HAND DELIVERED

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
LOS ANGELES REGION

June 12, 2006

IN REPLY PLEASE
REFER TO FILE: WM-9

Mr. Jonathan Bishop, Executive Director
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Dear Mr. Bishop:

REPORT OF WASTE DISCHARGE
COUNTY OF LOS ANGELES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM MUNICIPAL STORMWATER PERMIT ORDER 01-182
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT CAS004001

The enclosed Report of Waste Discharge (ROWD) is being submitted as the Los Angeles County Municipal Stormwater application for renewal of waste discharge requirements adopted in Order 01-182 by your Board. This ROWD has been prepared by the Principal Permittee through a stakeholder process. Permittees who are participating in this application renewal are listed in Section 2.0, Table 2.

The County of Los Angeles and the Los Angeles County Flood Control District are signatory to the enclosed ROWD.

If you have any questions, please contact Ms. Carrie Douangsitthi at (626) 458-4346, Monday through Thursday, 7:15 a.m. to 6 p.m.

Very truly yours,

DONALD L. WOLFE
Director of Public Works

Date

MARK PESTRELLA
Assistant Deputy Director
Watershed Management Division

JS:ad
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Enc.

cc: State Water Resources Control Board
United States Environmental Protection Agency, Region 9

bc: Watershed Management (Lafferty, Pereira, Wu)

REPORT OF WASTE DISCHARGE

Renewal Application for the County of Los Angeles
National Pollutant Discharge Elimination System
Municipal Stormwater Permit
Order 01-182
NPDES Permit CAS004001

June 12, 2006

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1.0 INTRODUCTION

1.1 PURPOSE

In accordance with the requirements found in Part 6, Section S, of the existing 2001 Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (NPDES CAS004001), Order 01-182, this Report of Waste Discharge (ROWD) constitutes the Los Angeles County Municipal Stormwater application for renewal of waste discharge requirements adopted in Order 01-182 by the Regional Water Quality Control Board, Los Angeles Region (Regional Board). Permittees listed in Section 2 (Applicant Information) have elected to participate in this ROWD application. However, not all Permittees under this Order have joined this application renewal. These other Permittees will submit separate ROWDs for coverage under an NPDES Municipal Stormwater Permit.

In addition to the report and recommendations contained herein, Permittees reserve their right to object to those terms of the NPDES Permit or modifications to those terms of the Permit, which are not addressed in this ROWD. This ROWD, and the contents herein, do not constitute a waiver of the Permittees' rights to challenge objectionable terms contained in previous, current, or future Permits, and no contrary inference should be drawn. Permittees further reserve their right to further revise, modify, and/or challenge any item addressed in this ROWD.

The State and Regional Board must make every effort to comply with the California Environmental Quality Act (CEQA) and mitigate any impacts resulting from the implementation of NPDES Permit requirements.

1.2 REGULATORY BACKGROUND

The 1972 Clean Water Act established the NPDES Permit Program to regulate the discharge of pollutants from point sources to waters of the United States. However, pollution from land and urban runoff was largely unabated for over a decade.

In response to the 1987 Amendments to the Federal Clean Water Act (CWA), the United States Environmental Protection Agency (EPA) developed Phase I of the NPDES Stormwater Program in 1990, which established a framework for regulating urban stormwater runoff. The Phase I program addressed sources of stormwater runoff that had the greatest potential to negatively impact water quality. Under Phase I, the EPA required NPDES Permit coverage for stormwater discharges from:

- Medium and large municipal separate storm sewer systems (MS4) with populations of 100,000 or more; and
- Companies that fall within 11 categories of industrial activity, including construction activity that disturbs 5 or more acres of land.

Operators of MS4s regulated under the Phase I NPDES Stormwater Program were required to obtain Permit coverage for stormwater discharges under their control. The most significant portion of application was the development of a proposed stormwater management program that would meet the standard of "reducing pollutants to the maximum extent practicable (MEP)." Stormwater management programs for medium and large MS4s include measures to:

- Identify major outfalls and pollutant loadings;
- Detect and eliminate nonstormwater discharges to the system;
- Reduce pollutants in runoff from industrial, commercial, and residential areas; and
- Reduce pollutants from construction sites within their jurisdiction.

1.3 OBJECTIVES

The objective of the Permittees in submitting this ROWD is to successfully renew a Los Angeles County NPDES Municipal Stormwater Permit that includes requirements to achieve the goal of "reducing pollutants to the MEP" while taking into account:

- Feasibility;
- Financial resources available;
- Cost of implementation;
- Overall benefit to water quality;
- Effectiveness of existing Stormwater Quality Management Program (SQMP);
- Suggested improvements to existing SQMP;
- Suggested approaches to improve receiving water quality;
- Use of best available technologies; and
- Integration of impaired water body specific programs.

1.4 PROGRAM DESCRIPTION

On December 13, 2001, the Regional Board adopted Order 01-182 serving as the NPDES Permit for municipal stormwater and urban runoff discharges within the County of Los Angeles. The requirements of Order 01-182 apply to 84 Cities and the unincorporated areas of Los Angeles County under County jurisdiction, with the exception of Avalon, Long Beach, and the portion of Los Angeles County in the Antelope Valley, which includes the Cities of Lancaster and Palmdale. Under the Permit, the Los Angeles County Flood Control District is designated the Principal Permittee, and the County of Los Angeles along with 84 incorporated Cities are designated Permittees. The Principal Permittee coordinates and facilitates activities necessary to comply with the requirements of the Permit, but is not responsible for ensuring compliance of any of the Permittees.

Through the Permit, the Regional Board implemented a Watershed Management Approach to address water quality protection in the region. The Watershed Management Approach intended to provide a comprehensive and integrated strategy

toward water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. The Permit divides Los Angeles County into the following six Watershed Management Areas (WMAs):

- Ballona Creek and Urban Santa Monica Bay WMA
- Dominguez Channel/Los Angeles Harbor WMA
- Los Angeles River WMA
- Malibu Creek and Rural Santa Monica Bay WMA
- San Gabriel River WMA
- Santa Clara River WMA

A list of Permittees, according to Watershed Management Area, is provided in Table 1.

Table 1 – Table of Permittees

Santa Monica Bay	**Los Angeles River**	**San Gabriel River**
Malibu Creek and Other Rural	Alhambra	Artesia
Agoura Hills	Arcadia	Baldwin Park
Calabasas	Bell	Bellflower
Los Angeles County Flood Control	Bell Gardens	Bradbury
Los Angeles County	Burbank	Cerritos
Malibu	Commerce	Claremont
Westlake Village	Compton	Covina
	Cudahy	Diamond Bar
Ballona Creek and Other Urban	El Monte	Duarte
Beverly Hills	Glendale	Hawaiian Gardens
Culver City	Hidden Hills	Industry
El Segundo	Huntington Park	La Habra Heights
Hermosa Beach	La Canada Flintridge	La Mirada
Los Angeles (City of)	Los Angeles (City of)	La Puente
Los Angeles County Flood Control	Los Angeles County Flood Control	La Verne
Los Angeles (County of)	Los Angeles (County of)	Lakewood
Manhattan Beach	Lynwood	Los Angeles County Flood Control
Palos Verdes Estates	Maywood	Los Angeles (County of)
Rancho Palos Verdes	Monrovia	Norwalk
Redondo Beach	Montebello	Pomona
Rolling Hills	Monterey Park	Pico Rivera
Rolling Hills Estates	Paramount	San Dimas
Santa Monica	Pasadena	Santa Fe Springs
West Hollywood	Rosemead	Walnut
	San Fernando	West Covina
	San Gabriel	
	San Marino	**Santa Clara River**
Dominguez Channel	Sierra Madre	Santa Clarita
Carson	South El Monte	Los Angeles County Flood Control
Gardena	South Gate	Los Angeles (County of)
Hawthorne	South Pasadena	
Inglewood	Temple City	

Dominguez Channel (Cont.)	Los Angeles River (Cont.)	
Lawndale	Vernon	
Lomita		
Los Angeles (City of)		
Los Angeles County Flood Control		
Los Angeles (County of)		
Torrance		

Permittees reviewed, discussed, and evaluated several documents and programs to determine the most critical areas to address in this ROWD. Many of the specific proposals presented in this ROWD were derived from dialogue between Permittees.

Initially, the County of Los Angeles hosted four General Assembly meetings. These meetings occurred on October 27, 2005, November 17, 2005, December 15, 2005, and February 8, 2006. All Permittees were invited to participate in an open forum to discuss the direction of the ROWD, share their opinions and concerns for the next Permit and to assess implementation experiences to identify potential improvements to stormwater programs. After several meetings a structure for the preparation of the ROWD was agreed upon. First, Watershed Management Committees would self-elect a watershed representative to participate on a Steering Committee of nine. The Steering Committee included all six watershed representatives, the City of Los Angeles, one at-large Permittee representative, and the County of Los Angeles.

All Permittees were asked to discuss future Permit issues in each of their respective watersheds and to prepare written comments as a watershed. The County compiled the comments into a matrix for discussion by the Steering Committee. The Steering Committee ultimately made decisions on how the comments would be addressed and incorporated into this ROWD.

2.0 APPLICANT INFORMATION

A total of 78 Permittees along with the County of Los Angeles and the Los Angeles County Flood Control District, which are identified in Table 2 below, have elected to participate in this ROWD application. Please note that not all Permittees under Order 01-182 have joined this application renewal. These other Permittees will submit a separate ROWD application for coverage under an NPDES Municipal Stormwater Permit.

Table 2 – Table of Permittees Joining in ROWD Application

Permittee	Contact Person	Title	Address	
Agoura Hills	Ken Berkman	City Engineer	30001 Ladyface Court	Agoura Hills, CA 91301
Alhambra	James Cowan	Water Quality and Environmental Compliance Supervisor	111 South First Street	Alhambra, CA 91801-3796
Arcadia*	Susannah Turney	Environmental Services Officer	P.O. Box 60021	Arcadia, CA 91066-6021
Artesia	Maria Dadian	Director of Public Works	18747 Clarkdale Avenue	Artesia, CA 90701-5899
Baldwin Park	David Lopez	Associate Engineer	14403 East Pacific Avenue	Baldwin Park, CA 91706-4297
Bell	Luis Ramirez	Deputy City Engineer	6330 Pine Avenue	Bell, CA 90201-1291
Bell Gardens	John Oropeza	Director of Public Works	7100 South Garfield Avenue	Bell Gardens, CA 90201-3293
Bellflower*	Bernie Iniguez	Management Analyst	16600 Civic Center Drive	Bellflower, CA 90706-5494
Beverly Hills	Vincent Chee	Project Civil Engineer	455 North Rexford Drive	Beverly Hills, CA 90210
Bradbury	Elroy Kiepke	City Engineer	600 Winston Avenue	Bradbury, CA 91010-1199
Burbank	Bonnie Teaford	Public Works Director	P.O. Box 6459	Burbank, CA 91510
Calabasas	Alex Farassati	Environmental Services Manager	26135 Mureau Road	Calabasas, CA 91302-3172
Carson*	Patricia Elkins	Building Construction Manager	P.O. Box 6234	Carson, CA 90745
Cerritos*	Mike O'Grady	Environmental Services	P.O. Box 3130	Cerritos, CA 90703-3130

Permittee	Contact Person	Title	Address	
Claremont*	Andrea Harrington	Associate Civil Engineer	207 Harvard Avenue	Claremont, CA 91711-4719
Commerce*	John Yanai	Interim Community Development Director	2535 Commerce Way	Commerce, CA 90040-1487
Compton	Leslie Alan Pyeatt	Assistant City Engineer	205 South Willowbrook Avenue	Compton, CA 90220-3190
Covina	Charles Redden	Environmental Services Manager	125 East College Street	Covina, CA 91723-2199
Cudahy	George Perez	City Manager	P.O. Box 1007	Cudahy, CA 90201-6097
Culver City	Cathy Chang	Associate Engineer/Stormwater Quality Manager	9770 Culver Boulevard	Culver City, CA 90232-0507
Diamond Bar*	David Liu	Director of Public Works	21825 East Copley Drive	Diamond Bar, CA 91765-4177
Duarte	Steve Esbenshades	Engineering Manager	1600 Huntington Drive	Duarte, CA 91010-2592
El Monte	Carmen Barsu	Associate Engineer	P.O. Box 6008	El Monte, CA 91731
El Segundo	Ron Fajardo	Wastewater Supervisor	350 Main Street	El Segundo, CA 90245-3895
Gardena*	Ron Jackson	Building Maintenance Superintendent	P.O. Box 47003	Gardena, CA 90247-3778
Glendale	Maurice Oillataguerre	Senior Environmental Program Specialist	Engineering Section 633 East Broadway, Room 209	Glendale, CA 91206-4308
Hawaiian Gardens*	Joseph Colombo	Director of Community Development	21815 Pioneer Boulevard	Hawaiian Gardens, CA 90716
Hawthorne	Arnold Shadbehr	Chief General Service and Public Works	4455 West 126th Street	Hawthorne, CA 90250-4482
Hermosa Beach	Homayoun Behboodi	Associate Engineer	1315 Valley Drive	Hermosa Beach, CA 90254-3884
Hidden Hills	Cherie Paglia	City Manager	6165 Spring Valley Road	Hidden Hills, CA 91302
Huntington Park	Wes Lind	City Engineer	6550 Miles Avenue	Huntington Park, CA 90255
Industry	Mike Nagaoka	Director of Public Safety	P.O. Box 3366	Industry, CA 91744-3995
Inglewood	Teri Davis	Administrative Analyst	P.O. Box 6500	Inglewood, CA 90301-1750

Permittee	Contact Person	Title	Address	
La Canada Flintridge	Steve Castellanos	Director of Public Works	1327 Foothill Boulevard	La Canada Flintridge, CA 91011-2137
La Habra Heights	Ronald Bates	City Manager	1245 North Hacienda Boulevard	La Habra Heights, CA 90631-2570
La Mirada	Steve Forster	Public Works Director	13700 La Mirada Boulevard	La Mirada, CA 90638-0828
La Puente	Rozanne Adanto	Director of Community Services	15900 East Main Street	La Puente, CA 91744-4788
La Verne	Daniel Keesey	Director of Public Works	3660 “D” Street	La Verne, CA 91750-3599
Lakewood	Lisa Rapp	Director of Public Works	P.O. Box 158	Lakewood, CA 90714-0158
Lawndale*	Marlene Miyoshi	Senior Administrative Analyst	14717 Burin Avenue	Lawndale, CA 90260
Lomita	Tom A. Odom	City Administrator	P.O. Box 339	Lomita, CA 90717-0098
Los Angeles	Shahram Kharaghani	Program Manager	1149 S. Broadway, 10th Floor	Los Angeles, CA 90015
Lynwood	Paul Nguyen	Interim Director of Environmental Services	11330 Bullis Road	Lynwood, CA 90262-3693
Malibu	Jennifer Voccola	Environmental Program Analyst	23815 Stuart Ranch Road	Malibu, CA 90265-4861
Manhattan Beach	Lindy Coe-Juell	Senior Management Analyst	1400 Highland Avenue	Manhattan Beach, CA 90266-4795
Maywood	Edward Ahrens	City Manager	4319 East Slauson Avenue	Maywood, CA 90270-2897
Monrovia	David Fike	Director of Public Works	415 South Ivy Avenue	Monrovia, CA 91016-2888
	Doug Benash	City Engineer	415 South Ivy Avenue	Monrovia, CA 91016-2888
	Louis Celaya	Senior Management Analyst	415 South Ivy Avenue	Monrovia, CA 91016-2888
Montebello	Tom Melendrez	City Engineer	1600 West Beverly Boulevard	Montebello, CA 90640-3970
Monterey Park	Tina Clark	Principal Management Analyst	320 West Newmark Avenue	Monterey Park, CA 91754-2896
Norwalk	Chino Consunji	City Engineer	P.O. Box 1030	Norwalk, CA 90651-1030
Palos Verdes Estates	Allan Rigg	Director of Public Works	340 Palos Verdes Drive West	Palos Verdes Estates, CA 90274

