

FACT SHEET/TECHNICAL REPORT

FOR

SDRWQCB ORDER NO. R9-2002-0001

MUNICIPAL STORM WATER PERMIT

FOR

THE COUNTY OF ORANGE,

THE INCORPORATED CITIES OF ORANGE COUNTY,

AND

ORANGE COUNTY FLOOD CONTROL DISTRICT

WITHIN

THE SAN DIEGO REGION

San Diego Regional Water Quality Control Board

February 13, 2002

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ATTACHMENT 1 - NPDES Municipal Storm Water Permit Justifications

ATTACHMENT 2 - 1998 Clean Water Act Section 303(D) Impaired Waterbody List

ATTACHMENT 3 - Copermitttee Populations (2000 U.S. Census Bureau)

ATTACHMENT 4 - Discussion Of Municipal Storm Water Permitting And The Watershed
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ATTACHMENT 5 - DAMP Analysis For Order No. R9-2002-0001

ATTACHMENT 6 – Response to Comments Received Regarding Order No. R9-2002-0001
(Previously Tentative Order No. 2001-193)

LIST OF ABBREVIATIONS

99-04 Plan	Orange County Water Quality Monitoring Program
BAT	Best Available Technology
BMP	Best Management Practice
CAR	Critical Aquatic Resource
CEQA	California Environmental Quality Act
CWA	Clean Water Act
CWC	California Water Code
DAMP	Drainage Area Management Plan
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
NURP	Nationwide Urban Runoff Program
SANDAG	San Diego Association of Governments
SDRWQCB	San Diego Regional Water Quality Control Board
SERRA	South East Regional Reclamation Authority
SUSMP	Standard Urban Storm Water Mitigation Plan
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	State Water Resources Control Board Urban Runoff Technical Advisory Committee
TMDL	Total Maximum Daily Load
URMP	Urban Runoff Management Program
USACE	United States Army Corps of Engineers
US EPA	United States Environmental Protection Agency

I. FACT SHEET/TECHNICAL REPORT FORMAT

The purpose of this Fact Sheet/Technical Report is to give the Copermittees and the interested public an overview of the permit and a practical discussion of its requirements, as well as a clear explanation of the regulatory justification for the permit requirements. The Fact Sheet/Technical Report can be considered to consist of two primary parts. The first part (which includes sections I. through V.) contains general information regarding urban runoff and the permit, including a summary of the permit in section IV. This part of the Fact Sheet/Technical Report provides an overview of the permit and the reasoning behind its requirements, and is likely to be the most pertinent part of the Fact Sheet/Technical Report for the more casual reader.

The second part of the Fact Sheet/Technical Report (which includes sections VI. and VII.) contains more detailed practical discussions and regulatory justifications of each permit component, and is meant to be used as a reference document during review of the permit. In sections V. and VI. of this Fact Sheet/Technical Report, each component of the permit is displayed in italics, followed by a discussion of the permit component. Section VII. (which addresses permit directives) also includes appropriate legal authority citations for each permit component. Each permit component is broken down in this manner so that the reader may find "stand alone" justification for each issue or permit component. This allows the Fact Sheet/Technical Report to be used as a reference during review of the permit. Please note that this has led to some repetition, as justifications for different sections are often similar or identical.

The Attachments 1-6 provide supporting information including NPDES permit justifications relative to Orange County, Copermittee population estimates, a list of impaired water bodies, a discussion of storm water permitting and the SDRWQCB watershed management approach, and a discussion of the SDRWQCB analysis of the Report of Waste Discharge and proposed DAMP submitted by the Orange County Copermittees with respect to the Order. Attachment 6 includes staff responses to written comments including those received at the two staff workshops on July 19, 2001 and August 8, 2001. It should be noted that nearly every section of the permit was commented upon and that the responses to the comments are substantive and provide detailed support for the requirements of this Order.

II. BACKGROUND – IMPACTS OF URBAN RUNOFF

A. WATER QUALITY

Urban runoff is fundamentally important to the water quality of Southern California. It has been found to be a leading cause of water quality impairment in the San Diego Region and nationwide. Untreated pollutants in urban runoff, indiscriminate of dry or wet weather conditions, routinely find their way to our creeks, lagoons, bays, and ocean as easily from over watering of residential lawns as from rainstorms. Urban runoff in the San Diego Region is commonly contaminated with pesticides, fertilizers, animal droppings, trash, food wastes, automotive byproducts, and many other toxic substances that are generated by our urban environment. Water that flows over streets, parking lots, construction sites, and industrial, commercial, residential, and municipal areas carries these untreated pollutants through storm drain networks directly to the receiving waters of the region. Southern

California, with the highest coastal population density of the entire country,¹ suffers multiple tribulations from this urban generated pollution source. The type and extent of land-uses common to southern Orange County (industrial, commercial, residential, municipal, and construction) are the same landuses common throughout the coastal areas of the San Diego Region. With respect to potential urban runoff discharge quality/quantity, shopping malls, homes, and businesses located near Aliso Creek in Orange County are little different from a shopping malls, homes, and businesses located near Buena Vista Creek in San Diego County or Temecula Creek in Riverside County.

The United States Environmental Protection Agency (US EPA) recognizes urban wet weather flows as the number one source of estuarine pollution in coastal communities.² This trend is reflected locally by the 1998-1999 City of San Diego and Co-Permittee NPDES Storm Water Monitoring Program Report, which names urban runoff as one of the most significant contributors of pollution to our waterways and coastal areas. Furthermore, this document reports that monitoring efforts indicate that in-stream concentrations of pathogen indicators (fecal coliform and streptococcus) and heavy metals (such as cadmium, copper, lead, and zinc) exceed state and federal water quality criteria. Storm water within the region has also been found to contain the pesticides diazinon and chlorpyrifos (Dursban) at levels that can cause chronic or acute toxicity.³ These trends are also represented in data collected by the Orange County Copermittees (see discussion below).

Preliminary results of the SDRWQCB's Ambient Bioassessment Monitoring Program from 1998-2000 indicate that the benthic macroinvertebrate communities of Aliso Creek, San Juan Creek, and Arroyo Trabuco may be adversely impacted.

Inland surface water quality data in southern Orange County has been collected under the NPDES program by the Orange County Copermittees and under a number of other efforts, notably the Aliso Creek Watershed Management Study that was funded by a 205(j) grant from the State Water Resources Control Board. Data from these two sources have been among the most thoroughly assessed in the region and provide the best representation of contemporary water quality during the period of the Copermittees' DAMP. In particular, the U.S. Army Corps of Engineers (USACE) has assessed available water quality data in the Aliso Creek and San Juan Creek watersheds as part of comprehensive watershed studies to determine a process for restoring habitat and alleviating potential flood damage. A qualitative analysis of urban runoff was also performed by at least four Orange County Grand Juries from 1998-2001. Together, these sources of data and subsequent analyses indicate that urban runoff and storm water in southern Orange County is impairing water quality and that additional management efforts can have a positive impact of constituents of concern.

¹ Culliton, T.M. et al. 1988. "50 years of population changes along the nation's coast." *Coastal Trends Series, Report No. 2*. National Oceanic and Atmospheric Administration, Strategic Assessments Branch. As cited in Moore, S. L., et al. *Composition and Distribution of Beach Debris in Orange County, California*. Southern California Coastal Water Research Project, Southern California Marine Institute, Divers Involved Voluntarily in Environmental Rehabilitation and Safety.

² US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124. National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68727.

³ City of San Diego. 1999. 1989-1999 City of San Diego and Co-permittee NPDES Stormwater Monitoring Program Report. URS Greiner Woodward Clyde.

NPDES STORMWATER SAMPLING: Monitoring of urban runoff in the San Diego region in the 1999/2000 reporting period showed CTR (California Toxics Rule) exceedances of acute metals at the point of discharge to receiving waters in 94% of reported samples. From 1992 to 2000 the Copermittees report EMC data for one stream in the south county, Oso Creek. There are no discernible trends over time in the Oso Creek EMC data. There were no assessments for 1997, 1998, and 2000. At best, the data show a lack of water quality improvement, implying that the DAMP is not having a positive effect on EMC parameters in Oso Creek.

ALISO CREEK 205(J) BACTERIA INVESTIGATIONS: Bacteriological sampling demonstrated that high levels of Total and Fecal Coliform and Enterococcus bacteria were common in the watershed. Contact (REC-1) and Non-Contact Water Recreation (REC-2) standards were exceeded at all monitored stations except the uppermost. For example, three sampling locations on tributaries to Aliso Creek had *E. coli* averages over 2,000 MPN/100ml and two sampling locations on the main stem of Aliso Creek had average fecal coliform or *E. coli* averages greater than 2,000 MPN/100ml during the study period.

SOUTH EAST REGIONAL RECLAMATION AUTHORITY (SERRA) SURF ZONE BACTERIA DATA: Bacteriological sampling conducted by SERRA in the surf zone near the mouth of Prima Deshecha indicated elevated levels of fecal coliform and Enterococcus are present. One surf zone station is approximately 100 feet north of the Prima Deshecha beach outfall. From June 2000 through February 2001, 26 of 59 (44%) samples exceeded ocean water criteria for Enterococcus at this station. Regional Board staff does not attribute these elevated levels to the effluent discharged from SERRA's ocean outfall, but believe the creek may be a significant source of Fecal Coliform and Enterococcus bacteria.

USACE SAN JUAN CREEK WATERSHED STUDY: The USACE San Juan Creek Watershed Management Feasibility Study identifies high Fecal Coliform bacteria counts measured at the lowermost end of San Juan Creek as the greatest water quality concern in the watershed. Their analysis of water quality data from 1992-1995 further showed moderate contamination in San Juan Creek, Trabuco Creek, and Oso Creek. Their survey of historical data indicated that lead levels have dropped, copper levels have increased, and spikes of chromium and nitrates occur. The Feasibility Study concludes that *"Water quality in the San Juan creek watershed area is primarily influenced by nonpoint source stormwater runoff primarily from urban and residential areas."* (P.E44, SEC. 4.4.2.1).

USACE ALISO CREEK WATERSHED STUDY: In the USACE environmental evaluation for Aliso Creek watershed water quality, pollution concerns include runoff of pesticides and herbicides in areas near the creek. Non-point source pollution is attributed to an increase in urban developments and the associated storm water runoff. *"Due to the increase in development in the upper regions of the Aliso Creek watershed, stormwater runoff is likely the most prominent on-going factor causing deterioration of water quality."* (P.E40, SEC. 4.4.1.1).

GRAND JURY FINDINGS: The 1999-2000 Grand Jury investigating “The Rainy Season’s “First Flush” Hits the Harbors of Orange County,” found that in spite of the County’s strong emphasis on public education as required by the DAMP, a significant amount of trash finds its way into the County-maintained flood control channels and County-maintained storm drains, rather than being disposed of properly. In “The Urban Runoff Battle: Ready, Fire, Aim!” the 2001 Grand Jury examined beach advisory postings and concluded that since the total number of postings is nearly identical in 1999 and 2000, “*virtually no improvement has occurred.*”

B. IMPACTS OF URBAN RUNOFF

In Orange County, urban runoff enters the storm drains and then discharges to inland surface waters or, in some coastal areas, directly to the ocean. Urban runoff carries pollutants, contaminants, and other stressors from a large number of potential sources in developed areas. Impacts from these pollutants carried by urban runoff and the discharge of the runoff itself to surface waters include damage to riparian and in-stream habitats, increased flooding potential, threats to human and environmental, and subsequent economic ramifications.

