ALISO CREEK WATERSHED - WATERSHED ACTION PLAN STRATEGY TABLE - GENERAL ACTIVITIES

	ACTION	PROGRESS REPORT (2004-05)	ACTION PLAN SCHEDULE (2005-06)	TIMEFRAME	PARTNERS		
AC-1	Encourage participation in watershed meetings.						
AC-1a	Actively participate in Aliso Creek Watershed Permittee meetings, including: 1) Tier 1 Aliso Creek Watershed Committee 2) Stakeholder Tier II Committee	 Tier 1 Aliso Creek Watershed Committee generally met the second Monday of every other month. The Tier II Stakeholder committee generally meets four quarterly. 	Attend meetings -ongoing.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District		
AC-2	Enhance the extent of public participation in waters	shed issues.					
AC-2a	Focus on providing opportunities for participation in watershed activities.	The following public participation events were posted on the www.ocwatersheds.com website: 1) Coastal & Inner Coastal Watershed Clean-up Day a) Aliso Hills Channel b) Aliso Viejo Middle School c) Wood Canyon Wilderness Park d) Aliso Creek Beach 2) Tierra Nativa 3) Earth Day 4) Children's Water Festival 5) Ocean Institute - Watershed Education Program	Continue to host and/or participant in events which provide an appropriate venue to disseminate environmental education focused on constituents of concern.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District		
AC-3	C-3 Educate the public regarding priority water guality issues.						
AC-3a	Use Permittee's websites as an informational tool to educate the watershed's businesses and residents.	Convey constituent of concern-specific public education materials and information on Permittees websites. The following pollutant specific information has been provided electronically for posting on Permittee's websites: 1) Help Prevent Ocean Pollution: Tips for Pet Care 2) Help Prevent Ocean Pollution: Tips for Horse Care 3) Help Prevent Ocean Pollution: Tips for Landscape & Gardening 4) Green Thumb Blue Ocean Newsletter 5) Keeping Your Car and the Environment Sparkling Clean Newsletter 6) Trash PSA 7) General Pollutant PSA	Ongoing 1) Continue to make technical reports and findings accessible to the public. 2) Continue to provide information in formats compatible for website posting.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District		
AC-4	Update and report on plans and policies.						
AC-4a	Review Local Implementation Plan (DAMP/LIP), Watershed Action Plan (DAMP/WAP) and other applicable plans annually to update focus on constituents of concern.	The first Watershed Chapter Annual Report was submitted to RWQCB on 11/15/04. In response to comments from the Regional Board, the short term and long term strategies for compliance with the Directive have been added in the form of these tables. DAMP/Watershed Chapter (now termed Watershed Action Plan) updated and revised in September 2005 to incorporate the requirements of the Aliso Creek 13225 Directive for bacteria. Major additions include the development of Long Term and Short Term Strategy tables to address priority pollutants for the County and Watershed Cities. Watershed Chapter Annual Report submitted to RWQCB on 11/15/05.	 Report on progress on DAMP/WAP and update as needed. Report on DAMP/LIP Program as they relate to constituents of concern. 	Annually (November 15 annual report) / long term.	Watershed Cities County of Orange OC Flood Control District		

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AC-5	Evaluate water quality data to identify new constitu	ents of concern.]		