Permittee	Contact Person	Title	Address	
Paramount	Chris Cash	Utility and Infrastructure Assistant Director	16400 Colorado Avenue	Paramount, CA 90723-5091
Pasadena	Danny Wooten	Project Manager Public Works Engineering - Chamber Building, 4th Floor	P. O. Box 7115	Pasadena, CA 91109-7215
Pico Rivera*	Angel Quintero	Water Quality Specialist	P.O. Box 1016	Pico Rivera, CA 90660-1016
Pomona	Yvette Lama	Environmental Program Coordinator	P.O. Box 660	Pomona, CA 91769-0660
Rancho Palos Verdes	Ray Holland	Interim Public Works Director	30940 Hawthorne Boulevard	Rancho Palos Verdes, CA 90275
Redondo Beach	Mike Shay	Principal Civil Engineer	P.O. Box 270	Redondo Beach, CA 90277-0270
Rolling Hills	Yolanta Schwartz	Planning Director	2 Portuguese Bend Road	Rolling Hills, CA 90274-5199
Rolling Hills Estates	Greg Grammer	Assistant to the City Manager	4045 Palos Verdes Drive North	Rolling Hills Estates, CA 90274
Rosemead*	Ken Rukavina	City Engineer	8838 East Valley Boulevard	Rosemead, CA 91770-1787
San Dimas	Kym O'Leary	Administrative Aide	245 East Bonita Avenue	San Dimas, CA 91773-3002
San Fernando	Ron Ruiz	Director of Public Works	117 Macneil Street	San Fernando, CA 91340
San Gabriel	Bruce Mattern	City Engineer	425 South Mission Drive	San Gabriel, CA 91775
San Marino	John Alderson	Director of Parks and Public Works	2200 Huntington Drive	San Marino, CA 91108-2691
Santa Clarita	Oliver Cramer	Environmental Analyst	23920 West Valencia Boulevard, Suite 300	Santa Clarita, CA 91355
Santa Fe Springs*	Sarina Morales-Choate	Civil Engineer Assistant	P.O. Box 2120	Santa Fe Springs, CA 90670-2120
Santa Monica	Neal Shapiro	Urban Runoff Coordinator	1685 Main Street	Santa Monica, CA 90401-3295
Sierra Madre	Veenita Singh	Management Analyst	232 West Sierra Madre Boulevard	Sierra Madre, CA 91024-2312
South El Monte	George Envall	Traffic Engineer	1415 North Santa Anita Avenue	South El Monte, CA 91733-3389
South Gate	Robert T. Dickey	Director of Public Works	8650 California Avenue	South Gate, CA 90280

Permittee	Contact Person	Title	Address	
South Pasadena*	Edwin Galvez	Director of Public Works	1414 Mission Street	South Pasadena, CA 91030-3298
Temple City	Charles Martin	Interim City Manager	9701 Las Tunas Drive	Temple City, CA 91780-2249
Torrance	Leslie Cortez	Senior Administrative Analyst	3031 Torrance Boulevard	Torrance, CA 90503-5059
Vernon*	Samuel Kevin Wilson	Director Community Services	4305 Santa Fe Avenue	Vernon, CA 90058-1786
Walnut	Jack Yoshino	Senior Management Assistant	P.O. Box 682	Walnut, CA 91788
West Covina*	Samuel Gutierrez	Engineering Technician	P.O. Box 1440	West Covina, CA 91793-1440
West Hollywood	Jan Harmon	Environmental Services Specialist	8300 Santa Monica Boulevard	West Hollywood, CA 90069-4314
Westlake Village	Roxanne Hughes	Stormwater Program Coordinator	31200 Oak Crest Drive	Westlake Village, CA 91361
County of Los Angeles	Carrie Douangsitthi	Senior Civil Engineer	900 South Fremont Avenue	Alhambra, CA 91801
Los Angeles County Flood Control District	Carrie Douangsitthi	Senior Civil Engineer	900 South Fremont Avenue	Alhambra, CA 91801

* The City is to be a Permittee under this joint ROWD, but is not joining in select portions and parts of this ROWD, as described in that letter dated June 8, 2006, sent to the County, and copied to the Regional Board for inclusion in the administrative record.

3.0 PROGRAM ACCOMPLISHMENTS

The 2001 Los Angeles County NPDES Municipal Stormwater Permit set requirements for Discharge Prohibitions, Receiving Water Limitations, Storm Water Quality Management Program Implementation, Special Provisions, Definitions, and Standard Provisions. Some requirements have been in place for several Permit cycles, some have evolved as a result of Permittee implementation and experiences, and others were imposed on the Permittees by the Regional Board. All prohibitions and limitations have been observed and followed to the maximum extent practicable to ensure Permit compliance.

Permittees have implemented programs that meet and often exceed the basic provisions of the existing 2001 NPDES Permit, but also recognize that continued progress requires program approaches that are strategic, measurable, beneficial, cost-effective, and adaptive.

The City of Los Angeles believes major success was achieved in November 2004 when City of Los Angeles voters approved Proposition O, the City's $500 million general obligation bond measure to clean up stormwater and urban runoff. Known as the "Clean Water, Ocean, River, Beach, Bay Storm Water Cleanup Measure," Proposition O passed with nearly 76 percent of City residents voting "yes." The City of Los Angeles believes passage of Proposition O improves the City's ability to comply with near-term State and Federal water quality mandates. The bond monies can be applied only toward capital improvement projects and the City of Los Angeles contends that funding for any associated operation and maintenance activities must still be secured.

3.1 STORMWATER QUALITY MANAGEMENT PROGRAM

As a general requirement, all Permittees implemented the SQMP and its components to reduce the discharge of pollutants in stormwater to the MEP. Where necessary, Permittees implemented additional controls to reduce the discharge of pollutants to and from the MS4. Permittees made a good faith effort to require and implement the most effective combination of BMPs for stormwater/urban runoff pollution control.

The Principal Permittee coordinated and facilitated activities to comply with the requirements of the 2001 NPDES Permit. The Los Angeles County Department of Public Works (Public Works) coordinated Permit activities among Permittees and the Principal Permittee acted as a liaison between Permittees and the Regional Board.

For coordination purposes, Permittees previously established an ad hoc Countywide committee known as the Executive Advisory Committee (EAC), and for each of the WMAs, a Watershed Management Committee (WMC) has been formed. The EAC's role is to help facilitate programs throughout the region and to enhance consistency among all of the programs. The WMCs provide the leadership framework to facilitate development of the Watershed Management Area Plans and to foster Permittee

cooperation. The six WMCs are required to meet quarterly; however, some WMCs have decided to meet monthly.

The Principal Permittee implemented the Countywide Monitoring Program and evaluated, assessed, and synthesized the results of the monitoring program. Annual Monitoring Reports were submitted by August 15 of each year and the 1994-2005 Integrated Receiving Water Impacts Report was submitted on August 15, 2005. In addition, the Principal Permittee coordinated the collection, processing, and submittal of annual reports to the Regional Board. Permittees prepared an annual budget summary of expenditures applied to the stormwater management program.

Permittees obtained and possessed the necessary legal authority to prohibit non-stormwater discharges to the storm drain system. Ordinances were adopted to prohibit the discharge of runoff to the MS4 from: wash water from the cleaning of gas stations, auto repair garages, or other types of automotive services facilities; mobile auto washing, steam cleaning, mobile carpet cleaning, and other such mobile commercial and industrial operations; areas where repair of machinery and equipment, that are visibly leaking oil, fluid or antifreeze, is undertaken; storage areas of materials containing grease, oil, or other hazardous substances, and uncovered receptacles containing hazardous materials; chlorinated/brominated swimming pool water and filter backwash; the washing of toxic materials from paved or unpaved areas; washing impervious surfaces in industrial/commercial areas; and concrete or cement laden wash water from concrete trucks, pumps, tools, and equipment.

3.2 PUBLIC INFORMATION AND PARTICIPATION

The Principal Permittee developed and implemented a Public Information and Participation Program (PIPP) that met the following objectives:

- Measurably increase the knowledge of the target audience regarding the MS4, the impacts of stormwater pollution on receiving waters, and potential solutions to mitigate the problems caused;

- Measurably change the waste disposal and runoff pollution generating behavior of target audiences by encouraging implementation of appropriate solutions; and

- Involve and engage socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of stormwater pollution.

The public education campaign was designed to meet the objectives of the 2001 NPDES Permit. Modifications have been made based on research results and current social marketing theory to achieve the desired behavior change. Permittees worked hard to comply with the requirements of the PIPP under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

3.3 INDUSTRIAL/COMMERCIAL FACILITIES CONTROL

Pursuant to the Permit, Permittees required the implementation of pollutant reduction and control measures at industrial and commercial facilities, with the intent of reducing pollutants in stormwater runoff to the MEP. The pollutant reduction and control measures used include source control BMPs, and operational and maintenance procedures. The objective of the Industrial/Commercial Facilities Control Program was to track, inspect, and ensure compliance at industrial and commercial facilities that were identified as critical sources of pollutants in stormwater.

Any inspection obligations in exceedance of Federal regulations constitute a State mandate and should be funded by the Regional Board in accordance with the precepts set forth in Article XIII, Section 6, of the California Constitution. The Regional Board shall consider the economic impacts of mandating Permit requirements that exceed Federal regulations. The Federal regulations only require Permittees to have a program to monitor and control pollutants in stormwater discharges from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial facilities that the municipalities determine are contributing a substantial pollutant loading to the MS4. Permittees reserve their right to object to any further requirement, and the discussion reporting on activities taken pursuant to the Permit and recommendations for improvements, if inspections are included in the next Permit, should not be construed as a waiver of this objection.

Permittees developed and maintained databases for facilities within their own jurisdictions that were identified as critical sources of stormwater pollution in the 2001 NPDES Permit. The critical sources tracked are summarized below:

- Restaurants;
- Automotive service facilities;
- Retail gasoline outlets (RGOs) and automotive dealerships;
- U.S. EPA Phase I facilities (Tiers 1 and 2);
- Other federally-mandated facilities [as specified in 40 CFR 122.26(d)(2)(iv)(C)];
- Municipal landfills;
- Hazardous waste treatment, disposal, and recovery facilities; and
- Facilities subject to Superfund Amendments and Reauthorization Act (SARA) Title III (also known as Emergency Planning and Community Right-To-Know Act EPCRA).

Each Permittee collected information and updated on a regular basis an inventory of critical sources. Permittees collected the following information for each industrial and commercial facility:

- Name of facility and name of owner/operator;
- Address;
- Coverage under the General Industrial Activity Storm Water Permit (GIASP) or other individual or general NPDES permits; and
- A narrative description, including Standard Industry Classification (SIC) codes, that best reflects the industrial activities and principal products at each facility.

The first round of inspections under the 2001 NPDES Permit, for the critical source facilities identified above, were completed by August 1, 2004. Inspections are currently underway for the second round, which are expected to be completed in fall 2006. The critical source facilities received educational materials on stormwater pollution prevention practices and were inspected to ensure that the facility:

- Does not pour oil and grease or oil and grease residue onto a parking lot, street, or adjacent catch basin;
- Keeps trash bin areas clean and trash bin lids closed, and does not fill trash bins with washout water or any other liquid;
- Does not allow illicit discharges, such as the discharge of wash water from floor mats, floors, porches, parking lots, alleys, sidewalks, and street areas (in the immediate vicinity of the establishment), filters or garbage/trash containers;
- Removes food waste, rubbish, or other materials from parking lot areas in a sanitary manner that does not create a nuisance or discharge to the storm drain;
- Maintains the facility area so that it is clean and dry and without evidence of excessive staining;
- Implements housekeeping BMPs to prevent spills and leaks;
- Properly discharges wastewaters to a sanitary sewer and/or contains wastewaters for transfer to a legal point of disposal;
- Is aware of the prohibition on discharge of nonstormwater to the storm drain;
- Properly manages raw and waste materials, including proper disposal of hazardous waste;

- Protects outdoor work and storage areas to prevent contact of pollutants with rainfall and runoff;

- Labels, inspects, and routinely cleans storm drain inlets that are located on the facility's property;

- Routinely sweeps fuel-dispensing areas for removal of litter and debris, and keeps rags and absorbents ready for use in case of leaks and spills;

- Is aware that wash down of facility area to the storm drain is prohibited;

- Is aware of design flaws (such as poor grading that does not prevent run-on, or inadequate roof covers and berms), and that appropriate BMPs are implemented;

- Inspects and cleans storm drain inlets and catch basins within each facility's boundaries no later than October 1 of each year;

- Posts signs close to fuel dispensers, which warn vehicle owners/operators against "topping off" of vehicle fuel tanks and the use of automatic shut-off dispenser nozzles;

- Routinely checks outdoor waste receptacle and air/water supply areas, cleans leaks and drips, and ensures that only watertight waste receptacles are used and that lids are closed;

- Trains employees to properly manage hazardous materials and wastes as well as to implement other stormwater pollution prevention practices; and

- Has, if needed, a current Waste Discharge Identification (WDID) number for facilities discharging stormwater associated with industrial activity, and that a Storm Water Pollution Prevention Plan is available on-site, and is effectively implementing BMPs in compliance with Los Angeles County Code, Regional Board Resolution 98-08, and the SQMP.

While Permittees were not required to inspect facilities under the 2001 NPDES Permit that had been inspected by the Regional Board within 24 months, the Principal Permittee found it difficult to schedule inspections in advance without timely and detailed information posted on the Regional Board's website on facilities they have or are scheduled to inspect. The information provided on the website was not specific enough to the Municipal Permittees, and specifically for the unincorporated areas of the County of Los Angeles. The Regional Board's spreadsheet of industrial facilities inspected (see link: http://www.waterboards.ca.gov/rwqcb4/html/programs/stormwater/sw_industrial_inspections.html) does not provide detailed enough jurisdictional information with respect to the unincorporated areas of Los Angeles County. Mailing address city names are provided, though these city names are not necessarily the same as the actual jurisdiction.

Permittees evaluated compliance of industrial/commercial facilities that were identified as critical sources under the 2001 NPDES Permit. Various industrial/commercial facilities inspections resulted in additional BMPs being required. Most of the BMPs required were to address issues involving operations that were exposed to stormwater, washing operations, and trash/litter management.

Permittees participated in various task forces, including the Los Angeles County District Attorney Strike Force, the City of Los Angeles Strike Force, and the Federal Los Angeles Environmental Group Strike Force, and worked closely with the Regional Board and other Permittees to resolve stormwater-related violations and other issues.

Permittees have found that the program has been effective in educating and bringing awareness to restaurant and other business operators on stormwater pollution prevention measures. The success of this program resulted in increasing efforts made by business owners to reduce pollutants in stormwater in order to comply with regulations.

Public Works, Environmental Programs Division, was the lead agency to implement pollutant reduction and control measures through inspections of industrial and commercial facilities within the unincorporated areas of Los Angeles County. 3,743 critical source facilities in the unincorporated areas were inspected in the first round. Approximately 15 percent of all sites inspected resulted in BMPs being required to address stormwater-related pollution. Less than 1 percent of all facilities were referred to the Regional Board for violations.

As part of other mandates on the County of Los Angeles, inspections of critical source facilities with underground storage tanks (in the unincorporated areas and 74 Permittee Cities) and/or with industrial waste permits (in the unincorporated areas and in 38 Permittee Cities) were conducted on a regular basis, to enforce stormwater regulations and requirements of the Industrial/Commercial Facilities Control Program during each inspection.

The Industrial/Commercial Facilities Control Program was designed to meet the objectives of the 2001 NPDES Permit. Permittees worked hard to comply with the requirements of the Industrial/Commercial Facilities Control Program under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

3.4 DEVELOPMENT PLANNING

Permittees implemented a Development Planning Program that attempted to minimize impacts from stormwater and urban runoff on the biological integrity of Natural Drainage Systems and water bodies in accordance with requirements under CEQA.

Public works, in consultation with Permittees, funded the *Peak Discharge Impact Study*, which was coordinated by the Southern California Stormwater Monitoring Coalition and project managed by the Southern California Coastal Waters Research Project. Interim Peak Flow Criteria were adopted by Public Works on January 31, 2005. The technical report is available on the internet at ftp://ftp.sccwrp.org/pub/download/pdfs/450_peak_flow.pdf.

In general, Permittees developed and made SUSMP guidelines available to developers. Applicable projects have been conditioned to meet the SUSMP requirements prior to a Building or Grading Permit being issued.

Public Works developed a technical manual for siting and design of BMPs for the development community. The various types of structural BMPs Permittees have required developers to incorporate into their projects include catch basin inserts, hydrodynamic devices, vortex separators, biofilters, on-site clarifiers, vegetative swales, perforated pipes in rock filled trenches, and detention basins.

Most private consulting engineers, contractors, and developers doing business with the Public Works are aware of the requirements of the Development Planning Program. Further, vendors of proprietary BMPs as well as advocates of nonproprietary practices are routinely invited to make presentations to the Public Works staff, a practice that keeps staff up-to-date on current stormwater treatment methods and helps them make informed decisions about applicability and effectiveness. The Principal Permittee has gone above and beyond the requirements of the Permit by establishing a BMP Task Force and developing the BMPLA.org website, which includes a Yellow Pages for BMP manufacturers, distributors, product descriptions, and services.

The Development Planning Program was designed to meet the objectives of the NPDES Permit. Permittees worked hard to comply with the requirements of the Development Planning Program under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

3.5 DEVELOPMENT CONSTRUCTION

Any inspection obligations in exceedance of Federal regulations constitute a State mandate and should be funded by the Regional Board in accordance with the precepts set forth in Article XIII, Section 6, of the California Constitution. The Regional Board shall consider the economic impacts of mandating Permit requirements that exceed Federal regulations. The Federal regulations do not require Permittees to inspect the broad scope of construction sites required by the 2001 NPDES Permit. Permittees continue to reserve their objection to any inspection program that goes beyond that required by the Federal regulations.