Urban runoff causes many impacts in Southern California, including increased public health risks, high concentrations of toxic metals in harbor and ocean sediments, and toxicity to aquatic life.⁴ A study exploring the health risks associated with urban runoff in Southern California was conducted in 1995 by the Santa Monica Bay Restoration Project using a survey of 15,000 bathers at three Santa Monica beaches. The study concluded that there is a 57% higher rate of illness in swimmers who swim adjacent to storm drains than in swimmers who swim more than 400 yards away from storm drains.

The San Diego Regional Water Quality Control Board (SDRWQCB) finds that such problems are indeed frequently urban runoff related. For instance, a common conveyance for a sewage spill to reach a beach is through the municipal storm water system. Also, exceedances of standards at some of our Region’s beaches have unquestionably been conveyed by the storm water drainage system.⁵ In addition, urban runoff is increasingly being targeted as the cause of beach closures and postings in other areas of the San Diego Region and Southern California. Urban runoff has been identified as a principal contributor to Fecal Coliform bacteria contamination in Orange County’s Aliso Creek, a creek which often causes beach postings when flowing into the ocean.⁶ Municipal enforcement efforts focusing on urban runoff have also resulted in reduced coliform levels in receiving waters in Encinitas in San Diego County.⁷ Finally, US EPA goes on to say that urban storm water runoff and sewer overflows have become the largest cause of beach closings in the United States for the previous three years, becoming more significant than

⁴ Threats to beneficial uses such as swimming and seafood consumption or ecosystem health have been demonstrated in numerous studies. Two important studies to note for Southern California are: Bay, S., Jones, B.H. and Schiff, K. 1999. Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et al. 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.

⁵ SDRWQCB Cleanup and Abatement Order No. 97-69 and Cease and Desist Order No. 98-74, both were issued to the City of Coronado.

⁶ SDRWQCB Cleanup and Abatement Order No. 99-211, issued to the City of Laguna Niguel and the County of Orange.

⁷ Kathy Weldon, City of Encinitas, Presentation to Beach Water Quality Workgroup, June 1, 2000.

such sources as oil spills and publicly owned treatment works.⁸

A May 1999 draft of the Aliso Creek Watershed Management Feasibility Study (Aliso Study) mentioned above, led by the USACE, concluded that the Aliso Creek watershed "is not in good health," and attributes many of the problems to storm water runoff. The Aliso Study developed a watershed management plan intended to identify feasible management options to improve environmental and economic conditions in the watershed and reestablish a stable, healthy, and sustainable watershed environment. The feasibility study and a concurrent one prepared for the San Juan Creek watershed do not guarantee the "feasible" projects will be implemented, but instead provide information to the County of Orange, the cities, water districts and other partners regarding potential corrective actions and the current impacts from urban runoff. Some of these findings and proposed projects may be incorporated into the Jurisdictional and Watershed Urban Runoff Management Programs.

Some of the major impacts associated with the discharge of pollutants in urban runoff include, but are not limited to:

BEACH CLOSURES: A number of the beach postings in the San Juan Creek Watershed Management Area within Orange County, including locations in Dana Point, Aliso Beach, and others are attributed to pollution from urban runoff. Beaches are posted and can be closed when bacteria levels indicate a potential health risk to humans. Coastal economies suffer when people decrease their time spent at beaches due to beach closings or fear of coastal water pollution.

Copermittees understand the connection between urban runoff pollution and beach impairments. Several of the coastal Copermittees, including Laguna Beach and Dana Point, have implemented or are proposing dry-weather diversions that route urban runoff in streams or storm drain outfalls to sewer lines in an attempt to keep pollution contained in urban runoff from impacting beaches. As discussed elsewhere in this document, dry weather diversions to the sanitary sewer or regional treatment facilities present significant problems with respect to urban runoff and should not be the primary means whereby urban runoff is managed.

The following table, adapted from the 2001 Grand Jury report "The Urban Runoff Battle: Ready, Fire, Aim!" and based on data obtained from the Orange County Health Care Agency, lists the number of beach postings at South County Beaches in 2000.

⁸ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124. National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68727.

Posting Location	Number of Postings	Total Days Posted	Posting Location	Number of Postings	Total Days Posted
Crystal Cove State Park	9	23	Doheny State Beach Park	9	315
Laguna Beach	32	77	Capistrano County Beach	6	248
Aliso Beach	13	23	Capistrano Bay District	7	107
Monarch Beach	5	49	Poche Beach	5	163
Salt Creek Beach	3	4	San Clemente City Beach	8	20
Dana Point Harbor	12	739*	San Clemente State Beach	1	3
* includes 2 long term postings totaling 569 days					

HABITAT STRESS: An aquatic life assessment conducted as part of the Aliso Creek Watershed 205(j) study demonstrated habitat within the study sites is unstable and under considerable environmental stress. The poor conditions were deemed likely attributable to high variability in flow volumes and velocities, sediment load and movement, high water temperatures, poor riparian development, and poor water quality. All of these influences can, at least in part, be attributable to a change in the runoff regime associated with urban development. The 205(j) study report concludes that continued development in the watershed without appropriate mitigation would lead to increased riparian habitat degradation. In addition, the USACE studies conclude that channel down-cutting is responsible for the loss of riparian habitat in many reaches of both Aliso Creek and San Juan Creek watersheds. Down-cutting of channels decreases the ability of water to reach the floodplains and riparian zones. Down-cutting is attributable to altered hydrology, including increased volume and peak discharge rates of runoff. Channel down-cutting creates a channelized stream condition that increases the threat of flooding downstream. Habitat loss and degradation were also cited as a major problem in the USACE San Juan Creek Watershed Study.

CHANNEL INSTABILITY: According to the USACE San Juan Creek Watershed Study, intense development since the 1980's is correlated with significant down-cutting and bank erosion on San Juan Creek and its main tributaries, especially in the lower reaches. Erosion and channel instability are identified in the USACE study as one of the major watershed problems. Channel instability and erosion degrade existing in-stream and riparian habitat and prevent the establishment of further stable habitat areas.

In addition, private and public property, including important infrastructure such as rail lines, sewer and water lines, and roads, have been threatened by erosion within the San Juan Creek and Aliso Creek watersheds.

FLOODING: The USACE San Juan Creek Watershed Study concluded that the threat of flooding in the lower San Juan Creek watershed has been exacerbated by changes to the creek's hydrology as a result of urbanization in the watershed.

Potential flooding of the downstream portions of Oso, Trabuco, and San Juan Creeks is characterized by the USACE as a major watershed problem.

TOXICITY: A water quality data assessment conducted as part of the Aliso 205(j) study characterized surface water from several locations in the watershed and determined aquatic toxicity tests during two storm events caused varying degrees of mortality to test organisms. Storm sampling for toxicity was conducted twice at five locations within Aliso Creek during the study period. While two of the ten samples showed no mortality for *Ceriodaphnia*, six samples resulted in 100% mortality, one showed 85% mortality and one showed 95% mortality. The report suggests several possible sources of aquatic toxicity, all of which are derived from urban runoff.

These trends were observed in San Diego County as well and were considered during the adoption process for the San Diego Municipal Storm Water Permit Order No. 2001-01. As described in the Fact Sheet/Technical Report for that permit, in 1999, there were 29 days in which the San Diego County Health Department issued general advisories to avoid waters 300 feet either side of all storm drain outlets in order to protect the public from potential adverse health effects caused by urban runoff. Also, in 1999 there were 720 combined beach closures and postings in San Diego County. The San Diego County Department of Health does not recommend the public recreate in closed or posted waters due to associated health risk. A breakdown of the beach closure and posting data is as follows: 127 of these closings were related to sewage spills, 71 related to river mouth outlets or some other excavation, and 522 of the days were related to some exceedance of water quality standards.⁹

Regardless of how beach posting and closure data is interpreted, one thing is clear: the beneficial uses are not being adequately attained or protected for the waters in the San Diego Region, and urban runoff is a significant contributor to this receiving water impairment. For Orange County and the San Diego Region as a whole, known throughout the world for its beach lifestyle, these statistics are bound to have increasingly serious effects on tourism revenue as well as the local cultural identity.

III. ECONOMIC ISSUES

Urban runoff degrades surface water quality, but its impacts spread beyond the channel banks. Beach closures and other losses of recreational opportunity have a direct economic impact on communities whose economies are dependent on access to surface waters. Furthermore, property loss or damage from erosion and flooding has direct and indirect economic impacts on communities. In addition, replacement or perennial protection of public infrastructure from problems associated with urban runoff requires significant amount of public expenditures, thus diverting funds from other public agency concerns. The Copermittees have the power to encourage choices that decrease the impacts of urban runoff through activities such as public education on water quality issues, implementation of BMPs, and enforcement of water quality-related ordinances. The relationship between urban runoff, water quality, and both micro and macroeconomics in southern Orange County has been addressed in several reports, including the USACE watershed studies, Orange County Grand Jury reports, and others.

⁹ Information provided by the San Diego County Department of Public Health.

Water quality affects the recreational value of a water body and watershed. A recreational use analysis conducted within the Aliso 205(j) Watershed Study identified potential increases in recreational value would occur if the water quality improvements in the USACE Aliso Creek Watershed studies were implemented. The analysis noted that the largest benefit would be realized at Aliso Beach Park, but would require watershed-scale action because of the nature of the impacts derived from urban runoff.

The choices made by agencies, individuals, and businesses to protect water quality may be a decision based on microeconomics. The enforcement of local ordinances is an important tool of the Copermittees that can affect decisions made by agencies, individuals, and businesses. The disincentive to pollute created by enforcement, however, has been found to be insufficient by the 1998-1999 Orange County Grand Jury investigating "Coastal Water Quality and Urban Runoff in Orange County." The Grand Jury concluded that current local fines were less than abatement costs, thus the level of enforcement may actually invite some polluters to continue polluting. The Grand Jury recommended that the County address the possibility of increasing fines for violators. This approach is supported in this Order.

With respect to economic impacts of urban runoff to Orange County communities, the following (incomplete) information should be considered:

DANA POINT: In response to a Grand Jury finding (1999-2000 Rainy Season's First Flush Hits the Harbors of Orange County), the city of Dana Point notes the interrelationship between the clean coastal water and the economic health of the city. Dana Point reports receiving \$5.2 million in T.O.T. funds in FY 1999-2000 "due in large part because of proximity to the beach. Without clean beaches, Dana Point risks losing its major revenue source."

LAGUNA BEACH: Tourism is one of the primary components of the Laguna Beach economy and the beach is one of the main tourist attractions in the city. In 1999, hotel/motel bed tax revenue was approximately \$3 million, representing 13% of the City's general fund revenue. The City Council recognizes the value of the beaches to tourists and the local population and has funded several low-flow diversion systems in an attempt to decrease beach pollution and beach closures.

