San Diego Regional Water Quality Control Board 9174 Sky Park Court, Suite 100 San Diego, CA 92123-4340 September 15, 2015

RE: PROPOSED AMENDMENTS TO ORDER NO. R9-2013-0001, TENTATIVE ORDER NO. R9-2015-0100

The South Laguna Civic Association (SLCA), established in 1946, is the principle community most impacted in the Aliso Watershed by the Orange County MS4 Permit. While over \$20 million in public funds have been devoted to monitoring activities and reports, Co-permittees still concede they are out of compliance with most of the previous and current water quality regulations under the jurisdiction of the SDRWQCB MS4 Permit.

Pursuant to CWA Section 402(p)(3)(B), previous Aliso Watershed NPDES permits for storm water discharges from MS4s must include requirements to <u>effectively</u> prohibit non-storm water discharges into MS4s. However, present requirements have yet to achieve this mandate. Lacking is clear enforcement measures to incentivize Co-permitee compliance. Despite clear and mounting evidence of accumulated impacts from non-compliance, Co-permitees do not face fines and penalties for a pattern of careless management of MS4 outfalls. Instead of compliance, Co-permitees have chosen legal measures to hold MS4 permit regulations in permanent abeyance.

Public expectations require regulatory enforcement from the SDRWQCB. Clean up and Abatement Orders will motivate prompt mitigation measures and alternatives to include:

- a) Immediate MS4 dry weather diversion to Publically Owned Treatment Facilities (POTWs)
- b) Penalties and fines directed to Supplemental Environmental Projects by Third Party water quality NGOs and experts.
- c) Local native tree planting to re-direct flows for irrigation and groundwater replenishment.

Fortunately, the iterative process from previous permitting cycles appears to have incorporated recommendations from SLCA and others for comprehensive mapping of the entire watershed and regulated coastal receiving waters in the present Tentative Order.

Public education can be best achieved if all facts are presented in clear map layers to determine MS4 impacts to all mandated beneficial uses. Likewise, elected officials as Co-Permitees must become literate in local natural baseline conditions and protected species through maps indicating Environmentally Sensitive Areas (ESHAs) within the watershed creek, wetland, estuary and coastal habitats to understand how best to achieve MS4 Permit compliance. Maps are the first step in restoring native flow rates to support indigenous drought tolerant trees and vegetation among impaired creek and coastal waters regulated by SDRWQCB.

Issues and recommendations submitted by SLCA in April 11, 2007 (Tentative Order No. R9-2007-2002) and December 10, 2012 (Tentative Order No. R9-2012-0011) remain relevant as Public Comment in the refining the Proposed Amendments to Order NO. R9-2013-0001, Tentative Order NO. R9-2015-0100 and are re-submitted as attachments.

The Aliso Watershed is a compact 34 square mile area suffering decades of neglect and pollution originating from poorly engineered residential developments among inland cities. Plans to add 17,000 new houses to South Orange County in the coming years will exacerbate the water pollution crisis facing Laguna Beach. Runoff management plans fail to control dry weather urban runoff and knowingly contribute directly to increased flows and erosion during routine storm events.

The Aliso Creek Wilderness Park remains degraded from erosion impacts to streambed habitat and threatens to expose critical sewage infrastructure transporting 10 to 15 million gallons of secondary sewage to the Aliso Creek Ocean Outfall only 1.2 miles offshore. A recent study by TetraTech for the South Orange County Wastewater Authority (SOCWA) determined the integrity of creek infrastructure to be capable of failure in as little as 5 years. Coastal receiving waters at the mouth of Aliso Creek are impaired by polluted urban runoff flowing at 1 to 5 million gallons per day (GPD). Aliso Creek is listed as a 303(d) Impaired Water Body by the Clean Water Act and continues to fail to meet present and previous MS4 Permit requirements. (Exhibit B – Aliso Creek Watershed 303(d) Impaired Waterbodies)

All Co-Permitees, as signatories to the MS4 Permit, are legally responsible for water quality in terms of coastal receiving waters. The regulatory and legal nexus is clear between unpermitted discharges by inland Co-Permitees, creek erosion and infrastructure damage, ocean pollution and public health hazards associated with these contaminated daily flows.