Pursuant to the 2001 NPDES Permit, Permittees implemented a Development Construction Program to control runoff from construction activity at all construction sites within its jurisdictions. Construction projects were adequately reviewed for compliance

with the NPDES Permit, which included the development of SWPPP and compliance with the SUSMP. As necessary, enforcement actions were taken against construction sites in violation of Permit requirements. Increased requirement awareness has led to the success of this program.

Leading the effort to better implement this program, the Principal Permittee has placed materials clarifying the requirements of the Development Construction Program on its website and developed a brochure on Water Quality Regulations, which is provided to the public with building permits issued by the Building and Safety Division.

The Development Construction Program was designed to meet the objectives of the 2001 NPDES Permit. Permittees worked hard to comply with the requirements of the Development Construction Program under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

3.6 PUBLIC AGENCY ACTIVITIES

The Public Agency Activities Program under the 2001 NPDES Permit has been fully implemented by the Permittees. An inspection program for public facilities is in place to ensure field yards are implementing recommended BMPs. The most noted success of the Public Agency Activities Program is greater awareness among the County and cities' staff members of stormwater issues. The Permittees in cooperation with the County Sanitation Districts of Los Angeles completed the Treatment Feasibility Study. This study investigated the possible diversion of dry-weather discharges or the use of alternative treatment control BMPs to treat flows that may impact public health and safety and/or the environment. Other program successes include increased cleanout of problem catch basins and street sweeping, proper coverage of trash receptacles and storage bins for potential pollutants, proper implementation of BMPs on public construction sites, installation of pervious pavement in city parking lots and drainage swales to increase filtration, and equipped facilities with clarifiers for vehicle washing.

Notable improvements as a result of the Public Agency Activities Program are:

- Increased staff awareness;
- Decreased potential for pollutant runoff from public facilities; and
- Upgraded fuel systems at maintenance yards with features that meet and exceed the requirements of the Permit. Some features include: utilizing aboveground storage tanks, secondary containment berms, canopies that extend over the concrete fuel pad, and fuel pads graded to prevent sheet flow.

The Public Agency Activities Program was designed to meet the objectives of the 2001 NPDES Permit. Permittees worked hard to comply with the requirements of the Public Agency Activities Program under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

3.7 ILLICIT CONNECTIONS/ILLICIT DISCHARGES ELIMINATION

Permittees have increased public awareness of the impacts of illicit connections and illicit discharges. The Public Hotline (1-888-CLEAN-LA) continues to effectively manage the receiving, tracking, and reporting of public complaints. For some Permittees, Closed Circuit TV monitoring has been employed to screen for illicit connection, and for others field screenings have been conducted.

Noteworthy improvements to the Illicit Connections/Illicit Discharges Program include:

- Improved interagency coordination;
- Prompt response to reported illicit discharges;
- Increased public and city staff awareness; and
- Increased public reporting.

The Illicit Connections/Illicit Discharges Elimination Program was designed to meet the objectives of the 2001 NPDES Permit. Permittees worked hard to comply with the requirements of the Illicit Connections/Illicit Discharges Elimination Program under the 2001 NPDES Permit. Please see Appendix A for some specific examples provided by Permittees.

4.0 PRIORITIES FOR PROGRAM IMPROVEMENT

Municipal stormwater and urban runoff management programs in the Los Angeles region were initiated with the June 18, 1990, adoption of Order 90-079. A revised Municipal NPDES Permit was issued in July 1996, and another in December 2001 (Order 01-182). Permittees currently find themselves near the end of this third Permit cycle and have conducted in-depth reviews of their current management programs with an eye toward continued improvement. Program improvement and effectiveness is a priority for Permittees for many reasons. Permittees have an obligation to responsibly manage public funds as well as to protect the quality of the environmental resources within their jurisdictions. In addition, Permittees in the Los Angeles region recognize that effectively managing the impacts of stormwater and urban runoff in a cost-effective manner is in the best interest of all County residents.

This section discusses issues and concepts identified by Permittees as key factors in improving their management programs during the upcoming Permit cycle. These issues and recommendations have a general applicability across multiple program elements. The Permittees have implemented programs that meet and often exceed the basic provisions of the existing Permit, but also recognize that continued progress requires program approaches that are strategic, beneficial, measurable, cost-effective, adaptive, and fiscally responsible.

As will be further elaborated in the remainder of this ROWD, the Permittees have made important strides toward the incorporation of these management principles into their programs, and are committed to increasing their emphasis in the next Permit cycle. Based on their experience developing and implementing programs, the Permittees have determined that key aspects of existing programs can be significantly enhanced. These proposed enhancements to the existing programs will allow for improved implementation and cost-effective operations, thus allowing for reallocation of money and resources to other problem areas without sacrificing water quality protection or other public services. The key challenge in approaching this objective under a re-issued Permit is to provide sufficient opportunity for learning and adapting while ensuring that key Permit programs remain beneficial, compliant, reasonable, cost-effective, and enforceable. To a large extent, doing so depends on how compliance is gauged and the process that is utilized to oversee and evaluate Permit programs.

With this in mind, the remainder of this section provides a more in-depth discussion of specific priorities for the continued improvement of Permittees programs, and the types of changes that the Permittees have determined are necessary to achieve them. In many cases, it should be noted that specific improvements are achievable by Permittees within the current Permit framework. In some instances, however, desired changes will also require Regional Board action that may include specific Permit amendments. On this note upon an issuance of a renewed Permit, the revised SQMP will be developed and submitted to the Regional Board.

4.1 PROGRAM COMPONENTS

Recommended improvements for the next Permit cycle include streamlining specific requirements, providing Permittees with a safe harbor provision, maintaining steady implementation of programs that have been proven to work well, and making results-based modifications to other programs to better utilize limited resources. Components in each of the programs have been identified as requiring some modification to improve the overall intent of the Permit, which is to develop; achieve; and implement a timely, comprehensive, cost-effective stormwater pollution control program to reduce the discharge of pollutants in stormwater to the MEP.

4.2 PRIORITY 1 – RECOMMENDED LANGUAGE FOR RECEIVING WATER LIMITATIONS INCLUDING FINDINGS OF FACT, SAFE HARBOR PROVISION, AND DEFINITIONS

The Permittees recommend that the Permit contain Receiving Water Limitations language, which is consistent with applicable law and with which the Permittees can comply. Order 96-054, the 1996 NPDES Permit, included language that stated "Timely and complete implementation by a Permittee of the stormwater management programs prescribed in this Order shall satisfy the requirements of this section and constitute compliance with receiving water limitations." It further provided that where an exceedance of a water quality objective had occurred, that the Permittees were to submit stormwater programs that "will increase the likelihood of preventing future exceedances of water quality objectives." This language was subsequently omitted by the Regional Board in Order 01-182. It is imperative that Permittees have the support of the Regional Board when making a good faith effort to comply with Permit requirements. Permittees must first be given an opportunity to work with the Regional Board to fine-tune programs that are not successful at meeting Receiving Water Limitations. Exposing Permittees to immediate third party lawsuits is unproductive, discourages collaborative working relationships with nongovernmental organizations, and does not achieve the primary goal of improving water quality.

Permittees recommend the following language be used for the Receiving Water Limitations Section:

Findings of Fact:

1. *Urban runoff includes discharges from residential, industrial, commercial, and construction areas within the Permit area. In addition to Urban runoff, the MS4s regulated by this Order receive flows from agricultural activities, open space, State and Federal properties and other land uses not under the control of the Permittees.*

2. *The Permittees lack legal jurisdiction over stormwater discharges into their respective MS4s from agricultural activities, California and Federal properties*

and facilities, school districts, colleges and universities, utilities and special districts, wastewater management agencies and other point and nonpoint source discharges otherwise permitted by or under the jurisdiction of the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in urban runoff are beyond the control or the authority of the Permittees to eliminate. Examples of these include, but are not limited to, the operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from application of pesticides, nutrient runoff from agricultural activities, and background conditions (e.g., wildlife and leaching of naturally occurring minerals, metals, and other elements from local geology).

3. *The Regional Board finds that the unique aspects of the regulation of urban runoff discharges through MS4s, including, but not limited to, the intermittent nature of discharges, difficulties in monitoring, and limited physical control over the discharges will require adequate time to implement and evaluate the effectiveness of BMPs. Therefore, this Order includes a procedure for determining whether urban runoff discharges are causing or contributing to exceedances of water quality standards and for evaluating whether the SQMP must be revised in order to comply with water quality standards. This Order establishes an iterative process to achieve compliance with water quality standards.*

Receiving Water Limitations:

1. *The Permittees shall implement BMPs to the MEP to attempt to reduce or eliminate the possibility that urban runoff discharges from the Permittees' MS4s will cause or contribute to an exceedance of water quality standards.*

2. *The Permittees shall comply with Paragraph 1 through the use of reasonable and cost-effective BMPs to the MEP and other actions to reduce pollutants and the discharges in accordance with the SQMP. It is expected that compliance will occur through an iterative process and the application of increasingly more effective BMPs.*

3. *If exceedances of water quality standards persist, notwithstanding implementation of SQMP and its components and other requirements of this Permit, the Permittees shall comply with the following procedure:*

    a. *Upon a determination by the Permittee that discharges are causing or contributing to an exceedance of an applicable water quality standard, the Permittee shall notify and thereafter submit a written report to the Executive Officer that describes the BMPs that are currently being implemented and the additional BMPs that will be implemented to prevent or reduce those pollutants that are believed to be causing or contributing to the exceedance of the water quality standard. This written report may*

be incorporated in the annual stormwater report unless the Executive Officer directs an earlier submittal. If the exceedance of the water quality standard is due to or believed to be due to discharges to the MS4 that are outside the Permittees jurisdiction or control, the Permittees shall advise the Executive Officer in this report.

b. *Upon receipt of the written report, the Executive Officer may request additional BMPs to be implemented.*

c. *Within 90 days after the Executive Officer's approval of additional or modified BMPs, the Permittees shall revise the SQMP to reflect those BMPs.*

d. *If the Permittees have complied with the procedure set forth above and are implementing the revised SQMP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same water quality standards unless the Executive Officer determines it is necessary to develop additional BMPs and provides written notice to the Permittees of this determination.*

e. *Compliance with the procedures set forth in this section shall satisfy the requirements of this Order and constitute compliance therewith.*

Definitions:

1. *Maximum Extent Practicable or MEP is the standard established by Congress in Clean Water Act Section 402(p)(3)(B)(iii) that municipal dischargers of stormwater MS4s must meet. For the purpose of this Order, MEP is generally, but not necessarily, less stringent than best available control technology, the standard which industrial dischargers of stormwater must meet. MEP generally emphasizes pollution prevention and source control and includes consideration of technical feasibility, practicability, cost-effectiveness, benefit derived, regulatory compliance, and public acceptance. Where cumulative cost exceeds cumulative benefit, a program or BMP is not considered practicable.*

2. *Urban runoff is that water discharged to the MS4 for which the Permittees are responsible when further discharged from the MS4 to receiving waters. Urban runoff includes discharges from residential, industrial, commercial, and construction areas within the Permit area. Urban runoff excludes flows from agricultural activities, open space, State and Federal properties, NPDES-permitted discharges, and urban and nonurban land uses that are not under the regulation of the Permittees.*

4.3 PRIORITY 2 – FUNCTION OF WATERSHED MANAGEMENT COMMITTEES

Order 01-182 requires WMCs to carry out specific responsibilities as a group. These responsibilities include:

a. Facilitate cooperation and exchange of information among Permittees;
b. Establish goals and objectives and associated deadlines for the WMA as the program implementation progresses;
c. Prioritize pollution control efforts based on beneficial use impairment(s), watershed characteristics, and analysis of results from studies and the monitoring program;
d. Develop and/or update and monitor the adequate implementation, on an annual basis, of the tasks identified for the WMA;
e. Assess the effectiveness of, prepare revisions for, and recommend appropriate changes to the SQMP and its components;
f. Continue to prioritize the industrial/commercial critical sources for investigation, outreach, and follow-up; and
g. Meet four times per year and as necessary.

Permittee resources are severely limited. Requiring Permittees to perform additional tasks under the WMCs is extremely difficult because it takes valuable resources away from working on other Permit requirements that have a more significant impact on water quality. These WMC responsibilities are redundant with Permittee obligations under the different programs and it is recommended that they be removed in the next Permit.

Permittees agree that it is important for key personnel within a WMA to meet on a quarterly basis to facilitate cooperation when implementing stormwater programs and to exchange experiences and information that may be of value. However, Permittees recommend having the flexibility to independently determine how to implement Permit programs in the manner that best suits them, whether that be individually or as a WMA. Permittees recommend that the WMC meeting structure be combined with the impaired water body jurisdictional groups to form one joint meeting since many of the same Permittee representatives are handling both obligations. This recommendation would reduce the need for parallel meetings that are unnecessary. WMAs are redundant since Permittees will be forced into watershed-based relationships as a result of impaired water bodies. In addition, quarterly public education meetings address WMC responsibilities a., b., and g.

4.4 PRIORITY 3 – INDUSTRIAL AND COMMERCIAL FACILITIES CONTROL PROGRAM IMPROVEMENTS

Pursuant to the 2001 NPDES Permit, Permittees were required to track, inspect, and ensure compliance at industrial and commercial facilities that were identified as critical sources of pollutants in stormwater. Industrial and commercial facility inspections help to directly identify businesses that contribute pollutants to the MS4. Commercial

facilities such as restaurants, automotive service facilities, retail gasoline outlets, and automotive dealerships, were required to be inspected twice during the 5-year term of the 2001 NPDES Permit. Facilities in Tier 1 and Tier 2 Categories were required to be inspected at the same frequency. However, for Tier 2 facilities, Permittees may reduce the frequency of additional compliance inspections to once every 5 years provided that they inspect at least 20 percent of the facilities in Tier 2 each year.

To provide for an effective inspection program, Permittees found it unnecessary and a waste of resources to repeatedly inspect facilities that are found to be in compliance with the General Industrial Activities Stormwater Permit (GIASP). A much more effective inspection strategy would be to repeatedly target industrial/commercial facilities that are not in compliance.

Any inspection obligations in exceedance of Federal regulations constitute a State mandate and should be funded by the Regional Board in accordance with the precepts set forth in Article XIII, Section 6, of the California Constitution. The Regional Board shall consider the economic impacts of mandating Permit requirements that exceed Federal regulations. The Federal regulations only require Permittees to have a program to monitor and control pollutants in stormwater discharges from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and industrial facilities that the municipalities determine are contributing a substantial pollutant loading to the MS4. Permittees reserve their right to object to any further requirement, and the discussion reporting on activities taken pursuant to the Permit and recommendations for improvements, if inspections are included in the next Permit, should not be construed as a waiver of this objection.

Permittees recommend that all Critical Sources such as commercial facilities (restaurants, automotive service facilities, retail gasoline outlets and automotive dealerships) and Phase I facilities (both Tier 1 and 2) be inspected once within the first two years of the new Permit cycle. Facilities determined to be in compliance will not be inspected for the remaining duration of the Permit cycle. However, all facilities determined to have failed to adequately implement the necessary BMPs shall have a follow-up inspection within 4 weeks from the date of the initial inspection. Permittees shall make subsequent inspections and take the necessary enforcement actions to get the facility into compliance. For facilities in violation of the GIASP, Permittees may escalate referral of such violations to the Regional Board after one inspection and one written notice to the operator regarding the violation. After the facility is brought into compliance, Permittees will be required to conduct another inspection of the problem facility during the remaining duration of the Permit cycle. Permittees propose no net decrease in the total number of inspections from the current Permit.

Permittees recommend that annual GIASP inspection fees collected by the State Water Resources Control Board be distributed to Permittees for conducting industrial facility inspections. Financial constraints make it difficult for Permittees to carry out the level of inspections required by the Regional Board. Providing Permittees with sufficient

monetary resources will facilitate full implementation of this program. It is recommended that the Regional Board give Permittees the discretionary ability to eliminate industrial and commercial facility inspections for businesses that are continually found to be in compliance with GIASP requirements and/or exhibit no activities in exposure to stormwater.

It is recommended that Permittees be given the option to identify and describe industrial and commercial facilities by the Standard Industrial Classification (SIC) Code or the North American Industrial Classification System (NAICS). Some Permittees do not use SIC Codes to characterize businesses in their jurisdiction and therefore would prefer to use the NAICS as a substitute.