DOHENY STATE BEACH: In 1997, the USACE prepared an economic analysis as part of the San Juan Creek and Aliso Creek Watershed Study. Recreational value for Doheny State Beach, based on annual visitation of 670,545 people in 1995, was calculated at \$2,850,000. Furthermore, the USACE notes that lifeguards reported that beach attendance falls dramatically when there are unhealthy conditions in the ocean. In 1999, the USACE prepared an updated economic study as part of the Feasibility Phase of the San Juan Creek Watershed Management Study. The 1999 study reports that average beach attendance from 1996 to 1998 increased to 918,735. The USACE places a recreation value per visitor at \$5.76, which implies the annual recreational value of Doheny State Beach for 1996 to 1998 was \$5,291,914.

ALISO BEACH: In 1997, the USACE prepared an economic analysis as part of the San Juan Creek and Aliso Creek Watershed Study. Recreational value for Aliso Beach, based on annual visitation of 3,477,369 people in 1995, was calculated at \$14,779,000. In the 1999 Draft Feasibility Report for the Aliso Creek Watershed Management Study,

the USACE noted that the average beach attendance from 1996 to 1998 decreased to 1,148,374. The recreation value per visitor was calculated at \$4.50 and the average annual impact from water quality-related beach closures at Aliso Beach Park was estimated to be \$468,392. This number is comparable to an economic analysis conducted as part of the Aliso Creek Watershed 205(j) study that estimated the annual average recreational value impact of beach closures at Aliso Beach Park to be \$468,400.

The following information was considered during the adoption process for the San Diego Municipal Storm Water Permit, Order No. 2001-01. Because significant elements of the Order are similar to those adopted for San Diego County and because the information is broadly applicable to conditions in Orange County, the information is presented again for consideration. In the San Diego Region, polluted urban runoff not only poses a public health threat, but an economic one as well. A January 5, 1997 New York Times article warns: *Travel Advisory. Storm Drains Pose San Diego Health Risk*.¹⁰ In the July 3, 2000 edition of Forbes Magazine, an article entitled *Don't Go Near the Water. Beaches That Make You Go Ewwwww!*, two San Diego area beaches are highlighted as having troubles. The article is particularly hard on the Mission Bay beaches, in stating, "If San Diego County has established itself as the California capital of sewage spills, this beach is its White House."¹¹ Local problems do indeed make national news. US EPA also brings attention to our region in the guidance document *Liquid Assets 2000* in saying, "Although our lakes, rivers, estuaries, and wetlands are much cleaner than they were in 1970, headlines like these are all too common..."¹² Next to the quote is pictured the San Diego page from the San Diego Union Tribune bearing the headline "Human Waste Fouls Three Beaches, DNA Tests Find."¹³ Being spotlighted by the federal government in this context is definitely less than auspicious.

There may be no way to measure what effects such negative press have had on value lost due to changed vacation plans. However, one can presume that continued publicity will take its toll on local economies. According to a 1996 San Diego Association of Governments (SANDAG) Memorandum, the California Division of Tourism has estimated that each out-of-state visitor spends \$101.00 a day. The memo goes on to state that based on projections from the California Department of Boating and Waterways nearly \$1.2 billion in direct revenue and \$1.2 billion in indirect revenue is pumped into the San Diego area economy each year by out-of-state visitors.¹⁴ It would seem that given the importance of tourism to our area, municipalities cannot afford to ignore water quality. The bottom line is that there is no need to wait and see how much the waters can take before our economy is affected. We can simply look to catastrophes that other regions have

¹⁰ Kopytoff, V.G. 1/5/1997. *Travel Advisory: Storm Drains Pose San Diego Health Risk*. The New York Times.

¹¹ Powers, K. 7/3/2000. *Don't Go Near the Water. Beaches That Make You Go Ewwwww!* Forbes Magazine.

¹² US EPA. 2000. *Liquid Assets 2000. America's Water Resources at a Turning Point*. EPA -840-B-00-001.

¹³ Rodgers, T. 1/21/00. *Human Waste Fouls 3 Beaches, DNA Tests find*. The San Diego Union-Tribune.

¹⁴ San Diego Association of Governments. 10/25/96. *Memorandum: California Department of Boating and Waterways: Unpublished Survey Information Regarding Beach Use*. Written to the Shoreline Erosion Committee.

already had to bear. The 1988 medical waste wash-ups closing New York and New Jersey beaches caused an estimated \$4 billion loss to the local economy.¹⁵

“Willingness to pay” gives an indication of how much the public values clean water. A study conducted by Colorado State University researchers on a 45-mile stretch of the South Platte River looked at the value of ecosystem services. The services studied were habitat for fish and wildlife, recreation, erosion control, natural purification of water and dilution of wastewater. Results from nearly 100 in-person interviews show that households would pay on average \$21 per month for additional ecosystem services.¹⁶ The article goes on to explain that while the marginal benefits are often quite small per person, the non-rival nature of environmental goods often results in simultaneous enjoyment by millions of people. Therefore, ensuring dependable good water quality could mean huge social benefits. The National Water Research Institute states, “Water has a psychological value...People derive measurable pleasure from recreational activities like boating and fishing and find comfort in knowing that the water they drink is of the highest quality.”¹⁷

Water quality as an externality can also cause shifts in real estate value. To help assess this we consider other areas of the country. US EPA looked at a study conducted on real estate around Lake Champlain in the Northeastern United States. Property values in the area of the lake with good water quality were valued an average of 20% more than property around poor water quality.¹⁸ Research right here in California indicates that property values can increase by at least 3% for employing bank stabilization procedures and up to 11% for improving fishing habitat.¹⁹

Within the past decade or so we see that investor’s concerns about environmental quality do indeed drive investment decisions. *Money* magazine conducts a “Best Places to Live” survey every year. In 1995, clean water and air ranked as the most important factors in choosing a place to live. It is important to note that they were ranked above typical high priority quality of life issues such as low crime rates, plentiful doctors or hospitals, and low taxes.²⁰ In the 2000 *Money* magazine “Best Places to Live” analysis, clean water was

¹⁵ US EPA. 1996. Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation’s Economy. EPA 800-R-96-002. Page 5.

¹⁶ Loomis J., et al. 1999. Measuring the Total Economic Value of Restoring Ecosystem Services in an Impaired River Basin: Results from a Contingent Valuation Method Survey. Proceedings of the Third Workshop in the Environmental Policy and Economics Workshop Series. Sponsored by US EPA’s Offices of Economy & Environment, and Reserved & Development. April 21-22, 1999.

¹⁷ National Water Research Institute. The Value of Water: Recognizing and Using the Full Water Supply. National Water Research Institute, Fountain Valley, CA as cited in US EPA. 2000. Liquid Assets 2000. *America’s Water Resources at a Turning Point*. EPA –840-B-00-001.

¹⁸ US EPA. 1996. Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation’s Economy. EPA 800-R-96-002. Page 8.

¹⁹ Streiner C. and Loomis. J. 1996. Estimating the Benefits of Urban Stream Restoration Using the Hedonic Price Method. *Rivers* 5(4): 267-268 as cited in Loomis J., et al. 1999. Measuring the Total Economic Value of Restoring Ecosystem Services in an Impaired River Basin: Results from a Contingent Valuation Method Survey. Proceedings of the Third Workshop in the Environmental Policy and Economics Workshop Series. Sponsored by US EPA’s Offices of Economy & Environment, and Reserved & Development. April 21-22, 1999.

²⁰ US EPA. 1996. Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation’s Economy. EPA 800-R-96-002. Page 9.

cited as a contributing factor in three of the top six choices from around the country.²¹ Needless to say, San Diego did not make the list this year.

The SANDAG *Regional Growth Management Strategy, Water Quality Element* summarizes future needs in development strategies for San Diego by stating, "Protecting the health of the water bodies in the region calls for a new approach to storm water management in new development and redevelopment, an approach which considers the possibilities for *pollution prevention* and maximizing infiltration."²² This is may be generally true for Orange County as well. However, many stakeholders feel that the prospect of such planning presents an economic burden. Not so, according to a *Watershed Protection Techniques* article, "The Benefits of Better Site Design in Residential Subdivision."²³ The journal did a comparative hydrology analysis for a medium-density residential subdivision using open space and conventional design. The following table shows the environmental benefits of using an open space versus conventional design.

Table One: Change in Site Characteristics from a Conventional Design to Open Space Design (*Both employ storm water protection practices*).

Factor of Concern	Percent Change by Applying Open Space Design
Impervious cover	24% decrease
Residential Lawn	48% decrease
Stormwater Runoff	24% decrease
Stormwater Infiltration	55% increase
Phosphorus Export	60% decrease
Nitrogen Export	45% decrease
Development Cost	20% decrease

Source: Adapted from the Center for Watershed Protection, 2000.

It's no surprise that environmentally sensitive planning techniques will produce environmental benefits, but what may be surprising is they can also produce economic benefits. The total cost to build this development was about 20% less using the open space design as opposed to the conventional design. Less road paving, as well as shorter sidewalks, water lines, sewer lines, curbs and gutters contributed to the savings.

An example from Davis, California reflects similar results. The Village Homes development, consisting of 22 houses and 40 apartments, employed narrow streets, plus graded land, channels and ponds to encourage on-site rain absorption. The resulting cost savings was \$700/unit less than using conventional storm water management systems. It is also important to note that the development did not flood when a 100-year level flood hit the area. In fact, the owner Judy Corbett reported that the development soaked in some runoff from surrounding communities.²⁴ The ideas and technologies used in both of these examples have been available for many years. However, outdated development requirements, subdivision codes, zoning regulations, street standards, and drainage requirements have discouraged developers from even attempting changes in convention.

²¹ Gertner J. and Kirwan, R. 2000. *Money Magazine*. "The Best Places to Live 2000." As downloaded from http://www.money.com/money/depts/real_estate/bestplaces

²² San Diego Association of Governments. 1997. *Regional Growth Management Strategy: Water Quality Element*.

²³ Center for Watershed Protection. 2000. The Benefits of Better Site Design in Residential Subdivisions. *Water Protection Techniques*. 3(2): Page 641.

²⁴ Keith, L.D. 6/5/00. Fight Brewing in Southern California Over Construction Rules Aimed at Stormwater Runoff. *Fresno Bee*.

This problem can best be remedied on the municipal level. Local authorities can work to better encourage water quality sensitive planning techniques. Conditions of approval for new developments can be updated to allow for site designs that address water quality concerns. For instance, cities could decrease the width of impervious streets by allowing one way streets on alternate blocks. Providing discretion for creative thinking on site design can save developers money and help municipalities protect their local water quality. Employing such techniques also follows with SANDAG's *Regional Growth Management Strategy*. Preserving natural habitats and open spaces is one of the five basic elements the strategy recommends for addressing all growth-related questions.²⁵

SANDAG has also developed *The Cities/County Forecast for the San Diego Region*, which attempts to project the demands that humans are going to place on the region over the next 20 years. The report contains some startling projections. According to the article, we can expect 1 million more people and over 400,000 new homes in the area over the next two decades.²⁶ According to the United States Census Bureau, the estimated population for San Diego County in July 1999 was 2,820,844 people.²⁷ We can therefore expect a 35% increase in population in just over 20 years. Secondly, the implications of 400,000 new homes extend beyond the homes themselves to include new roads, shopping malls, business parks, parking lots, schools and all the other amenities that accompany new development. Although largely built out, southern Orange County is currently experiencing dramatic growth similar to that discussed above in the SANDAG report for San Diego County. Regulations of today must anticipate and address this growth. The Order was drafted to address this and other similar issues with respect to the discharge of urban runoff throughout the San Diego Region.

