

Tim Regan, Office of Chief Counsel
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

April 30,2014

Telephone: (916) 341-5172 :

tim.regan@waterboards.ca.gov

RE: PROPOSED AMENDMENTS TO THE CALIFORNIA CODE OF REGULATIONS TITLE 23. WATERS. DIVISION 3. STATE WATER RESOURCES CONTROL BOARD CHAPTER 6. RULES GOVERNING REVIEW BY STATE BOARD OF ACTION OR FAILURE TO ACT BY REGIONAL BOARD

The South Laguna Civic Association seeks to challenge the summary dismissal of Petitions without considering the impacts to local regulated coastal receiving waters, federally protected marine mammals or impacts to public health and safety among local communities.

The Proposed Amendments cites “In the last several years, the State Water Board has lacked the resources to process every petition quickly” ..or not at all. This

condition is self-induced since timely resolution of Petitions and attendant penalties and fines can fund and strengthen State Staff resources and Petition adjudication. Lack of staff dedicated to fair and timely review of Petitions contributes to the accumulation of unresolved Petitions and the artificially, bureaucratic, manufactured conditions in support of the Proposed Amendment.

State Water Board Staff have erroneously determined:

“Potential cost impact on private persons or directly affected businesses: The State Water Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action. “

Petitions seeking relief from coastal discharges that violate State regulations aimed at controlling and reducing ocean pollution represent a significant burden for local community non-profits and non-governmental organizations. State Water Board Staff, confined to

operate in Sacramento, are “not aware” and have little knowledge of water pollution impacts to State Marine Protected Areas and fragile migratory routes of federally protected marine mammals like the California Grey Whales transiting Laguna Beach coastal waters.

Moreover, in the rush to dismiss all Petitions and abdicate administrative responsibilities to review Regional decisions, State Staff fail to provide the public a reasonable, feasible avenue for due process.

The South Laguna Civic Association Petition is directed to protect public health and safety from increased discharges originating from the Region 8 watershed to the Region 9 watershed and the Aliso Creek Ocean Outfall adjacent to the Laguna State Marine Reserve. As such, the SLCA Petition must be advanced with limited funds as is typical with local NGOs.

Summary dismissal of the SLCA Petition will place an enormous burden on the community to raise hundreds of thousands of dollars for Judicial Review to protect coastal receiving waters from unwarranted sewage discharges originating from an adjacent watershed. The public assumption of the State Water Resources Control

Board's commitment to vigorously protect coastal waters is undermined by the Proposed Amendment. The failure to recognize this basic reality raises serious questions as to the familiarity of State Staff to understand the fundamental public need for administrative review of poorly crafted Regional Board decisions.

Summary dismissal of all Petitions without regard for critical local circumstances, federally protected marine mammals and marine life is emblematic of poor regulatory operations and represents a careless disregard for even minimal protection of regulated coastal receiving waters. Ignoring basic ocean dynamics to transport nearshore secondary sewage plumes through daily ocean upwelling to local waters is indicative of a general ignorance and insensitivity to the environment and mandates governing the State Water Resources Board.

By this communication, the South Laguna Civic Association seeks an exemption from the Proposed

Amendment and pleads for a timely review of its Petition seeking abatement of illegal flows from the Irvine Desalter Plant in Region 8 to Region 9 protected coastal receiving waters in Laguna Beach. Local communities should not be penalized for inadequate management of Petitions by State Staff.

Thank you for your incorporating our concerns in revising or rejecting the Proposed Amendment to protect high value coastal receiving waters.

Mike Beanan
Vice President
South Laguna Civic Association

mike@southlaguna.org

May 10, 2012

State Water Resources Control Board
Office of Chief Counsel
Jeanette L. Bashaw, Legal Analyst
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Sacramento, CA 95812-0100

jbashaw@waterboards.ca.gov

This Petition of Review and Request for Hearing (the "Petition") is brought pursuant to provisions of California Water Code section 13320: Title 23, California Code of Regulations (CCR) sections 2050-2068 submitted by Michael Beanan, Vice President, South Laguna Civic Association, 949.499.6367, mike@southlaguna.org

The Petition challenges the San Diego Regional Board's 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 (Exhibit A) as adopted April 11, 2012 and effective May 31, 2012 and requests a stay of the effect of this Order. All issues and comments referenced in this Petition were presented in writing and testimony to the SDRWQCB.

