SOCWA
South Orange County Wastewater Authority

March 12, 2012

David Gibson
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA. 92123-4353

SUBJECT: Comment to Tentative Order No. R9-2012-0013 NPDES Permit No. CA0107611 for the Aliso Creek Ocean Outfall

Dear Mr. Gibson:

Attached you will find the South Orange County Wastewater Authority comments to Tentative Order No. R9-2012-0013 NPDES Order No. CA0107611 for discharges through the Aliso Creek Ocean Outfall. Thank you for the opportunity to provide these comments and while I want to convey my appreciation for the time and effort your staff has expended in the drafting the Tentative Order, there are a few issues that I believe still need to be addressed. Please see the attached comments for details. If you have any questions or comments please feel free to contact me at 949-234-5421 or via email at trosales@socwa.com.

Very truly yours,

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Michael J. Wilson for

Tom Rosales
General Manager

TR/bf

cc: File

SOCWA Comments

MONITORING AND REPORTING PROGRAM No. R9-2012-0013
Aliso Creek Ocean Outfall

V. Whole Effluent Toxicity (WET) Testing Requirements

The first paragraph after Table E-7 requires SOCWA to implement a 12-week toxicity testing program in the event of a single exceedance of the chronic toxicity performance goal. Given the inherent variability in chronic toxicity testing results, SOCWA requests that the first sentence after Table E-7 be revised to the following:.

> *If the performance goal for chronic toxicity is exceeded in any one test, the Discharger shall conduct a retest of chronic toxicity. If the retest also exceeds the performance goal, then within 15 days of notification of exceedance, the Discharger shall implement an accelerated testing program that includes conducting six additional tests, bi-weekly, over a 12 week period.*

VIII. Receiving Water Monitoring Requirements - Surface Water

Shoreline Testing Frequency. SOCWA objects to the proposed bi-weekly sampling frequency for bacteriological monitoring for Aliso Creek Ocean Outfall shore stations. SOCWA proposes weekly sampling on a year-round basis, consistent with what the Regional Board has required for all other ocean outfall discharges within the San Diego Region. The following table compares shore station monitoring requirements imposed by the Regional Board on San Diego Region dischargers. Excluding repeat samples, all other (non-SOCWA) ocean outfall dischargers within the San Diego Region combined are required to collect a total of 2,378 samples per year. Tentative Orders No. R9-2012-0012 and R9-2012-0013 would require SOCWA to collect a minimum of 2,990 samples per year at Aliso Creek and San Juan Creek shore stations - a total larger than what the Regional Board requires for the South Bay, Point Loma, San Elijo, Encina, and Oceanside ocean outfalls combined.

Reducing sampling frequency at the Aliso Creek Ocean Outfall from twice-weekly to weekly would result in a reduction in sample collection, yet this would still require SOCWA to collect more Aliso Creek shore station bacteriological samples than the Regional Board requires of any other non-SOCWA San Diego Region ocean outfall discharger.

Table 1
Comparison of Shore Station Monitoring Requirements in the San Diego Region

San Diego Region Ocean Outfall	Order No.	Number of Surf Zone Monitoring Stations	Sampling Frequency	Number of Required Annual Samples[1]
South Bay	R9-2006-0067	12	Weekly	624
Point Loma	R9-2009-001	12	Five per month (all year)	720
San Elijo	R9-2010-0087	8	Weekly (all year	410
Encina	R9-2011-0019	5	Weekly (all year)	260
Oceanside	R9-2011-0016	7	Weekly (all year)	364
San Juan Creek	R9-2012-0012	17	Weekly (Nov 1 - Apr 30) Twice-Weekly (May 1 - Oct 31)	1,326
Aliso Creek	R9-2012-0013	16	Twice-Weekly (all year)	1,664

1 Based on 52 weeks per year, excluding repeat sampling

Repeat Shoreline Testing. Monitoring and Reporting Requirement VIII.A.1 requires repeat bacteriological sampling of shore stations if a sample exceeds any of the single sample bacteriological standards. As documented within the SOCWA Report of Waste Discharge (see Report of Waste Discharge, Section 3 of the Supplemental Technical Report), the Aliso Creek Outfall discharge does not influence shoreline bacteriological concentrations. This is demonstrated by the lack of exceedances at the "N" stations (located between the outfall discharge point and the shore). As a result of storm water discharge or contamination or from shoreline-based sources, the SOCWA shoreline monitoring program typically results in several hundred instances per year where shore station samples exceed the single sample limits.

SOCWA objects to the inclusion of repeat testing for shoreline monitoring sample results which exceed the single sample beach water quality standards for fecal indicator bacteria. Requiring SOCWA to perform repeat shoreline testing results is a significant unnecessary expense while yielding no information useful in assessing outfall performance.

Previous SOCWA NPDES permit monitoring requirements have not included repeat shoreline sampling requirements. The shoreline bacteriological monitoring requirements contained in SOCWA's Tentative Orders (San Juan Creek and Aliso Creek outfalls) would require a combined 2,990 samples per year, excluding any repeat testing. The ocean discharge NPDES Orders issued to all other San Diego Region ocean dischargers combined only require the collection of 2,378 samples per year. Currently, SOCWA performs 26 percent more shoreline testing than the rest of the San Diego region ocean dischargers combined.

Based on the known single sample fecal indicator bacteria failure rate of SOCWA's shoreline monitoring sites (due to shore-based contamination sources), SOCWA would be required to

collect an additional 1000 – 2000 samples for bacteriological analysis per year, bring the likely total number of required shoreline samples to approximately 4500 samples per year. The repeat monitoring provisions included in the Tentative Orders would require SOCWA to perform daily bacteriological monitoring at many shoreline sample locations and require our agency to hire additional personnel to meet the new sampling and analysis requirements. These monitoring requirements would result in SOCWA performing more shoreline bacteriological testing than the combined minimum total of samples required under AB 411 for the two largest coastal Counties in Southern California. . Los Angeles County estimates its minimum sampling program to meet AB411 beach water quality requirements to be 1612 samples per year, while Orange County's minimum sampling program, which is the largest in the State, is estimated to be 2418 samples per year. SOCWA is the only ocean discharger required by the Regional Board to collect shoreline samples more than once per week.

To provide some perspective, the SJCOO shoreline monitoring program produces enterococcus results that exceed the single sample limit more than 300 times during 2010. The repeat sampling provision would require SOCWA to sample at multiple shoreline monitoring locations nearly every day of the year to, in effect, monitor water quality impacts that are not associated with our discharge.

SOCWA requests that the Regional Board eliminate the repeat shoreline sampling requirements for the Aliso Creek Ocean Outfall monitoring program.

TENTATIVE ORDER No. R9-2012-0013 (NPDES CA010 Aliso Creek Ocean Outfall

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. 1. a. & b.

SOCWA requests that California Ocean Plan Table A requirements be applied only to the combined outfall discharge

V. RECEIVING WATER LIMITATIONS

A. SURFACE WATER LIMITATIONS

As noted within our report of waste discharge, SOCWA is concerned about the application of REC-1 bathing beach bacteriological standards to the discharges outside the zone of initial dilution. Over the last 35 years our discharge has been required to meet the bathing beach standards established from the shoreline to a distance of 1000 feet or to the 30 foot contour. The change in application of bathing beach standards to all state-regulated ocean waters outside the zone of initial dilution was triggered by:

- changes to the State of California Ocean Plan that applied beach recreational bacteriological standards to areas designated by the Regional Board as REC-1, and
- an interpretation that, by omission, the San Diego Basin Plan applies the REC-1 designation to all state-regulated ocean waters.

SOCWA contends that such an interpretation is inconsistent with past Basin Plan support documentation and Regional Board actions. Additionally, the environmental impacts of such an interpretation (including an assessment of the potential discharge of chlorinated byproducts to the ocean) have never been addressed by the Regional Board as part of any NPDES permit or Basin Plan modification.

