet weather. If it is clear that the sources upstream of an intake to a generating station are the major contributor of pollutants to that intake, and if the generating station itself is a de minimis contributor, the upstream or intake sources should be responsible for conducting the special sediment studies to identify the stressors.

Recommendation: LADWP strongly recommends that the SQO Plan state that pollutant sources contributing to a discharger's pollutant load should be held responsible for special sediment studies and remediation of any impact.

Stressor Identification

LADWP is concerned that stressor identification for sediment may give uncertain results. Furthermore, even though USEPA has recently released a guidance document for conducting sediment Toxicity Identification/Evaluations (TIEs), standardized methods for conducting TIEs for sediment have not yet been developed. TIEs may result in the identification of a category of pollutant but fail to isolate the actual stressor. TIEs may result in different pollutant categories of concern when the tests are repeated. Additionally, it is possible for a station to be categorized as "clearly impacted," "likely impacted," or "possibly impacted" even when no toxicity is present in a sample. In this circumstance, TIEs are an inappropriate tool, as toxicity must be present in a sample for a TIE to identify the agent causing that toxicity. Since TIEs are resource intensive, TIEs with inconclusive results and/or accelerated toxicity monitoring should not be required to be continued indefinitely.

Recommendation: LADWP recommends that the SQO Plan recognize the limitations of conducting TIEs on sediment with current methods of analysis. This can be done by providing a definition of an inconclusive TIE for sediment and by identifying conditions under which it is inappropriate to perform a TIE.

Depth of sediment

LADWP believes that the two centimeter depth limit for the analysis of sediment to apply the SQOs is too shallow. There is a significant amount of interaction between aquatic and benthic life below this level, and the top 2 cm of sediment often represent a transient layer. Further, the studies upon which the SQOs were based examined up to the top 30 cm of sediment.

Recommendation: LADWP believes that the SQOs should require analyses of sediment cores to determine the temporal sediment and pollutant distribution. This would include an evaluation of sediment transport and a determination of the level of concern that pollutants at depth would have upon the designated beneficial uses of the area.

Sediment Mixing Zones and Dilution

LADWP believes that in some instances there may be an impact that occurs only around the localized vicinity of an outfall. Under some circumstances, where transient aquatic life will not be harmed significantly and there is no observable impact to benthic communities when compared to more distant areas, it may be reasonable to allow a dilution credit and mixing zone for sediment near outfalls. A mixing zone for water is defined as a limited area or volume of water where initial dilution of a discharge takes

place and where water quality standards can be exceeded. Mixing zones have been applied in the water quality standards program since its inception. Mixing zones may be allowed if the zone will not impair the integrity of the waterbody as a whole, the zone will not cause lethality to passing organisms, and, considering likely pathways of exposure, that there are no significant human health risks. While dilution credits and mixing zones for sediment may not be feasible in all cases, allowing this option will give the permit writer and discharger flexibility when considering feasibility and effectiveness of remediation options while still being protective.

> **Recommendation:** LADWP suggests allowing mixing zones and dilution credits as viable options for addressing sediment impact in the vicinity of an outfall. These options would only be allowed if the benthic line of evidence indicates no impact near the outfall.

Again, thank you for the opportunity to submit comments. LADWP looks forward to working with the State Board on the SQOs. If you have further questions or need additional information regarding LADWP's comments, please feel free to contact myself at (213) 367-0436 or Mr. Clayton Yoshida at (213) 367-4651.

Sincerely,

Katherine Rubin
Interim Manager of Wastewater Quality Compliance

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c: Mr. Clayton Yoshida