Permittees recommend removing the requirement to inspect laundries (SIC 72) from the Tier 2 Categories listed in Attachment B – Critical Sources Categories under Order 01-182. Permittees have found that inspecting laundries and dry cleaners do not result in an improvement to water quality since they do not contribute to water quality problems as documented in past inspections.

4.5 PRIORITY 4 – PEAK-FLOW CONTROL AND STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP)

The Regional Board should further consider the impacts that the Development Planning Program provisions will have on the development of low-income/affordable housing as required under Water Code, Sections 13241(e) and 13263. Permittees propose the following Development Planning Program modifications:

Peak Flow and Hydromodification

The Permittees shall participate in ongoing studies organized by the Southern California Stormwater Monitoring Coalition (SMC) to establish development standards and guidelines to prevent accelerated stream erosion or sediment deposition and to protect stream habitat in Natural Drainage Systems. Included in the studies shall be the review of current peak-flow standards, hydromodification standards from other semi-arid regions, journal articles and other relevant sources related to hydromodification, and channel erosion.

Development standards and guidelines will address post-development peak stormwater discharge rates, velocities, and duration (peak-flow control), and changes to sediment production in Natural Drainage Systems.

The standards will be used to ensure that post-development Natural Drainage Systems mimic predevelopment systems.

Natural Drainage Systems are primarily located in areas tributary to the following streams:

- Malibu Creek;
- Topanga Canyon Creek;
- Upper Los Angeles River;
- Upper San Gabriel River;
- Santa Clara River; and
- Los Angeles County Coastal Streams (Los Angeles Basin Plan Table 2-1).

The standards and guidelines shall be in place by December 10, 2010, or 6 months after publication of the SMC research, whichever is later. During this period, the interim peak- flow standards will continue to be used to regulate hydromodification.

A Permittee or group of Permittees may substitute for the Countywide peak-flow control criteria with a Hydromodification Control Plan (HCP), on approval by the Regional Board, in the following circumstances:

1. Stream or watershed-specific conditions indicate the need for a different peak-flow control criteria, and the alternative numerical criteria is developed through the application of hydrologic modeling and supporting field observations; or

2. A watershed-wide plan has been developed for implementation of control measures to reduce erosion and stabilize drainage systems on a watershed basis.

Developer Technical Guidance and Information

Modify Item B to read:

Six months following the adoption of the stormwater permit, the Permittees will create, publish, and distribute a BMP technical guidance document for the development community in Los Angeles County that will include:

- Sizing criteria;
- Sample/standardized designs;
- Maintenance consideration and recommended procedures;
- Pollutant removal performance; and
- Cost consideration.

The document will be submitted to the Regional Board for review; however, if within 3 months of submittal no approval or rejection is received, the document will be adopted for use by Public Works.

4.6 PRIORITY 5 – SPECIFIC BMP REQUIREMENTS

Under Order 01-182, all Permittees were required to place and maintain trash receptacles at all transit stops within their jurisdiction. Prescriptive requirements, such as this, limit the ability of Permittees to analyze and determine the cost-effectiveness and appropriateness of BMPs to address pollutants of concern. Although the Permit has a provision for BMP substitution, Permittees have expressed concern that this provision is unclear and requires a rather lengthy process to successfully achieve approval for the use of an alternative BMP.

It is recommended that Permittees be given the flexibility to select suitable BMPs and their respective locations, to address pollutants of concern. Permittees also recommend that the explicit requirement to place and maintain trash receptacles at all transit stops be removed from the Permit.

4.7 PRIORITY 6 – STORM WATER POLLUTION PREVENTION PLANS (SWPPP) REDUNDANCY

The General Construction Activities Stormwater Permit (GCASP), Order 99-08-DWQ, requires all dischargers, where construction activities disturb one or more acres, to develop and implement a SWPPP, eliminate or reduce nonstormwater discharges to storm drain systems and other waters of the nation, and perform inspections of all BMPs. Requiring a Local SWPPP to substitute for a State SWPPP is redundant. Permittees recommend eliminating the requirement for a local SWPPP and using the State SWPPP requirement under the GCASP.

4.8 PRIORITY 7 – ILLICIT CONNECTION/ILLICIT DISCHARGE ELIMINATION PROGRAM IMPROVEMENTS

Permittees are required to eliminate all illicit connections and illicit discharges to the storm drain system and to document, track, and report all occurrences. The Permit requires the field screening of open channels, underground pipes, and underground pipes with a diameter of 36 inches or greater by specific dates. Based on an annual evaluation of patterns and trends of illicit connections and illicit discharges, it can be concluded that the following land use types contributed an average of 62.2 percent of all illicit connections and 81.5 percent of all illicit discharges discovered:

- High Density Single-Family Residential
- Retail and Commercial
- Light Industrial
- Multiple-Family Residential
- Transportation

Permittees recommend that field screening be concentrated in the five land use types above to maximize resources and target the areas where most illicit connections and

illicit discharges are currently found. It is recommended that field screening in other land use types be optional since Permittee resources are limited.

Permittees recommend that the term "illicit disposal" be removed from the definitions section of the Permit since it serves no purpose and is not used in the Permit. Other definitions need to be more explicitly defined to establish consistent implementation and reporting by Permittees. The definition for "illicit discharge" should be revised to read, "means any discharge to a constructed storm drain system, excluding streets and gutters, that is prohibited under local, state, …" This revised definition will clearly identify an illicit discharge as a nonstormwater discharge that has entered a constructed storm drain system. Permittees do not consider a spill or discharge that is only in the gutter or roadway as being an illicit discharge since these types of incidents are typically handled immediately and never reach the receiving waters. Similarly, the definition for "illicit connection" should be revised to read, "means any unpermitted connection to a constructed storm drain system, excluding streets and gutters,…"

4.9 PRIORITY 8 – PERMIT FORMAT

Permittees find the format of the 2001 NPDES Permit difficult to follow. Permittees recommend that the Regional Board also include tables and matrices to assist Permittees with Permit requirements, expectations, and submittal deadlines. Permittees recommend that the Permit include watershed-specific sections to address impaired water bodies.

4.10 PRIORITY 9 – PERMIT IMPLEMENTATION COSTS

Many Permittees have had to budget and divert earmarked money from other municipal requirements to meet the obligations of the 2001 NPDES Permit. Permittees are concerned about the year-to-year increase in program implementation costs and do not foresee new revenue streams to help bridge the gap between Permit compliance and other municipal programs. The Regional Board should not overlook the lack of adequate resources to implement the requirements of the Permit. Consideration should be given to developing and implementing program requirements that target the largest and most frequent sources of stormwater pollution, and that utilize Permittee resources prudently so as not to exhaust them beyond reasonable means. Some Permittees have cited examples such as excessive industrial and commercial facility inspections as having detracted resources from their illicit connection and illicit discharge field-screening program. In addition, Permittees recommend that annual GIASP inspection fees collected by the State Water Resources Control Board be distributed to Permittees for conducting industrial facility inspections.

4.11 PRIORITY 10 – DISCHARGE EXEMPTION REFERENCE

The discharge exemption for potable drinking water supply and distribution system releases makes reference to American Water Works Association (AWWA) guidelines for dechlorination and suspended solids reduction practices. Permittees have determined

that these AWWA guidelines do not exist. Therefore, it is recommended that the AWWA reference be removed from the Permit.

4.12 PRIORITY 11 – LEGAL AUTHORITY

The task of amending or adopting a Permittee-specific stormwater and urban runoff ordinance to enforce all requirements of the Permit takes a significant amount of time to complete. It is recommended that the Regional Board provide Permittees a minimum of 12 months from the date of Permit adoption to complete all necessary changes to possess adequate legal authority to comply with the Permit.

4.13 PRIORITY 12 – ANNUAL REPORT ENHANCEMENTS

Permittees recommend streamlining the Municipal Stormwater Permit Annual Report to only require the reporting of significant records that demonstrate BMP effectiveness and compliance with the implementation of SQMP components to reduce the discharges of pollutants in stormwater to the MEP. Redundant requirements such as the preparation of an assessment of the effectiveness of SQMP requirements to reduce stormwater pollution, which evaluates watershed-wide assessments conducted by each WMC, is unnecessary and a waste of resources. A Principal Permittee assessment of the Permittee assessments is excessive and redundant and does not provide any new information that could not be concluded from reviewing watershed-wide assessments. It is recommended that only one assessment per watershed be required.

Many Permittees have had difficulties in submitting Annual Reports by the October 15 deadline. Problems exist with the short timeframe that Permittees are given between the end of the fiscal year (typically June 30) and the deadline for submitting Annual Reports to the Principal Permittee so that data can be compiled and summarized by the Principal Permittee for submittal by October 15. This limited time period is not sufficient for Permittees to coordinate with internal divisions or departments to gather all the final information needed to compile their Individual Annual Report. In addition, adequate time is not given for financial numbers to be finalized. This preliminary information and data may affect the accuracy of Permittee reporting. Permittees recommend changing the Annual Report deadline from October 15 to November 15 of each year.

Permittees consider some information required for the Annual Report to be irrelevant to achieving the goals of the Permit. It is recommended that the following Annual Report questions be eliminated:

- Section IV.C.7 – How many of each of the following projects did your agency review and condition to meet SUSMP requirements last year?
- Section IV.C.8 – What is the percentage of total development projects that were conditioned to meet SUSMP requirements?
- Section IV.D.5 – How many building/grading permits were issued to sites requiring Local SWPPPs last year?

- Section IV.D.6 – How many building/grading permits were issued to sites requiring coverage under the General Construction Activities Stormwater Permit last year?
- Section IV.D.7 – How many building/grading permits were issued to construction sites less than one acre in size last year?

The following Annual Report tables should be modified to eliminate confusion and improve the quality of data submitted:

- Section IV.F.10 – Delete and replace with the following illicit connections table:

Number of Suspected Illicit Connections Reported	Number of Suspected Illicit Connections Investigated	Number of Illicit Connections Terminated	Number of Suspected Illicit Connections found not to be Illicit	Number of Suspected Illicit Connections that resulted in Enforcement Action

- Section IV.F.13 – Delete and replace with the following illicit discharges table:

Number of Suspected Illicit Discharges Reported	Number of Suspected Illicit Discharges Investigated	Number of Illicit Discharges Terminated	Number of Suspected Illicit Discharges found not to be Illicit	Number of Suspected Illicit Discharges that resulted in Enforcement Action

4.14 PRIORITY 13 – PUBLIC INFORMATION AND PARTICIAPATION ENHANCEMENT

Permittees recommend that the next Permit remove the requirement to ensure a minimum of 35 million impressions per year on the general public about stormwater quality via print, local TV access, local radio, or other appropriate media. We believe a better process to quantify the effectiveness of a public information and participation program is to use a presumptive measurement approach. This presumptive measurement approach will quantify a percent reduction or improvement in water quality as a result of implementing an integrated and cost-effective public information and participation program.

4.15 IMPLEMENTATION APPROACHES

In the past, Permittees have worked diligently to develop comprehensive watershed programs. Permittees have made significant progress on SQMP implementation, but there is room for improvement, with many challenges remaining ahead. Working across watershed boundaries will require that Permittees continue to develop relationships and trust as well as standardized procedures to facilitate increased collaboration. This will increase the effectiveness of watershed programs being implemented. Permittees and the Regional Board must also increase their understanding of the scientific basis of water quality and pollution source control. Allowing for increased flexibility in the next Permit is crucial to future successes. Adopting prescriptive and inflexible Permit requirements would be premature and seriously undermine processes and commitments that have already been put into place. The Regional Board should not adopt new requirements until sufficient data has been collected so as to ensure success to a reasonable level of probability. The scientific data underlying all Regional Board decisions should be subject to peer review consistent with State and Federal law.

Permittees will work together to develop and revise Model Program elements to assist with Permit compliance. Implementation approaches will be evaluated and amended to reflect Permit requirements and achieve the goal of implementing program components to reduce the discharges of pollutants in stormwater runoff to the MEP. Program elements shall be revised to comply with regional, watershed specific requirements, and address pollutants of concern for impaired water bodies.

4.16 TMDL IMPLEMENTATION PLANS

The CWA of 1972 require States to develop a list of impaired waters and the pollutants causing them to be impaired, also known as the 303(d) List. States then establish a pollutant specific TMDL for each listed water body for the particular pollutant causing the impairment. TMDLs are guides to be used in bringing impaired water bodies into compliance with water quality standards necessary to sustain their designated beneficial uses. One of the objectives of this NPDES Permit is to protect the beneficial uses of receiving waters in Los Angeles County by requiring Permittees to reduce the discharge of pollutants in stormwater to the MEP. TMDL Implementation Plans will assist responsible agencies to bring impaired water bodies into compliance with water quality standards.

The projected or anticipated means to comply with waste load allocations established by a valid TMDL are often identified in an implementation plan, which include a number of iterative, adaptive, and integrated approaches that when combined should bring impaired water bodies into compliance with water quality standards. Permittees recommend a Memorandum of Understanding (MOU) between the Regional Board and responsible agencies be adopted in lieu of including TMDLs in the NPDES Permit. TMDLs applicable to responsible agencies should be implemented through the adoption of separate MOUs setting forth reasonable and cost-effective BMPs to be implemented by the Permittees. Such MOUs should provide that good faith compliance and

implementation of the BMPs set forth in the developed implementation plan should constitute compliance with the adopted TMDLs. The use of MOUs is authorized by the Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options, adopted by State Board Resolution 2005-0050 (June 16, 2005). The effluent limitations in the Permit itself should be expressed as BMPs. See EPA Memorandum, Establishing TMDL Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs (November 22, 2002), p.4.

The responsible agencies for the Santa Monica Bay Beaches Bacteria TMDLs will implement and evaluate an array of BMPs developed based on an iterative, adaptive watershed management approach. The responsible agencies will use their respective TMDL implementation plan in an effort to comply with water quality standards. Table 3 below identifies each of the responsible agencies for the different jurisdictional areas in the Santa Monica Bay.

Table 3 – Santa Monica Bay Beaches Bacteria TMDL

Jurisdictions	Responsible Agencies	Implementation Plan
1 and 4	County of Los Angeles City of Malibu California Department of Transportation (Caltrans)	Santa Monica Bay Beaches Bacteria TMDL Implementation Plan for Jurisdictions 1 and 4
2 and 3	County of Los Angeles Caltrans City of El Segundo City of Los Angeles City of Santa Monica	Santa Monica Bay Beaches Bacteria TMDL Implementation Plan for Jurisdictions 2 and 3
5 and 6	County of Los Angeles Caltrans City of El Segundo City of Hermosa Beach City of Manhattan Beach City of Redondo Beach City of Torrance	Santa Monica Bay Beaches Bacteria TMDL Implementation Plan for Jurisdictions 5 and 6
7	County of Los Angeles City of Los Angeles City of Palos Verdes Estates City of Rancho Palos Verdes City of Rolling Hills City of Rolling Hills Estates	Santa Monica Bay Beaches Bacteria TMDL Implementation Plan for Jurisdiction 7

The responsible agencies for the Marina del Rey Harbor Mothers' Beach Back Basin Dry- and Wet-Weather Bacteria TMDL are the County of Los Angeles, Caltrans, and the Cities of Los Angeles and Culver City. These responsible agencies will use the

Marina del Rey Harbor Mothers' Beach Back Basin Dry- and Wet-Weather Bacteria TMDL Implementation Plan in an effort to comply with water quality standards.

The responsible agencies for the Ballona Creek Trash TMDL are the County of Los Angeles, and the Cities of Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, and West Hollywood. These responsible agencies will use an iterative adaptive BMP implementation strategy in an effort to comply with water quality standards.

5.0 WATER QUALITY MONITORING

The 2001 Permit states that the results of the monitoring program should be used to "refine the SQMP for the reduction of pollutant loadings and the protection and enhancement of the beneficial uses of the receiving waters in Los Angeles County." Techniques to quantify the relationship between SQMP implementation and water quality are still in their infancy, and will mature through an iterative process over many Permit cycles. The recommendations described in this ROWD have been made with this in mind. Resources are proposed to be shifted toward those studies and monitoring programs that allow for a better measure of SQMP effectiveness and lead to reduction in pollutant loading from urban and storm runoff. Table 1 compares key monitoring requirements under the 2001 Permit with Permittees' recommendations in this ROWD.

In preparing this ROWD, Permittees have also taken into account the five core management questions set forth in the Stormwater Monitoring Coalition's report entitled "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California":

Question 1: Are conditions in receiving waters protective, or likely to be protective or beneficial uses?
Question 2: What is the extent and magnitude of the current or potential receiving water problems?
Question 3: What is the relative urban runoff contribution to the receiving water problems?
Question 4: What are the sources to urban runoff that contribute to receiving water problems?
Question 5: Are conditions in receiving waters getting better or worse?

Table 2 shows if and to what extent each of these questions is addressed by both the 2001 Permit and the Permittees' recommendations. Finally, Table 3 contains a list of impaired water body special studies and monitoring programs for which the Permittees are responsible. Striving to obtain a streamlined and cost-effective monitoring program under the new Permit, Permittees recommend that these studies and programs be integrated with other monitoring requirements as much as possible.