SOCWA urges the Regional Board to reconsider the application of bathing beach standards further than 1000 feet from the shoreline or the 30-foot contour. SOCWA further requests that the San Diego Region Basin Plan be amended to specifically exclude the application of REC-1 bathing beach 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 Regional Board to represent body-contact recreation zones. If the 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 Regional 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.

J. Lim

ORANGE COUNTY
COASTKEEPER
EDUCATION / ADVOCACY / RESTORATION / ENFORCEMENT

"To Protect and Preserve our Coastal Legacy"

To:	Joann Lim	From:	Colin Kelly
Fax:	858-571-6972	Pages:	6
Phone:		Date:	March 12, 2012
Re:	Ten. Ord. R9-2012-0013	cc:	

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Comments:

Attached are the comments from Orange County Coastkeeper on Tentative Order No. R9-2012-0013.

Please do not hesitate to contact me at (714) 850-1965 with comments.

Regards,

Colin Kelly
Staff Attorney
Orange County Coastkeeper

ORANGE COUNTY
COASTKEEPER.

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March 12, 2012

Sent via FAX to (858) 571-6972

Joann Lim
Water Resource Control Engineer
California Regional Water Quality Control Board, San Diego Region
Core Regulatory Unit
9174 Sky Park Court, Suite 100
San Diego, CA 92123
JLLim@waterboards.ca.gov
Phone: (858) 467-2952
FAX: (858) 571-6972

RE: **TENTATIVE ORDER NO. R9-2012-0013, NPDES NO. CA0107611: WASTE DISCHARGE REQUIREMENTS FOR THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY DISCHARGE TO THE PACIFIC OCEAN THROUGH THE ALISO CREEK OCEAN OUTFALL**

Dear Ms. Lim:

Orange County Coastkeeper ("Coastkeeper") is an environmental organization with the mission to preserve, protect and restore the watersheds and coastal environment of Orange County. As concerned taxpayers and strong supporters of environmental quality and public health, we are writing to express our concerns regarding Tentative Order No. R9-2012-0013 ("Tentative Order"). As we will discuss in detail below, the permit fails to provide adequate protections for water quality and subjects the general public, as well as both marine and freshwater ecosystems, to serious risk of environmental harm. We urge the California Regional Water Quality Control Board, San Diego Region ("Regional Board") to modify the Tentative Order in order to address these deficiencies.

The Permit Must be Modified to Include Corrective Measures for the Unsafe Condition of the Effluent Transmission Main

The Effluent Transmission Main ("ETM") is a long pipe that carries a large portion of the roughly thirty-three million gallons per day ("MGD") of secondary treated sewage from the south Orange County Wastewater Authority ("SOCWA") to the Aliso Creek Ocean Outfall ("ACOO"), where it enters the Pacific Ocean. Parts of the ETM are buried directly underneath or adjacent to Aliso Creek.

The ETM is severely degraded and poses a substantial risk to the health of residents of south Orange County, the freshwater ecosystem of Aliso Creek, and the marine ecosystem of the Pacific Ocean. Although the ETM was originally designed to be protected from the elements, the stream banks in which it lies have been subjected to ever increasing levels of erosion from the stormwater runoff of inland

developments. Today, the pipe lies directly exposed in several places, including Access Nos. 16 and 16A and near the footbridge of the Aliso Golf Course. In its current condition, the ETM is extremely vulnerable to damage from rocks and other debris that is commonly transported down streams like Aliso Creek during storm events.

Should the ETM be damaged, tens of millions of gallons of sewage could pour into Aliso Creek before the damage is discovered and repaired. This would be disastrous for fish and other species in Aliso Creek. Furthermore, it would pose a serious health risk to people who live, work, or recreate near Aliso Creek. This is especially evident when one considers that one of the most exposed reaches of the ETM is literally on the Aliso Golf Course. In addition, Aliso Creek feeds water to the Pacific Ocean. Therefore, any pollution that the ETM spills into Aliso Creek will also pollute the Pacific. Both the mouth of Aliso Creek and a stretch of shoreline near the ACOO are listed under Clean Water Act ("CWA") § 303(d) as water bodies that are impaired by bacteria, which is one of the major pollutants in the sewage carried by the ETM.[1]

In order to prevent extremely harmful effects on the environment and human health resulting from sewage spills from the ETM, the permit must be modified to include a requirement that SOCWA mitigate the damage to the ETM. In its current form, the Tentative Order contains no language regarding any restoration of the ETM. However, as the agency using it to transport sewage, SOCWA should be held responsible for the upkeep of the ETM. Furthermore, SOCWA is responsible for ensuring that its transport of sewage does not cause more pollution than is permitted under the CWA. Because sewage spills from the ETM would clearly not be authorized under the CWA or SOCWA's current permit, SOCWA cannot be allowed to continue use of the ETM without ensuring that it is does not pose a substantial risk to human and environmental safety.

There are multiple methods SOCWA could use to mitigate the damage to the ETM and ensure there are no sewage spills into the delicate ecosystems of Aliso Creek and the Pacific shoreline. One possible mitigation method is the repair of the stream banks to provide more protection for the ETM.[2] Alternatively, the ETM could be shut down and replaced by a new pipeline that is better protected and traverses areas less vulnerable to pollution. Additionally, the tentative permit could be modified to require all sewage carried by the ETM to receive tertiary treatment, thereby lowering pollutant concentrations and reducing the harm that would result from a spill into Aliso Creek. Another option that would reduce the harm caused by a spill from the existing pipeline is the reduction of the amount of effluent carried by it. This could be accomplished through a variety of programs directed at further treatment and reuse of the wastewater, such as increased recycled water service to various underserved south Orange County communities.

Coastkeeper has suggested a variety of possible mitigation measures because we recognize the need for flexible and cost-effective measures. However, economic cost is not a justification for a permittee to pollute sensitive waters that are listed under CWA § 303(d). It is imperative that the Tentative Order be revised to require, as a condition for continued operation of the ACOO, that SOCWA implement one or more of the suggested mitigation measures, or some other suitable measure, to ensure that the ETM no longer poses a significant risk of sewage spills into Aliso Creek.

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[1] *Tentative Order No. R9-2012-0013*, at F-19.

[2] According to the Southern California Steelhead Recovery Plan ("Recovery Plan"), the Southern California Steelhead, an endangered fish species, may occasionally use Aliso Creek. Depending on the extent to which the species uses Aliso Creek, any significant changes to the creek, such as concrete channelization or depositing of sediment, could violate the requirements of the Recovery Plan. *Southern California Steelhead Recovery Plan*, National Marine Fisheries Service (2012), at 13-1.

The Tentative Order's Less Stringent Effluent Limitations Must be Modified Because They Violate Antidegradation and Anti-Backsliding Policies

The Tentative Order's effluent limitations violate antidegradation and anti-backsliding policies which are well established under California and Federal law. The Tentative Order summarizes the anti-backsliding policy: "Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed."[3] The Tentative Order also describes the similar antidegradation policy:

> 40 CFR 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The San Diego Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16.[4]

While the Tentative Order claims to implement the antidegradation and anti-backsliding policies, in reality, it does so in name only.

The Tentative Order would increase the permitted effluent by almost 1 MGD. It states, "[t]he 32.86 MGD flow restriction on the ACOO has been increased to accommodate discharges from the IDP SGU (0.85 MGD), IDP PWTS (1.0 MGD) and anticipated production from the SCWD ACWHP (0.32 MGD).... The total requested increase is 0.9 MGD."[5] While the Tentative Order focuses on the fact that this represents only a 3 percent increase in daily allowed effluent, it pays little attention to the unavoidable fact that an increase of .9 million gallons of sewage per day being pumped into the ocean from a single pipe is bound to have a significant effect on water quality.