To help with this matter, the Order includes a requirement for the Orange County Copermittees to develop Standard Urban Storm Water Mitigation Plans (SUSMPs) for broad categories of new development and significant redevelopment. SUSMPs as developed by the Copermittees will require developers to implement post-construction best management practices (BMPs) to reduce storm water flows and the associated pollutant loads generated from the development. What this means is that runoff carrying automobile byproducts, pet droppings, trash, and lawn chemicals for instance will need to be infiltrated, filtered, or treated before it is allowed to leave all new development. The reasoning for this is simple: Since previous efforts under the First and Second Term Permits and 1993 DAMP were not successful in protecting the beneficial uses of water quality in the past, increased population and development pressures will need to be addressed differently than they were in the past.

²⁵ San Diego Association of Governments. 1999. "2020 Cities/County Forecast for the San Diego Region." *SANDAG INFO*. Page 2.

²⁶ San Diego Association of Governments. 1999. "2020 Cities/County Forecast for the San Diego Region." *SANDAG INFO*. Page 2.

²⁷ As downloaded from the United States Census Bureau website:
[Http://www.census.gov/population/estimates/county/co-00-1/99C_06.txt](http://www.census.gov/population/estimates/county/co-00-1/99C_06.txt)

IV. PERMIT SUMMARY

HISTORICAL PERSPECTIVE ON THE DEVELOPMENT OF THE ORDER (PERMIT SUMMARY)

The federal Clean Water Act was amended in 1987 to address urban runoff. One requirement of the amendment was that many municipalities throughout the United States were obligated for the first time to obtain National Pollutant Discharge Elimination System (NPDES) permits for discharges of urban runoff from their municipal separate storm sewer systems (MS4s). In response to the Clean Water Act amendment (and the pending federal NPDES regulations which would implement the amendment), the SDRWQCB issued an "early" municipal storm water permit, Order No. 90-38, in July 1990 to the County of Orange, the six incorporated cities within the County of Orange in the San Diego Region, and the Orange County Flood Control District (hereinafter Copermittees) for their urban runoff discharges. As the name implies, this "early" permit was issued prior to the November 1990 promulgation of the final federal storm water regulations. Although Order No. 90-38 contained the "essentials" of the 1990 regulations, the requirements were written in very broad, generic and often vague terms. Broad generic terms were incorporated into the permit for the purpose of providing the maximum amount of flexibility to the Copermittees in implementing the new requirements (flexibility was, in fact, the stated reason for issuing the permit in advance of the final regulations). This lack of specificity was reflected in the Drainage Area Management Plan implemented under this First Term Permit in 1993 and renewed under the Second Term Permit in 1996. From staff's perspective however, this same lack of specificity, combined with the lack of funding and political will, also provided the Copermittees with ample reasons to take few substantive steps towards permit compliance. The situation was exacerbated by the SDRWQCB's own lack of storm water resources and the general sense that the infant program was a considerably lower priority than its existing and competing core regulatory programs. In staff's assessment, the result was a general lack of action by the Copermittees and a general lack of corresponding reaction (enforcement) by the SDRWQCB during the early years of the storm water program.

When viewed relative to the early years, substantial progress towards compliance has been made by many of the Copermittees and improvements in the SDRWQCB's oversight have occurred as well. But when viewed relative to the magnitude of the problem, we've collectively progressed little in ten years and enormous challenges remain in Orange County. Today, urban runoff is the single largest discharge of waste and the leading cause of water quality impairment in the San Diego Region. One has only to look as far as the now too familiar "health advisory or beach closure" signs and the diversion of streams to the sanitary sewer to see the troubling local consequences of urban runoff.

Although renewed in 1996 as Order No. 96-03, the 1993 DAMP implemented by the Copermittees was not significantly updated until 2000. Although the Report of Waste Discharge and proposed DAMP submitted to the SDRWQCB were greatly improved over the earlier DAMP, staff has concluded that in most respects, the proposed DAMP and the new commitments submitted by the Copermittees reflect the basic requirements of the 1990 Federal Regulations and in most cases do not represent significant improvement over the 1993 DAMP. Continued implementation of the DAMP without amendment will not adequately address the impacts to receiving waters resulting from the discharge of urban runoff and would not achieve MEP as defined in this Order. In order to provide the

Copermittees with the minimum requirements to meet the MEP standard of the SDRWQCB, a more specifically detailed Order is proposed that emphasizes the strong jurisdictional level programs developed by the Copermittees during the First and Second Term Permits as well as the watershed-level approach embodied in the proposed DAMP.

At the jurisdictional level, the Copermittees have a number of options available to them in developing the programs to meet the requirements of the Order. Each Copermittee has the discretion to individually develop and implement its Jurisdictional URMP. The Copermittees also have the discretion to develop a model Jurisdictional URMP or model Jurisdictional URMP components. The Jurisdictional URMP or equivalent is subject to review and comment by the SDRWQCB. Each Copermittee is responsible for ensuring that the Jurisdictional URMP addresses the specific urban runoff issues within its jurisdiction. To the extent that a model or template Jurisdictional URMP forms the basis of its program, each Copermittee is individually responsible for: 1) tailoring the model to the conditions within its jurisdiction; 2) implementing the program within its jurisdiction; and 3) ensuring that the implementation of the model Jurisdictional URMP satisfies all of the requirements of the Order within its jurisdiction. However, it is important to note that implementation of the minimum requirements of a Copermittee authored management plan alone does not guarantee compliance with the Order. The determination of compliance to the MEP and to receiving water quality objectives under this Order rests with the SDRWQCB.

MUNICIPAL STORM WATER NPDES PERMITS OVERVIEW (PERMIT SUMMARY)

Municipal storm water NPDES permits seek to ensure that the beneficial uses of a receiving water are protected despite discharges from MS4s into that receiving water. Beneficial uses are defined as the uses of water necessary for the survival or well being of man, plants, and wildlife. Municipal storm water NPDES permits contain requirements to achieve numeric and narrative receiving water quality objectives which are established to protect these beneficial uses. Water quality objectives are defined as constituent concentrations, levels, or narrative statements, representing a quality of water that supports the most sensitive beneficial uses that have been designated for a water body. At this time, municipal storm water NPDES permits contain water quality objectives and a prohibition that MS4 discharges may not cause the water quality objectives in the receiving water to be exceeded. By definition, when the water quality objectives of a receiving water are exceeded, the beneficial uses of that water are not adequately protected.

Typical NPDES permits are based on the concept of employing full-scale treatment of an effluent to remove pollutants at the end of the pipe (i.e., just before being discharged into receiving waters). Accordingly, typical NPDES permits contain numeric effluent limits that are arithmetically derived from receiving water quality objectives for each pollutant of concern in the effluent. However, municipal storm water permits are not typical NPDES permits because they are not based on the concept of full-scale treatment of polluted storm water. Full-scale end of pipe treatment for storm water is not considered economically and technologically feasible at this time. Therefore municipal storm water permits do not contain numeric effluent limits, but rather are based on the concept that pollutants can be effectively reduced in storm water to the maximum extent practicable by the application of a wide range of best management practices (BMPs). The technology-based performance standard of "maximum extent practicable" refers to evaluation and implementation of BMPs to the maximum extent practicable, except where (1) other effective BMPs will achieve greater or substantially similar pollution benefits; (2) the BMP

is not technically feasible; or (3) the cost of BMP implementation greatly outweighs the pollution control benefits.

In other words, in municipal storm water permits, receiving water quality objectives are attained by way of BMP implementation, including use of pollution prevention, source control, and treatment control BMPs. To protect receiving water beneficial uses, municipal storm water permits require the use of best management practices which prevent the generation of pollutants and keep runoff from coming into contact with pollutants, to be supplemented by the use of methods that remove or treat pollutants.

COPERMITTEE RESPONSIBILITY BASED ON LAND USE AUTHORITY (PERMIT SUMMARY)

Storm water permits are issued to municipalities because of their land use authority. The ultimate responsibility for the pollutant discharges, increased runoff, and inevitable long-term water quality degradation that results from urbanization lies with local governments. This responsibility is based on the fact that it is the local governments that have authorized the urbanization (i.e., conversion of natural pervious ground cover to impervious urban surfaces) and the land uses that generate the pollutants and runoff. Furthermore, the MS4 through which the pollutants and increased flows are conveyed, and ultimately discharged into San Diego's natural receiving waters, are owned and operated by the same local governments. In summary, the municipal Copermittees under Order No. R9-2002-0001 are responsible for discharges into and out of their storm water conveyance systems because (1) they own or operate the MS4; and (2) they have the legal authority that authorizes the very development and land uses which generate the pollutants and increased flows in the first place.

Order No. R9-2002-0001 holds the local government accountable for this direct link between its land use decisions and water quality degradation. The permit recognizes that each of the three major stages in the urbanization process (development planning, construction, and the use or operational stage) are controlled by and must be authorized by the local government. Accordingly, this permit requires the local government to implement or require the implementation of appropriate best management practices to reduce pollutant discharges and increased flow during each of the three stages of urbanization.

For example, since grading cannot commence prior to the issuance of a local grading permit, the Copermittees have a built-in mechanism to ensure that all grading activities are protective of receiving water quality. The Copermittee has the authority and discretion to withhold issuance of the grading permit until the project proponent has demonstrated to the satisfaction of the Copermittee that the project will not violate the Copermittee's ordinances or cause the Copermittee to be in violation of its municipal storm water permit. Since the Copermittee will ultimately be held responsible for any discharges from the grading project by the SDRWQCB, the Copermittee will want to use its own permitting authority to ensure that whatever measures the Copermittee deems necessary to protect discharges into its MS4 are in fact taken by the project proponent.

ORDER NO. R9-2002-0001 OVERVIEW (PERMIT SUMMARY)

Order No. R9-2002-0001 is the proposed re-issuance of Order No. 96-03 (i.e., the renewal municipal storm water permit for the Copermittees within the County of Orange in the San Diego Region). Order No. R9-2002-0001 incorporates two highly controversial precedent setting decisions by the State Water Resources Control Board (SWRCB). Specifically, Order No. R9-2002-0001 includes: (1) explicit language requiring municipal storm water dischargers to meet numeric receiving water quality standards²⁸ (in addition to meeting the Maximum Extent Practicable or MEP technology based-standard); and (2) numeric sizing criteria (i.e., design standards) for structural post-construction best management practices (BMPs) for new development and significant redevelopment.