5.1 CORE MONITORING

A. Mass Emissions Monitoring

Mass Emissions Monitoring is conducted in order to approximate the pollutant loads discharged by the MS4 system, to assess temporal trends at the Mass Emissions sites and to determine if flows from the MS4 system contribute to exceedances of water quality standards.

1. Existing Permit Requirements:
   - Monitor 7 Mass Emissions sites during the first storm, 2 additional storms and during 2 dry-weather flows (3 storm flows and 2 dry weather flows).

- Monitor 6 Mass Emissions sites (automated sites only) for total suspended solids (TSS) during all storms with at least 0.25" of rain. Collected data to be used in conjunction with TSS correlation attempts.
- Samples at Mass Emissions sites may be taken with automatic samplers as under Order 96-054. Grab samples must be taken for pathogen indicators and oil and grease. Automated samplers should be set to monitor storms of at least 0.25".
- Samples at the Santa Clara River Mass Emissions site are taken manually due to the infeasibility of installing automated samplers. Flow weighted composites are to be collected during the first 3 hours of a storm, or for the duration if less than 3 hours. A minimum of 3 aliquots separated by a minimum of 15 minutes is collected within each hour of discharge.
- Annually an analysis of the correlation of TSS and other pollutants of concern is performed and reported.

2. Issues and Recommendations
   - Wet-weather data has been collected at most Mass Emissions Sites for approximately 10 years. Several constituents that consistently exceed water quality objectives exhibit no statistically significant trend as discussed in the Los Angeles County 1994-2005 Integrated Receiving Water Impacts Final Report, and it is unlikely that these constituents will be reduced to below water quality objectives in a short-time frame. Using existing data, several data modeling exercises were performed to simulate different sampling strategies for wet-weather data. It was concluded that collecting samples 2 times a year, or 3 times on alternate years, would be sufficient to determine trends over an approximately 40-year time period with a confidence of 95 percent. These modeling efforts and a more detailed discussion can be found in the Los Angeles County 1994-2005 Integrated Receiving Water Impacts Final Report. The Permittees recommend monitoring 2 storms and 2 dry-weather events per year.
   - Data collected during the period between 1994 and 2005 was analyzed for TSS correlation with other pollutants of concern and the results were reported in the Los Angeles County 1994-2005 Integrated Receiving Water Impacts Final Report. Statistically significant TSS correlations were found only in the Santa Clara Watershed, a natural bottom river, for total chromium, lead, iron, and arsenic as well as for dissolved copper and boron. No TSS correlations were found to be significant in the other watersheds.
   - Permittees recommend that the sampling of storms exclusively for TSS be discontinued since few significant correlations were found in the previous 10 years. TSS correlation was intended as a monitoring shortcut whereby TSS measurements could be used to approximate other pollutant loads while avoiding more expensive analyses. However, since few significant TSS correlations were found in the Santa Clara Watershed, and none in the other watersheds, TSS correlation cannot serve its intended purpose as a surrogate for more expensive analysis and should be discontinued.

B. Water Column Toxicity Monitoring

Water Column Toxicity Monitoring is performed in order to evaluate the toxicity of water being discharged from the MS4 system at the Mass Emissions Sites, to determine the causes and extent of toxicity in receiving waters and to modify and utilize the SQMP in order to eliminate or reduce sources of toxicity in MS4 discharges.

1. Existing Permit Requirements
   - Two storm events (including the first of the season) and two dry-weather events are annually analyzed for toxicity. Ceriodaphnia dubia (water flea) 7-day survival/reproduction and Strongylocentrotus purpuratus (purple sea urchin) fertilization tests are used as a minimum.
   - A Phase I Toxicity Identification Evaluation (TIE) is performed on samples exhibiting a toxicity of 1 Toxic Unit or more for the water flea and a toxicity of 2 Toxic Unit or more for the purple sea urchin.
   - A Toxicity Reduction Evaluation is performed if a pollutant or class of pollutants is responsible for 50 percent of 3 or more TIEs at the same location.

2. Issues and Recommendations
   - Only 9.6 percent of all toxicity tests for C. dubia (water flea) resulted in TIEs and no trends were apparent. Furthermore, no dry-weather toxicity tests for C. dubia (water flea) were toxic. Therefore, the Permittees recommend reducing the dry weather C. dubia (water flea) toxicity testing at the Mass Emissions sites to 1 test per year unless the first dry-weather event C. dubia test of each year exhibits toxicity, in which case the second dry-weather event should also be tested for C. dubia (water flea) toxicity.
   - Toxicity Testing should be performed at Tributary Monitoring sites for 2 storms and 2 dry events in order to detect pollutant effects that are not detected by physical or chemical analysis. The toxicity tests should be identical to those for the Mass Emissions Sites.

C. Shoreline Monitoring

The Shoreline Monitoring Program is intended to evaluate the impacts to coastal receiving waters and the loss of recreational beneficial uses resulting from storm water/urban runoff.

1. Existing Permit Requirements
   - The City of Los Angeles is responsible for Shoreline Monitoring under the 2001 Permit and the revised Santa Monica Bay Shoreline Monitoring Requirements approved June 14, 2005.
   - Twenty shoreline water quality stations are monitored.
   - Three additional sites are to be evaluated for future monitoring.

- Three indicator groups (Total coliforms, Fecal Coliforms, and Enterococcus) are monitored using membrane filtration, multiple tube fermentation, or chromogenic substrate test kits.
- Sampling occurs weekly or 5 days a week depending upon historical water quality at the sampling sites.
- Sampling occurs during daylight hours and may be omitted during hazardous weather.
- Monitoring frequencies may be modified based on adjacent beach use and storm drain proximity as recommended by the Santa Monica Bay Restoration Commission's Technical Advisory Committee (SMBRC TAC) and the Los Angeles County Department of Health Services (LA County DHS).
- Data is transmitted daily to the LA County DHS.
- LA County DHS is responsible for taking appropriate action in accordance with State law when exceedances of bacterial water quality standards occur.

2. Issues and Recommendations

The Regional Board's 2005 revision to the shoreline-monitoring requirement only partially aligned the Permit's requirement with the Coordinated Shoreline Monitoring Program (CSMP) approved by the Regional Board on April 28, 2004. Some of the Permittees' concerns on this matter were presented in comment letters submitted to the Regional Board by the City of Redondo Beach and Los Angeles County Department of Public Works on April 27 and May 10, 2005, respectively.

The allowable number of exceedance days depends on monitoring frequency. In choosing to conduct weekly monitoring, responsible agencies agreed to a proportional reduction in the allowable number of exceedances from that for daily monitoring. While the rationale behind the SMBRC TAC's recommendation to base monitoring frequency on usage and historical water quality is understandable, Permittees believe that weekly monitoring, which is consistent with AB411, provides reasonable public health protection. Instead of more monitoring, scarce public funds should be directed toward identifying and eliminating anthropogenic sources contributing to shoreline water quality impairments.

Permittees recommend that the CSMP in its entirety replace the existing shoreline monitoring program under the 2001 Permit. Monitoring should be the joint responsibility of those Permittees, which are responsible agencies to address impaired water bodies. Permittees welcome the opportunity to discuss this issue with the SMBRC TAC.

D. <u>Tributary Monitoring</u>

Tributary monitoring is performed in order to identify subwatersheds where stormwater discharges are causing or contributing to exceedances of Water Quality

Standards, and to prioritize drainage and subdrainage areas that need management actions.

1. Existing Permit Requirements
   - A minimum of six tributaries per year is monitored for a minimum of 1 year each. If no exceedances of water quality objectives are found at a station within one year, the station may be moved upon approval of the Regional Board's Executive Officer. If exceedances for the same constituent are found in 3 out of 4 sampled events in a year, the Permittees shall initiate a focused effort to identify the sources of pollutants within that subwatershed.
   - Monitoring started in the Los Angeles River Watershed and is rotated between watersheds subject to the approval of the Regional Board's Executive Officer. Descriptions and explanation of proposed sites and a summary of the previous year's data are to be included in the Annual Monitoring Report. The first tributaries to be monitored were prescribed in Order 01-182.
   - Tributary sites are monitored for the first storm of the year and 3 additional storms. At least 1 dry-weather event per year is monitored at each site. (4 storm events and 1 dry-weather event)
   - Tributary sites are monitored using the same sampling protocol as Mass Emissions sites and samples are analyzed for: pH, dissolved oxygen, temperature, conductivity, TSS, indicator bacteria, all priority pollutants, all constituents for which the water body is impaired downstream, and all constituents that caused toxicity or exceeded water quality criteria at the associated Mass Emissions Site the previous year. Flow data is also collected.

2. Issues and Recommendations
   - Tributary Monitoring sites should be located within a watershed for a period of 2 years. Watersheds should be rotated until all watersheds within the permit area have been monitored before returning to a previously monitored watershed. Watersheds are monitored for 2 years for 2 distinct reasons. First, 2 years allows for better calibration of monitoring equipment and adjusting sampling protocols to site specific factors (traffic patterns, equipment quirks, flow calibration). Secondly, and more importantly, 2 years of monitoring provides time so that subwatersheds with consistently high levels of pollutant loading can be identified, sources within subwatersheds can be identified and the identified sources of pollutants can be properly addressed or eliminated.
   - Tributary monitoring sites will be located in the San Gabriel River Watershed, including the Coyote Creek Watershed, for the 2006-07 monitoring year. Monitoring should continue in this watershed for a total of 2 years, and monitoring in the next watershed should begin during the 2008-09 monitoring year. The Los Angeles River Watershed and Ballona Creek Watershed have each been previously monitored under the

Tributary Monitoring Program. The Santa Clara River, Malibu Creek, and Dominguez Channel Watersheds should be monitored in the future.

- Dry-weather flows occur for a larger portion of the year than storm flows and may be monitored at a much lower expense than storm flows. Dry-weather flows may also provide insight into chronic conditions within the MS4 system that may be masked by the high volumes in a storm flow. Three wet-weather sampling events are sufficient to detect and double check exceedances, in keeping with the purpose of tributary monitoring. Therefore, the Permittees recommend reducing wet-weather sampling to 3 events and increasing the dry-weather sampling to 2 events. Resources saved by reducing wet-weather monitoring will be used to analyze tributary flows for toxicity.
- The Permittees propose the addition of toxicity testing to the Tributary Monitoring Program so as to identify toxic pollutant classes that are not otherwise found using standard physical and chemical tests. The toxicity tests should be identical to those for the Mass Emissions Sites.

5.2 REGIONAL MONITORING

A. Estuary Sampling

The objective of the estuary-sampling requirement is to "sample estuaries for sediment chemistry, sediment toxicity, and benthic macroinvertibrate community to determine the spatial extent of sediment fate from storm water, and the magnitude of its effect." This objective is consistent with questions 1, 2, and 5 of the Model Monitoring Program.

1. Existing Permit Requirements

   The 2001 Permit requires the Principal Permittee to participate in the Bight '03 project, specifically with respect to the project's estuary sampling component. The Permit language provides great detail on the extent of the participation; this has been summarized in Table 1.

2. Issues and Recommendation

   Based on a preliminary review of available results, it appears that the Bight '03 project has been conducted such that the 2001 Permit's requirement has been fulfilled. We now better understand the extent and magnitude of impairments in Los Angeles County's estuaries. While some characterization work will remain necessary, we believe it is time to look more systematically at 1) determining the sources of urban runoff that contribute to elevated sediment toxicity levels and 2) how to reduce that contribution. The former question corresponds to question 4 in the MMP; the latter, while not a question formulated in the MMP, is essential for improving estuary sediment quality.

   The Permittees recommend continuing participation in and fund future bight-wide studies (e.g., Bight '08). However, Permittees' contribution

should be directed toward follow-up studies designed to answer questions most pertinent to reducing toxicant loading into Los Angeles County's estuaries from urban and storm runoff. These questions will be formulated in the coming months in consultation with Regional Board and SCCWRP, and may include, but are not limited to, the following:

- What are the specific toxicants causing recurring sediment toxicity in Ballona Creek Estuary? Dominguez Channel Estuary?
- What are sources of urban runoff that contribute to sediment toxicity?
- Partitioning coefficients between water column and sediment?
- Suspended sediment toxicity sampling protocol?
- Sediment transport mechanism and deposition patterns?
- What is the state of current technology available to reduce toxicant loading from urban and storm runoff?

B. Bioassessment

Existing Permit Requirements

- Participate in the SMC and with the Surface Water Ambient Monitoring Program (SWAMP) in development of a regional Index of Biological Integrity (IBI).
- Perform bioassessment monitoring every October.
- Monitor a minimum of 20 sampling sites and coordinate with SWAMP in site selection.
- Collect a minimum of 3 replicate samples at each site.
- Submit annual monitoring report containing all physical, chemical, and biological data collected and analyzed during bioassessment

1. Issues and Recommendations

- Regional IBI: Permittees will continue participation in the development and testing of a regional IBI for low graded and ephemeral streams and estuaries.

- Site Selection: Permittees will select the number and location of sampling sites through the protocol expected to be developed in the regional IBI. Permittees will consider those sites already sampled in the 3 years of the current Permit for the sake of continuity.

- Indicator Species: Permittees will choose fresh and salt-water benthic species to indicate the health of low graded and ephemeral streams and estuaries from the regional IBI to be developed.

- Impaired Water Body Studies: Permittees will give consideration to how the bioassessment monitoring required by the MS4 Permit can enhance impaired water body studies.

5.3 SPECIAL STUDIES

A. New Development Impact Study

1. Existing Permit Requirements

- With support from the City of Santa Clarita, determine impacts from new development in the Santa Clara River Watershed.
- Compare water quality between 2 subwatersheds, 1 with and 1 without postconstruction SUSMP BMPs.
- As agreed, if in the event of not finding suitable subwatersheds for study, develop a water quality model to simulate results for a single watershed in the Santa Clara River Watershed.

2. Issues and Recommendations

- A watershed of multiple-land uses has been selected for the water quality model simulation and monitoring instrumentation is being installed.

- The model will evaluate the effectiveness of SUSMP implementation by calculating the changes of runoff flows and contaminant loading due to certain BMPs installed. As a result, a matrix of most suitable BMPs for certain types of land use will be recommended.

- Upon the sampling of at least 3 storms, the model will be calibrated and run for various scenarios of BMP types and placement.

- Results will be used to support a study proposed by the SMC to evaluate the effectiveness of postconstruction Low Impact Development (LID) BMPs in new development.

- Permittees will participate with the SMC LID study.

The proposed changes in the study requirements are summarized in Table 1 as compared with the requirements under the existing Permit. The SMC's management questions for the New Development Impact Study are addressed in Table 2.

3. Integration of impaired water body specific programs

- Results of the SMC LID BMP study will be evaluated for their possible inclusion in impaired water body specific programs. The results of the

study will provide a variety of options of structural BMPs to help implement impaired water body specific programs. Furthermore, the results of the study will help with impaired water body specific programs by minimizing the impact of any future development or redevelopment within the watershed.

4. Comparison of existing and proposed programs in addressing management questions by SMC.

B. Peak Discharge Impact Study

1. Existing permit requirements

- Evaluate peak-flow controls
- Determine numeric criteria to prevent or minimize erosion of natural stream channels and banks caused by upstream development.

2. Issues and Recommendations

- A study, conducted jointly with the SMC, was funded in whole by Public Works and managed by the Southern California Coastal Waters Research Project.
- The study was completed in a manner sufficient only to develop interim standards, which were promulgated and submitted to the Regional Board on January 31, 2005.
- Interest in hydromodification issues among the Permittees and members of the SMC led to a technical workshop in October 2005, associated with the first annual conference of the California Stormwater Quality Association.
- Proceedings of the workshop were assembled and published by SCCWRP and USC Sea Grant in December 2005.
- Interest in peak discharge and hydromodification issues is still high among Permittees and the SMC member agencies.
- Ongoing research is being discussed to take up where the Public Works-funded study left off.
- Permittees will continue participating with in-kind services and in a peer-review capacity in the SMC hydromodification impacts research and develop numeric criteria by December 10, 2010, or 6 months after publication of the SMC research, whichever is later.
- Until that time, the interim peak-flow criteria will be enforced, applying to all areas draining directly or indirectly to natural streams.

The proposed changes in the study requirements are summarized in Table 1 as compared with the requirements under the existing Permit.

3. Integration of impaired water body specific programs.

4. Comparison of existing and proposed programs in addressing management questions by SMC**.**

   The SMC's management questions for the Peak Discharge Impact Study are addressed in Table 2.

