

ITEM 8, SUPPORTING DOCUMENT No. 5
SAN DIEGO WATER BOARD RESPONSES TO COMMENTS
TENTATIVE ORDER NO R9-2012-0013, ALISO CREEK OCEAN OUTFALL

A. Comments from SOCWA by letter dated March 12, 2012

1. SOCWA requested the toxicity testing requirements (Section VI.C.2.c) be modified to only require one repeat toxicity test when the performance goal is exceeded, followed by six additional tests if the repeat test result also exceeds the performance goal.

RESPONSE TO A.1. No change to the Tentative Order is warranted. The requirement for six additional toxicity tests when the performance goal is exceeded is similar to the requirement in the current Order (Order No. R9-2006-0055, Section VI.C.2.e.3). This requirement is also consistent with the toxicity testing requirement in other ocean discharge permits. The purpose of the six additional samples is to obtain sufficient information to conclude whether or not the effluent is exceeding the toxicity performance goal consistently prior to directing the Discharger to initiate the costly Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) process.

2. SOCWA requested a reduction in the sampling frequency for the shoreline monitoring locations (Attachment E, Section VIII.A)

RESPONSE TO A.2. No changes to individual shoreline water monitoring programs are recommended until such time as SOCWA coordinates its shoreline monitoring with other interested parties that have responsibilities for participating in surf zone monitoring in the vicinity of the Ocean Outfall (Order No. R9-2006-0054, Attachment E, Section VII.B.1). In addition, consideration for any reduction in current monitoring should be deferred until a regional monitoring program for Orange County or the San Diego Region has been developed that would 1) address alternative techniques and options to accurately monitor and track the Ocean Outfall discharge plume; 2) verify that the discharge plume is not entering the surf zones; and 3) identify alternatives for identifying the bacterial source(s) in the vicinity of the mouth of San Juan Creek. It is important to coordinate all the monitoring being conducted to effectively answer key questions about the health of these resources.

The San Diego Water Board is currently developing a regional framework for monitoring and assessment in the San Diego Region, which will outline a new approach to monitoring and assessment with the intent of using monitoring resources more strategically and more effectively. A key component of our strategy will be that monitoring and assessment programs be developed and implemented collaboratively with regulated entities and other interested parties. This strategy is consistent with the recommendations of the Southern California Coastal Water Research Project (SCCRP) in their report, titled Model Monitoring for Small Publicly-owned Treatment Works in the San Diego Region. Upon completion of the regional framework, the San Diego

Water Board will initiate discussions with SOCWA and other small POTW agencies in developing a regional monitoring program for coastal waters.

3. SOCWA requested a change to the repeat sampling requirement for the shoreline monitoring locations (Attachment E, Section VIII.A.1).

RESPONSE TO A.3. No change to the Tentative Order is warranted. The repeat sampling requirement is consistent with the California Ocean Plan. (Ocean Plan Section III.D.1.b)

4. SOCWA requested that California Ocean Plan Table A requirements be applied only to the combined outfall discharge (Section IV.A).

RESPONSE TO A.4. No change to the Tentative Order is warranted. Table A of the Ocean Plan sets forth the technology-based effluent limitations for municipal discharges and industrial discharges for which effluent limit guidelines have not been established. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations (40 CFR 122.44), require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Because technology-based effluent limitations are based on currently available treatment technologies, their requirements cannot be satisfied through the use of non-treatment techniques such as flow augmentation and in-stream mechanical aerators (40 CFR 125.3(f)). Because the Aliso Creek Ocean Outfall (ACOO) receives waste streams from a number of sources, the point of compliance for technology-based effluent limitations for each waste stream must be prior to that waste stream's commingling with its sister facilities' discharges.

5. SOCWA requested that the San Diego Water Board reconsider the application of Water Contact Recreation (REC-1) further than 1000 feet from the shoreline or the 30-foot contour and that the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) be amended to specifically exclude the application of REC-1 standards further than 1000 feet from the shoreline or to the 30 foot contour, except in specific areas (e.g. kelp beds) deemed by the San Diego Water Board to represent body contact recreation zones. If the San Diego Water Board is intent on applying more stringent bacteriological standards to areas of the ocean with minimal water contact uses, and absent any real public health driver, the San Diego Water Board should consider a more appropriate standard, perhaps setting a second tier standard, one more reflective of the actual health risks in ocean waters with minimal potential for human contact.