28 The issue of whether municipal storm water dischargers must meet water quality standards has been intensely debated for the past five years in California and throughout the nation. During that same five-year period, the SDRWQCB developed and adopted three other municipal storm water permits. As a consequence of the ongoing debate, each of the three permits was immediately appealed (primarily) on the basis of the water quality standards language. In particular, SDRWQCB Order No. 96-03, the Municipal Storm Water Permit for Orange County Copermittees was adopted and appealed in 1996. SDRWQCB Order No. 97-08, the Municipal Storm Water Permit for CALTRANS was adopted and appealed in 1997. SDRWQCB Order No. 98-02, the Municipal Storm Water Permit for Riverside County Copermittees was adopted and appealed in 1998.

In response to the appeal of the SDRWQCB's permit for Orange County, the SWRCB issued Order WQ 98-01 prescribing specific precedent-setting water quality standards language to be included in all future California MS4 permits. In essence, the SWRCB's precedent-setting language made very clear that storm water discharges must attain receiving water quality standards. In addition, unlike previously adopted versions of the language, it did not state that "violations of water quality standards are not violations of the municipal storm water permit under certain conditions." Likewise, the order's language did not indicate that the "implementation of best management practices is the 'functional equivalent' of meeting water quality standards."

In response to the appeal of the SDRWQCB's permit for Riverside County and the formal objection of the permit by the USEPA, the SWRCB issued Order WQ 99-05, modifying its own precedent-setting language (as specified in Order WQ 98-01) to meet the specific objections of the USEPA. SWRCB Order WQ 99-05 specified even more stringent requirements for municipal dischargers to meet water quality standards. In response to USEPA's formal objections to SDRWQCB Order No. 98-02, the USEPA assumed responsibility for the Riverside County permit and subsequently issued its own MS4 permit with water quality standards language for Riverside County in 1999. Upon issuance of its own permit, the USEPA returned full responsibility for the NPDES permit back to the SDRWQCB. In November 2000, the SDRWQCB amended its Order No. 98-02 to replace the existing language with the full text of the USEPA-issued NPDES permit. At that time, SDRWQCB Order No. 98-02 officially resumed function as both state waste discharge requirements and a federal NPDES permit.

Also following USEPA's issuance of its own MS4 permit for Riverside Copermittees (but in response to a separate similar USEPA-issued MS4 permit), the United States Court of Appeals for the Ninth Circuit (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035), upheld USEPA's requirement for MS4 dischargers to meet water quality standards, but it did so on the basis of USEPA's discretion rather than on the basis of strict compliance with the Clean Water Act.

On October 14, 1999, the SWRCB issued what is currently its "final" legal opinion on the matter. In summary, the 1999 SWRCB opinion concluded that RWQCBs should continue to include the water quality standards language established in SWRCB Order WQ 99-05 in all future MS4 permits issued in California. The required language has been incorporated into Order No. R9-2002-0001.

While the requirements of Order No. R9-2002-0001 are markedly more clear and specific than those of Order No. 96-03, they are based on the same 1990 federal storm water regulations. Where Order No. 96-03 and Order No. R9-2002-0001 differ, Order No. R9-2002-0001 is more specific as to what is necessary for Copermittee compliance. The increased specificity of Order No. R9-2002-0001's requirements is necessary to address specific local urban runoff concerns, promote the attainment and protection of water quality standards in receiving waters, and satisfy the Copermittee's repeated request for the SDRWQCB to identify the minimum effort required for compliance with the permit. Where requirements are more stringent than the federal storm water regulations, they are generally based on specific guidance from the USEPA and/or the SWRCB and are authorized under both the Clean Water Act section 402(p)(3)(iii) as well as the California Water Code section 13377. Furthermore, the requirements in Order No. R9-2002-0001 represents the SDRWQCB's interpretation of the requisite maximum extent practicable (MEP) technology-based standard.

Order No. R9-2002-0001 places the responsibility for urban runoff discharges into and from MS4s on the Copermittees which own and operate the systems. This responsibility is based on the Copermittees' land use authority. Since the Copermittees permit, authorize, and realize benefits from urban development within their jurisdictions, Order No. R9-2002-0001 holds the Copermittees responsible for the short and long-term water quality consequences of their land use decisions. Furthermore because water quality degradation is the direct result of the urbanization process, Copermittees must implement (or require others to implement) controls to reduce the flow and pollutants generated from each of the three major phases of urbanization that they authorize; namely the (1) land use planning, (2) construction; and (3) use or existing development phase.

The principal requirements of Order No. R9-2002-0001 include the following: (1) each Copermittee shall prohibit all non-storm water discharges not specifically exempted to its MS4; (2) each Copermittee shall reduce pollutants in urban runoff discharges into and from its MS4 to the maximum extent practicable, (MEP); (3) each Copermittee shall ensure that urban runoff discharges into and from its MS4 do not cause or contribute to an exceedance of receiving water quality objectives; (4) each Copermittee shall actively seek and eliminate all sources of illicit discharges to its MS4; and (5) each Copermittee shall obtain, maintain, and enforce adequate legal authority (such as local ordinances and permits) to comply with all provisions of the Order.

Two Levels of Copermittee Responsibility

This Order is issued to each of the Copermittees and contains requirements to be implemented individually and collectively. Each Copermittee must carry out the requirements of Order No. R9-2002-0001 across two broad levels of responsibility. Copermittees have responsibility for the water quality impacts of urbanization within (1) their jurisdiction and (2) their watershed. The jurisdictional responsibility of each Copermittee stems from Copermittee land use authority within its jurisdiction. As discussed above, the Copermittee has authority over the three stages of development (planning, construction, and use or operation) within its jurisdiction. Each Copermittee must therefore take responsibility for water quality impacts resulting from their jurisdictional land use decisions.

Watershed responsibility is also necessary from each Copermittee. This is because each Copermittee is located somewhere within a watershed it shares with other Copermittees. Urban runoff generated in various Copermittee jurisdictions does not follow jurisdictional boundaries, but rather travels through many jurisdictions while flowing towards receiving waters. Simplistically, a watershed can be thought of as a common pipe to the ocean, along the length of which reside the Copermittees within the watershed. Inland Copermittees can be thought of as upstream contributors of pollutants and flow to the common pipe; while coastal Copermittees can be considered downstream contributors. Collectively the Copermittees within the watershed each contribute to the cumulative pollutant load that is conveyed in urban runoff by their interconnected MS4 systems to the receiving waters. Therefore, each Copermittee has collective, shared responsibility for the impacts of its urbanization on the watershed in which it is located. Both coastal and inland cities contribute to receiving water quality problems and both must accept responsibility for contributing to the solution. The Copermittees will address the watershed level activities discussed above in the Watershed Urban Runoff Management Program that will incorporate elements of the proposed Drainage Area Management Plan submitted in September 2000 (see discussion below and for section J of this Order).

Order No. R9-2002-0001 reflects these two broad levels of responsibility, in that it requires implementation of comprehensive urban runoff management plans on both a jurisdictional and watershed level.

Permit Requirements

Order No. R9-2002-0001 contains the following principal elements:

- Legal Authority – Each Copermittee shall establish and maintain adequate legal authority to control pollutant discharges into and from its MS4.
- Jurisdictional Urban Runoff Management Program – Each Copermittee shall develop and implement a Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) which will reduce discharges of pollutants and runoff flow during each major phase of urban development (i.e., planning, construction, and use or operation phases) within its jurisdiction.
- Watershed Urban Runoff Management Program – Each Copermittee shall collaborate with other Copermittees within the San Juan Creek Watershed Management Area within Orange County to revise the proposed DAMP and develop and implement a Watershed Urban Runoff Management Program (Watershed URMP) that will identify and address the highest priority water quality issues/pollutants in the watershed management area.
- Program Management – Each Copermittee shall collaborate with all other Copermittees to address common issues, promote consistency, and plan and coordinate urban runoff management activities as described in section 2 of the proposed DAMP.
- Monitoring – The Copermittees shall collectively develop and implement a Receiving Waters Monitoring Program which shall focus on the collection of monitoring data to be used for the assessment of compliance, achievement of water quality objectives, and the protection of beneficial uses.
- Reporting – Each Copermittee shall submit various reports describing the measures it is undertaking to meet the requirements of Order No. R9-2002-0001.

Each of these principal elements of Order No. R9-2002-0001 is discussed in greater detail below.

Legal Authority

Each Copermittee must adopt and enforce whatever legal authority is needed to eliminate or reduce pollutant discharges from all urban land use sources into and out of its MS4. This legal authority must include the ability to prohibit all discharges into the MS4 except for those that originate from precipitation (and a few other minor exceptions). Each Copermittee must also have legal authority to conduct inspections, collect samples, and require businesses to implement BMPs. Legal authority can be developed through ordinance, permit, contract, or similar means. Each Copermittee must ensure that its requirements are being complied with and use its legal authority to take enforcement actions against violators that are not meeting the Copermittee's requirements.

Jurisdictional Urban Runoff Management Program

The focus of the Jurisdictional Urban Runoff Management Program (URMP) is to address urban runoff during each phase of urbanization (i.e., planning, construction, and use or operation phases). The Jurisdictional URMP includes specific requirements for each of these phases of urbanization, as well as broad requirements that apply to all of the phases. Solid Jurisdictional level programs are necessary to realize truly effective watershed-level programs.

The Jurisdictional URMP singles out the planning phase of urbanization since addressing urban runoff during the planning phase of development is an effective means (in terms of both cost and performance) for protecting receiving water quality. The planning stage provides the greatest number and variety of opportunities for addressing runoff, as well as the most cost-effective time for implementation of BMPs. Order No. R9-2002-0001 includes the following requirements for addressing urban runoff during the planning phase of new development:

- Each Copermittee shall incorporate water quality protection principles and policies into its General Plan or equivalent plan to guide land use decisions.
- Each Copermittee shall modify its development project approval processes to ensure water quality concerns are addressed by development projects. This requirement includes development and implementation by each Copermittee of water quality conditions of approval for projects. Each Copermittee shall also develop and implement Standard Urban Storm Water Mitigation Plans (SUSMPs), requiring various categories of development to implement post-construction BMPs meeting specific numeric sizing criteria.
- Each Copermittee shall revise its environmental review process to include requirements for evaluation of water quality effects from development projects.
- Each Copermittee shall conduct education efforts for its planning and development review staffs, as well as the development community at large.

The construction phase of urbanization is also singled out in the Jurisdictional URMP requirements of Order No. R9-2002-0001. Construction sites and practices are given a high priority in the Jurisdictional URMP requirements due to their significant potential for erosion and discharge of pollutants to MS4s and receiving waters. Order No. R9-2002-

0001 includes the following requirements for addressing urban runoff during the construction phase of urbanization:

- Each Copermittee shall implement, or require implementation of, pollution prevention measures at construction sites.
- Each Copermittee shall update its grading ordinance to require grading and construction activities to include pollution prevention, source control, and structural treatment BMPs.
- Each Copermittee shall update its construction and grading approval processes to ensure water quality concerns are addressed by construction/grading projects. This requirement includes development and implementation by each Copermittee of water quality conditions of approval for construction and grading projects.
- Each Copermittee shall maintain an inventory of all construction sites within its jurisdiction.
- Each Copermittee shall establish priorities for construction oversight activities.
- Each Copermittee shall implement, or require implementation of, minimum BMPs at construction sites. The level of BMPs to be implemented shall be basis on the priority level of the site.
- Each Copermittee shall conduct inspections of construction sites based on construction site priority level.
- Each Copermittee shall enforce its ordinances at all construction sites.
- Each Copermittee shall report non-compliant construction sites to the SDRWQCB.
- Each Copermittee shall conduct education efforts for its construction, building, and grading review staffs, as well as the construction community at large.