C. BMP Effectiveness Study

1. Existing Permit Requirements

   - Conduct or participate in studies to evaluate the effectiveness of structural and treatment control BMPs.
   - Monitor the reduction of pollutants of concern in stormwater for 5 or more different types of BMPs.
   - Evaluate the requirements, feasibility, and cost of maintenance for each BMP.
   - Develop recommendations for appropriate BMPs for the reduction of pollutants of concern in stormwater.

2. Issues and Recommendations

   - Five structural BMPs have been tested, including infiltration trench, catch basin inserts, enhanced manhole, hydrodynamic separator, wet vaults, and bioswale.
   - Detailed results are provided in Appendix H of the Los Angeles County 1994-2005 Integrated Receiving Water Impacts Report, which was submitted to Regional Board in August 2005.
   - Three of the tested BMPs warrant further evaluation, 1 will be evaluated by another agency, and 1 does not warrant further testing.
   - At least 2 replacement BMPs will be included in the study. The BMPs will be from those structural BMPs incorporated in the Permittees' Sun Valley Park Drain and Infiltration System project.
   - Because BMP evaluation for trash removal is already required under the Public Agency Activities Program, trash will not be one of the pollutants to be monitored.

   The proposed changes in the study requirements are summarized in Table 1 as compared with the requirements under the existing Permit.

D. Participation in Studies Organized by the SMC

County Public Works was a founding member of the Southern California SMC and will continue to be an active member. Diligent efforts will be made to participate in ongoing or future studies organized by the SMC at various levels,

including peer review, in-kind services, and monetary contributions. In particular, Public Works will participate in the following studies:

- Regional Index of Biological Indicators
- Laboratory Intercalibration
- Reference Watershed Study
- Low Impact Development BMP Evaluation, Guidance and Training
- Stormwater Toxicity Protocols
- Peak Flow/Hydromodification Study

5.4 INTEGRATION OF IMPAIRED WATER BODY SPECIFIC PROGRAMS

Alignment of Permit-mandated monitoring with those required under other actions of the Regional Board should be required. The shoreline-monitoring program is a good example. Impaired water body monitoring programs and special studies currently in progress, or are expected to be conducted during the 2006 Permit cycle, have been summarized in Table 3. All impaired water body projects should be conducted by those Permittees, which are also responsible agencies for these impaired water bodies.

APPENDIX A – PERMITTEE PROGRAM ACCOMPLISHMENTS

Permittees have worked hard to comply with the 2001 NPDES Permit requirements and in certain instances have gone above and beyond the Permit requirements. The following are some examples of accomplishments provided by Permittees:

Public Information and Participation Program

- The Principal Permittee raised public awareness of stormwater pollution through the following efforts: Countywide media campaigns for the Stormwater Urban/Runoff and Used Motor Oil Recycling programs; the broadcast of pollution prevention public service announcements (PSAs) through the "4 Our Planet" media partnership with KNBC television station; and a partnership with the Heal the Bay and innovative K-12 environmental education programs. More than 153 million impressions were achieved.

- The Principal Permittee partnered with the Cities of the Malibu Creek Watershed to purchase "4 Our Planet" PSAs on KNBC television station targeting specific pollutants within the watershed.

- Principal Permittee ethnic outreach efforts included English, Spanish, and Chinese campaigns to promote used motor oil and filter recycling and stormwater pollution prevention to a Black, Latino, and Chinese population.

- Two community pilot projects, Florence Firestone and Union Pacific, were implemented to provide an opportunity for the general public, local business, and community leaders to participate in a beautification event and facilitate the beginning of a long-term goal of keeping their communities clean by educating others about pollution prevention with the collateral materials and the knowledge they acquired from County stormwater messages.

- Quarterly public outreach strategy meetings were organized and hosted annually by the Principal Permittee. Updates, information, and materials were provided to the Permittees to improve and enhance their outreach efforts and keep them informed about the Countywide media campaign.

- Over 10 BMP workshops were held for corporate managers of restaurant chains and retail gas station chains to facilitate the proper handling and disposal of materials to divert them from entering the storm drain system. Approximately 145 restaurant managers and corporate staff attended the training workshops.

- The Principal Permittee continues to conduct environmental education programs developed to meet the educational needs of students enrolled in grades K-12 and will enhance curriculum assessment and tracking efforts through its partnership with

the California Regional Environmental Education Consortium. More than 301,700 students in 436 schools received stormwater pollution prevention curriculum through these school outreach programs.

- The joint calendar project, coordinated across multiple watersheds, allowed participating cities to distribute to residents a full color, one-page, poster-type calendar delivering the stormwater pollution prevention message through compelling photographic images.

- The Ballona WMC developed and distributed a joint mailer to promote stormwater pollution prevention throughout the watershed. A bifold pamphlet was developed providing a "To Do" list of activities that could cause pollution and suggested things that individuals can do to reduce or eliminate the adverse impacts of these activities. 133,550 copies of the brochure were printed and distributed by the participating agencies via direct mailing or as inserts into newsletters.

- The City of Los Angeles' Stormwater Program website had over 95,000 more hits in 2004-05 than the previous year. This 38 percent increase, along with responses to public surveys, indicate that the messages on preventing stormwater pollution, improving urban runoff water quality, and protecting our water resources are reaching an expanded audience.

- The City of Los Angeles' Stormwater Public Education Program, in partnership with the California Coastal Commission and Malibu Foundation, cosponsored the 12th annual Ocean Day, Beach Clean at Dockweiler Beach on May 20, 2005.

- The City of Manhattan Beach has continued to promote awareness of stormwater pollution prevention through its "Ocean Safe City" message, which targets residents and businesses within the City. It is estimated that over half of the City's residents (20,000) participated in the Hometown Fair, Household Hazardous Waste Awareness Week, and Earth Day events. The City operated a booth at each event and gave out stormwater educational material to both adults and children.

- The City of Rancho Palos Verdes promoted stormwater pollution prevention at several City sponsored events throughout the year, as well as using the City newsletter and other media outlets to inform and educate its residents about the importance of stormwater pollution prevention. The City participated with other Ballona Creek WMA Cities to develop and produce a cooperative mailer, and then distributed it to all single-family households within the City.

- The City of Rolling Hills Estates and the City of Rolling Hills jointly staff a public education booth at the 2-day annual Peninsula Street Fair. Teen volunteers conduct a hands-on demonstration using the County's Enviroscape model with particular emphasis on targeted pollutants (pet waste, horse manure, fertilizers, and pesticides). After each demonstration, the teens distribute public education brochures such as the equestrian and landscaping BMP brochures and related

promotional items donated by the County. The City of Rolling Hills Estates also conducts the same outreach at its annual City Celebration.

- The Cities of Rolling Hills Estates and Rolling Hills distributed copies of USEPA/Weather Channel's video *After the Storm* and Algalita Marine Research Foundation's video *Plastics in the Open Ocean* to middle and high school environmental science teachers in public and private schools. All 6 periods of AP Environmental Science students at Palos Verdes Peninsula High School were shown these videos.

- The City of Alhambra staffs a public education booth at its annual Chinese New Year Celebration, Water Awareness Week, Seniors Health Fair, and Earth Day events where pollution prevention posters are displayed and public education brochures and related promotional materials are distributed (emphasis on trash, pet waste, homeowner maintenance such as landscaping and painting, and fertilizer and pesticide use). During some outreach events, the City's Enviroscape Model is demonstrated with the assistance of kids as the rainmakers.

- The City of Hermosa Beach invited restaurant owners/operators to a stormwater educational seminar to discuss the Municipal NPDES Permit and its implications pertaining to their day-to-day operations. The establishments were then inspected and rated. Those, which received the higher rates, were recognized by the City Council as the "Clean Ocean Establishment" and honored by receiving a certification and a sticker to display at their facility.

- The City of Hermosa Beach participated with other members of the Santa Monica Bay-Ballona Creek Watershed Management Committee to produce and mail 10,000 direct mail pieces to all Hermosa Beach residents. Another project through the joint effort was the development of the 2004 and 2005 calendars, which were produced and distributed to the public as a complimentary item.

- The City of Hermosa Beach has provided various PSAs to the local cable company in order to be aired as frequently as possible. These PSAs were obtained from different sources, such as Public Works and Earth 911. Where possible the PSAs were modified and tailored for the City's need. Examples were the "CAN-IT" and "Don't feed the Storm Drain" PSAs.

- The City of Signal Hill promoted local and Countywide stormwater pollution prevention programs and events on the City's cable television channel and website and in the Press Telegram and Signal Tribune newspapers. The City of Signal Hill's cable channel also reaches City of Long Beach residents and businesses.

- City of Signal Hill published in the Press Telegram a public education piece entitled "Think Environment" to raise public awareness of the importance of preventing stormwater pollution and promote the City's and County's stormwater pollution

prevention programs. This piece reached 109,000 newspaper subscribers in the Signal Hill/Long Beach area.

- City of Signal Hill developed pamphlets that are handed out to contractors and homeowners when issuing building/construction permits. These pamphlets explain the BMPs that should be implemented and is specific to the activities of the construction project such as painting or masonry/concrete work.

- West Hollywood received a Partners in Education grant from the Santa Monica Bay Restoration Commission to provide Russian/English pollution prevention posters/flyers, waterbrooms, and follow-up visits to area restaurants.

- In 2002, the City of Santa Clarita became aware that there was diazinon contamination in a local creek. With cooperation and assistance from Los Angeles County, the City launched a very aggressive campaign to abate the contamination. An intensive investigation effort, a focused public outreach campaign, and cooperation from local retailers and residents all lead to a 96 percent reduction of the initial diazinon levels. These efforts were implemented in compliance with the Regional Board's requirements and highlight the power of public outreach.

- The City of Santa Clarita is proud to continue its annual "River Rally," a river clean up and stewardship event. River Rally helps restore the Santa Clara River through picking up trash and debris and also helps educate local residents about the importance of protecting the environment. Over the past 11 years, River Rally has grown from 100 participants to over 1,400 last year. Participants range from the elderly to young children, with many youth organizations also lending their support. Everyone's enthusiastic efforts have made the event a great success the City is proud to sponsor. In fact, the City was honored by the Los Angeles Regional Board with the Water Quality Stewardship Award in 2004. Over the event's lifetime, volunteers have removed over 196,000 pounds of trash and debris that otherwise would have made its way downstream, affecting neighboring communities and the health of the river. River Rally's continuing popularity has helped City staff promote stormwater pollution prevention, litter prevention, air quality, household hazardous waste disposal, tree planting, and other environmental issues.

- The four Cities on the Palos Verdes Peninsula—Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates—have partnered to run a ¼ page, full-color ad 4 times per year in the Palos Verdes Peninsula News on days of promotional circulation when distribution reaches every household on the Palos Verdes Peninsula. The advertisement design uses an award-winning ad concept and photograph that is tailored to target our watershed pollutants and behaviors of concern.

- Three Cities on the Palos Verdes Peninsula, Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates, jointly hosted a restaurant BMP training workshop conducted by the County of Los Angeles. In addition to invitations mailed by the

County, this event was promoted through the City of Rolling Hills Estates' work with the Peninsula Chamber of Commerce and shopping center property management companies, one of which provided the meeting space for the workshop.

- The City of Culver City actively participated in environmental events, such as Children's Earth Day (Eco-station), Ballona Creek clean-up, Fiesta La Ballona, and Ballona Creek Marsh Fair.

- The City of Pasadena, in coordination with the County of Los Angeles, organized a Gardening Workshop. The workshop included stormwater-related issues and handouts to assist the public in reducing pollutants to the MS4.

- The City of Redondo Beach participated in the Heal The Bay Coastal Clean-up day by purchasing T-shirts and donating them to the volunteers of this program. The City also conducted educational activities at various organized events such as the event held at the Seaside lagoon by the Wyland foundation and the event at the SeaLab, which attracted many children. The City's Quarterly Newsletter publishes a regular stormwater-related advertisement that provides the community with a phone number if they have questions and the Adelphia Cable Company broadcasts various stormwater-related PSAs.

- The Mayor and City Council of Redondo Beach formed a Water Quality Task Force in August 2005 made up of a diverse cross section of the community, including individuals from teachers, youth, boaters, nonprofit, general public, chamber of commerce, and harbor businesses. Within 12 months the Task Force is to provide the City Council with recommendations that will address water quality in the harbor and other waterfront areas of the City.

- The City of Torrance has promoted local and Countywide stormwater pollution prevention programs during California Coastal Clean-up Day at Torrance Beach and at the City Yard Open House and the Health and Rideshare Fairs.

- The City of Torrance, in conjunction with Metropolitan Water District of Southern California, sponsors Protector Del Agua water efficient landscape classes on an annual basis that teaches residents how to design and maintain landscapes that use less water and therefore generate less urban run off. In addition, the 2 agencies developed a Water Wise native plant garden and demonstration a water efficient landscape garden at the Madrona Marsh Nature Center and provide corresponding brochures that demonstrate how these gardens look and how they can reduce irrigation water and run off.

- The Principal Permittee partnered with the Cities of Malibu Creek Watershed in the creation of the "Living Lightly in Our Watershed Guide", which was distributed to every household watershedwide. This guide has continued to be updated and distributed at Public Libraries, City Halls, and through the Las Virgenes Municipal Water District's new home buyer program.

- Newsletters containing a stormwater pollution prevention article and another on recycling and proper disposal of household hazardous waste were mailed to all 50,000 Burbank addresses including business.

- Stormwater education discussions and materials are passed out at all tours of the City of Burbank Recycling Center. This includes groups and visitors from near by elementary schools and community organizations. A mock demonstration of the watershed highlights all the water collection features in the City and stresses the importance of catch basins for stormwater runoff.

- The City of Vernon conducted a stormwater pollution prevention and compliance workshop geared for commercial and industrial businesses. Since there are over 160 facilities operating under the GIASP and over 800 facilities requiring an industrial/commercial inspection with the City of Vernon, the workshop has been instrumental in obtaining voluntary compliance for the Municipal Stormwater Permit and the GIASP. The City of Vernon also distributed bulk faxes to all businesses notifying them of important stormwater event information.

- The City of Los Angeles' Stormwater Public Education Program has received awards for many of its accomplishments, including:
  - 2005 American Public Works Association's (APWA) Diversity Exemplary Practices (Program/Organization Category) Award winner for its School Assembly/Ocean Day Program. (Fiscal Year 2004-05)
  - 2002 APWA project of the Year Award for its outreach to home improvement centers and pet stores, and for the cost savings realized by the City through public-private partnerships. (Fiscal Year 2002-03)

- The City of Los Angeles' Used Oil Recycling Public Education Program has received awards for many of its accomplishments, including:
  - 2004 *Togetherness Award* from the California Integrated Waste Management Board (CIWMB) in recognition of a public/private partnership that exemplifies outstanding coordination and cooperation in the implementation of a used oil collection program. The El Sereno public outreach program saw a 42 percent increase in the amount of oil collected at local collection centers. (Fiscal Year 2003-04).
  - 2003 CAL EPA Program Innovation Award for the "Your Street" public education campaign. (Fiscal Year 2002-03).

- The City, in partnership with the California Coastal Commission and Malibu Foundation, also cosponsored several annual Ocean Day, Beach Clean-Up events at Dockweiler Beach (Fiscal Years 2003-04 and 2004-05).

- In April 2005, the City of Los Angeles launched the "Los Angeles River – The Future is Now" public outreach campaign. (Fiscal Year 2004-05).

- The City of Hidden Hills provided and staffed a public outreach booth during the City's Annual Fiesta Day events held on October 1 and 2 in 2005. The outreach booth provided residents with training and outreach materials and allowed the City to educate many of its residents on stormwater pollution prevention and BMPs used to minimize the amount of pollutants entering the City's storm drains.

- The City of South Gate has completed installing inserts in all City-owned catch basins and has contracted for regular inspections and cleaning.

- Pasadena has passed an Ordinance to lower the threshold of the SUSMP application for the redevelopment projects from 5,000 square feet to 1,000 square feet and the same Ordinance includes provisions to include all hillside projects regardless of their size for the SUSMP application and the numerical limits.

- The City of Inglewood partnered with the County of Los Angeles during the CanIt campaign resulting in a successful clean-up day event. Staff regularly attends public events, such as Earth Day celebrations or West Basin Municipal Water District's Water Harvest Festival to distribute stormwater information brochures, present stormwater pollution demonstrations, and provide commemorative giveaways. The City contacted and worked with Heal the Bay to identify a Beach Clean Up location in the Dominguez Watershed. Prior to this activity, only locations along the beach near the Dominguez Channel were clean-up spots. Heal the Bay supplied the City with stormwater pollution workbooks for kids, which staff distributed to the City's Recreation Department and the School District. The City is contracted with Adopt-A-Waterway. The City also arranges for stormwater messages, such as the USEPA video *After the Storm*, to air on the City's cable channel.

<u>Industrial/Commercial Facilities Control</u>

- The City of Signal Hill implemented pollutant reduction and control measures that resulted in the installation of an onsite stormwater detention system as part of a 12-acre Shopping Center development.