RESPONSE TO A.5. No change to the Tentative Order is warranted. As indicated by the comment, the suggested change requires an amendment to

the Basin Plan because the Basin Plan currently designates REC-1 as an existing beneficial use for coastal waters named the Pacific Ocean extending out three nautical miles. Effective February 14, 2006, the revised Ocean Plan specifies that the water contact standards apply to areas used for water contact sports as determined by the San Diego Water Board (i.e., waters designated as REC-1). These designations would need to be specified in the San Diego Water Board Basin Plan. Because the San Diego Water Board has not completed a process to designate specific areas where the water-contact standards apply, Ocean Plan Bacterial Standards apply throughout all ocean waters in the San Diego Region. This interpretation has been confirmed by the United States Environmental Protection Agency (USEPA).

B. Comments from Orange County Coastkeeper, South Laguna Civic Association, and Sierra Club

1. Orange County Coastkeeper, South Laguna Civic Association, and Sierra Club contend that the Effluent Transmission Main (ETM), which transfers SOCWA's waste discharge to the ACOO, is exposed and severely degraded. They also state that the poor conditions of the ETM will potentially result in a large discharge to Aliso Creek and Pacific shoreline, posing a substantial risk to the health of the public and ecosystem.

RESPONSE TO B.1. No change to the Tentative Order is warranted. If the condition of the ETM requires San Diego Water Board regulatory action, the appropriate mechanism is an enforcement action. SOCWA has been in contact with the San Diego Water Board regarding the condition of the ETM and other agency pipelines located adjacent to Aliso Creek. The two 4-inch sludge lines, that convey treated sewage sludge from SOCWA's Coastal Treatment Plant to the Regional Treatment Plant, are exposed in some areas. SOCWA is drafting an Environmental Impact Report (EIR), which is scheduled to be released at the end of May, for a project to correct the problem areas. The one area of the ETM that potentially could be exposed has been encased in concrete. The San Diego Water Board will continue to review the EIR and monitor the situation, taking appropriate regulatory action, when necessary.

2. Orange County Coastkeeper, South Laguna Civic Association, and the Sierra Club contend that the Tentative Order does not satisfy the antidegradation policy and anti-backsliding requirements in regards to the following issues.
 - The Tentative Order contains a higher flow limit than the current Order. They contend that the higher flows will affect water quality and does not meet the requirements of the antidegradation policy and anti-backsliding requirements.
 - The Tentative Order contains effluent limits that are less stringent than in the current Order or have been removed. They contend that these

changes do not meet the requirements of the antidegradation policy and anti-backsliding requirements.

- The Tentative Order contains discharges from facilities located in the Santa Ana Regional Water Quality Control Board Region (Irvine Desalter Project or IDP). They contend that discharges from other regions are degrading the receiving waters and constitutes backsliding.
- The vicinity of the ACOO includes waters impaired for enterococcus, total coliform, fecal coliform, and indicator bacteria (303(d) listed). They contend that an increase in sewage flows, which are known to contain high levels of bacteria, will further degrade the impaired water bodies.

RESPONSE TO B.2. No change to the Tentative Order is warranted. A discussion of how the effluent limitations satisfy the antidegradation policy is provided on page F-36 of the Order. The Tentative Order concludes that water quality will not be degraded and the Tentative Order complies with the anti-backsliding policy because:

- i. The Clean Water Act and the federal regulations (40 Code of Federal Regulations § 131.12) contain a federal antidegradation policy. State Water Resources Control Board Resolution No. 68-16 (California's antidegradation policy) incorporates the federal antidegradation policy. Resolution No. 68-16 states "*Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*"

The minor increased volume (flow limit) will only result in minimal increases in the mass emission rates for oil and grease, settleable solids, and turbidity. If all the facilities were to discharge at their maximum individual flow limit, the increase in mass loading will only be 4.6% for oil and grease, settleable solids, and turbidity (a small increase to only three constituents). All the facilities, including the facilities with the increased individual flow limit, are all required to meet waste discharge requirements which were based on Best Practicable Control Technology (Ocean Plan Table A technology-based effluent limits) and thus comply with Resolution No. 68-16 (see paragraph above).