Although the Tentative Order briefly mentions, the anti-backsliding and antidegradation policies, it does not actually explain their requirements. If it did, it would become apparent to the reader that the less restrictive effluent limitations do not meet those requirements. For instance, the CWA sets out the specific ways less restrictive effluent standards may satisfy the anti-backsliding requirement when the receiving waters are listed under CWA § 303(d), as both the Pacific Ocean shoreline near the ACOO and the mouth of Aliso Creek are. For listed waters which have not yet attained their water quality standards:

> [A]ny effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.[6]

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[3] *Tentative Order No. R9-2012-0013*, at F-19.
[4] *Id.*
[5] *Id.* at F-36.
[6] CWA § 303(d)(4)(A).

This subsection clearly applies because the receiving waters are listed under CWA § 303(d). Subsection (i) cannot justify the less restrictive limits because it is entirely illogical to suggest that the 1 MGD increase in effluent will somehow ensure the attainment of water quality standards when the bacteria those waters are listed for are some of the most common pollutants in the sewage. Similarly, subsection (ii) does not justify the increase in allowed effluent because no designated uses have been removed from Aliso Creek or the nearby stretch of Pacific Ocean shoreline. Other sections of the CWA also set out specific requirements for satisfying the anti-backsliding policy.[7]

The Tentative Order does not adequately explain why the Regional Board thought it appropriate to lessen effluent limitations. Despite the fact that numerous statute sections set out specific requirements the permit must meet in order to fit in an exception to the anti-backsliding policy, the Tentative Order does not explain which exception it believes the Tentative Order satisfies. By not explaining which section the permit supposedly satisfies, the Regional Board has made it very difficult to concerned citizens to find enough information to analyze the Regional Board's decision.

The Tentative Order makes the same mistake with respect to the antidegradation policy. Despite federal laws setting out a detailed list of requirements for satisfying the antidegradation policy,[8] the Tentative Order does not even mention the specific requirements, let alone explain how each requirement is met. In addition, State Water Resources Control Board Resolution No. 68-16 elaborates on California's antidegradation policy, requiring that, "the highest water quality consistent with maximum benefit to the people of the State will be maintained."[9] Yet, the Regional Board has not taken the risk of degradation seriously, even stating that, "an antidegradation analysis is not required."

The .9 MGD increase in effluent permitted by the Tentative Order would significantly harm the water quality of waters listed under CWA § 303(d). Therefore, they must be revised to be, at minimum, as strict as they are in the current permit. No increase in effluent permitted or any other lessening of permit requirements from the current permit should be permitted. Furthermore, the Tentative Order should also be modified to provide a detailed explanation of why the effluent limitations satisfy anti-backsliding and antidegradation policies. The explanation should reference specific code subsections and should be detailed enough to allow review by the public.

The Tentative Order Must be Revised to Address the Impact it Will Have on Southern California Steelhead

In January 2012, the Southern California Steelhead Recovery Plan was released by the National Marine Fisheries Service. As stated above, the Southern California Steelhead, an endangered fish species, may occasionally use Aliso Creek and other south Orange County waters. Due to time constraints, Coastkeeper was not able to analyze whether the Tentative Order would conflict with the requirements of the Recovery Plan. However, it is important that the Tentative Order be revised in order to ensure that it complies fully with the Recovery Plan and with the Endangered Species Act.[10]

[7] CWA §402(o)(2) and 40 CFR § 122.44(l).
[8] 40 CFR § 131.12.
[9] State Water Resources Control Board Resolution No. 68-16, paragraph 2(b).
[10] 16 USC § 1531 et seq.

Conclusion

The Tentative Order, through its less strict effluent limitations and lack of provision for the dangerously degraded ETM, poses a significant threat to environmental quality. In addition, the Tentative Order must address the risk posed by the permitted effluents to endangered Southern California Steelhead. In order to comply with the relevant water quality laws cited above, the Tentative Order must be significantly modified to address these concerns. Coastkeeper hopes the Regional Board will carefully consider these comments and bring its Tentative Order into compliance with the relevant laws. Should you have any questions or concerns, please contact Coastkeeper at (714) 850-1965.

Sincerely,

Colin Kelly
Staff Attorney
Orange County Coastkeeper

March 12, 2012

San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA. 92123-4340

Subject: Tentative Order No. R9-2012-0013, NPDES Permit No. CA0107611
Waste Discharge Requirements for the South Orange County Wastewater Authority
Discharge to the Pacific Ocean through the Aliso Creek Ocean Outfall

Attention: David Gibson, SDRWQCB Executive Officer
Erik Anderson, Chair
Grant Destache, Vice Chair
Joann Lim, Staff

The southerly area of the City of Laguna Beach is the primary community impacted by wastewater in the Aliso Watershed. The South Laguna Civic Association is an organization of South Laguna residents, established 1946, which strives to preserve and enhance the quality of life existent in our community, which includes working for improved water quality in Aliso Creek.

The referenced NPDES Permit No. CA010761 expired October 1, 2011 and the renewal application is central to protection of our community, public at large, and State designated protected marine life resources.

On behalf of the residents of our community, which is the receiving community for all discharges from the ETM and AOO, South Laguna Civic Association objects to the reissuance of the Aliso Creek Ocean Outfall NPDES Permit No. CA0107611 due to:

1) Threatened discharges of the imperiled SOCWA ETM sewer pipeline, and

2) The use of the ETM to convey IDP brine water with military aviation toxins and a 10% increase in wastewater flows to Laguna Beach's protected coastal receiving waters.

We are at the point where what we do – or fail to do – over the next ten years will have an impact for the next 10,000 years.

Sylvia Earle - Chief Scientist NOAA

NPDES Permit renewals provide a rare opportunity to advance sustainable solutions to creek and ocean pollution in a time sensitive manner. It is incumbent on all to utilize all regulatory tools and strategies including Cleanup and Abatement Orders, fines and penalties to emphasize the importance of taking collaborative, meaningful actions to eliminate ocean pollution from sewage and urban runoff discharges. The SDRWQCB is the principal regulatory agency capable of halting ocean water pollution in Laguna Beach and the public relies on the Board and staff to establish and enforce the most protective measures.

As Peter Douglas, the California Coastal Commission's executive officer, often points out at Surfrider gatherings and conventions, "The two biggest threats to ocean pollution are ignorance and apathy."

Ocean water quality is the goal and mutual success the priority for all stakeholders from fishermen to city leaders and the environmental community. Comments below follow the referenced NPDES format with emphasis added to clarify key issues.

Summary: We object to the reissuance of the Aliso Creek Ocean Outfall NPDES Permit No. CA0107611 due to threatened discharges of the imperiled SOCWA ETM sewer pipeline.

No reasonable justification is provided for IDP discharges from the Santa Ana Region to the Aliso Ocean Outfall in the San Diego Region. To adequately comply with all relevant water quality, CEQA and related rules and regulations the proposed NPDES Permit Renewal application must take into account:

- a deteriorated Effluent Transmission Main,
- inadequate recycled water system,
- an aging and inefficient Coastal Treatment Plant,
- exposed sewage pipes,
- creek and coastal impaired water bodies subjected to abandoned flows of reclaimed water,
- beach public health and safety,
- protected tidepool, shellfish and kelp forest habitat as well as
- offshore marine life feeding grounds

Among recommended actions:

1. Condemn the ETM and encourage inland POTWs to seek remediation grants
2. Alternatively, to protect against emergency sewage spills from degraded creek conditions and exposed infrastructure, upgrade to tertiary standards all sewage discharges from inland POTWs to the ETM
3. Retain and reuse all flows from the IDP on site or within the assigned Santa Ana Region
4. Require restoration of the Aliso Estuary as a water quality improvement measure and enhanced protection of public health and safety at Aliso Beach
5. Collaborate with private sector industry leaders to modernize the Coastal Treatment Plant in a public/private partnership to implement wastewater innovations and expand recycled water
6. Expand high quality 500tds recycled water for fire and emergency use throughout Laguna Beach, Laguna Canyon, Laguna Greenbelt and Aliso Wood's Canyon Wilderness Park
7. Partner 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*

The South Laguna Civic Association and all responsible citizens and elected officials in the Aliso Watershed are committed to a safe and healthy watershed and coastal receiving waters. Threatened conditions and backsliding are grounds to terminate the NPDES Permit. The SLCA, as the receiving community for all discharges from the ETM and AOO, objects to the reissuance of the Aliso Creek Ocean Outfall NPDES Permit No. CA0107611 due to threatened discharges of the imperiled SOCWA ETM sewer pipeline. We further object to the use of the ETM to convey IDP brine water with military aviation toxins and a 10% increase in wastewater flows to Laguna Beach's protected coastal receiving waters.