AC-5a	Evaluate County water quality monitoring data and other data available to us (data from SCWRP, Army Corps of Engineers, etc.).	Reviewed current water quality data as it pertains to identified constituents of concern.	Continue to review current water quality data on constituents of concern.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District SCWRP
AC-5b	Create and maintain a GIS information database for the selected storm drain input including land use types, topography, major sewer lines, reclaimed water lines, septic systems, homeowner or community association areas and jurisdictional boundaries.	I don't know if this exisits.	Ongoing database maintenance.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District
AC-6	Identify opportunities to implement controls addres	ssing the priority water quality issues of concern on a Watersh	ed Cooperative basis		
AC-6a	Reduce urban runoff from over-irrigation. Landscape irrigation is a major contributor to dry weather flows, both as surface runoff and subsurface seepage that ultimately drains into the storm drain system.	Investigated reports of urban runoff, educated the public regarding the connection between urban runoff & ocean pollution, and provided notices of problems to parties found over-irrigating.	Continue to investigate, educate, and provide notices. Provide new techologies in conjunction with water agencies (such as SmarTimers) and look for opportunities to reduce runoff in public infrastructure.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District Water Suppliers
AC-6b	Identify potential drainage system retrofit opportunities within the watershed.	Identified publically-owned lands and public projects where regional improvements could be implemented.	Continue to identify public lands and project projects where regional improvements could be implmented.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District
AC-6c	Implement NPDES Third Permit Term Monitoring Program and report findings annually. Develop and implement Aliso Creek 13225 Directive Monitoring and report findings quarterly.	Program approved in FY2002-03 and fully implemented in FY2003-04. The major elements of the monitoring program are: urban stream bioassessment, mass loading, coastal stormdrains, ambient coastal receiving waters, dry weather reconnaissance, Dana Point Harbor and toxicity.	Undertake monitoring and report findings Quarterly reports submitted on July 29, 2005, October 31, 2005, January, 31, 2006 and April 29, 2006.	Ongoing / long term.	Watershed Cities County of Orange OC Flood Control District

	ACTION	PROGRESS REPORT (2004-05)	ACTION PLAN SCHEDULE (2005-06)	TIMEFRAME	PARTNERS
AC-fc1	Identify approaches and opportunities for addre	ssing pathogen indicator bacteria.			
AC-101a	Participate with other Permittees to provide input to the Stakeholders Advisory Group (SAG) for the Bacteria TMDL I for Beaches and Creeks in the San Diego Region with regard to correlations between bacteria and potential urban sources. Evaluate data collected in the Aliso watershed on bacteria and other Aliso 303(d) constituents of concern in conjunction with grant-funded projects and/or other structural BMP projects, for findings related to sources of bacteria in the MS4. Evaluate data collected in the Aliso watershed on bacteria and other Aliso 303(d) constituents of concern in conjunction with grant-funded projects and/or other structural BMP projects, for findings related to sources of bacteria in the MS4.	Attended SAG meetings and reviewed the draft TMDL Technical Report (March 2004) that utilized Aliso Creek data as the underpinning of a mathematical model for land-use-based prediction of bacteria discharges from creeks to ocean, region-wide. Provided comments to the RWQCB on the lack of clarity in the Report's presentation of the "wash-off" model calculations, problems with theoretical critical points of compliance; and regarding bacteria sources unrecognized in the Report, including natural background levels, wildlife, sediments, and environmental propagation of bacteria. Supported the SAG in participating in a SCCWRP- based investigative analysis of wet- and dry- weather "natural background" occurrence rates of fecal bacteria at "reference" beaches with undeveloped tributary watersheds at beach sites in Ventura, Los Angeles, Orange and San Diego Counties. Evaluated data collected after submittal of the Final Assessment Report for the Proposition 13 WetCAT grant in March 2004. Earlier findings had identified wildlife, organic debris and fertilizers, pet wastes, and soil as sources. Mass load analyses showed in-pipe growth of fecal coliform and Enterococcus bacteria populations during warm weather. During cold weather, in-pipe die-off of fecal coliform was seen, but Enterococcus populations stayed stable when comparing influent to effluent mass loads. Findings were presented at the H20 Conference in Long Beach in Fall 2004.	Loninue SAG participation regarding urban bacteria sources. Provide input to the TMDL Implementation Plan for Aliso Creek. Support upcoming SCCWRP studies on "natural background" bacteria in "reference" creeks.	Ongoing/iong term.	vvarershed Cities County of Orange OC Flood Control District Regional Board Stakeholders