- ii. For the Tentative Order, the minimum initial dilution was calculated to be 237 parts of seawater to 1 part effluent (237:1). This value is more stringent than the current Order, which contains a minimum initial dilution of 260:1, and results in more stringent water quality-based effluent limits and performance goals, even with the higher flow limit. As a result of the more

stringent water quality-based effluent limits and performance goals, the higher flow is not expected to cause an exceedance of California Ocean Plan water quality objectives and is not expected to cause degradation of water quality. Because the increase in flow is not expected to lower water quality, it does not require an antidegradation analysis and does not result in impermissible backsliding.

- iii. For the Tentative Order, the need for effluent limitations based on water quality objectives in Table B of the Ocean Plan was re-evaluated, using the new effluent monitoring results provided by SOCWA, in accordance with 40 CFR 122.44(d) and guidance for statistically determining the "reasonable potential" for a discharged pollutant to exceed an objective, as outlined in the revised *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-90-001, 1991) and the Ocean Plan Reasonable Potential Analysis (RPA) Amendment that was adopted by the State Water Board on April 21, 2005. This re-evaluation using the new information resulted in more stringent effluent limitations for total chlorine residual and heptachlor. As a result of the re-evaluation, the current Order contains performance goals (not enforceable) for total chlorine residual and heptachlor, while the Tentative Order contains effluent limits (enforceable limits) for these constituents.
- iv. As a result of the more stringent water quality-based effluent limits explained in paragraphs ii and iii above, water quality-based effluent limits contained in the Tentative Order are in compliance with the anti-backsliding requirements despite the increased flow limit.
- v. The current Order did not contain individual flow limits for each facility or mass emission rates for each facility for carbonaceous biochemical oxygen demand (CBOD) or total suspended solids (TSS). In other words, any one of the POTWs or the IDP could have discharged above the plant capacity and discharged higher levels of CBOD or TSS than prescribed in the Tentative Order. By placing both individual flow limits and mass emission rates, the Tentative Order contains more stringent limits for individual flows, CBOD, and TSS than the current Order by adding limits where there currently are none. The mass emission rate upper limits for oil and grease, settleable solids, and turbidity are approximately 4.6% higher. The San Diego Water Board staff has determined that these higher mass emission rates for these three parameters will produce minor effects which will not result in a reduction of water quality outside of the zone of initial dilution.
- vi. The Tentative Order carries forward the accommodation of the discharges from the IDP to the ACOO from the current Order (first accommodated in Amendment No. 3 to Order No. 2001-08, NPDES Permit No. CA0107611, adopted December 8, 2004) for up to 1.5 million gallons per day (MGD). A

challenge to compliance with noticing requirements when the discharge was first accommodated is not appropriate at this time.

- vii. The increase flow from the IDP (brine and treated groundwater) and proposed flow from the South Coast Water District Aliso Creek Water Harvesting Project (treated urban runoff) will not contribute enterococcus, total coliform, fecal coliform, and indicator bacteria and there are no flow increases for the wastewater treatment plants. Therefore, the increased flow limit will not result in increased degradation of the ocean water impaired for enterococcus, total coliform, fecal coliform, and indicator bacteria.
3. Orange County Coastkeeper requests that the Tentative Order be revised to address the impact the discharge will have on the Southern California Steelhead.

RESPONSE TO B.3. No change to the Tentative Order is warranted. The Tentative Order prescribes waste discharge requirements for SOCWA's discharges to the Pacific Ocean, and not to the stream habitats that have been designated as critical habitat for the Southern California Steelhead.

4. Orange County Coastkeeper, South Laguna Civic Association, and the Sierra Club state that the Tentative Order does not address the need for an improved/ expanded recycled water treatment/distribution system to reduce flow to the ACOO.

RESPONSE TO B.4. No change to the Tentative Order is warranted. The San Diego Water Board fully encourages the improvement and expansion of the recycled water treatment and distribution system. The San Diego Water Board, however, recognizes the current limitations for irrigation uses of recycled water and constraints for developing indirect potable use projects in the area. The State Water Board's Recycled Water Policy encourages every region in California to develop a salt/nutrient management plan by 2014 that emphasizes appropriate water recycling, water conservation, and maintenance of supply infrastructure and the use of stormwater (including dry-weather urban runoff). The San Diego Water Board anticipates SOCWA will invite the participation of all interested stakeholders in the development of these plans.