NPDES Permit renewals provide a rare opportunity to advance sustainable solutions to creek and ocean pollution in a time sensitive manner. A renewal of the NPDES Permit in light of known threats to the Effluent Transmission Main and Aliso Ocean Outfall is unwise and will require additional, costly appeals to State water quality regulators and federal authorities for immediate intervention. In order to maintain an accurate administrative record, please respond in writing within a timely manner to the issues and recommendations as outlined above.

Background

Discharger South Orange County Wastewater Authority (SOCWA)
Name of Facility Aliso Creek Ocean Outfall

SOCWA Regional Treatment Plant
29201 La Paz Road
Laguna Niguel, CA 92677
Orange County

SOCWA Coastal Treatment Plant
28303 Alicia Parkway
Laguna Niguel, CA 92677
Orange County

Irvine Ranch Water District Los Alisos
Water Reclamation Plant
22312 Muirlands Boulevard
Lake Forest, CA 92630
Orange County

El Toro Water District Water
Reclamation Plant
23542 Moulton Parkway
Laguna Woods, CA 92637
Orange County

Irvine Desalter Project Potable Water
Treatment System
26 Waterworks Way
Irvine, CA 92618
Orange County

Irvine Desalter Project Shallow
Groundwater Unit
7000 Marine Way
Irvine, CA 92620
Orange County

South Coast Water District Aliso
Creek Water Harvesting Project
28303 Alicia Parkway
Laguna Niguel, CA 92677
Orange County

The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, San Diego Region have classified this discharge as a **major discharge**.

Discharge Location

Treated municipal wastewater, treated groundwater, and waste brine
33º 29' 53" N 117º 46' 16" W Pacific Ocean – **Note: Approximately 1.2 miles offshore of Aliso Beach**

Facility Flow Rate

- SOCWA Regional Treatment Plant – 12.0 million gallons per day (MGD)
- SOCWA Coastal Treatment Plant – 6.7 MGD
- Irvine Ranch Water District Los Alisos Water Reclamation Plant – 7.5 MGD
- El Toro Water District Water Reclamation Plant – 6.0 MGD
- Irvine Desalter Project Potable Water Treatment System – 1.0 MGD
- Irvine Desalter Project Shallow Groundwater Unit – 0.85 MGD
- South Coast Water District Aliso Creek Water Harvesting Project – 0.32 MGD

Permit Background. SOCWA, hereinafter referred to as Discharger, is currently discharging pursuant to Order No. R9-2006-0055 and National Pollutant Discharge Elimination System (NPDES)Permit No. CA0107611. The Discharger submitted a Report of Waste Discharge and two amendments (dated March 31, 2011, January 26, 2012, and January 31, 2012) and applied for a **NPDES permit reissuance to discharge up to <u>34.37 MGD</u>** of treated municipal wastewater from four publicly owned treatment works (POTWs) and other miscellaneous wastewater/brine flows through the Aliso Creek Ocean Outfall (ACOO) to the Pacific Ocean. All of the facilities discharging to the ACOO are collectively referred to as the Facilities. The original application was deemed complete on April 30, 2011.

The map accompanying this application as Attachment B does not designate the Irvine Desalter Brinewater Line which adds as much as 2 MGD to a present flow rate average of 15 MGD increasing flows to coastal receiving waters by over 10%. Proposed secondary sewage discharges to increase to 34.37 MGD to the ACOO will more than double present levels. Backsliding is prohibited by the SDRWQCB. Three addenda to the Order were issued on October 10, 2001 (to change the name of the Discharger to SOCWA), February 13, 2002 (to correct effluent limitations for TCDD equivalents), and December 8, 2004 (to authorize the discharge of brine waste from the Irvine Desalter Project, authorize the discharge of treated groundwater from the Department of the Navy's shallow groundwater unit, and to apply secondary treatment standards to each of the contributing municipal wastewater treatment plants).

These incremental addenda items were not properly noticed to public and community stakeholders for comment and alternative mitigation recommendations. Substantial increases to flows to the Aliso Ocean Outfall constitute "back sliding" and is prohibited by Sections 402(o) and 303(d)(4) of the Clean Water Act and 40 CFR 122.44(l) in NPDES permits. Additional flows further degrade ambient ocean water quality and local marine life food chains in violation of Antidegradation Policy 40 CFR 131.12 and is not justified, as required, by specific findings and accurate ACOO plume maps and plume distribution patterns.

Facility Description. SOCWA is a joint powers authority formed to reduce duplication and

provide operational efficiency through consolidation. SOCWA is the legal successor to the Aliso Water Management Agency, the South East Regional Reclamation Authority, and the South Orange County Reclamation Authority. SOCWA is comprised of 10 member agencies including the City of Laguna Beach, the City of San Clemente, the City of San Juan Capistrano, El Toro Water District, Emerald Bay Service District, Irvine Ranch Water District, Moulton Niguel Water District (MNWD), Santa Margarita Water District (SMWD), South Coast Water District, and Trabuco Canyon Water District.

SOCWA operates the Ocean Outfall, which receives treated effluent from the following municipal wastewater treatment plants; the SOCWA Joint Regional Plant (JRP), the SOCWA Coastal Treatment Plant (TP), the Los Alisos Water Reclamation Plant (WRP), and the El Toro Water Recycling Plant (WRP). In addition, non-potable treated groundwater and brine discharges from the Irvine Desalter Project are also routed to the Ocean Outfall.

The SOCWA JRP is owned by SOCWA and the Moulton Niguel Water District and treats raw wastewater generated in the Moulton Niguel Water District service area. A portion of the secondary effluent is reclaimed for irrigation. The capacity of the existing tertiary treatment facility is 11.4 MGD**.**

The SOCWA Coastal TP is owned and operated by SOCWA and treats raw wastewater generated in the South Coast Water District, the City of Laguna Beach, and the Emerald Bay Services District.

Omitted are millions of gallons of raw sewage treated at the CTP transported by a deteriorating 2 mile transmission tunnel from areas bordered by Dana Point Headlands, Golden Lantern and Monarch Pointe Estates. Tunnel repairs are estimated between $50 million and $80 million over a 5 to 7 year project construction schedule.

From Memorial Day through the end of September the City of Laguna Beach diverts nuisance water from storm drains to the domestic sewer system, which is sent to the SOCWA Coastal TP. A portion of the secondary effluent is reclaimed for irrigation. The capacity of the existing tertiary treatment facility is 4.2 MGD. An average of 2.98 MGD of secondary treated wastewater is discharged to the Ocean Outfall. The Regional Water Board's Order No. 97-52 establishes reclamation requirements for the reuse of effluent from the SOCWA Coastal TP in the San Diego Region.

Reclaimed water use in Laguna Beach is non-existent except for a few sites in South Laguna. Underutilized reclaimed water to beneficial reuse as irrigation at the Aliso Golf Course, protection of first responder facilities such as Mission Hospital and mandated fire suppression systems surrounding the 20,000 acre Laguna Greenbelt is inconsistent with State Water Conservation measures. Costs incurred during firestorm events far exceed funds required to install and maintain a safe, reliable source of high purity 500 tds emergency/irrigation resource to improve local water among the annual 6 million visitors and 25,000 residents of Laguna Beach.