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.

The request for a stay of the recent action approving the NPDES Permit for the ACOO, as discussed below, will result in substantial harm to our community, marine life of public interest and to the health and welfare of the general public. A stay will not harm SOCWA or other interested parties while enhancing the public interest in improving ocean water quality. As indicated in Points and Authorities, substantial questions of fact and law remain in the approval of the NPDES Permit for the Aliso Creek Ocean Outfall in Laguna Beach, California.

On behalf of the residents of our community, which is the receiving area for all discharges from the Effluent Transmission Main and Aliso Creek Ocean Outfall, 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 Effluent Transmission Main sewer pipeline. Recent studies indicate deteriorated conditions and a projected life span of as little as ten years.
- 2) The use of the ETM to convey Irvine Desalter Project brine water with military aviation toxins and a significant, over 10%, increase in wastewater flows to Laguna Beach's protected coastal receiving waters and new Marine Protected Areas will expose the public and marine life to more pollutants and

higher discharge volumes. The transport of brinewater and product potable water through a 4.5 mile pipeline against the natural gradient from one watershed with low value coastal receiving waters to another watershed with key regional MPAs is without justification and will consume excess energy over the 20 to 50 year Irvine Desalter Project timeframe.

3) Increased discharges and local water quality degradation expanding the present plume by over 10% will contribute to the incidence and magnitude of harmful algal blooms threatening public health and marine life recovery. The ACCO plume only 1.2 miles offshore likely comingles with the Aliso Creek Urban Runoff Plume throughout the year. Given a discharge location at 33° 29' 53" N 117° 46' 16" W, the ACCO plume is adjacent to MPAs at 33° 30' 50" N 117° 46' 00" W. As recently as January 12, 2012 SOCWA was notified of violations of Order No. R9-2006-0055 at the Aliso Creek Ocean Outfall.

4) Unnecessary incremental increases in total allowable discharges will contribute to expanded coastal degradation. The ACCO maximum discharge recorded in 1997 was 21 million gallons per day. Present daily averages 12 mgd to 15 mgd and is well below the existing permitted 30 mgd limit. The proposed 10% increase in ocean discharge to 34.37 mgd is not justified since all proposed and existing projects can be accommodated within present capacity limits.

The SDRWQCB remains unresponsive to public input on the above critical issues to undermine the efficacy of the public participation process.

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 34.37 MGD 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 ACCO are collectively referred to as the Facilities. The original application was deemed complete on April 30, 2011.

However, the map accompanying the NPDES 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 ACCO seeks to double present average discharge levels of 12 mgd to 15 mgd. 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.

Each incremental addenda item was 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 Anti-degradation Policy 40 CFR 131.12 and is not justified, as required, by specific findings and accurate ACCO plume maps and plume distribution

patterns. Requests for technical reports per Water Code section 13225(c) for secondary sewage plume maps and plume distribution patterns were not provided for public review prior to permit issuance.

Treated wastewater for non-potable uses is crucial in a semi-arid area such as California, where public policy emphasizes water recycling. California law provides that the State's interest in conservation of water resources requires the maximum reuse of treated wastewater (Water Reuse Law, Water Code Sections 461-465). It also provides that the State should encourage Californians to develop water recycling projects to meet the State's water needs and augment surface and groundwater supplies (Water Reclamation Law, Water Code Sections 13500-13556).

In 1972, Congress passed the Clean Water Act (CWA), which limits pollution of the nation's waters. Then, in 1991, the California Water Recycling Act (California Water Code 13577) set recycling goals of 700,000 acre-feet of water annually by year 2000 and 1 million acre-feet annually by 2010. All of these laws help prompt more regulations, policies and public support to control treated wastewater.

Public requests for increasing water reclamation to serve Laguna Beach were not considered by SDRWQCB as mitigation for ocean discharges (Water Code section 13500 and following) (Exhibit B).

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.