Aliso Beach, at the mouth of the federally listed contaminated creek, is permanently posted as a Clean Water Act 303(d) Impaired Water Body. Daily flows of urban runoff pollutes coastal receiving waters protected as the Laguna Beach State Marine Conservation Area established unanimously by the California Fish & Game Commission on January 1, 2012. Recent MPA coastal receiving water quality protections are referenced in Amended Order 2013-001 on page 21 of 313 section 2, A, 3: http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/docs/updates03041 5/2015-0303 Final Amended Attachment No 1 Order 2013-0001.pdf

Known and persistent water quality violations at Aliso Beach continue due to a lack of enforcement of MS4 permit regulations.

Additional comments to the CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION ORDER NO. R9-2013-0001, AS AMENDED BY ORDER NO. R9-2015-0001 NPDES NO. CAS0109266 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) DRAINING THE WATERSHEDS WITHIN THE SAN DIEGO REGION Amended February 11, 2015 are:

2. Priority Water Quality Conditions

The Co-permittees must identify the water quality priorities within each Watershed Management Area that will be addressed by the Water Quality Improvement Plan. Where appropriate, Watershed Management Areas may be separated into subwatersheds to focus water quality prioritization and

jurisdictional runoff management program implementation efforts by receiving water. However, the Co-permitees lack maps identifying Environmentally Sensitive Habitat Areas (ESHA) such as the degraded Aliso Coastal Wetlands Estuary and State Marine Conservation Areas as well as local coastal receiving water tide pools, kelp forests and recreational sites. Similarly, maps must incorporate current studies for the Aliso watershed urban runoff coastal plume.

ASSESSMENT OF RECEIVING WATER CONDITIONS

The Co-permittees must consider the following, at a minimum, to identify water quality priorities based on impacts of MS4 discharges on receiving water beneficial uses:

- (1) Map all creek and coastal receiving waters listed as impaired on the CWA Section 303(d) List of Water Quality Limited Segments (303(d) List);
- (2) TMDLs adopted and under development by the San Diego Water Board;
- (3) Map all receiving waters recognized as sensitive or highly valued by the Co-permittees, including estuaries designated under the National Estuary Program under CWA section 320, marine protected areas to include the Laguna Beach State Marine Conservation Area (SMCA), wetlands defined by the State or U.S. Fish and Wildlife Service's National Wetlands Inventory as wetlands that include the Aliso Estuary, waters having the Preservation of Biological Habitats of Special Significance (BIOL) beneficial use designation, and receiving waters identified as ASBS subject to the provisions of Attachment B to State Water Board Resolution No. 2012-0012;
- (4) The receiving water limitations of Provision A.2;
- (5) Map and illustrate known historical versus current physical, chemical, and biological water quality conditions and coastal receiving water urban runoff plumes;
- (6) Publish for Public Education available, relevant, and appropriately collected and analyzed physical, chemical, and biological receiving water monitoring data, including, but not limited to, data describing: (a) Chemical constituents, (b) Water quality parameters (i.e. pH, temperature, conductivity, etc.), (c) Toxicity Identification Evaluations for both receiving water column and sediment (pathogens, viruses, nitrogen, phosphorous, microbeads, pharmaceuticals, etc.), (d) Trash impacts. Include map overlays for protected species and habitats. (See Attachment No. 1 Order No. R9-2013-0001 Page 22 of 131 May 8, 2013 As amended by Order No. R9-2015-0001 Amended February 11, 2015 PROVISION B: WATER QUALITY IMPROVEMENT PLANS B.2. Priority Water Quality Conditions (e) Bioassessments, and (f) Physical habitat).