Irvine Desalter Project (IDP) is operated by the IRWD. The project is scheduled to be operational in mid-2006 and will treat groundwater from wells located either within or near a plume of volatile organic compound (VOC) contaminated groundwater on or near the former Marine Corps Air Station (MCAS) El Toro. The primary VOC of concern in the groundwater is trichloroethylene (TCE). Extracted groundwater will be treated using air stripping and/or used for irrigation and other non-potable uses. The contaminated groundwater is extracted from three areas:

- Approximately 400 gallons per minute (gpm) or 0.58 MGD of groundwater from extraction wells within the Department of the Navy's shallow groundwater unit (SGU) will be treated using air stripping and are disposed by injection within the Santa Ana Basin. If the injection well is out of service or the flowrate from SGU wells exceed the capacity of the injection well, the treated water will be directed to the Ocean Outfall.

- Approximately 1,000 gpm (1.44.MGD) of groundwater from IRWD well ET-1 will be treated using air stripping at a treatment facility located at the intersection of Jeffery Road and Irvine Center Drive in Irvine and then distributed for irrigation and other non-potable uses within the Santa Ana Basin. Flow from this well is not discharged through the Ocean Outfall.

- Approximately 1,900 gpm (2.74 MGD) of groundwater from IRWD wells 78 and 113 will be distributed untreated for irrigation and other non-potable uses within the Santa Ana Basin. Flow from these wells will not be discharged through the Ocean Outfall.

Degradation of coastal receiving waters by flows from the Santa Ana Region constitutes backsliding and forms the foundation for additional appeals and legal action. The IRWD is reportedly an international leader in beneficial reuse and has the financial and technical resources to eliminate or fully mitigate wastewater flows from this facility located well within Santa Ana Region. The IDP is clearly an industrial activity processing military industrial pollutants and must be regulated accordingly. As an industrial activity, mitigation measures to contain all impacts on site are necessary and appropriate.

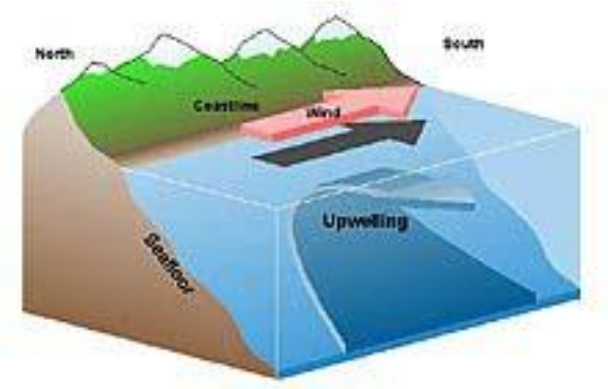
The combined discharge from the Ocean Outfall enters the Pacific Ocean, a water of the United States, at Outfall 001. Attachment B provides a map of the area in the vicinity of the Ocean Outfall.

Attachment B omits the 4 mile long IDP wastewater line within the Santa Ana Region and provides no justification for transferring flows from one region to another to degrade conditions at the Aliso Ocean Outfall. These omissions and lack of reasonable justifications undermine public participation and review of NPDES Permit Renewals.

Legal Authorities. This Order is issued pursuant to section 402 of the Federal CWA and implements regulations contained in the Code of Federal Regulations (CFR) adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges through the Ocean Outfall to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC.

California Environmental Quality Act (CEQA)
This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

Clean Water Act/Section 301(h) - Guidelines adopted under Section 403 of the Clean Water Act (40 CFR Part 125.120-124, Subpart M, "Ocean Discharge Criteria") specify that beyond an initial mixing zone, commonly referred to as the zone of initial dilution (ZID), the applicable water quality standards must be met. The zone of initial dilution is the boundary of the area where the discharge plume achieves natural buoyancy and first begins to spread horizontally. Discharged sewage is mostly freshwater, so it creates a buoyant plume that move upward toward the sea surface, entraining ambient sea water in the process. The wastewater/seawater plume rises through the water column until its density is equivalent to that of the surrounding water, at which point it spreads our horizontally. http://www.coastal.ca.gov/cd/CC-010-02.pdf



"Seasonal development of dissolved-oxygen deficits (hypoxia) represents an acute system-level perturbation to ecological dynamics and fishery sustainability in coastal ecosystems around the globe. Whereas anthropogenic nutrient loading has increased the frequency and severity of hypoxia in estuaries and semi-enclosed seas, the occurrence of hypoxia in open-coast upwelling systems reflects ocean conditions that control the delivery of oxygen-poor and nutrient-rich deep water onto continental shelves. Upwelling systems support a large proportion of the world's fisheries, therefore understanding the links between changes in ocean climate, upwelling-driven hypoxia and ecological perturbations is critical. Here we report on the unprecedented development of severe inner-shelf (<70 m) hypoxia and resultant mass die-offs of fish and invertebrates within the California Current System. In 2002, cross-shelf transects revealed the development of abnormally low dissolved-oxygen levels as a response to anomalously strong flow of subarctic water into the California Current System. Our findings highlight the sensitivity of inner-shelf ecosystems to variation in ocean conditions, and the potential impacts of climate change on marine communities."
http://www.nature.com/nature/journal/v429/n6993/full/nature02605.html?free=2

Clean Water Act/Section 301(h) - Guidelines adopted under Section 403 of the Clean Water Act (40 CFR Part 125.120-124, Subpart M, "Ocean Discharge Criteria") specify that beyond an initial mixing zone, commonly referred to as the zone of initial dilution (ZID), the applicable water quality standards must be met. The zone of initial dilution is the boundary of the area where the discharge plume achieves natural buoyancy

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CEQA offers the public one of the few opportunities to advance "reasonable, feasible, environmentally superior alternatives". The present NPDES Permit application seeks to continue with antiquated practices of dumping wastewater unsuitable for land uses into fragile coastal receiving waters. Since SDRWQCB chose to delay permit renewal, the application must address impacts to the Laguna Beach State Marine Conservation Area approved unanimously by the California Fish and Game Commission and implemented on January 1, 2012. The Fish and Game Commission, following over two years of testimony and review, concluded Laguna Beach marine habitat to be the only candidate location in all of California to receive a 5-0 vote for marine life protection. The ACOO is designed to annually discharge over 18 billion gallons of secondary sewage primarily from once used imported water. From a water conservation and management perspective, this practice is unsustainable and a significant waste of finite energy and water resources.

CEQA Policies: Section 15003.

In addition to the policies declared by the Legislature concerning environmental protection and administration of CEQA in Sections 21000, 21001, 21002, and 21002.1 of the Public Resources Code, the courts of this state have declared the following policies to be implicit in CEQA:

(a) The EIR requirement is the heart of CEQA. (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795.)

(b) The EIR serves not only to protect the environment but also to demonstrate to the public that it is being protected. (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795.)

(c) The EIR is to inform other governmental agencies and the public generally of the environmental impact of a proposed project. (*No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68.)

(d) The EIR is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. (*People ex rel. Department of Public Works v.Bosio*, 47 Cal. App. 3d 495.)

(e) The EIR process will enable the public to determine the environmental and economic values of their elected and appointed officials thus allowing for appropriate action come election day should a majority of the voters disagree. (*People v. County of Kern*, 39 Cal. App. 3d 830.)

(f) CEQA was intended to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. (*Friends of Mammoth v. Board of Supervisors*, 8 Cal. 3d 247.)

(g) The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. (*Bozung v. LAFCO* (1975) 13 Cal.3d 263)

(h) The lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. (*Citizens Assoc. For Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151)

(i) CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure. A court does not pass upon the correctness of an EIR'senvironmental conclusions, but only determines if the EIR is sufficient as an informational document. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692)

Note: Authority cited: Section 21083, Public Resources Code; Reference: Sections 21000-21177, Public Resources Code.