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AC-fc1b	Evaluate data collected in the Aliso watershed on bacteria and other Aliso 303(d) constituents of concern in conjunction with monitoring, research or ID/IC investigations, and share findings for insights on bacteria sources that may be applicable watershed-wide.	 Evaluated data on bacteria and other 303(d) constituents of concern from the Dry Weather Monitoring Program sites in the Aliso watershed in Laguna Niguel. Bacteria concentrations continued to be elevated but not consistently outside "action" parameters established in the DWMP. Certain other potentially toxic constituents merited follow- up. Evaluated data on bacteria developed in the Aliso 13225 monitoring effort. The County's consultant developed a longer-term trend evaluation system for each pipe based on loads and comparison to system-wide averages. Laguna 3) Enrolled the WetCAT West Wetland in a BMP Effectiveness study conducted by SCCWRP in Winter 2005. Because the study was conducted in mid-winter, bacteria levels were too low for conclusive findings. No human viruses were detected, which helps confirm earlier experimental findings during the first year of CAO 99-211 that there are no significant sewage source inputs into the J03P02 system. 	Follow up on toxicity issues flagged by the DWMP in Summer 2005. Share 13225 analytical methods with TMDL SAG as possible prototype.	Ongoing/long term.	Watershed Cities County of Orange OC Flood Control District Regional Board SCCWRP
AC-fc1c AC-fc1d	Identify candidate structural BMP technologies such as catch basin or in-line filters that assist in lowering bacterial concentrations in Aliso Creek. With Laguna Niguel as lead agency, expand on the	Consult with co-permittees for information on technologies and performance results as opportunities arise. Permittees to coordinate in the region wide	Continue research and potential testing activities. GreenBack-type program expansion region-wide	Ongoing. Ongoing.	Watershed Cities County of Orange OC Flood Control District Watershed Cities
	findings of the pilot GreenBack Landscape Renewal Rebate Program in the Sulphur Creek watershed (Aliso's single largest tributary area, including parts of both Laguna Hills and Laguna Niguel) to encourage broader public and individual awareness and commitments to changing the prevailing design of suburban landscaping so as to reduce the anthropogenic sources and conduits for bacteria and other 303(d) constituents of concern.	expansion of a GreenBack-type program as a high- priority project in the Proposition 50 Chapter 8 competition for Integrated Regional Water Management Plan Implementation Grants, for which the first proposal submittals were made in late Spring 2005 under a cooperative effort with the County.	under the Integrated Regional Water Management Program.		County of Orange OC Flood Control District Regional Board
AC-fc1e	Cooperate with the US Army Corps of Engineers to implement the English Creek Aquatic Restoration Study and Project.	The English Creek Aquatic Preliminary Restoration Plan (PRP) is currently under development and was completed in May 2005. Funding in the amount of \$99,170 was obtained in FY 2003 to complete the PRP. An additional \$380,000 was obtained for FY 2006, subject to confirmation with Congressional House records.	Continue cooperation with USACE for the development of the Detailed Project Report.		Watershed Cities County of Orange OC Flood Control District Army Corps of Engineers

	ACTION	PROGRESS REPORT (2004-05)	ACTION PLAN SCHEDULE (2005-06)	TIMEFRAME	PARTNERS
AC-fc1f	Cooperate under the Integrated Regional Water Management Plan with South Countywide efforts to identify and seek funding for structural and non- structural BMP implementation programs targeted at bacteria and other 303(d) constituents of concern in the Aliso watershed.	Attended region wide stakeholder meetings and Governance Subcommittee meetings and provided review and comments on documents to assist in the development of the Integrated Regional Water Management Plan for South Orange County. Assisted in the development of a Step 1 proposal for Proposition 50 chapter 8 implementation grant funding. Promoted giving high priority to projects such as landscaping retrofits and SmarTimers that would help prevent surface water pollution by bacteria and other 303(d) constituents of concern. Supported efforts to give high priority in the IRWMP for an epidemiological study at Doheny Beach that may provide insight into health risks associated with different bacteria sources.	Assist in Winter 2006 development of Step 2 proposals for bacteria-related IRWMP projects.		Watershed Cities County of Orange OC Flood Control District Water/Sewer Districts
AC-fc2	Implement controls/BMPs for addressing patho	gen indicator bacteria.			