- West Hollywood assesses regulated businesses using an annual fee for NPDES inspections and is adding another fee for annual inspections of postconstruction BMPs.

- The City of Torrance and Metropolitan Water District of Southern California sponsor the Commercial and Industrial Institutional Conservation Program that provides a rebate of $150 per Water Miser Boom, which are used to clean hard surfaces and use only 20 percent of the water previously used for wash down of hard surfaces and most of the water used evaporates or can be pushed toward landscaped areas, thereby virtually eliminating run off from surface cleaning.

- The City of Vernon has effectively integrated stormwater inspections with the inspections required under the Health and Environmental Control Department's jurisdiction, such as the Hazardous Materials Inspection Program, the Garment Inspection Program, the Food Processing Inspection Program, and the Solid Waste Inspection Program. The City of Vernon also conducted a stormwater pollution prevention and compliance seminar that promoted voluntary compliance of these facilities.

- The City of Los Angeles Inspection and Enforcement Program is a member of the City Attorney's multiagency environmental task force, which has launched several investigative initiatives against chronic health and safety and environmental violators for possible enforcement action and/or criminal prosecution. The combined authorities of the California Environmental Protection Agency, California Air Resources Board, Regional Board, California Department of Toxic Substances Control, Los Angeles County Health Hazmat Division, and many other agencies have targeted auto dismantlers, metal plating businesses, dry cleaners, and other industries through its Sun Valley, MacArthur Park, Wilmington, and Chrome Plating Initiatives. The inspections are a proactive response to community concerns involving quality-of-life issues. (Fiscal Years 2003-04 thru Fiscal Year 2005-06).

Development Planning

- The City of Rolling Hills Estates has adopted a landscaping ordinance that requires new landscapes to be designed to conserve water using a water budget approach. These requirements apply to new landscaping for commercial, office, and institutional developments and to developer-installed landscaping in residential subdivisions.

- The City of Manhattan Beach requires commercial trash enclosures to be fully enclosed and to be constructed with drainage to the sanitary sewer system. The purpose of these construction requirements is to prevent stormwater contact with the trash enclosures and to prevent water that does come in contact with the enclosures from entering the storm drains. The City reviews building plans for the trash enclosure requirements and has been proactive in reaching out to businesses to increase awareness of the requirements.

- The City of Rolling Hills' Zoning Ordinance contains strict development standards for development ratios on each property—the City is entirely residential with minimum lot sizes of one acre. Only 35 percent of the net lot area may be developed with impervious surfaces, including all structures, patios, and other paved areas. Given that the minimum lot size in the City is 1 acre, this provision promotes infiltration of stormwater into the ground and not onto streets. The City's water efficient landscaping ordinance requires use of a water budget and utilization of native and/or drought resistant vegetation while preserving established native flora and natural features of the lots.

- The City of Rolling Hills encourages residents to install pervious surfaces when landscaping or installing/reconstructing driveways. Many residents have replaced their driveways with grass-crete and other porous material. Access to stables is encouraged to be gravel and not paved. The City's Zoning Ordinance precludes large impervious surfaces, i.e., driveways may not cover more than 20 percent of the area of the yard in which they are located; uncovered motor courts/parking pads may not cover more than 10 percent of the yard in which they are located. Tennis courts and sports courts are encouraged to have pervious surfaces. Additionally, the County implements the hillside home requirement that roof runoff be diverted to vegetated areas for all new development within the City.

- The City of Santa Clarita requires a "solid roof" for the trash enclosures on all development and redevelopment projects that have trash requirements.

- The City of Vernon has implemented specific postconstruction inspection, maintenance, and mitigation plan requirements for operators of all treatment control BMPs, which are designed to retain water. Approval for the installation of a water retaining BMP is performance based and requires the implementation of a maintenance plan. The plan consists of weekly BMP inspections (during presence of water in BMP), accurate inspection and maintenance logs, and a plan of action in the event that a vector problem is discovered. These requirements are a result of vector control concerns where treatment control BMPs product manufacturers fail to provide an adequate vector exclusion device or attachment for their water retaining product. Compliance determination is achieved through the Vernon Industrial/Commercial Inspection Program.

- In November 2003, the City hosted a day-long conference at the USC Davidson Center to educate the land development industry on SUSMP and Site Specific Mitigation requirements, and how to negotiate the City's permitting process. (Fiscal Year 2003-04)

<u>Development Construction</u>

- The City of Rolling Hills implements strict grading practices. Only 40 percent of the net lot area of a lot may be disturbed during construction. The City does not allow import or export of soil from construction projects so that all grading must be balanced on-site.

- The City of Torrance developed local pamphlets that are handed out to contractors and homeowners when issuing building/construction permits. These explain the BMPs that should be implemented and is specific to activities of the construction project.

Public Agency Activities

- Runoff from wash racks at the Rolling Hills Estates municipal stables is diverted to the sanitary sewer via an approved pretreatment permit. Pretreatment of this runoff consists of screening to remove horsehair and gross solids.

- The City of Rolling Hills Estates has a proactive litter abatement program for keeping public rights-of-way, streets, medians, parks, and trails free of litter and debris. It also has a successful Adopt-a-Trails Cleanup and Maintenance program. The City has accelerated street sweeping with all public streets swept twice per month. The City has placed recycling bins for beverage containers in a number of City parks and commercial areas.

- The City of Hermosa Beach operates an aggressive Public Agency Program, which includes street sweeping and catch basin cleaning activities. In addition, the City has outfitted 60 percent of its own and 100 percent of the County-owned (downtown area) catch basins with inserts to help reduce the amount of debris entering the storm drain system. An annual contract with a private contractor is funded to ensure proper cleaning and maintenance of the installed devices.

- The City of Signal Hill established an E-Waste Collection Program to collect and recycle electronic waste that was dumped in the public right-of-way. The City also established a Curbside Collection Program for used motor oil. Do-it-yourselfers are provided a free used motor oil/filter container that can be left at the curbside and collected by the City for recycling. Approximately 150 gallons of used motor oil is recycled annually through this program.

- The City of Signal Hill established the Willow Street/Cherry Avenue Corridor Clean-Up Program. This program collects trash and debris along the City's 2 busiest commercial corridors on a weekly basis.

- The City of Signal Hill has expanded its Bus Shelter Cleaning Program from 1 cleaning per week to 3 cleanings per week.

- The City of Signal Hill installed pet waste collection stations at City parks and along its trail systems. The pet waste collection stations have proven to be successful as they are highly used.

- The City of Signal Hill serves as the lead agency in a partnership with the City of Long Beach and the County of Los Angeles on the Hamilton Bowl Trash Reduction project. This project will construct and evaluate the effectiveness of various trash removal devices in removing trash from stormwater runoff.

- West Hollywood has installed debris excluders with grant funds from the California Coastal Conservancy, Los Angeles County, and the City's General Fund.

- West Hollywood's porous pavement parking lot at Spaulding Avenue was awarded the American Public Works Association's Project of the Year Award and the Outstanding Government Project Award from the American Society of Civil Engineers.

- West Hollywood provides daily hand pick up of litter and street sweeping services on major arterials.

- In an effort to prevent illegal disposal of household hazardous waste (HHW) and to provide residents a safe and responsible means of HHW disposal, the City of Santa Clarita has implemented a very successful door-to-door HHW collection program. During the term of the 2001-2006 NPDES Permit, Santa Clarita has collected over 356,857 pounds of hazardous waste with over 3,880 households participating.

- The Santa Clara River Steering Committee was recognized for its work in the restoration of the local watershed and was honored with the 2003 Water Quality Award for Water Body Restoration.

- The Rolling Hills City Hall area is landscaped with native and drought resistant plants and maintained with minimal irrigation and application of fertilizers and pesticides.

- The City of Carson constructed approximately 4,000 feet of landscaped median islands. As an erosion control measure, the City also constructed rolled asphalt concrete curbs on all properties adjacent to the street where erosion has been a problem.

- The City of Culver City was awarded a grant totaling $1.252 million for structural stormwater BMPs. The grant project, which consists of the following multifunctional BMPs, will be completed by June 2008:
    - Two bioretention cells or rain gardens in City parks that will provide infiltration, pollution remediation for multiple pollutants, and aesthetic recreational medium for the public.
    - Six hundred seventy two innovative, 2-tiered catch basin inserts that will provide full-capture for gross pollutants, including trash.
    - Five hundred low-flow, high-pressurized water broom for critical or potentially high polluting businesses to reduce/eliminate nuisance flows and prevent dry-weather pollution from commercial areas. Bilingual door-to-door education will be provided to business employees to ensure sustained and consistent use of water brooms.
    - Fifty tamper-free recycling bins and trash receptacles in high trash-generating areas, such as schools and convenience stores.

- The City of Pasadena temporarily blocks catch basins during events, such as the Rose Parade, where there is an elevated risk of excessive trash entering the storm drain system.

- The City of Santa Clarita, through its negotiations with its residential solid waste hauler, successfully negotiated the free collection of E-Waste through its bulky item collections program. Now residents can have up to 4 free bulky item collections per year of up to 3 items per collection.

- The City of Burbank continues to perform street sweeping of all City streets once a week. This level of street cleaning helps to remove potential contaminants from reaching the catch basins.

- All City of Burbank employees involved with stormwater management and pollution prevention are provided with a wallet-size card containing contact information to address stormwater concerns from the public as well as a list of allowable discharges.

- City of Los Angeles voters overwhelmingly supported Proposition O, the Clean Water, Ocean, River, Beach, Bay Storm Water Cleanup Measure – General Obligation Bonds, on November 2, 2004. Proposition O passed with nearly 76 percent of City residents voting "yes" on the proposition.

- Data from the City of Los Angeles Status and Trends Monitoring Program, which was established to characterize indicator bacteria levels and heavy metal pollutants in the Los Angeles River, Ballona Creek, and Dominguez Channel watersheds, has been used for a variety of purposes, including TMDL development by regulatory agencies, determining baseline pollutant levels referenced in Sanitary Sewer Overflow sampling protocol, and for prioritizing watershed management strategies.

- The City of Los Angeles installed 4 floating wetland islands in Echo Park Lake to reduce nutrient loads and other pollutants associated with urban runoff. Two additional wetland islands were installed in MacArthur Park Lake and Debs Park Pond, respectively. (Fiscal Years 2004-05 and 2005-06)

<u>Illicit Connections/Illicit Discharges Elimination</u>

- The City of Rolling Hills Estates revised its solid waste ordinance to enhance its code enforcement authority over improper disposal of manure among the equestrian community. The ordinance requires that manure be kept in an enclosed storage container and removed at least once per week, or that manure used for composting be kept in an enclosed composting container. The City facilitates this requirement by offering enclosed manure storage containers and curbside manure removal service with off-site composting through its residential solid waste franchise agreement.

- Manure collection and off-site composting services for owners of horses is available through the City of Rolling Hills' franchise waste hauler.

- The City of Pasadena has established a separate hotline for reporting illicit discharges. The number is 626-744-STRM.

- The City of Vernon has effectively integrated illicit discharge and illicit connection detection and elimination procedures with the inspections required under the Health and Environmental Control Department's jurisdiction (i.e., Hazardous Materials Inspection Program, the Garment Inspection Program, the Food Processing Inspection Program, and the Solid Waste Inspection Program). All facilities inspected, regardless if the facility is covered under the Vernon Commercial/Industrial Inspection Program, are evaluated to ensure there are no illicit discharges from the facility.

TMDL Program

- The City of Los Angeles is leading the stakeholder group CREST (Cleaner Rivers through Effective Stakeholder TMDLs), whose participants include the USEPA, Regional Board, local jurisdictions, environmental groups, and other agencies to develop TMDLs for cleanup of the Los Angeles River and Ballona Creek Watersheds. CREST seeks input from all stakeholders to develop work plans, to define and perform special studies, and to develop monitoring and implementation strategies. (Fiscal Year 2004-05)

- Since approval of the Los Angeles River and Ballona Creek Trash TMDLs in September 2001, the City of Los Angeles has developed an Implementation Strategy and Plan that relies on both institutional and structural BMPs to comply with the TMDL waste load allocations. The installation of the structural BMPs have been prioritized in the high-trash generation areas of the City with the following BMPs installed to date: 8 netting systems; 10 hydrodynamic devices; 5 outlet screens; 1,400 catch basin inserts; and 4,100 catch basin opening screen covers.

BMP and Capital Improvement Projects

- Wetlands were constructed by the City of Los Angeles in AF Hawkins Park in South Los Angeles that will treat on-site stormwater runoff and will serve as a water feature that enhances the park's aesthetic values. (Fiscal Year 2004-05)

- The City of Los Angeles and the Los Angeles County Flood Control District are developing the Tuxford Green project as a joint project that will decrease flooding and improve stormwater quality at the intersection of Tuxford Street and San Fernando Road. Underground cisterns will be built to remove trash, debris, oil and grease, and suspended pollutants. A demonstration landscaping feature will

also be constructed above the cisterns to be irrigated in part by the retained water. (Fiscal Year 2004-05)

- Construction began in July 2004 on improvements, including nontraditional stormwater management techniques, at the City's Sun Valley Park and Recreation Center. The City of Los Angeles, the Los Angeles County Flood Control District, area residents, businesses, and environmental groups developed this pilot project that will alleviate local flooding, enhance recreational opportunities, and demonstrate the effectiveness of nontraditional stormwater management techniques. (FY 03-04)

- As part of the City of Los Angeles' LowFlow Diversion (LFD) Program, 7 LFDs were constructed to prevent/eliminate beach closures in Santa Monica Bay during the summer months. The City received the 2004 National Environmental Achievement Award for Public Service from the American Municipal Sewerage Agencies (AMSA) upon completion of this project.

Los Angeles River Programs

- Established in March 2005, the City of Los Angeles has led the Los Angeles River Plastics Initiative Industry Task Force to develop recommendations on reducing plastic bag litter in the river. Task force members include a cross-section of representatives from industries that manufacture or distribute plastic bags and polystyrene products, retailers, waste and recycling interests, environmental and Los Angeles River Watershed advocacy groups, and City staff. (Fiscal Year 2004-05)

- In May 2004, the City of Los Angeles hosted a day-long conference at the USC Davidson Center for the scientific community regarding the science and biology of the Los Angeles River. The conference included presentations on the current water quality and habitat monitoring efforts taking place along the Los Angeles River, and concluded with a 6-member panel discussing the critical issues facing the Los Angeles River. (Fiscal Year 2003-04)

Interagency Coordination and Planning

- The City of Los Angeles has embarked on developing an Integrated Resources Plan (IRP) that addresses the facility needs of the City's wastewater, recycled water, and urban runoff/stormwater management programs through the year 2020. The County and municipalities neighboring the City are active participants in the IRP process. It is anticipated that this effort will benefit individual stormwater programs and overall interagency coordination. (Fiscal Year 2003-04)

- The City of Los Angeles is working with the Los Angeles Unified School District (LAUSD) and Tree People to incorporate stormwater BMPs in the design guidelines for schools. This cooperative effort is part of LAUSD's school construction and

renovation program. The City's 3 goals are for the schools to: 1) retain all stormwater on-site; 2) reuse or recharge all stormwater on-site; and 3) incorporate off-site water, whenever feasible. (Fiscal Year 2004-05)