The Jurisdictional URMP contains extensive requirements for existing development as well. All urban land uses are addressed by the requirements. The specific land uses identified in the Jurisdictional URMP are municipal, industrial, commercial, and residential land uses. In general, the structure of the Jurisdictional URMP requirements for each of these land uses are similar. For each of the existing development land uses, the Jurisdictional URMP requirements include:

- Each Copermittee shall implement, or require implementation of, pollution prevention measures for each land use.
- Each Copermittee shall maintain an inventory of sites for the various land uses within its jurisdiction. The types of sites to be inventoried for each land use are detailed in section VII. of this fact sheet as well as the permit.
- Each Copermittee shall establish priorities for oversight activities of sites for each land use. The types of sites to be prioritized for each land use are detailed in section VII. of this fact sheet as well as the permit.
- Each Copermittee shall implement, or require implementation of, minimum BMPs at sites for each land use, based on the sites' designated priority levels.
- Each Copermittee shall conduct inspections of sites for each land use based on the sites' designated priority levels.
- Each Copermittee shall enforce its ordinances at all sites for all land uses.

In addition to the general requirements listed above for each land use, the Jurisdictional URMP also contains specific requirements for each land use. These requirements are detailed section VII. of this fact sheet as well as the permit.

While the specific Jurisdictional URMP requirements for each of the three phases of urbanization (i.e., planning, construction, and use or operational phase) are detailed above, the Jurisdictional URMP also contains requirements that apply to all of the phases of urbanization. These include:

- Education – Each Copermittee shall implement an education program using various types of media to (1) increase the knowledge of target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions; and (2) change the behavior of target communities and thereby reduce pollutant releases to the MS4 and receiving waters. Education was emphasized under previous permits and most Copermittees already have well developed education programs.
- Illicit Discharge Detection and Elimination – Each Copermittee shall develop and implement measures to detect and eliminate all illicit discharges. This includes measures to respond to sewage and other spills, limit infiltration from sanitary sewers, and facilitate proper disposal and encourage reporting by the public.
- Public Participation – Each Copermittee shall incorporate a mechanism for public participation in the implementation of the Jurisdictional URMP.
- Assessment of Effectiveness – Each Copermittee shall develop a long-term strategy for assessing the effectiveness of its urban runoff management program.
- Fiscal Analysis – Each Copermittee conduct annual fiscal analyses to exhibit adequate fiscal resources necessary to meet the requirements of Order No. R9-2002-0001.

Watershed Urban Runoff Management Program

As discussed above, each Copermittee has responsibility for the impacts of its urban runoff on its respective watershed(s). This is because urban runoff does not follow jurisdictional boundaries, and often travels through many jurisdictions while flowing to receiving waters. Therefore, the actions of various municipalities within a watershed regarding urban runoff can have a cumulative impact upon shared receiving waters. For this reason, Order No. R9-2002-0001 requires the Copermittees to develop and implement a Watershed URMP for the San Juan Creek Watershed Management Area within Orange County as specified in section J of this Order. The Watershed URMP will be developed later in the permit cycle than the Jurisdictional URMP and is intended to build upon and enhance the Jurisdictional URMPs. The purpose of the Watershed URMP is to identify and address the highest priority water quality issues/pollutants in each of the six hydrologic units of the San Juan Creek Watershed Management Area within Orange County. Under the Watershed URMP requirements, for each hydrologic unit of the watershed, the Copermittees shall:

- Map the watershed and identify all receiving waters, all impaired receiving waters, land uses, highways, jurisdictional boundaries, and inventoried commercial, industrial, construction, municipal sites, and residential areas.
- Assess the water quality of all receiving waters in the watershed based on existing data, and eventually perform watershed based water quality monitoring.
- Identify and prioritize major water quality problems in the watershed caused or contributed to by discharges from MS4s, including potential sources of the problems.

- Develop and implement a time schedule of activities needed to address the highest priority water quality problems.
- Identify which Copermittee is responsible for implementing each recommended watershed activity.
- Develop and implement a mechanism for public participation in watershed activities.
- Develop and implement a watershed based education program.
- Develop a strategy for assessing the effectiveness of the Watershed URMP.

Program Management

The Copermittees shall implement the collective program management structure and commitments described in the proposed DAMP that allows individual Copermittees to carry out permit requirements with other Copermittees, either as a whole (all of the Copermittees countywide) or within a watershed (Copermittees within a watershed). This requirement provides for more effective urban runoff management, in that it defines various Copermittee roles, aids in the sharing of costs to meet permit requirements, and provides performance standards to assess compliance.

Monitoring

Order No. R9-2002-0001 requires a comprehensive monitoring program for urban runoff impacts to receiving waters. The monitoring program will help prioritize efforts so that limited resources will be most effective in improving receiving water quality. It will also aid in assessing the effectiveness of urban runoff management efforts. The Copermittees are to develop the monitoring program; however, the SDRWQCB has outlined several aspects to be included in the program. These aspects include:

- Development of a Receiving Waters Monitoring Program Document that includes both a Previous Monitoring and Future Recommendations (Technical) Report which summarizes all previous wet weather monitoring results and recommends future monitoring activities as well as a Receiving Waters Monitoring Program based upon that report and its recommendations.
- Development and implementation of a urban stream bioassessment monitoring program, which shall consist of station identification, sampling, monitoring, and analysis of bioassessment stations to determine the biological and physical integrity of urban streams within the County of San Diego.
- Review and revision of the monitoring program for existing mass loading stations for the purposes of evaluating long-term trends as described in the Orange County Water Quality Monitoring Program (99-04 Plan).
- Development and implementation of a monitoring program for discharges of urban runoff from coastal storm drain outfalls.
- Development and implementation of a monitoring program to assess the chemical, physical, and biological impact of urban runoff on ambient coastal receiving water quality.

Reporting

Under Order No. R9-2002-0001, each Copermittee must submit a series of documents and reports. The following is a brief description of the primary reports required by Order

No. R9-2002-0001. When each Copermittee has developed its Jurisdictional Urban Runoff Management Programs and its part of the Watershed Urban Runoff Management Program (by dates specified in the permit), it must submit documents describing the programs. Each Copermittee must also annually submit its Jurisdictional URMP Annual Reports and collaborate to submit the Watershed URMP Annual Reports once the programs have been implemented. An annual Receiving Waters Monitoring Program Report for the Copermittees must also be submitted. There are other documents and reports required for submittal; these documents and reports are detailed in section VII. of this fact sheet and in Order No. R9-2002-0001.

CONCLUSION (PERMIT SUMMARY)

Order No. R9-2002-0001 is an essential mechanism for maintaining and improving water quality in Orange County. Order No. R9-2002-0001, which was drafted to be applied throughout the San Diego Region, represents the SDRWQCB definition of the minimum requirements to achieve compliance to the MEP and to protect the beneficial uses of receiving waters. Since the inception of the NPDES Storm Water Program, progress has been made in the San Diego Region to control urban runoff pollution. The Orange County Copermittees have developed some strong programs under the First and Second Term Permits that this Order is intended to build upon and enhance. Also, there is a better understanding by local managers of the regulations, the public education campaigns implemented by the Copermittees under previous permits, and improved Copermittee group communication. However, continued improvement in urban runoff quality is still necessary to achieve sound protection of beneficial uses of the region's receiving waters.

V. COMMON MUNICIPAL STORM WATER PERMIT ISSUES

Interested parties have frequently brought the following issues listed below to the attention of the SDRWQCB. During issuance of previous municipal storm water permits, most comments from interested parties have revolved around these issues. For this reason, the SDRWQCB has included its responses to the following issues in order to clarify its position regarding the issues.

1. Issue: Is the SDRWQCB required to meet California Environmental Quality Act (CEQA) requirements prior to adoption of the Draft Municipal Storm Water Permit for Orange County, the Incorporated Cities within Orange County, and the Orange County Flood Control District within the San Diego Region Order No. R9-2002-0001 (Order)?

Response: No. The adoption and issuance of the Order itself, and the requirements contained in the Order are exempt from CEQA under California Water Code section 13389. California Water Code section 13389 exempts the adoption of waste discharge requirements (such as NPDES permits) from CEQA requirements. In its review of Order No. 2001-01, the template from which this Order is derived, the SWRCB stated: "As we have stated in several prior orders, the provisions of CEQA requiring adoption of environmental documents do not apply to NPDES permits. BIA contends that the exemption from CEQA contained in section 13389 applies only to the extent that the specific provisions of the permit are required by the federal Clean Water Act. This contention is easily rejected without addressing whether federal law mandated all of the permit provisions. The plain language of section 13389 broadly exempts the Regional Water Board from the requirements of CEQA to prepare environmental documents when

adopting “any waste discharge requirement” pursuant to Chapter 5.5 (§§ 13370 et seq., which applies to NPDES permits). BIA cites the decision in *Committee for a Progressive Gilroy v. State Water Resources Control Board* (1987) 192 Cal.App.3d 847. That case upheld the State Water Board’s view that section 13389 applies only to NPDES permits, and not to waste discharge requirements that are adopted pursuant only to state law. The case did not concern an NPDES permit, and does not support BIA’s argument.”

2. Issue: Do the requirements of the Order constitute an “unfunded mandate”?

Response: No. The requirements of the Order are not within the definition of “unfunded mandate” that would require reimbursement of costs under the California Constitution. This is because the requirements of the Order are derived from the federal Clean Water Act, as opposed to State Law. Since the Order would implement a federal requirement, rather than a state requirement, the Order is not an “unfunded mandate” by the state. The State Water Resources Control Board (SWRCB) has previously determined in several circumstances that regional board orders are exempt from the requirement for reimbursement under the California Constitution.

3. Issue: Does the SDRWQCB have the legal authority to require municipalities to regulate urban runoff flow to protect beneficial uses of receiving waters?

Response: Yes. Federal NPDES regulation 40 CFR 122.44(d)(1) requires municipal storm water permits to include any requirements necessary to “[a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.” The term “water quality standards” in this context refers to a water body’s **beneficial uses** and the water quality objectives necessary to protect those beneficial uses. The negative impact of urban runoff flow on the beneficial uses of receiving waters has been widely documented. Increases in flows from impervious surfaces associated with urbanization can result in (1) increases in the number of bankfull events and increased peak flow rates; (2) sedimentation and increased sediment transport; (3) frequent flooding; (4) stream bed scouring and habitat degradation; (5) shoreline erosion and stream bank widening; (6) decreased baseflow; (7) loss of fish populations and loss of sensitive aquatic species; (8) aesthetic degradation; and (9) changes in stream morphology.²⁹ Many of these effects have been identified in the Aliso Creek and San Juan Creek hydrologic units in studies conducted by the Copermittees and the Army Corps of Engineers as summarized elsewhere in this document. US EPA finds that the level of imperviousness resulting from urbanization is strongly correlated with the water quality impairment of nearby receiving waters.³⁰ US EPA further attributes much of this water quality impairment to changes in flow conditions from urbanization, stating “[I]n many cases, the impacts on receiving streams due to high storm water flow rates or volumes can be more significant than those attributable to the

²⁹ U.S. Environmental Protection Agency. 1999. Preliminary Data Summary of Urban Storm Water Best Management Practices. EPA-821-R-99-012. p. 4-24.