- (7) Present available evidence of erosional impacts in receiving waters due to accelerated flows (i.e. hydromodification). Map and identify inland dry weather urban runoff storm drain flow rates and on-going MS4 Permit violations. Indicate storm water erosion impacts from Laguna Beach Fuel Modification goat grazing. Identify existing erosion threats to the South Orange County Wastewater Authority (SOCWA) Effluent Transmission Main alongside Aliso Creek.
- (8) Map protected whale and dolphin migration and foraging areas, Tidewater goby estuaries, creek wetlands and coastal urban runoff plumes among available evidence of adverse impacts to the chemical, physical, and biological integrity of receiving waters; and
- (9) The potential improvements in the overall condition of the Watershed Management Area that can be achieved.
- b. ASSESSMENT OF IMPACTS FROM MS4 DISCHARGES The Co-permittees must consider the following, at a minimum, to identify the potential impacts to receiving waters that may be caused or contributed to by discharges from the Co-permittees' MS4s: (1) The discharge prohibitions of Provision A.1 and effluent limitations of Provision A.3; and (2) Available, relevant, and appropriately collected and analyzed storm water and non-storm water monitoring data from the Co-permittees' MS4 outfalls; (3) Mapped locations of each Co-permittee's MS4 outfalls that discharge to receiving waters; (4) Mapped locations of MS4 outfalls that are known to persistently discharge non-storm water to receiving waters likely causing or contributing to impacts on receiving water beneficial uses; (5) Mapped locations of MS4 outfalls that are known to discharge pollutants in storm water causing or contributing to impacts on receiving water beneficial uses; and (6) The potential improvements in the quality of discharges from the MS4 that can be achieved.

IDENTIFICATION OF PRIORITY WATER QUALITY CONDITIONS

- (1) The Co-permittees must use the information gathered for Provisions B.2.a and B.2.b to develop a list of priority water quality conditions as pollutants, stressors and/or receiving water conditions that are the highest threat to receiving water quality or that most adversely affect the quality of receiving waters. The list must include the following information for each priority water condition (Attachment No. 1 Order No. R9-2013-0001 Page 23 of 131 May 8, 2013 As amended by Order No. R9-2015-0001 Amended February 11, 2015).
- (2) PROVISION B: WATER QUALITY IMPROVEMENT PLANS B.2. Priority Water Quality Conditions quality condition: (a) The beneficial use(s) associated with the priority water quality condition; (b) The geographic extent of the priority water quality condition within the Watershed Management Area, if known; (c) The temporal extent of the

priority water quality condition (e.g., dry weather and/or wet weather); (d) The Copermittees with MS4s discharges that may cause or contribute to the priority water quality condition; and (e) An assessment of the adequacy of missing ESHA and MPA maps, coastal receiving water plume maps and data gaps in the monitoring data to characterize the conditions causing or contributing to the priority water quality condition, including a consideration of spatial and temporal variation.

- (3) The Co-permittees must identify the highest priority water quality conditions to be addressed by the Water Quality Improvement Plan, and provide a rationale for selecting a subset of the water quality conditions identified pursuant to Provision B.2.c.(1) as the highest priorities.
 - d. IDENTIFICATION OF MS4 SOURCES OF POLLUTANTS AND/OR STRESSORS The Co-permittees must identify and prioritize known and suspected sources of storm water and non-storm water pollutants and/or other stressors associated with MS4 discharges that cause or contribute to the highest priority water quality conditions identified under Provision B.2.c. The identification of known and suspected sources of pollutants and/or stressors that cause or contribute to the highest priority water quality conditions as identified for Provision B.2.c must consider the following: (1) Pollutant generating facilities, areas, and/or activities within the Watershed Management Area, including: (a) Each Co-permittee's inventory of construction sites, commercial facilities or areas, industrial facilities, municipal facilities, and residential areas, (b) Publicly owned parks and/or recreational areas, (c) Open space areas and goat grazed Fuel Modification Zones, (d) All currently operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, and (e) Areas not within the Co-permittees' jurisdictions.

Priority Water Quality Conditions lands, state lands, federal lands including the Irvine Desalter Project that are known or suspected to be discharging to the Co-permittees' MS4s; (2) Mapped locations of the Co-permittees' MS4s, including the following: (a) All MS4 outfalls mapped plumes that discharge to receiving waters, and (b) Locations of major structural controls for storm water and non-storm water (e.g., retention basins, detention basins, major infiltration devices, etc.); (3) Other known and suspected sources of non-storm water or pollutants in storm water discharges to receiving waters within the Watershed Management Area, including the following: (a) Other MS4 outfalls (e.g., Phase II Municipal and Caltrans), (b) Other NPDES permitted discharges, (c) Any other discharges that may be considered point sources (e.g., private outfalls), and (d) Any other discharges that may be considered non-point sources (e.g., agriculture, wildlife or other natural sources);