Table 1 Proposed Changes between Order 01-182 and New Permit

Program		Existing Requirements	Proposed Requirements
CORE MONITORING	Mass Emissions Monitoring	Monitor 3 storms >/= 0.25" (Including first) and 2 dry weather flows Monitor all storms of 0.25 inches or more for TSS	Monitor 2 Storms >/= 0.25" (Including first) and 2 dry weather flows Discontinue Separate TSS Monitoring
		Correlate TSS with other Constituents	Discontinue TSS Correlation
	Water Column Toxicity Monitoring	Perform Ceriodaphnia dubia (water flea) 7-day survival/reproduction and Strongylocentrotus purpuratus (purple sea urchin) fertilization tests for 2 storms (including first) and 2 dry weather flows at Mass Emission Sites.	Perform Ceriodaphnia dubia (water flea) 7-day survival/reproduction for 2 storms and 1 dry weather event at Mass Emission Sites. If the results from the first dry weather event are toxic, perform an additional C. dubia (water flea) test on the second dry event. Perform Strongylocentrotus purpuratus (purple sea urchin) fertilization tests for 2 storms (including first) and 2 dry weather flows at Mass Emission Sites.
		No Tributary Monitoring Component	Perform Ceriodaphnia dubia (water flea) 7-day survival/reproduction and Strongylocentrotus purpuratus (purple sea urchin) fertilization tests for 2 storms (including first) and 2 dry weather flows at Tributary Monitoring Sites. Testing protocol should be the same as for Mass Emissions Sites.
	Shoreline Monitoring	Responsiblility of City of LA	Joint reponsibility for those Permittees which discharge to an impaired water body.
		A combination of daily and weekly monitoring at 18 Santa Monica Bay locations.	Align the Permit with impaired water bodies by conducting weely monitoring throughout Santa Monicay Bay as described in the Coordinated Shoreline Monitoring Program approved by the Regional Board on April 28, 2004.
	Tributary Monitoring	Monitor 4 storms >/= 0.25" (Including first) and 1 dry weather flows	Monitor 3 Storms >/= 0.25" (Including first) and 2 dry weather flows.
		No Toxicity Testing at Tributary Monitoring Sites	Analyze toxicity at Tributary Sites for 2 storms and 2 dry weather events. See Water Column Toxicity Monitoring above.
REGIONAL MONITORING	Estuary Sampling	Participate on the Bight 2003 study's steering committee	Participate on the Bight 2008 study's steering committee
		Sample a maximum of 25 sites in each estuary (Ballona Creek, Malibu Creek, LA River, SG River, and Dominguez Channel) once during the permit term	Consult with SCCWRP and Regional Board to formulate follow-up questions for Bight 2003, including but not limited to: 1. What are the specific toxicants causing recurring sediment toxicity in Ballona Creek Estuary? Dominguez Channel Estuary? 2. What are sources of urban runoff that contribute to sediment toxicity? 3. Partitioning coefficients between water column and sediment? 4. Suspended sediment toxicity sampling protocol? 5. Sediment transport mechanism and deposition patterns? 6. What is the state of current technology available to reduce toxicant loading from urban and storm runoff? The number of studies conducted depends on funding availability.
		Sample 25 sites outside of the direct outfalls to assess cumulative effects	
		Analyze all samples for:Sediment chemistry (priority pollutants),Total Organic Carbon (TOC),Grain size,Sediment toxicity	
		Create a map of each estuary depicting degraded areas and the spatial distribution of sediment from storm water	
		Suggest appropriate locations for regular sediment monitoring based on the results of this study.	
	Bioassessment	Participate in the SMC and with the SWAMP in development of a regional Index of Biological Integrity (IBI)	Continue participation in the development and testing of regional IBI.
		Perform bioassessment monitoring every October	Perform in spring to coordinate with other Regional Bioassessment Monitoring efforts from the San Gabriel River Regional Program.
		Monitor a minimum of 20 sampling sites and coordinate with SWAMP in site selection.	No change.
		Collect a minimum of three replicate samples at each site	No change.
		Submit annual monitoring report containing all physical, chemical, and biological data collected and analyzed during bioassessment	No change.
SPECIAL STUDIES	New Development Impact Study	Water quality model simulations for a multi land use watershed to evaluate impact of watershed development and SUSMP effectiveness Dry and wet weather monitoring at the selected watershed	No change is proposed. Continue the existing requirements until project completion. Participate in the SMC's Low Impact Development study.
	Peak Discharge Impact Study	Develop numeric criteria to control/reduce the post-development peak flow impact	Provide in-kind services support in the SMC hydromodification impacts research and develop numeric criteria by Dec. 10, 20010, or 6 months after publication of the SMC research, whichever is later.
	BMP Effectiveness Study	Test at least five types of structural BMPs for their feasibility, cost of maintenance, and removal performances of pollutants (trash, suspended sediments, pathogen indicators, nutrients, heavy metals, and oil and grease)	Continue the study with three previously tested and two new BMPs for more storm events. Remove trash from the list of pollutants to be monitored, because BMP evaluation for trash removal is already required under the Public Agency Activities Program.
	Studies associated with the SMC	None	Regional IBI§ Laboratory Intercalibration§ Reference Watershed Study§ Low Impact Development Guidance and Training§ Stormwater Toxicity Protocols§ Peak Flow/Hydromodification

Table 2. Relevance to core management questions set forth under the Model Monitoring Program.

			Question 1: Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?	Question 2: What is the extent and magnitude of the current or potential receiving water problems?	Question 3: What is the relative urban runoff contribution to the receiving water problem(s)?	Question 4: What are the sources to urban runoff that contribute to receiving water problem(s)?	Question 5: Are conditions in receiving waters getting better or worse?
CORE MONITORING	Mass Emissions Monitoring	Current Program	This program examines flows as they pass by Mass Emission Sites (MES). Conditions in receiving waters upstream and downstream of the sites are not directly measured, but characterization of flows at the MES can be used to infer conditions in adjacent recieving waters.	This program is not intended to directly measure conditions in receiving waters.	This program characterizes urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must also be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	The Mass Emissions Monitoring Program can only identify pollutant sources at the watershed level.	Data collected under this program can be analyzed for trends. However, at this point in time the data set is too small to determine long term trends. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the MES.
		Proposed Program	This program will continue to examine flows as they pass by Mass Emission Sites (MES). Conditions in receiving waters upstream and downstream of the sites are not directly measured, but characterization of flows at the MES can be used to infer conditions in adjacent recieving waters.	This program is not intended to directly measure conditions in receiving waters.	This program continues to characterize urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must also be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	The proposed program will continue to identify pollutant sources only at the watershed level.	Data will continue to be collected such that long term trends can be analyzed in the future. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the MES.
	Water Column Toxicity	Current Program	The current program provides sufficient information to determine if waters discharged from the MS4 system are toxic to certain insects and sea urchins during 4 events per year. This can be used to infer effects on beneficial uses in the receiving waters.	This program is not intended to directly measure conditions in receiving waters.	This program characterizes the toxicity of urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	This program can be used to identify the sources of toxic pollutants.	While the current data set is too small to determine long term trends in toxicity at the mass emission stations, it forms the baseline of toxicity which can be used to determine long term trends in the future. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the MES. However, inferences can be made about the water quality in adjacent
		Proposed Program	The proposed program will provides sufficient information to determine if waters discharged from the MS4 system and from six tributaries are toxic to certain insects and sea urchins during 3 to 4 events per year. This can be used to infer effects on beneficial uses in the receiving waters.	This program is not intended to directly measure conditions in receiving waters.	This program continues to characterize the toxicity of urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	This program will continue to have the potential to identify the sources of toxic pollutants.	Continuing to collect toxicity data, including that fo tributaries, will increase the size of the data set and allow for trend determination at specific locations within the MS4 system. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the monitored locations. However, inferences can be made about the water quality in adjacent recieving waters.

Table 2. Relevance to core management questions set forth under the Model Monitoring Program.

			Question 1: Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?	Question 2: What is the extent and magnitude of the current or potential receiving water problems?	Question 3: What is the relative urban runoff contribution to the receiving water problem(s)?	Question 4: What are the sources to urban runoff that contribute to receiving water problem(s)?	Question 5: Are conditions in receiving waters getting better or worse?
CORE MONITORING	Shoreline Monitoring	Current Program	This program measures bacteria levels in receiving shoreline waters and can be used to evaluate impacted beneficial uses.	This program is designed to evaluate water quality conditions at the shore and does not examine waters inside the watershed. Bacteria levels measured in the receiving waters at the shore can be evalulated over time to determine trends.	This program measures bacteria levels near outlets of the MS4 system. However, the specific contribution from urban runoff and other sources is not measured.	Sampling stations have been located near storm drain outlets to measure bacterial loads discharged through the MS4 system. Impaired water body development studies all potential sources for bacteria.	The program measures exceedences of water quality objectives and this data can be analyzed for long term trends. This program measures receiving water conditions (bacteria levels) at the shoreline.
		Proposed Program	This program will continue to measure bacteria levels in receiving shoreline waters and can be used to evaluate impacted beneficial uses.	The program will continue to evaluate shore water and not focus on waters inside the watershed. As additional data is collected, trend analysis will continue for shoreline receiving waters.	Impaired water body specific programs have provisions for source inventories and may include source identification studies which will better define all sources, including contributions from urban runoff.	Implemented impaired water body specific programs have provisions for source inventories.	The program will continue to measure exceedences of water quality objectives which will be analyzed for trends. This program will measure receiving water conditions (bacteria levels) at the shoreline.
	Tributary Monitoring	Current Program	This program examines flows as they pass by Tributary Monitoring Sites(TMS). Conditions in receiving waters upstream of the sites are not directly measured, but characterization of flows at the TMS and the MES can be used to estimate conditions between the TMS and MES as well as in adjacent recieving waters.	This program is not intended to directly measure conditions in receiving waters but measurements at the TMS and MES can be used to estimate receiving water conditions in the reaches between.	This program characterizes the toxicity of urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	Tributary Monitoring identifies subwatersheds which contribute higher loads of pollutants and can be used to identify specifc sources.	Subwatersheds are only being monitored for 2 years each and there is not sufficient data at this time to determine a trend. However, data collected under this program can be used for trend analysis if and when the tributary sites are remonitored in the future. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the monitored sites.
		Proposed Program	This program will continue to examine flows as they pass by Tributary Monitoring Sites(TMS). Conditions in receiving waters upstream of the sites are not directly measured, but characterization of flows at the TMS and the MES can be used to estimate conditions between the TMS and MES as well as in adjacent recieving waters.	This program is not intended to directly measure conditions in receiving waters but measurements at the TMS and MES can be used to estimate receiving water conditions in the reaches between.	This program continues to characterize the toxicity of urban runoff and other flows that pass through the MS4 system. Other inputs into receiving waters must be analyzed in order to use this program to evaluate relative contributions from the MS4 system.	The Tributary Monitoring Program will continue to identify subwatersheds with higher pollutant loadings and could be used to identify specific sources.	The program continues to collect data at tributary sites which can be used in the future to analyze trends at those locations. This program is designed to monitor water quality at specific sites and does not directly examine recieving waters upstream or downstream of the monitored sites.

Table 2. Relevance to core management questions set forth under the Model Monitoring Program.

			Question 1: Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?	Question 2: What is the extent and magnitude of the current or potential receiving water problems?	Question 3: What is the relative urban runoff contribution to the receiving water problem(s)?	Question 4: What are the sources to urban runoff that contribute to receiving water problem(s)?	Question 5: Are conditions in receiving waters getting better or worse?
REGIONAL MONITORING	Estuary Sampling	Existing Program	Designed to answer this question, the program has found that some of the LA County estuaries may not be protective of beneficial uses.	Designed to answer this question, the program has delineated the extent and magnitude of the problem.	Program has identified urban runoff as the primary contributer to receiving water problems.	The program was not designed to answer this question.	By its cyclical nature, the bight monitoring program addresses this trend question.
		Proposed Program	Funding would be shifted away from this question to address question 4 as well as how to reduce toxicant loading from urban runoff.	Funding would be shifted away from this question to address question 4 as well as how to reduce toxicant loading from urban runoff.	Funding would be shifted away from this question to address question 4 as well as how to reduce toxicant loading from urban runoff.	Permittees' funding for Bight 2008 would be devoted to answer this question as well as how to reduce toxicant loading from urban runoff.	Funding would be shifted away from this question to address question 4 as well as how to reduce toxicant loading from urban runoff.
	Bioassessment	Existing Program	The study intends to evaluate the biological impact that pollution has on receiving waters within Los Angeles County.	The task identifies a broad range of receiving waters throughout the County including reference sites and highly developed areas to assess the "health" of the water bodies.	The study compares highly urbanized and reference site water bodies to evaluate the qualitative affects of urban runoff on stream biology.	The program provides a general comparison between stream environments and characterizes the biological integrity of water bodies. It does not attempt to target sources of pollutant contribution.	Bioassessment allows for the analysis of relative biological degradation within water bodies. All sites have shown marginal improvement, and they appear to have not degraded.
		Proposed Program	no change	Coordinating efforts with other bioassessment monitoring programs in the region has the potential to provide a broader range of comparative information that will allow for more robust trend analysis and knowledge of the extent and magnitude of bioassessment issues in Los Angeles County.	no change	By aligning monitoring sites with MES and tributary core monitoring sites, water quality and toxicological data can be evaluated in conjunction with biological conditions. If trends are observed, it may be easier to provide source assessment.	no change
SPECIAL STUDIES	New Development Impact Study	Existing program	The required monitoring program identifies the current load of the polluntants at the wateshed outlet. Obtained load can be used to determine the beneficial use of receiving water	Same as Question No. 1	The model simulations can identify impact of watershed development in the increase of pollutant loading to receiving waterbody. The reduction of pollutants in urban runoiff with SUSMPs can also be evaluated by the model.	The modeling study and monitoring at the outlet of the watershed are not intended to identify the specific sources of the pollutant but to evaluate the effectivess of SUSMPs in reduction of pollutants in the receiving water.	Successfully implemented SUSMP can reduce the pollutant loading with appropriate combinations of BMPs for different type of land use.
		Proposed New program	no change	no change	no change	no change	no change
	Peak Discharge Impact Study	Existing program	The enhanced stream channel erosion has been observed as a result of increased peak discharge from watershed development.	The study intends to evaluate the magnitude of the increased erosion directly caused by watershed development.	The study compares the narturally occuring stream channel erosion with the one enahnced by the upstream wateshed development	The increased peak discharge from watershed development is known to enhance stream channel erosion.	Numerical crieteria to be used for future watershed development can help minimize the stream erosion.
		Proposed New program	no change	no change	no change	no change	Interim Peak Flow Standard has been implemented to protect the natural stream.
	BMP Effectiveness Study	Existing program	The required monitoring program identifies the current load of the polluntants within the	Same as Question No. 1	Same as Question No. 1	Same as Question No. 1	Successfully identified BMPs can reduce the pollutant loading.
		Proposed New program	no change	no change	no change	no change	no change

Table 3. Impaired water body specific monitoring programs and special studies that are, or will be, conducted by Permittees.

Requirement	Impaired Water Body	Project Description	Status
Coordinated Shoreline Monitoring Program	Santa Monica Bay Beaches Bacteria for Dry and Wet Weather	Weekly shoreline bacteria water quality monitoring at 60+ locations throughout Santa Monica Bay.	This program was approved the the Regional Board in April 2004. Monitoring commenced in November 2004.
Main Ship Channel Bacteria Water Quality Study	Los Angeles Harbor Bacteria	A one-year sampling program to assess the bacteriological water quality in the Inner Harbor and Main Ship Channel of Los Angeles Harbor.	Work plan was approved by the Regional Board in September 2005.
Coordinated Monitoring Plan	Los Angeles River Nutrients	A monitoring program to measure an improvement in the impaired water body.	Submitted to Regional Board in March 2005. Awaiting approval.
Bacteria Nonpoint Source Study	Marina del Rey Harbor Bacteria	A one-year study to determine the relative bacterial loading from sources including storm drains, boats, birds, and other nonpoint sources.	In progress. Final report will be submitted to the Regional Board by March 2007.
Coordinated Monitoring Plan	Marina del Rey Harbor Bacteria	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	Originally submitted to the Regional Board in July 2004. The plan is currently being revised to incorporate Regional Board's comment.
Reference Watershed Study	Malibu Creek and Lagoon Watershed Bacteria	A one-year study to establish a defensible bacteriological reference condition for the Malibu Creek and Lagoon watershed.	Expect to begin in July 2006. Final project report will be submitted to the Regional Board by January 2008.
Bacteria Water Quality Monitoring Plan	Malibu Creek and Lagoon Watershed Bacteria	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	Submitted to Regional Board in May 2006. Awaiting approval.
Coordinated Monitoring Plan	Ballona Creek Metals	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	Due to the Regional Board in January 2007.
Coordinated Monitoring Plan	Ballona Creek Estuary Toxic Pollutants	A monitoring program to measure ambient sediment quality as well as an improvement in the impaired water body.	Due to the Regional Board in January 2007.

Table 3. Impaired water body specific monitoring programs and special studies that are, or will be, conducted by Permittees.

Requirement	Impaired Water Body	Project Description	Status
Coordinated Monitoring Plan	Los Angeles River Metals	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	Due to the Regional Board in April 2007.
Coordinated Monitoring Plan	Ballona Creek Bacteria	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	This impaired water body is scheduled to come into effect in March 2007.
Water Column-Sediment Partitioning Coefficients	Marina del Rey Harbor Toxic Pollutants	A study to evaluate partitioning coefficients between water column and sediment to assess the contribution of water column discharges to pollutant concentrations in the benthic sediments of the harbor.	Due to the Regional Board by March 2011.
Low Detection Level Techniques	Marina del Rey Harbor Toxic Pollutants	study is to evaluate the use of low detection level techniques to determine water quality concentrations for those contaminants where standard detection limits cannot be used to assess compliance for California Toxic Rule standards or are not sufficient for estimating source loadings from tributaries and storm water.	Due to the Regional Board by March 2011.
Coordinated Monitoring Plan	San Gabriel River Metals	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	This impaired water body is scheduled to come into effect in March 2007.
Coordinated Monitoring Plan	Los Angeles River Bacteria	A monitoring program to measure ambient water quality as well as an improvement in the impaired water body.	This impaired water body is scheduled to come into effect no later than 2012.