³⁰ U.S. Environmental Protection Agency. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. p. 68727.

contaminants found in storm water discharges.”³¹ Therefore, in order to protect the beneficial uses and water quality objectives of waters receiving urban runoff flows (as **required** by 40 CFR 122.44(d)(1)), the SDRWQCB has under certain circumstances placed limits on urban runoff flows in the Order.

In addition, the authority of states to regulate flow in order to protect water quality standards has been addressed by the U.S. Supreme Court in PUD No. 1 v. Washington Department of Ecology, 511 U.S. 700 (1994). In this case the U.S. Supreme Court found that the Clean Water Act applies to water quantity as well as water quality, stating “[p]etitioners also assert more generally that the Clean Water Act is only concerned with water ‘quality’ and does not allow the regulation of water ‘quantity.’ This is an artificial distinction. In many cases, water quantity is closely related to water quality.” The U.S. Supreme court goes on to refer to the Clean Water Act’s definition of pollution (“the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water” 33 U.S.C. 1362(19)) and states “[t]his broad conception of pollution – one which expressly evinces Congress’ concern with the physical and biological integrity of water – refutes petitioners’ assertion that the Act draws a sharp distinction between the regulation of water ‘quantity’ and water ‘quality.’” In this context, the U.S. Supreme Court held that the state’s regulation of flow was “a limitation necessary to enforce the designated use of the River as a fish habitat.” Finally, it was held that the state’s regulation of flow was “a proper application of the state and federal antidegradation regulations, as it ensures than an ‘existing instream water use’ will be ‘maintained and protected.’ 40 CFR 131.12(a)(1) (1992).”

4. Issue: Can the SDRWQCB include in the Order more specific requirements than those stated in the federal NPDES regulations?

Response: Yes. In both a general sense, as well as specifically relating to municipal storm water, the Clean Water Act explicitly preserves independent state authority to enact and implement its own standards and requirements, provided that such standards and requirements are at least as stringent as those that would be mandated by the Clean Water Act and the federal regulations. For example, as one general overriding principle, Clean Water Act section 510 states “nothing in this chapter shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution [...]” When relating specifically to storm water, Clean Water Act section 402(p)(3)(B)(iii) clearly provides states with wide-ranging discretion, stating that municipal storm water permits “[s]hall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, **and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants**” (emphasis added).

Therefore, where the Order contains requirements more specific than those included in the federal NPDES regulations 40 CFR 122.26(d), it is seeking to

³¹ U.S. Environmental Protection Agency. 1999. Preliminary Data Summary of Urban Storm Water Best Management Practices. EPA-821-R-99-012. p. 4-23.

meet the above Clean Water Act requirements, as well as other particular federal NPDES regulations such as 40 CFR 122.44(d)(1)(i). This federal NPDES regulation requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” Given the continued impact of urban runoff on receiving waters within the San Diego region, increased specificity in municipal storm water permits is necessary to meet the above CWA and federal regulation requirements.

In a 1992 decision, the U.S. Court of Appeals for the Ninth Circuit (NRDC v. US EPA, 966 F.2d 1292) interpreted the language in Clean Water Act section 402(p)(3)(B)(iii) as providing the State with substantial discretion and authority: “[t]he language in (iii), above, requires the Administrator or the State to design controls. Congress did not mandate a minimum standards approach or specify that U.S. EPA develop minimal performance requirements [...] we must defer to U.S. EPA on matters such as this, where U.S. EPA has supplied a reasoned explanation of its choices.” The decision in essence holds that the U.S. EPA and the States are authorized to require implementation of storm water control programs that, upon “reasoned explanation,” accomplish the goals of CWA section 402(p). The Ninth Circuit Court of Appeals further reinforced the State’s authority in this area more recently in 1999. In Defenders of Wildlife v. Browner (1999) Case No. 98-71080, the Court cited the language of CWA section 402(p)(3)(B)(iii) and stated “[t]hat provision gives the U.S. EPA discretion to determine what pollution controls are appropriate. As this court stated in NRDC v. U.S. EPA, ‘Congress gave the administrator discretion to determine what controls are necessary [...].’”

Furthermore, the increased specificity included in the Order is in line with US EPA guidance included in its *Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems*³² and its *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*.³³ Where the Order is more specific than the federal regulations, it is frequently based on the recommendations of the Guidance Manual. The Interim Permitting Approach also supports increased specificity in storm water permits, recommending that municipal storm water permits use “best management practices (BMPs) in first-round storm water permits, and **expanded or better-tailored BMPs in subsequent permits**, where necessary, to provide for the attainment of water quality standards. In cases where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits, as necessary and appropriate” (emphasis added). It is important to note that the SWRCB cited US EPA’s

³² U.S. Environmental Protection Agency. 1992. *Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems*. EPA 833-B-92-002.

³³ U.S. Environmental Protection Agency. 1996. *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*. 61 FR 43761.

Interim Permitting Approach as support for its recent decision which upheld the increased specificity of numeric sizing criteria requirements for post-construction BMPs as appropriate requirements in municipal storm water permits.

Finally, Copermittees in the San Diego Region have frequently requested clarification from the SDRWQCB on what is necessary to achieve compliance with the current Municipal Storm Water Permits. The Order responds to this request by describing the minimum permit requirements in detail.

5. Issue: Does the Order dictate the design and manner of compliance in which the Copermittees are to comply with its requirements, in violation of California Water Code section 13360?

Response: No. CWA section 402(p)(3)(B)(iii) provides that municipal storm water permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." To meet this requirement of the CWA, the Order requires the implementation of BMPs, as required under Federal NPDES regulation 40 CFR 122.44(k). While the Order includes requirements for widespread BMP implementation, it does not require use of any particular BMPs. The Order actually encourages implementation of combinations of BMPs, and further does not preclude any particular BMPs or other means of compliance. A permit which allows for seemingly infinite means for achieving compliance does not 'specify the design or manner of compliance' in violation of California Water Code section 13360.

The specified programs included in the Order must be implemented by the Copermittees in order to carry out the CWA requirements. Any specified programs in the Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution.

Finally, the SWRCB's recent decision on the appeal of the Los Angeles Regional Water Quality Control Board's (LARWQCB's) action on SUSMPs and numeric sizing criteria appears to support inclusion of detail in municipal storm water permits on the level which is found in the Order. The SWRCB found that the numeric sizing criteria requirement for post-construction BMPs did not violate California Water Code section 13360. Provided that the numeric sizing criteria requirement is most likely the most specific requirement in the Order, the SWRCB decision in support of numeric sizing criteria indicates its general approval of the level of detail found in the Order.

6. Issue: Do discharges from municipal separate storm sewer systems (MS4s) need to meet the water quality standards (beneficial uses and water quality objectives) of the receiving waters to which they discharge?

Response: Yes. The issue of whether storm water discharges from MS4s must meet water quality standards has been intensely debated for the past five years.

The argument arises because Clean Water Act section 402(p) fails to clearly state that municipal dischargers of storm water must meet water quality standards. On the issue of industrial discharges of storm water, the statute clearly indicates that industrial dischargers must meet both (1) the technology-based standard of “best available technology economically achievable (BAT)” and (2) applicable water quality standards. On the issue of municipal discharges however, the statute states that municipal dischargers must meet (1) the technology-based standard of “maximum extent practicable (MEP)” and (2) “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants.” The statute fails, however, to specifically state that municipal dischargers must meet water quality standards.

As a result, the municipal storm water dischargers have argued that they do not have to meet water quality standards; and that they only are required to meet the MEP standard. Environmental interest groups maintain that not only do MS4 discharges have to meet water quality standards, but that MS4 permits must also comply with numeric effluent limitations for the purpose of meeting water quality standards. On the issue of water quality standards, the US EPA, the SWRCB, and the SDRWQCB have consistently maintained that MS4s must indeed comply with water quality standards. On the issue of whether water quality standards must be met by numeric effluent limits, the US EPA, the SWRCB (in Orders WQ 91-03 and WQ 91-04), and the SDRWQCB have maintained that MS4 permits can, at this time, contain narrative requirements for the implementation of BMPs in place of numeric effluent limits.

SWRCB rationale: In addition to relying on US EPA’s legal opinion concluding that MS4s must meet MEP and water quality standards, the SWRCB also relied on the Clean Water Act’s explicit authority for States to require “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants” in addition to the technology-based standard of MEP. To further support its conclusions that MS4 permit dischargers must meet water quality standards, the SWRCB relied on provisions of the California Water Code that specify that all waste discharge requirements must implement applicable Basin Plans and take into consideration the appropriate water quality objectives for the protection of beneficial uses.

The SWRCB first formally concluded that permits for MS4s must contain effluent limitations based on water quality standards in its Order WQ 91-03. In that Order, the SWRCB also concluded that it was appropriate for Regional Boards to achieve this result by requiring best management practices, rather than by inserting numeric effluent limitations into MS4 permits. In Order WQ 98-01, the SWRCB prescribed specific precedent setting Receiving Water Limitations language to be included in all future MS4 permits. This language specifically requires that MS4 dischargers meet water quality standards and allows for the use of narrative BMPs (increasing in stringency and implemented in an iterative process) as the mechanism by which water quality standards can be met.

In Order WQ 99-05, the SWRCB modified its receiving water limitations language found in Order WQ 98-01 to meet specific objections by the US EPA (the modifications resulted in stricter compliance with water quality standards). SWRCB Order WQ 99-05 states “In Order WQ 98-01, the State Water

Resources Control Board (State Water Board) ordered that certain receiving water limitation language be included in future municipal storm water permits. Following inclusion of that language in permits issued by the San Francisco Bay and San Diego Regional Water Quality Control Boards (Regional Water Boards) for Vallejo and Riverside respectively, the United States Environmental Protection Agency (EPA) objected to the permits. The EPA objection was based on the receiving water limitation language. The EPA has now issued those permits itself and has included receiving water limitation language it deems appropriate.

“In light of EPA’s objection to the receiving water limitation language in Order WQ 98-01 and its adoption of alternative language, the State Water Board is revising its instructions regarding receiving water limitation language for municipal storm water permits. It is hereby ordered that Order WQ 98-01 will be amended to remove the receiving water limitation language contained therein and to substitute the EPA language. Based on the reasons stated here, and as a precedent decision, the following receiving water limitation language [which is found in Receiving Water Limitations item C. of Order No. R9-2002-0001] shall be included in future municipal storm water permits.”