(4) Review of available data, including but not limited to: (a) Findings from the Copermittees' illicit discharge detection and elimination programs, (b) Findings from the Copermittees' MS4 outfall discharge monitoring, (c) Findings from the Copermittees' receiving water monitoring, (d) Findings from the Copermittees' MS4 outfall discharge and receiving water assessments, and (e) Other available, relevant, and appropriately collected data, information, or studies related to pollutant sources and/or stressors that contribute to the highest priority water quality conditions as identified for Provision B.2.c. (5) The adequacy of the available data to identify and prioritize sources and/or stressors associated with MS4 discharges that cause or contribute to the highest priority water quality conditions identified under Provision B.2.c. for timely Cleanup and Abatement Orders from the SDRWQCB.

Recommended Actions

Poorly engineered projects can be re-engineered to achieve mandated water quality objectives.

- 1. Maps of all creek and coastal receiving waters indicating water quality impacts can be created by SCCWRP, Scripps, NOAA or any number of competent university or regulatory groups. A Bioregional Watershed Map will identify degraded land elements, offending storm drain outlets and candidate areas for re-forestation and estuarine/coastal restoration.
- 2. On an annual basis, citations against the primary six known storm drain point sources in each watershed can incrementally compel clean-up and abatement throughout a given watershed bioregion without the burden of costs to abate all points of contamination at once. Enforcement is a powerful economic incentive to achieve MS4 permit compliance. Failed Best Management Practices (BMPs) among urban runoff facilities, required as a Condition of Approval for inland residential developments, can be retrofitted with dry weather diversions to local Publically Owned Treatment Works (POTWs) or, alternatively, re-engineered with deep groundwater injection wells.
- 3. Fines must be allocated to re-vegetate impaired watersheds and kelp forests to restore the native functions of semi-arid creeks and protected coastal receiving waters. A re-forested Aliso Canyon with a canopy similar to San Mateo Creek will qualify for California Cap and Trade funding to offset costs. Restoration of natural habitats is demonstrated to be the best, most cost effective measure for improving watershed water quality.
- 4. Restoration of high value coastal wetlands and estuaries will guarantee protection of natural beach sand berms and provide measurable improvement to coastal receiving waters. Funds from the California Coastal Conservancy and other wetland recovery resources can offset costs.
- 5. Watershed restoration will offer multiple community benefits by reducing destructive stormwater flows, eliminating pollutants and increasing eco-tourist revenues to surrounding cities. Large street cisterns incorporating designs proposed by GeoSynTech for the redevelopment of the Aliso Golf Course can serve as a model for extensive rainwater

harvest/reuse systems. Street cisterns common throughout San Francisco since 1906, can capture and mitigate storm water flows for local beneficial reuse. Restoration of some or all of the 1500 foot Aliso Creek Ox Bow in Laguna Niguel will assist in restoring hydric soils to reduce stormwater impacts.

- 6. Increased use of recycled water for wildland fire suppression along the entire Highway 73 Toll Road bisecting the Laguna Greenbelt will maintain a healthy, fire safe wilderness area. Orange County Measure M and State Proposition funds are available to offset costs. Increased use of recycled water reduces ocean discharges to the Laguna State Marine Conservation Area.
- 7. A citywide network of recycled water for all of Laguna Beach will reduce imported water demand significantly and increase water security, disaster preparedness and fire suppression resources. Revenues from routine use for irrigation mandated Fuel Modification Zones will provide new revenue streams. Laguna Beach is the only Orange County city without a comprehensive recycled water program and remains a "once use" community of valuable imported water.

The MS4 Permit Renewal process offers the opportunity to advance beyond failed measures and begin the renewal of the region's unique watershed and coastal ecology. All Stakeholders can benefit through proactive initiatives and, as the overall watershed ecology improves, the cost savings from stormwater damage, water pollution, protracted litigation and public health threats will become evident. The South Laguna Civic Association has offered constructive, critical information and suggestions during the previous MS4 Permit cycle which have been often ignored to the public's detriment.