5. South Laguna Civic Association and the Sierra Club contend that the SOCWA Coastal Treatment Plant is outdated and SOCWA should modernize the facility in a public/private partnership to implement wastewater innovations and expand recycled water.

RESPONSE TO B.5. No change to the Tentative Order is warranted. In the past permit cycle (over five years); SOCWA's Coastal Treatment Plant had only two effluent violations. The instantaneous maximum limit (3.0 milliliter per

per liter, ml/l) for settleable solids was exceeded on January 19, 2008 (32 ml/l) and August 19, 2009 (4 ml/l). These appear to be isolated incidents. With the exception of these two violations, this facility has been in compliance with the secondary treatment standards required by federal law and the combined flow to the outfall has been in compliance with the water-quality based effluent limits.

6. South Laguna Civic Association and the Sierra Club state that the Tentative Order does not address the creek and coastal impaired water bodies subjected to abandoned flows of reclaimed water.

RESPONSE TO B.6. No change to the Tentative Order is warranted. The discharge of recycled water to land is regulated under Order No. 97-52, *Waste Discharge and water Reclamation Requirements for the Production and Purveyance of Recycled water by member Agencies of the South Orange County Wastewater Authority, Orange County*. Discharges of recycled water runoff to waters of the United States, without coverage under a NPDES permit, is prohibited under Order No. 97-52. The Tentative Order does not prescribe requirements for a discharge, other than through the outfall.

7. South Laguna Civic Association and the Sierra Club state that the Tentative Order does not address beach public health and safety, protected tide pool, shellfish and kelp forest habitat, and offshore marine life feeding grounds.

RESPONSE TO B.7. No change to the Tentative Order is warranted. The Tentative Order does take these beneficial uses into account by evaluating the discharge for parameters that effect marine aquatic life and human health (including non-carcinogenic and carcinogenic chemicals). In accordance with the California Ocean Plan Reasonable Potential Analysis, the Tentative Order Fact Sheet presents an evaluation of the need for effluent limitations for the Ocean Plan Table B parameters (21 chemicals and chemical characteristics for the protection of marine aquatic life, 20 non-carcinogenic chemicals for the protection of human health, and 42 carcinogenic chemicals for the protection of human health). The evaluation concludes that, based on the past monitoring data, only three of the 83 parameters listed in Table B of the California Ocean Plan had reasonable potential to cause or contribute to an exceedance of water quality objectives (total residual chlorine, total chronic toxicity, and heptachlor). Also, the Tentative Order includes effluent limits, performance goals, and monitoring requirements for the Table B parameters to monitor any water quality concerns during the permit cycle.

8. South Laguna Civic Association and the Sierra Club object to the discharge from the IDP Shallow Groundwater Unit (SGU) and Potable Water Treatment System (PWTS) to the ACOO via the Effluent Transmission Main (ETM). These two facilities are located in the Santa Ana Region. They contend that the discharge from IDP contains military aviation toxins. They are requesting

that the IDP retain and reuse all waste flows onsite and/or within the Santa Ana Region, instead of discharging to the ACOO.

RESPONSE TO B.8. No change to the Tentative Order is warranted. The IDP SGU treats groundwater extracted from wells located either within or near a plume of groundwater contaminated by volatile organic compounds (VOC) on or near the former Marine Corps Air Station El Toro and discharges the treated groundwater to ACOO. The primary VOC of concern in the groundwater is trichloroethylene (TCE). The current Order requires SOCWA to monitor for parameters of concern within the contaminated groundwater, including TCE. For the entire permit cycle, all of these parameters have been below the reporting limit or detection limit in the discharge for the IDP SGU. Because the IDP PWTS extracts groundwater from wells upgradient of the contaminated groundwater plume, the brine discharges from the PWTS are not expected to contain contaminants from the site.

9. South Laguna Civic Association and the Sierra Club suggest that the Tentative Order include the following requirements.
 - i. Require restoration of the Aliso Estuary as a water quality improvement measure and enhanced protection of public health and safety at Aliso Beach, and
 - ii. Require partnering with academic and aquaculture leaders to pilot test ocean water quality enhancements such as converted aquapods to support deepwater kelp growth near the ACOO similar in function to land based constructed wetlands.

Response TO B.9. No change to the Tentative Order is warranted. The San Diego Water Board has no basis to require these measures as part of this Tentative Order.