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 inland reclaimed water
- beach public health and safety
- protected tidepools, 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 Watershed 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.

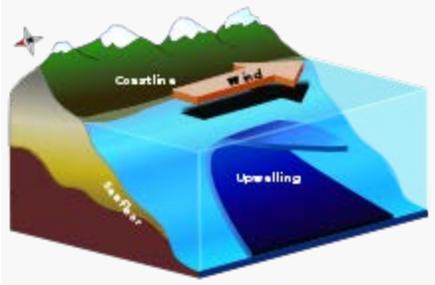
The South Laguna Civic Association and all responsible citizens and elected officials in the Aliso Watershed are committed to a safe and healthy watershed and coastal receiving waters. Threatened conditions and backsliding are grounds to terminate the NPDES Permit.

At present, the California Ocean Plan provides general requirements for the management of waste discharge to the ocean, including: "Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community."

Currently, there are no Ocean Plan Water Quality Objectives that apply specifically to brine waste discharges from desalination plants or groundwater desalting facilities. Untreated brine waste discharged into the ocean "behaves" differently than either waste water treatment plant freshwater effluent or the brine waste-freshwater mixture. The "brine waste" plume is denser than the receiving ocean water due to a much higher salinity and tends to settle on the ocean bottom. As a result, a brine waste plume can have an adverse effect on the bottom-dwelling marine organisms.

Changes in the Water Code in 1972 required the State Water Board to redraft its proposed Policy as a Water Quality Control Plan. At that time, it was the intent of the State Water Board to "...determine the need for revising the Plan to assure that it reflects current knowledge..." (SWRCB 1972). Current knowledge recognizes the impacts of ocean upwelling and harmful algal blooms but is not incorporated in recent actions by the SDRWQCB.

Laguna's sewage is added to a threatened Effluent Transmission Main pipeline buried along the streambed of an eroding Aliso Creek that transports 13mgd from inland cities to the Laguna Beach coast. The combined sewage with only secondary treatment is pumped to a depth of 170 feet merely 1.2 miles offshore.



Warm wastewater must naturally form a plume but, according to wastewater engineers, does not reach the surface due to a colder, denser upper seawater thermocline. Eventually the plume spreads along the seafloor to be sent up and down the coast with warm Baja currents, Southern swells and the Southern California Countercurrent.

Ocean upwelling accompanying Santa Ana winds feed phytoplankton and algae blooms that soon die to form red tides and potentially unseasonal Harmful Algal Bloom events.

Points and Authorities

1. California Water Code section 13320: Title 23, California Code of Regulations (CCR) sections 2050-2068
2. 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 less stringent than those in the previous Order or have been removed.
3. Antidegradation Policy 40 CFR 131.12
4. 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 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 contaminants from the IDP provide benefits to coastal receiving waters.
5. 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 this permit.
6. Water Code section 13500 and following.
7. State Water Board pursuant to Section 303 (d) of the CWA Impaired Water Bodies and 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. 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.
8. 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 out horizontally. <http://www.coastal.ca.gov/cd/CC-010-02.pdf> The relationship between wastewater/seawater plumes and the foraging behavior of federally protected marine mammals is not considered in the recent action by the SDRWQCB.



Safari/Marc Carpenter, via Associated Press

A blue whale surfacing at 1000 Steps, South Laguna

9. California Coastal Act, Article 4, Section 30230. Recent summer sightings of federally protected Blue Fin Whales feeding at the location of the Aliso Ocean Outfall suggests the need for compliance with the Coastal Act. The unseasonal presence of marine mammals feeding on krill indicates the presence of phytoplankton populations sustained by offshore, nutrient rich sewage discharge plumes migrating to surface waters. New research also highlights the presence of hormonal endocrine disruptors in sewage discharges as a contributing factor in the feminization of male fish.
10. California Coastal Act, Article 4, Section 30231. The SDRWQCB overlooks 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.
11. Water Reuse Law, Water Code Sections 461-465 and Water Reclamation Law, Water Code Sections 13500-13556 requiring beneficial reuse of IDP potable water product of 1 mgd and

implementation of recycled water throughout Laguna Beach to achieve a 20% reduction in imported water by 2020.