Recent summer sightings of federally protected Blue Fin Whales feeding at the location of the Aliso Ocean Outfall suggests the need to for compliance with the California Coastal Act, Article 4, Section 30230.The unseasonal presence of marine mammals feeding of krill indicates the presence of phytoplankton populations sustained by offshore, nutrient rich sewage discharge plumes. New research also highlights the presence of hormonal endocrine disruptors in sewage discharges as a contributing factor in the feminization of male fish.

Safari/Marc Carpenter, via Associated Press

A blue whale surfacing at 1000 Steps, South Laguna

California Coastal Act: MARINE ENVIRONMENT

Section 30230 Marine resources; maintenance

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or

economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 Biological productivity; water quality

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

With a steep geology and deep inshore coastal waters forming a natural ecological bowl, annual whale migrations transit within ¼ mile offshore of South Laguna and are subject to water quality impacts from the ACOO as well CWA 303(d) classified contaminates from Aliso Creek. Whale watching and dolphin tours in this area are major economic sources for converted fishing fleets engaged in daily trips to these migration and foraging grounds. Abalone and shellfish stocks are dependent on healthy ocean water quality levels as are recreational SCUBA divers and snorkelers.

The SDRWQCB is cautioned to avoid approving NPDES Permits at variance with the California Coastal Act. As a policy matter, the public at large relies upon consistency among government agency to protect resources and beneficial uses. Moreover, basic NPDES Permit standards calibrated on national metrics appropriate for low value coastal zones, such as along industrialized New Jersey or Los Angeles basins, may be insufficient to guarantee protection of critical high value biological resources unique to Laguna Beach coastal receiving waters. Minimal national standards must be augmented by site specific features and needs to insure comprehensive protection of water quality.

Government Code section 65040.12 - The California Environmental Protection Agency (Cal/EPA or Agency) is committed to the achievement of environmental justice. Environmental justice (EJ) is defined in California law (Government Code section 65040.12) as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies." Incremental increases in discharges without justification or mitigation measures represent an act of environmental injustice to local stakeholders and the general public seeking safe use of coastal receiving waters.

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. The Thermal plan contains temperature objectives for coastal waters.

Current thermal monitoring maps are not available on-line for reasonable public review and comment.

Antidegradation Policy. 40 CFR 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy.

Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. No specific findings are provided for the addition of as much as 2.0 mgd of additional wastewater, representing over a 10% increase in flows, from the IDP to the Aliso Ocean Outfall. It remains inconceivable that increased flows of contaminates from the IDP provide benefits to coastal receiving waters.

Anti-Backsliding Requirements. Sections 402(o) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be **as stringent as those in the previous permit.** Some effluent limitations in this Order **are <u>less stringent</u>** than those in the previous Order or have been removed.

The proposed application seeks to dramatically increase flows to the ACOO from the IDP without mitigation measures.

Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available environmental data.

Sampling and ocean outfall plume monitoring as noted by SDRWQCB staff are reportedly deficient or poorly conducted. Justifications for the NPDES Permit renewal based upon faulty monitoring fails to adequately support his permit.

The Code of Federal Regulations (CFR) at 40 CFR 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and California regulations.

Records of monitoring information shall include information required under Standard Provision IV.

Monitoring reports including thermal maps and plume distribution maps are not readily available to the public for review and comment.

Description of Wastewater and Biosolids Treatment or Controls

The SOCWA JRP treats solids produced by JRP, raw solids trucked to the plant from the El Toro WRP, and raw solids transported by force main from the SOCWA Coastal TP.

The CTP sludge force main is exposed at several locations and threatened. SOCWA efforts to replace the sludge force main are incompatible with projected federal repair costs and violate measures to protect the integrity of the Aliso woods Canyon Wilderness Park. A federal $45 million SUPER Project designed to protect deteriorating sewage infrastructure has not been funded although creek erosion continues to be accelerated with each major storm event.

Secondary effluent from the four wastewater treatment plants is conveyed to the Ocean Outfall via the Effluent Transmission Main. The Effluent Transmission Main consists of five reaches (A through E) and the on-shore portion of the Ocean Outfall.

- Reach A runs from the Los Alisos WRP southwesterly to the junction with the El Toro WRP. This land outfall is 11,904 feet long with a capacity of 7.5 MGD. Effluent from the Los Alisos WRP that is not reused enters this land outfall.
- Reaches B and C run from the El Toro WRP southeasterly towards Aliso Creek. Reach B terminates at the crest of the Moulton Parkway. The Reach B land outfall is 4,012

feet long with a capacity of 15 MGD. Reach C is the start of the gravity flow in the Effluent Transmission Main, runs southeasterly along the Moulton Parkway, and ends where Aliso Creek passes under Moulton Parkway. The Reach C land outfall is 3,654 feet long with a capacity of 15 MGD. Effluent from the El Toro WRP that is not reused enters this land outfall.

- Reach D runs southerly along the Aliso Creek Valley. This land outfall is 18,305 feet long with a capacity of 15 MGD. At the junction of Reaches D and E, effluent from the SOCWA JRP that is not reused enters the Effluent Transmission Main via a land outfall that is 6,860 feet long with a capacity of 20 MGD.

Various points along the ETM are exposed or threatened with exposure from uncontrolled storm events.

- Reach E runs in a southerly direction along the Aliso Creek Valley to the junction with the on-shore portion of the Ocean Outfall. This land outfall is 17,210 feet long with a capacity of 32.2 MGD.

The ETM at Access Point No. 16 and 16A is within a few feet of a 20 foot deep streambank failure. Anticipating failure and future liability, MNWD is seeking to divest ownership and use of the ETM and CTP. Removal of 1500 feet of the Aliso Creek ox bow feature to construct the federal Ziggerat parking lot channelizes and accelerates stormwater flows to dramatically contribute to streambank down-cutting with subsequent exposure of SOCWA infrastructure. Restoration of the Aliso ox bow will daylight hydric soils and increase percolation values to diminish downstream erosion and pollution. Incentives to harvest stormwater at the 50 acre Ziggerat complex for local beneficial reuse should be incorporated in the NPDES Permit.

The on-shore portion of the Ocean Outfall starts at the junction with Reach E and the SOCWA Coastal TP and continues to the Ocean Outfall. This land outfall is 5,405 feet long with a capacity of 50 MGD. Effluent from the SOCWA Coastal TP that is not reused enters this land outfall.

The ETM at the Aliso Golf Course at the footbridge is fully exposed and a candidate for rupture. Much of the remaining ETM is also exposed to trees boulders and other potential threats including vandalism or bio-terrorism attacks.

Discharge Points and Receiving Waters

The Ocean Outfall has been in use since 1979. The outfall extends 7,900 feet offshore in a southwesterly direction from the mouth of Aliso Creek. The inshore end of the diffuser is located approximately 6,700 feet offshore **(only 1.2 miles)** at a depth of approximately 170 feet. **An ocean marker at this point has been removed without notice. This marker serves to educate the public as to the location of sewage discharges. As a public benefit, the Aliso Ocean Outfall marker buoy has served as a consistent landmark for sailing, catamaran and similar ocean events. The ACOO ocean marker buoy should be replaced.**

The diffuser, which is collinear with the rest of the outfall, is approximately 1,200 feet

long and extends to a maximum depth of 195 feet. The terminus of the diffuser is located at Latitude 33º32'34" N and Longitude 117º49'02" W. The design capacity of the Ocean Outfall is 50 MGD.

The diffuser is situated on a large submerged plateau where cumulative sewage sediment deposits are mobilized during ocean upwelling events to enter the marine life food chain. Ocean upwelling and exceptionally strong deep water ocean currents likely transport sewage plumes to inshore areas. No plume maps are available for public review, comment and recommended mitigation measures.

For the previous Order, the Regional Water Board, with assistance from the State Water Board, determined the minimum initial dilution factor to be 260 for the discharge of up to 27.0 MGD of effluent through the Ocean Outfall using the computer modeling package UMERGE. The Regional Water Board reassessed the initial dilution factor in 2004 when considering authorization of the brine discharge from the IDP. The result of this analysis indicated that the addition of the brine discharge would not have a significant impact on the initial dilution factor. **Computer models from 2004 have not been verified by field monitoring reports.** Thus the previous initial dilution factor of 260 has been carried over for use in this Order.