Cooperation and courage are essential and the South Laguna Civic Association remains committed to working towards real, measurable, sustainable solutions. On behalf of our community and the many visitors from throughout the world to our shores, we thank you for your review and support of our recommended actions.

Michael Beanan Vice President South Laguna Civic Association

mike@southlaguna.org

Attachments

SLCA Comments to Tentative Order No. R9-2007-0002 NPDES, No. CAS0108740 SLCA Comments to Tentative Order No. R9-2012-0011



Laurie,

Please convey my thanks and appreciation for SDRWQCB staff's willingness to host a workshop in South Orange County.

While many important issues were covered, I would like to supplement my comments and recommendations with a few useful images, links and docs.

"The Regional MS4 Permit will regulate MS4 discharges to inland surface waters, bays and estuaries and **coastal waters** throughout the three counties within the San Diego Region." http://www.waterboards.ca.gov/sandiego/water issues/programs/stormwater/

MS4 Coastal Receiving Waters & Federally Protected Marine Mammals

Relative to regulated coastal receiving waters, federally protected migrating California Grey Whales and young calves frequent coves along South Laguna and immediately at the mouth of Aliso Creek - a CWA listed 303(d) Impaired Water Body with urban runoff dry weather summer flows averaging 1 MGD. Protected coastal dolphins suffer compromised immune systems from urban runoff plumes. Coastal receiving waters at Aliso Beach are part of a designated Laguna State Marine Conservation Area (SMCA).

The Laguna State Marine Conservation Area and Laguna State Marine Reserve are mapped marine life protection zones similar to an Area of Special Biological Significance (ASBS). Incorporation of coastal receiving waters among Co-Permittee documents represent a threshold requirement to determine MS4 impacts to protected State waters. Layed maps can illustrate Grey whale migration routes and local resting areas. Additional layers will map protected Coastal dolphin habitats and birthing grounds. Important recreational sites such as the Aliso Beach World Skimboard Championships, popular SCUBA diving sites and surfing beaches might constitute another map layer for stakeholder and public education of areas impacted by dry weather and stormwater runoff.

Co-permittees have a variety of resources to properly map and post coastal receiving waters with layered features to illustrate protected resources and beneficial uses. http://www.dfg.ca.gov/marine/mpa/scmpas list.asp

Likewise, SCCWRP has dynamic mapping capabilities available to Copermitees. http://www.sccwrp.org/Data/SearchAndMapData.aspx

Sound science and public education require a better understanding of coastal receiving waters. Dry weather urban runoff transports illicit MS4 discharges and pollutants to coastal waters. Daily ocean upwelling transports these constituents to nearshore waters and promotes summer long Harmful Algae Blooms (HABs) and localized eutrophication presently omitted from Co-permitee monitoring maps (See attached). Essential Fish Habitats (EFH) recognized by NOAA include local kelp forests and tidepools receiving inland urban runoff plumes.

An Integrated Watershed Management Plan must fully comply with mapping and monitoring of all regulated waters including coastal receiving waters. Land Development topics lacking mapped coastal receiving waters reflect a disconnect among Co-permitees and suggest omission of the very foundation of the regional economy, i.e., a healthy ocean. Images similar to those developed by OC Sanitation District of coastal plumes can correlate with improvements or shortcomings of inland MS4 management efforts to reduce flow rates of urban runoff. Mapping is the first step in monitoring water quality impacts. Proper mapping and monitoring establishes baseline data for effective restoration projects.

Restoration of Natural Flow Rates

Orange County ROWD goals to "restore to natural flows" represent a useful shift in understanding flow rates as a key transport of inland contaminates to regulated receiving waters. Achieving zero tolerance of discharges from inland MS4 stormdrains can be achieved by mapping and posting for public education offending stormdrains and implementing Clean-up and Abatement Orders as well as fines where necessary to shift the economic incentives towards compliance. The top three offending stormdrains in each watershed are well documented in annual reports and serve as immediate target sites for abatement (See attached).

An 85% retention of stormwater flows can be achieved by segmenting into rational units. For instance, one tree on site can hypothetically retain 5% of stormwater with another 10% retained by bioswales. Rainwater harvesting might retain another 10% to achieve a total net retention of 25% on site. The remaining 60% can be achieved with local mitigation programs such as subwatershed re-forestation of public lands, parking lot stormwater cisterns, street cisterns, etc.