AC-fc2a	Install, stock, or provide bag dispensers for collection and disposal of dog fecal waste parks in the Aliso Creek watershed. Canine feces are a source of bacteria.	Permittees provided and stocked doggy bags dispensers at select parks (need determined by Permittee) in Aliso Creek Watershed. Park signs explain the need for park users to pick up their pet waste.	Continue stocking dispensers and adding additional dispensers as need is identified.	Ongoing.	Watershed Cities County of Orange OC Flood Control District
AC-fc2b	Implement LIP Section A-10 ID/IC and report incidents involving watershed fecal coliform.	The Permittees have undertaken action to attempt to identify, eliminate and proactively prevent sources of bacteria from entering the storm drain system using a variety of approaches including: Field Investigation and Identification Sources of Indicator Bacteria; Storm Drain Area Mapping; and Drainage Facility Maintenance.	Continue to implement the Dry Weather Monitoring Program to evaluate whether source control can effect a significant reduction in receiving water levels of indicator bacteria.	Ongoing/long term.	Watershed Cities County of Orange OC Flood Control District
AC-fc2c	Implement the Munger Stormdrain sand filter project.	Construction began on the filtration basin, located in Aliso Creek, in December 2004; however, work was suspended due to the intensity and frequency of winter storms.	Continue project implementation		County of Orange OC Flood Control District
AC-fc2d	Distribute door hangers, residential-related BMPs, and one-on-one education/outreach.	Distributed door hangers, residential and HOA/Common interest area (CIA) BMP fact sheets, and one-on-one education/outreach.	Continue distribution of door hangars.		Watershed Cities County of Orange OC Flood Control District
AC-fc2e	Install and operate, during dry weather, UV disinfection water treatment system at J01P28.	System continued operation in 2004. Due to the extended 2003-04 storm season, the system was restarted in June 2004.	Operate and evaluate system in 2005		County of Orange OC Flood Control District
AC-fc2f	Create and post signs at approximately 28 locations along Aliso Creek warning the public not to wade or swim in the water	Installation was completed in 2000. Signs are maintained along the creek.	Ongoing sign maintenance		Watershed Cities County of Orange OC Flood Control District

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AC-fc2g	Pursue strategies recommended in the USACE Aliso Creek Watershed Management Plan as opportunities arise within Laguna Niguel for projects that would reduce bacteria and other 303(d) constituents of concern.	The Aliso Creek Watershed Management Plan identified that 87% of the Sulphur Creek tributary had severely degraded functional capacity, and recommended that stream restoration occur wherever feasible. In 2004-05, progress was made on the USACE Section 206 Ecosystem Restoration Project on Sulphur Creek, the Upper Sulphur Creek Restoration Project, and the Narco Channel Restoration Project. Al I three projects are intended to improve the hydrologic, biologic and water quality integrity of the Sulphur Creek system, which is Aliso's largest single tributary. Stream restoration will restore biofiltration and assimilative capacity for bacteria and reduce water temperatures, which will decrease bacteria propagation rates.	Complete construction of the Section 206 and Upper Sulphur projects. Finalize design on the Narco Channel project.		County of Orange SWRCB State DWR State Coastal Conservancy
AC-fc2h	Place appropriate signage in horse and dog use areas of parks.	Sign placed at public horse trailer parking lot at Aliso & Wood Canyon Regional Park requesting that public place horse and trailer waste in receptacles provided. Signs and plastic "doggie bags" have been placed in pet areas of Aliso & Wood Canyon Regional Park for pet waste cleanup.	Investigate locations for placement of additional signs.		County of Orange
AC-fc2h	Implement programs to install catch basin filters at suitable sites. Organic debris in the MS4 promotes bacteria growth.	Lake Forest: Project work was initiated to install s four catch basin filters and one hydrodynamic separator. Project scheduled to finish by December 2005. Laguna Hills: The final paperwork for the Sulphur Solution Proposition 13 proposal was executed by the SWRCB in Summer 2004. The grant included an \$184,000 "Control" subproject to subsidize the retrofit of approximately 200 debris screens throughout the Sulphur Creek subwatershed, including parts of both Laguna Hills and Laguna Niguel. Laguna Niguel: Pursue and implement programs as feasible to install trash/debris controls for catch basin inlets at suitable sites throughout the Aliso watershed. Organic debris in the MS4 promotes growth of bacteria populations and may have adherences of phosphorus and toxic landscape pesticides. Laguna Woods: The City has been monitoring other jurisdictions' use of catch basin inserts intended to remove bacterial contaminants. To date the data has not supported the product claims. The City is looking for cost effective retrofit bacteria BMPs that could be installed in the Aliso Creek watershed. In the interim source elimination has been the primary emphasis.	Implement and report progress annually.	Ongoing.	Watershed Cities County of Orange OC Flood Control District