The reported effluent flow discharged through the Ocean Outfall **has exceeded the flow effluent limitation on 11 occasions** during the period March 2001 through January 2005. Based on reported flows, the maximum flow effluent limitation was exceeded on March 1st, 3rd, 4th, 11th, and 25th, 2001 (27.2, 28.5, 28.6, 28.7, and 28.7 MGD respectively); March 15th, 16th, and 24th, 2003 (31.2, 27.6, and 28.9 MGD, respectively), and January 9th, 10th, and 11th, 2005 (30.9, 35.8, and 30.1 MGD, respectively). In most cases, the Discharger attributed the high reported flows to heavy rainfall increasing flow.

Since the Aliso Watershed area has a separate stormwater and sewage system, increases in rainfall entering POTWs indicate a significant operational deficiency requiring mitigation and where necessary penalties and fines. Exceedences in discharges at the Aliso Creek Ocean Outfall should not be ignored for enforcement action.

It should be noted however, that the reported flow **exceeded the design flow (12 MGD)** at the JRP on **16 occasions** during the period March 2001 through January 2005. At the SOCWA Coastal TP the reported flow **exceeded the design flow (6.7 MGD)** on two occasions during the month of August 2001. At the Los Aliso WRP t the reported flow **exceeded the design flow (7.5 MGD) on six occasions** during the period January 2004 through February 2004. The El Toro WRP the reported **flow exceeded the design flow** (6.0 MGD) **on 33 occasions** during the period October 2002 through January 2005.

No indication of exceedences is provided for the present permit period and it is unlikely these violations have been eliminated. Data of recent and present reported exceedences are not available for public review, comment and recommended mitigation measures.

It should be noted that relatively high values were reported for total chlorine residual (TCR) on five occasions. On June 22, 2003 TCR was reported as 3,000 ug/L at the SOCWA JRP. On January 14th, 15th, 19th, and 21st, 2004, TCR was reported as 2,400 ug/L, 2,500 ug/L, 2,300 ug/L, and 2,600 ug/L, respectively, at the Los Alisos WRP.

Analytical results reported by the Discharger indicate that the method detection limits used for analyses of several pollutants were, at times**, greater than the corresponding effluent limitation** and/or the Minimum Level established by the 2001 Ocean Plan. These pollutants include acrylonitrile, aldrin, benzidine, chlordane, DDT, 3,3-dichorobenzidine, dieldrin, hexachlorobenzene, PAHs, PCBs, TCDD equivalents, and toxaphene.

Compliance Summary

An effluent sampling point that represents the combined effluent flows from all contributors does not exist for the Aliso Creek Ocean Outfall.

SOCWA requires each contributor to collect volatile organic analyte (VOA) samples in accordance with approved sampling protocol (in glass vials void of air bubbles and hermetically sealed). SOCWA then reopens these VOA samples and prepares a flow-weighted composite sample for analysis. **This method of compositing specifically violates the sample collection, preservation, and handling requirements specified in the facility's Monitoring and Reporting Program, Section B.3.**

When compiling data and calculating daily and monthly concentrations and loadings, **SOCWA is somewhat inconsistent** in how they treat data reported as non-detect or less than values.

- The permit requires that the effluent sampling station be located so that a representative sample may be collected. The last three CEI reports identified a deficiency with the effluent self-monitoring location. Samples are collected from the secondary effluent line prior to the plant effluent holding tank. This location will not provide representative samples in a number of conditions (i.e. when the effluent holding tank has been contaminated by birds, when there is no discharge due to the operation of the AWT plant, etc). SOCWA has plans to relocate the final effluent flow measurement and sample monitoring location during the summer of 2006. **No indication is provided as to the status of any faulty effluent monitoring procedures.**

Planned Changes

Although there are a variety of capital improvements projects planned for each of the contributing municipal wastewater treatments to the Ocean Outfall, there are no major changes planned that would affect the capacity of the treatment plants or effluent quality.

Community efforts to modernize and improve operations at the Coastal Treatment Plant have identified a number of alternatives including Public Private Partnerships. Recycled water produced from the CTP is consistently of poor water quality often exceeding 1100 tds. The adjacent Aliso Golf Course in Laguna Beach

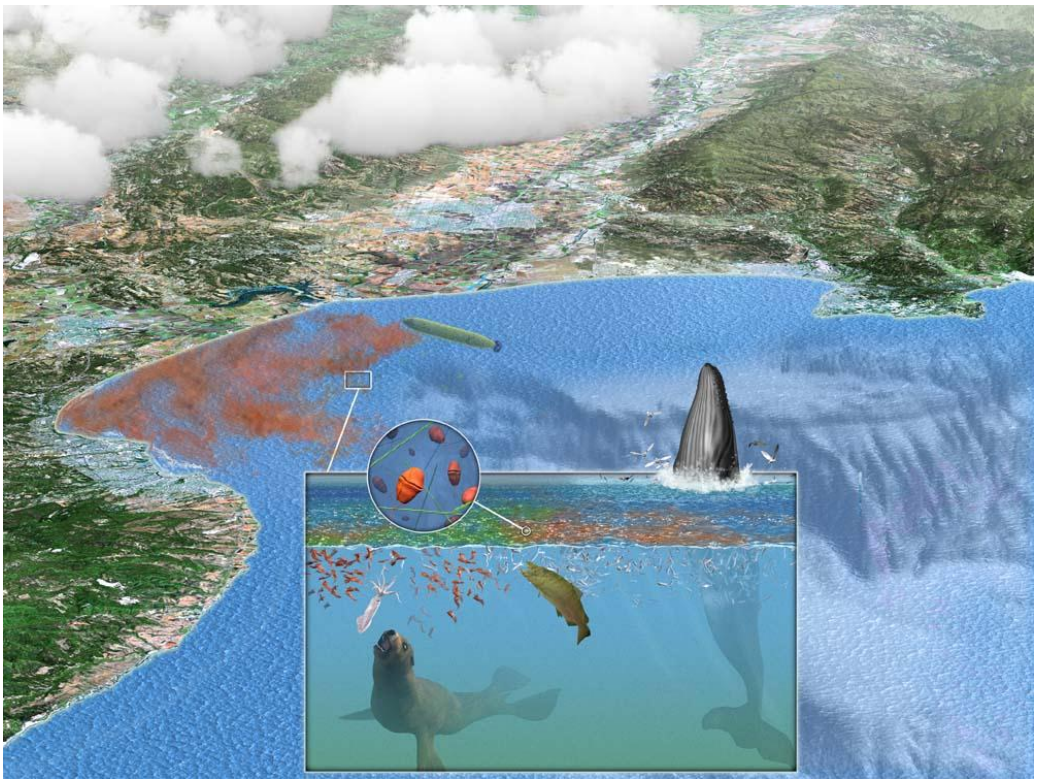
annually uses over 17 million gallons of imported potable water for irrigation. Improvements to the CTP should be directed by the SDRWQCB to incorporate significant increases of reclaimed water to serve all of Laguna Beach or face fines and penalties.

D. Impaired Water Bodies on CWA 303(d) List

On June 5 and July 25, 2003, the USEPA approved the list of impaired water bodies, prepared by the State Water Board pursuant to Section 303 (d) of the CWA, which are not expected to meet applicable water quality standards after implementation of technology-based effluent limitations for point sources. The 303(d) list includes the following sections of Pacific Ocean shoreline within the proximity of the Ocean Outfall as impaired for bacteria indicators:

1 0.65 miles of Pacific Ocean shoreline at Aliso HSA (starting at Laguna Beach down to Aliso Beach).