"The restoration of riparian forests has subsequently become a major focus of watershed initiatives to improve degraded stream ecosystems." http://link.springer.com/article/10.1023/A:1006495805300 Aliso Canyon & Wood's Canyon Wilderness Park is a stream ecosystem degraded by centuries of careless cattle grazing and erosion flows from faulty USACOE projects and inland developments. Reforestation of grazed habitats throughout the region is likely the most cost effective long range measure available to communities. Reforestation projects, funded as mitigation to help achieve a proposed development's 85% compliance, will engage local schools and civic groups to improve public stewardship of fragile ecosystems while protecting creek and coastal receiving waters.

Geochemistry is determined in large measure by degraded riparian ecosystems. Widespread regional deforestation represents systematic ecocide destruction of critical tree and vegetation biomass. Without vegetated biomass to provide soil cover and hillside stabilization, annual stormwater flows remove the protective soil mantle to expose clay substrate...a natural water filter for groundwater recharge. There are no "bad soils", only degraded habitats.

Wise use of biomass mulch, small bioswales around trees and reforestation of native vegetation will restore the soil mantle and reduce the intensification of erosion flows during storm events. Added benefits include improved air quality from plant photosynthesis, a reduction in the urban heat sink and improved property values associated with landscaped tree areas and forested reserves. Restored forested stream ecosystems are key to fish and wildlife recovery efforts.

Stormwater Cisterns

Although some stakeholders are unfamiliar with cisterns, major developments utilize these flow rate control systems to mitigate urban runoff volumes while ensuring local water reliability. http://www.pelicanhill.com/pdf/PelicanHillGolfClub.pdf

Golf courses are known point sources of contaminates polluting regulated receiving waters. Grants and incentives to re-engineer golf courses will achieve multiple community benefits including runoff reduction, less use of fertilizers and compliment State water conservation mandates. Educating Co-Permitees and developers about a variety of stormwater capture systems can greatly facilitate a "can do" attitude to combat a prevailing "can't do" strategy by staff and developers.

http://www.conteches.com/products/stormwater-management.aspx

A thorough cost-benefit analysis of the value of stormwater capture/reuse as an untapped water resource over a 30 year time horizon will reveal substantial savings in imported water as well as regulatory compliance costs. Unsubstantiated allegations of cost prohibitions for basic watershed improvements must be accompanied by a detailed financial report to enable the public an opportunity to challenge inflated cost estimates which are often used as unscientific justification for non-compliance.

The Athens Aliso Redevelopment Project, Page 53, Figure 29 depicts a Roadway Subsurface Cistern Design Concept to offer an engineered alternative for large street cisterns capable of replenishment with local groundwater, dry weather urban runoff or hi-purity 250 tds recycled water (See attached). The City of San Francisco among others, including medieval San Gimignano in Italy, have networks of street, plaza and park cisterns. Stormwater cisterns can be recharged and managed in summer months with local recycled water to retain usefulness as irrigation water, wildfire suppression, etc.

Going Forward

There are numerous opportunities to collaborate in improving Region 9 water quality. Partnering with the South Coast Water District, the all volunteer South Laguna Civic Association motivated the City of Laguna Beach, County of Orange and surrounding golf courses to gain funds for the Aliso Creek Urban Runoff Recovery, Reuse and Conservation

Project http://www.scwd.org/projects/alisocreek.asp

As a useful template, capturing urban runoff is now a viable alternative to creek, estuary and ocean pollution. Engaging private and public innovators will break the artificial barriers manufactured by some Co-permittees and developers to block progress in restoring the region's natural stream flows. The way forward is not impossible nor difficult when considering the alternatives of doing nothing or the barest of minimums to assure compliance. Water, especially during prolonged drought conditions, can no longer be carelessly wasted as a source of regional water quality impairment.

Going forward, let's continue to promote timely workshops and encourage if not require Copermitees and stakeholders to collaborate with knowledgeable NGOs, academics and individuals in implementing productive water quality projects. Thank you again for staff efforts by the SDRWQCB to improve the next MS4 Permit to achieve measurable, lasting improvements.

Michael Beanan
Vice President
South Laguna Civic Association