12. 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). South Laguna, as a small community without voting rights pertaining to water issues, is the principal receiving point for the Aliso Creek Ocean Outfall and the proposed increased discharges constitute an environmental injustice to our community and the general public.

Copies of this Petition have been sent to the SDRWQCB and SOCWA discharger and reflect issues raised and ignored by the SDRWQCB.

Exhibit A

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

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger South Orange County Wastewater Authority (SOCWA)

Name of Facility Aliso Creek Ocean Outfall

Facility Address

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. Discharges by the South Orange County Wastewater Authority from the Facilities listed in Table 1 at the discharge point identified in Table 2 are subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location: 33° 29' 53" N 117° 46' 16" W Pacific Ocean

Treated municipal wastewater, treated groundwater, and waste brine

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY ALISO CREEK OCEAN OUTFALL

Table 3 Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, San Diego Region on: April 11, 2012

This Order shall become effective on: May 31, 2012

This Order shall expire on: May 31, 2017

ORDER NO. R9-2012-0013 NPDES NO. CA0107611

The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on April 11, 2012.

David W. Gibson, Executive Officer

Exhibit B

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 500tlds 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
33° 29' 53" N 117° 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 34.37 MGD** 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 out 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>

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) Page **9 of 19**

(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's environmental 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 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.

California Coast Act, 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 contaminants 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 contaminants 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 less stringent** 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 33°32'34" N and Longitude 117°49'02" 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 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 Page 16 of 19

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: 0.65 miles of Pacific Ocean shoreline at Aliso HSA (starting at Laguna Beach down to Aliso Beach) and 0.29 acres at the mouth of Aliso Creek.

The impaired coastal receiving waters impact Aliso Beach, a regional destination for lower income communities. The Montage Resort, within the Aliso Creek plume is also likely influenced by the Aliso Ocean Outfall Plume represents a major source of income for Laguna Beach. 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.

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 impairments, 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

Exhibit C

Recent Violations:

January 12, 2012

Mr. Tom Rosales, Executive Director

SOCWA

28303 Alicia Parkway

Laguna Niguel, CA 92677

In response refer to: dbradford:257850

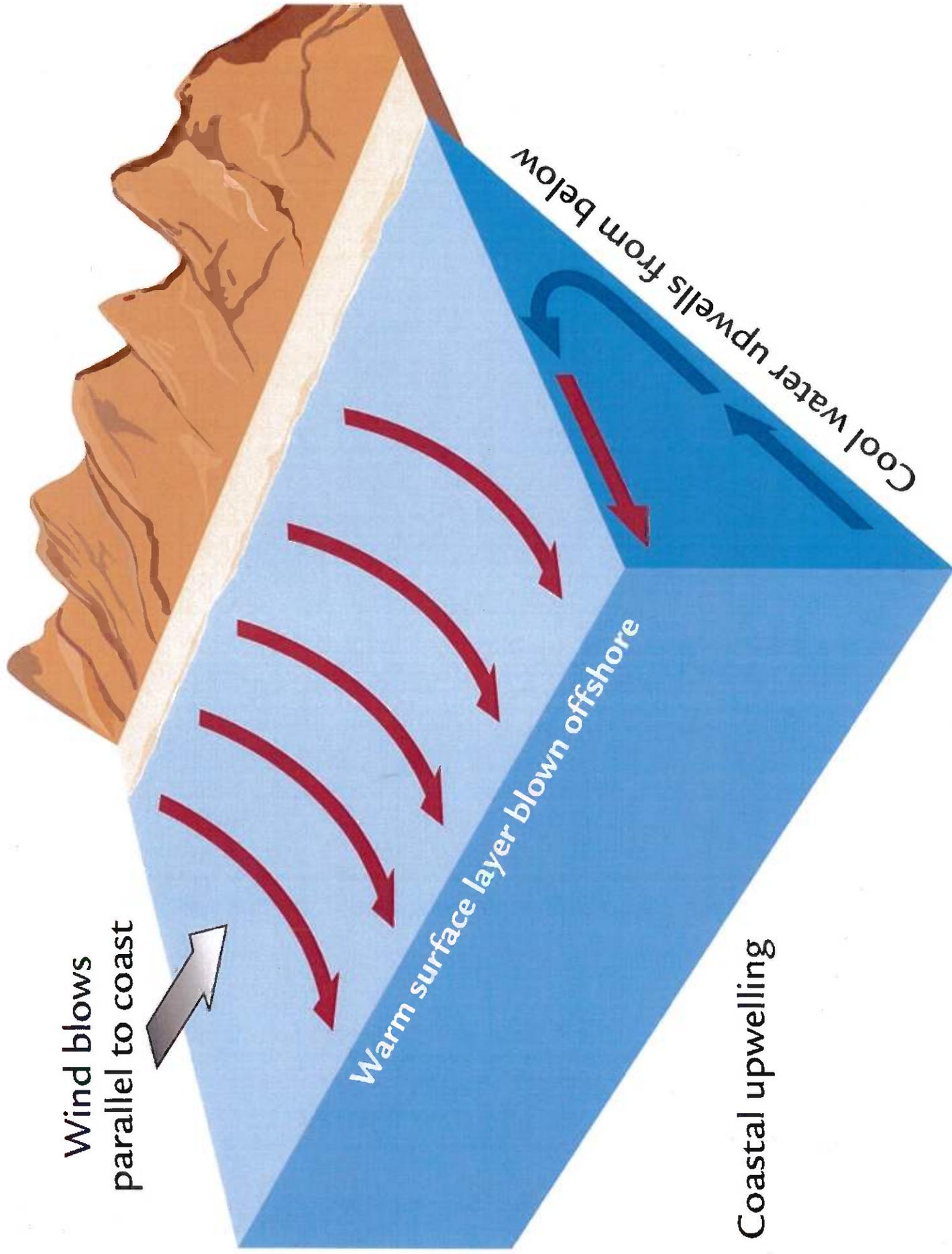
SETTLEMENT OFFER NO. R9-2012-0016: OFFER TO PARTICIPATE IN EXPEDITED
PAYMENT PROGRAM RELATING TO VIOLATIONS OF NPDES PERMIT NO.
R9-2006-0055, SOCWA-ALISO CREEK OCEAN OUTFALL, COASTAL TREATMENT
PLANT FACILITY

Mr. Tom Rosales:

This notifies SOCWA-Aliso Creek Ocean Outfall (Permittee) of alleged violations of Order No. R9-2006-0055, Waste Discharge Requirements for the South Orange County Wastewater Authority, Discharge to the Pacific Ocean Via the Aliso Creek Outfall and to allow the Permittee to participate in the California Regional Water Quality Control Board, San Diego Region's (San Diego Water Board) Expedited Payment Program for Effluent and/or Reporting Violations (Expedited Payment Program) to address liability that may be assessed pursuant to California Water Code sections 13385 and 13385.1.

VIOLATIONS SUBJECT TO THIS OFFER:

The San Diego Water Board alleges that the Permittee has violated the effluent limitations identified in Exhibit "A." The Permittee will have the opportunity to address the alleged violations as discussed below.



Wind blows parallel to coast

Warm surface layer blown offshore

Cool water upwells from below

Coastal upwelling

1532 Wildwood Road, South Laguna, California 92577 714-499-3574

October 23, 1984

Calif. Regional Water Quality Control Board
Attn: Gary Butterfield, Executive Officer
6154 Mission Gorge Road, Suite 205
San Diego, Calif. 92120

Re: AWMA request for reduced discharge quality at Aliso
outfall, South Laguna

Dear Mr. Butterfield:

I recently learned of the referenced request at our South Laguna Civic Association meeting held October 9, 1984. In my opinion this request constitutes a breach of faith with members of our community and all the other citizens that come to this area to enjoy the beaches. When the installation of the outfall was agreed upon we were assured by the terms of the permit that nothing less than secondary treatment would ever be used. The permit documents stated that continued efforts would be made to even further improve on the promised treatments.

We sincerely trust that you will reject this inappropriate request and consider only those that will keep the ocean waters as clean as present technology permits.

Sincerely



Ann Christoph
Landscape Architect