The impaired coastal receiving waters impact Aliso Beach, a regional destination for lower income communities. The Montage Resort, within the Aliso Creek plume and also likely influenced by the Aliso Ocean Outfall Plume is a major source of income for Laguna Beach and present conditions threaten the economic security of this area. Unseasonal, summer long Harmful Algae Blooms fed by development induced discharges of "nutrient rich" ACOO Plume upwelling and dry season urban runoff discharges are common to coastal receiving waters.



2 0.29 acres at the mouth of Aliso Creek.

Point source stormdrain discharges monitored by OC Watersheds reveal at least 50% of summer flows are generated from abandoned recycled water used for inland irrigation of ornamental landscape features and roadside greenways. **Chemical fingerprinting of creek flows can confirm source points leading to enforcement actions. Water quality** i**mpairments, unpermitted fill material in the coastal wetlands and neglect undermine plans by USFWS and others for restoration of federally listed Tidewater gobi habitat in the degraded Aliso Estuary.**

Impairment has been detected at the shorelines indicated above; no approved TMDLs have been developed for these areas, and therefore this Order does not include any wasteload allocations. **Given known and established water quality threats to public health and safety, the absence of approved monitoring metrics as justification for ignoring this pollution constitutes negligence. Impaired water bodies must be addressed with existing techniques, technologies and common sense as opposed to allowing these conditions to persist with known cumulative impacts while an endless series of measuring devices and metrics are invented over a non-specific timeframe. Comprehensive Cleanup and Abatement enforcement actions are essential to motivate compliance with water quality standards.**

Water Quality-Based Effluent Limitations (WQBELs)

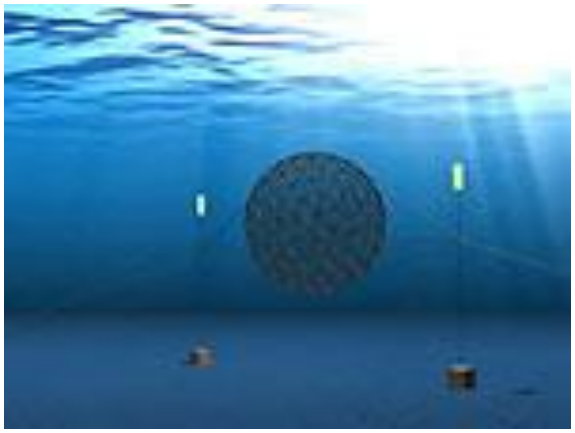
Scope and Authority USEPA regulations at 40 CFR 122.44(d)(1)(i**) require permits** to **include WQBELs for pollutants (including toxicity)** that are or may be discharged at levels, which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The establishment of WQBELs in this Order, based on water quality objectives contained in the Ocean Plan, is in accordance with the USEPA regulations.

WQBELs are not present for Aliso Creek Impaired Water Body locations placing the public at risk. Aliso Creek summer nuisance flows are approximately 50% abandoned reclaimed water produced by inland SOCWA POTWs and represents an indirect discharge of sewage constituents (essentially chlorinated secondary sewage) into creek and coastal receiving waters.

Recap: No reasonable justification is provided for IDP discharges from the Santa Ana Region to the Aliso Ocean Outfall in the San Diego Region. The proposed NPDES Permit Renewal application must take into account a deteriorated Effluent Transmission Main, inadequate recycled water system, an aging and inefficient Coastal Treatment Plant, exposed sewage pipes, creek and coastal impaired water bodies subjected to abandoned flows of reclaimed water, beach public health and safety, protected tidepool, shellfish and kelp forest habitat as well as offshore marine life feeding grounds to adequately comply with all relevant water quality, CEQA and related rules and regulations.

Among recommended actions:

1. Condemn the ETM and encourage inland POTWs to seek remediation grants
2. Alternatively, to protect against emergency sewage spills from degraded creek conditions and exposed infrastructure, upgrade to tertiary standards all sewage discharges from inland POTWs to the ETM
3. Retain and reuse all flows from the IDP on site or within the assigned Santa Ana Region
4. Require restoration of the Aliso Estuary as a water quality improvement measure and enhanced protection of public health and safety at Aliso Beach
5. Collaborate with private sector industry leaders to modernize the Coastal Treatment Plant in a public/private partnership to implement wastewater innovations and expand recycled water
6. Expand high quality 500tds recycled water for fire and emergency use throughout Laguna Beach, Laguna Canyon, Laguna Greenbelt and Aliso Wood's Canyon Wilderness Park
7. Partner 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*



The South Laguna Civic Association and all responsible citizens and elected officials in the Aliso Watershed are committed to a safe and healthy watershed and coastal receiving waters. Threatened conditions and backsliding are grounds to terminate the NPDES Permit. The SLCA, as the receiving community for all discharges from the ETM and AOO, objects to the reissuance of the Aliso Creek Ocean Outfall NPDES Permit No. CA0107611 due to threatened discharges of the imperiled SOCWA ETM sewer pipeline. We further object to the use of the ETM to convey IDP brine water with military aviation toxins and a 10% increase in wastewater flows to Laguna Beach's protected coastal receiving waters.

NPDES Permit renewals provide a rare opportunity to advance sustainable solutions to creek and ocean pollution in a time sensitive manner. A renewal of the NPDES Permit in light of known threats to the Effluent Transmission Main and Aliso Ocean Outfall is unwise and will require additional, costly appeals to State water quality regulators and federal authorities for immediate intervention. In order to maintain an accurate administrative

record, please respond in writing within a timely manner to the issues and recommendations as outlined above.

Thank you for your dedicated efforts to improve regional water quality and consideration of the above recommended actions.

Michael Beanan
Vice President
South Laguna Civic Association
mike@southlaguna.org

Joann Lim - Re: Reminder: Comments due Monday

From: Penny Elia <greenp1@cox.net>
To: Joann Lim <JLLim@waterboards.ca.gov>
Date: 3/12/2012 4:01 PM
Subject: Re: Reminder: Comments due Monday
CC: Michael Beanan <conxtns@hotmail.com>

Thank you again, Joann. Please confirm that I have submitted these comments in a timely manner.

Best -

Penny Elia
Sierra Club

SIERRA CLUB
FOUNDED 1892

March 12, 2012

San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA. 92123-4340

Subject: Tentative Order No. R9-2012-0013, NPDES Permit No. CA0107611
Waste Discharge Requirements for the South Orange County Wastewater
Authority Discharge to the Pacific Ocean through the Aliso Creek Ocean Outfall

For over a decade the Sierra Club's Save Hobo Aliso Task Force has testified at numerous hearings and submitted reams of written documentation regarding their ongoing concerns over water quality issues related to Aliso Creek, SOCWA and the polluted runoff from the upstream cities that enter our receiving waters of the Pacific Ocean.

In an effort to save the Regional Board additional reading, the Sierra Club would like to acknowledge the submission from the South Laguna Civic Association (Michael Beanan, Vice President) and concur with their comments and recommendations.

We have an ongoing problem in this area and look to this Board to help us remedy these devastating pollution issues.

Thank you for your time and consideration of the thoughtful comments submitted by South Laguna Civic Association.

I look forward to addressing the Board at your upcoming hearing in Orange County.

Sincerely,

Penny Elia

Penny Elia
Task Force Chair
Save Hobo Aliso Task Force
Sierra Club
30632 Marilyn Drive
Laguna Beach, CA 92651
949-499-4499

Copy: Laura S. McLean – State Water Resource Control Board
Steve R. McMasters – State Water Resources Control Board

On Mar 8, 2012, at 2:17 PM, Joann Lim wrote:

> This is a friendly reminder that comments on Tentative Order No. R9-2012-0013, NPDES No. CA0107611, *Waste Discharge Requirements for the South Orange County Wastewater Authority Discharge to the Pacific Ocean via the Aliso Creek Ocean Outfall*, are due Monday, March 12 at close of business. To ensure that I receive the comments in a timely manner, please email me a pdf copy of your letter/comments.
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> Thanks,
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> Joann Lim
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> California Regional Water Quality Control Board, San Diego Region
> Core Regulatory Unit
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