In a late 1999 case involving MS4 permits issued by US EPA to several Arizona cities (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035), the United States Court of Appeals for the Ninth Circuit upheld US EPA’s requirement for MS4 dischargers to meet water quality standards, but it did so on the basis of US EPA’s discretion rather than on the basis of strict compliance with the Clean Water Act. In other words, while holding that the Clean Water Act does not require all MS4 discharges to comply strictly with state water quality standards, the Court also held that US EPA has the authority to determine that ensuring strict compliance with state water quality standards is necessary to control pollutants. On the question of whether MS4 permits must contain numeric effluent limitations, the court upheld US EPA’s use of iterative BMPs in place of numeric effluent limits.

SWRCB’s final position: On October 14, 1999, the SWRCB issued a legal opinion on the federal appellate decision and provided advice to the Regional Boards on how to proceed in the future. In the memorandum, the SWRCB concludes that the recent Ninth Circuit opinion upholds the discretion of US EPA and the State to (continue to) issue permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that “[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions.” Finally, in Order No. WQ 2001-15, the SWRCB stated that Order No. 2001-01, the template from which this permit is derived, “The Regional Water Board appropriately required compliance with water quality standards and included requirements to achieve reduction of pollutants to the maximum extent practicable. In summary, the SWRCB concludes that the Regional Boards should continue to include the Receiving Water Limitations language established in SWRCB Order WQ 99-05 in all future permits.

Accordingly, the SDRWQCB has required in the Order that discharges from MS4s meet receiving water quality objectives.

7. Issue: What is the definition of “maximum extent practicable (MEP)” and who defines it?

Response: Under Section 402(p) of the Clean Water Act, municipalities are required to reduce the discharge of pollutants from their storm water conveyance systems to the maximum extent practicable (MEP). MEP is the critical technology-based performance standard which municipalities must attain in order to comply with their municipal storm water permits. The MEP standard establishes the level of pollutant reductions the municipality must achieve. MEP generally emphasizes pollution prevention and source control BMPs (as the first line of defense) **in combination** with treatment methods serving as a backup (additional line of defense).

To achieve the MEP standard, municipalities must employ whatever BMPs are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

- a. Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?
- b. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?
- c. Public Acceptance: Does the BMP have public support?
- d. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?
- e. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?

If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive BMPs, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost is prohibitive, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show

compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.³⁴

A definition of MEP is not provided in either the federal statute or in the federal regulations. The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. While Regional or State Boards ultimately define MEP, it is the responsibility of the Copermittees to initially propose actions that implement BMPs to reduce pollution to the MEP. In other words, the Copermittees' Jurisdictional and Watershed Urban Runoff Management Programs (URMPs) to be developed under the Order are the Copermittees' proposals of MEP. Their total collective and individual activities conducted pursuant to their URMPs become their proposal for MEP as it applies both to their overall effort, as well as to specific activities.

It is the SDRWQCB's responsibility to evaluate the proposed programs and specific BMPs to determine what constitutes MEP, using the above guidance and the court's decision in NRDC v. California Department of Transportation, Federal District Court, Central District of California (1994). The court stated that a permittee must evaluate and implement BMPs except where (1) other effective BMPs will achieve greater or substantially similar pollution control benefits; (2) the BMP is not technically feasible; or (3) the cost of BMP implementation greatly outweighs the pollution control benefits. In the absence of a proposal acceptable to the SDRWQCB, the SDRWQCB will define MEP by requiring implementation of additional measures by the Copermittees.

8. Issue: Can the SDRWQCB compel municipalities to use the local authority to control activities of third parties subject to their governmental jurisdiction that could affect the quality of the waters of the state?

Response: Yes. Copermittees cannot passively receive and discharge pollutants from third parties. As US EPA states, "The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts 'title' for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties."³⁵

Discharges of pollutants to the MS4 must therefore be controlled, and an important means for a municipality to achieve this is through the development and enforcement of municipal legal authority. USEPA states "A crucial requirement of the NPDES storm water regulation is that a municipality must demonstrate that it has adequate legal authority to control the contribution of pollutants in storm water discharged to its MS4. [...] In order to have an effective municipal storm water

³⁴Source: February 11, 1993 memo entitled "Definition of Maximum Extent Practicable" by Elizabeth Jennings, Senior Staff Counsel, SWRCB

³⁵U.S. Environmental Protection Agency. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. p. 68765.

management program, a municipality must have adequate legal authority to control the contribution of pollutants to the MS4. [...] ‘Control,’ in this context, means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4.”³⁶

Since discharges that enter the MS4 are generally discharged unimpeded directly into receiving waters, the Copermittee’s legal authority is to apply to both discharges into and from MS4s. Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff **from** commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges **to** their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states “The operators of regulated small MS4s cannot passively receive and discharge pollutants **from** third parties”³⁷ (emphasis added). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall “effectively prohibit non-stormwater discharges **into** the storm sewers” (emphasis added).

The requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

9. Issue: Does the Order improperly shift responsibility for control of construction and industrial sources of pollution to the Copermittees?

Response: No. The Copermittees are not responsible for enforcing or overseeing the General Statewide Industrial or Construction Permits. The SDRWQCB will oversee and enforce the General Statewide Industrial and Construction Permits. The Copermittees are however, responsible for enforcing their ordinances that implement the Order, including the prohibitions against illicit discharges. In some cases, the Copermittees may be required to implement or require the implementation of BMPs at construction or industrial sites that exceed the minimum requirements of the General Statewide Industrial or Construction Permits in order to achieve compliance with the requirements of the Order. USEPA supports this approach, clearly placing responsibility for the control of discharges from construction and industrial sites with municipalities.

³⁶U.S. Environmental Protection Agency. 1992. Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

³⁷U.S. Environmental Protection Agency. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. p. 68765.

US EPA felt it so important to control the discharge of pollutants from construction and industry that it established a double system of regulation over construction and industrial sites. Two parallel regulatory systems were established with the same common objective of keeping pollutants from construction and industrial sites out of the municipal separate storm sewer system (MS4). A structure was created where local governments must enforce their local ordinances and permits as required under their municipal storm water permits, while the SDRWQCB (state) must enforce its statewide general construction and industrial storm water permits. The two regulatory systems were designed to complement and support each other in the shared goal of minimizing pollutant discharges in runoff from construction and industrial sites. To this extent, this Order actually enables the SDRWQCB to alleviate some of the annual burden for inspecting high priority industrial sites by permitting a SDRWQCB inspection of a facility to satisfy the Copermittee requirement to inspect the same facility (section F.3.b.6.d). The SDRWQCB has recently added two full time positions to the Industrial Compliance Unit that conducts these inspections.

Local governments have the primary regulatory authority over the majority of construction and industrial sites since they issue the development and land use permits for the sites. In other words, the Copermittees are responsible for the water quality consequences of their planning, construction, and land use decisions that result in discharges into their MS4s.

US EPA supports this approach, clearly placing responsibility for the control of discharges from construction and industrial sites with municipalities. US EPA notes in the preamble to the storm water regulations that municipalities are in the best place to enforce industrial compliance with storm water discharge requirements, stating “[b]ecause storm water from industrial facilities may be a major contributor of pollutants to MS4s, municipalities are obligated to develop controls for storm water discharges associated with industrial activity through their system in their storm water management program [...]”³⁸ and “[t]hese permits are expected to require that controls be placed on storm water discharges associated with industrial activity which discharge through the municipal system.”³⁹

Regarding construction sites, US EPA also places enforcement responsibility on municipalities, requiring small municipalities to develop and implement “[a]n ordinance or other regulatory mechanism to require erosion and sediment controls, as well as **sanctions** to ensure compliance [...]” (40 CFR 122.34(b)(4)(ii)(A)) (emphasis added). In its guidance for the Phase II regulations, US EPA goes on to support increased municipality responsibility, stating “Even though all construction sites that disturb more than one acre are covered nationally by an NPDES storm water permit, the construction site runoff

³⁸U.S. Environmental Protection Agency. 1990. 40 CFR Parts 122, 123, and 124 National Pollutant discharge Elimination System Permit Application Regulations for Storm Water Discharges; Final Rule. p. 48000.

³⁹U.S. Environmental Protection Agency. 1990. 40 CFR Parts 122, 123, and 124 National Pollutant discharge Elimination System Permit Application Regulations for Storm Water Discharges; Final Rule. p. 48006.

control minimum measure for the small MS4 program is needed to induce more localized site regulation and enforcement efforts, and to enable operators of regulated small MS4s to more effectively control construction site discharges into their MS4s.”⁴⁰ While these above citations refer to small municipalities under Phase II of the NPDES program, US EPA recommendations to small municipalities are applicable to larger municipalities such as the Copermittees, due to the typically more serious water quality concerns attributed to such larger municipalities.

10. Issue: Must the Order require that municipal storm water discharges meet numeric effluent limits?

Response: No. Although NPDES permits must contain conditions to ensure that water quality standards are met, this does not require the use of numeric effluent limitations. Under the Clean Water Act and federal NPDES regulations, permitting authorities may employ a variety of conditions and limitations in storm water permits, including best management practices, performance objectives, narrative conditions, monitoring triggers, actions levels (e.g., monitoring benchmarks, toxicity reduction evaluation action levels), etc., as the necessary effluent limitations, where numeric effluent limitations are determined to be unnecessary or infeasible.

Neither the Clean Water Act nor the federal NPDES regulations require numeric effluent limitations for municipal storm water discharges. Section 301 of the Clean Water Act requires that discharger permits include effluent limitations necessary to meet water quality standards. Section 502 defines “effluent limitations” to mean any restriction on quantities, rates, and concentrations of constituents discharged from point sources. The Clean Water Act does not say that effluent limitations need be numeric. As a result, US EPA and States have flexibility in terms of how to express effluent limitations.

US EPA has, through the federal NPDES regulations, interpreted the Clean Water Act statute to allow for non-numeric effluent limitations (e.g., best management practices) to replace numeric effluent limitations where numeric effluent limitations are infeasible (40 CFR 122.44(k)). US EPA has found numeric effluent limitations infeasible because storm water discharges are highly variable both in terms of flow and pollutant concentrations, and the relationships between discharges and water quality can be complex. The current use of system-wide permits and a variety of jurisdiction-wide BMPs, including educational and programmatic BMPs, does not easily lend itself to the existing methodologies for deriving numeric effluent limitations.

It should be noted that while the Order does not specify numeric effluent limitations for municipal urban runoff discharges, it does not preclude numeric effluent limitations from applying to municipal urban runoff discharges into impaired water bodies. Where impaired water bodies are not meeting their water quality standards, numeric effluent limitations may be placed on municipal urban runoff discharges through the implementation of total maximum daily loads

⁴⁰ U.S. Environmental Protection Agency. 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

(TMDLs) or other means. Furthermore, methods utilized to calculate waste load allocations for TMDLs may eventually be used to develop numeric effluent limitations for urban runoff in municipal storm water permits.⁴¹

11. Issue: Does the Order provide adequate time for the Copermittees to develop and implement programs to meet its requirements?

Response: Yes. The Order provides the Copermittees with at least one-year to develop and implement their Jurisdictional Urban Runoff Management Programs. With regards to the component of the Jurisdictional Urban Runoff Management Programs which addresses planning and new development, the Copermittees are given a full year for development and implementation. In addition, the Copermittees are allowed at least 18 months to develop and implement their individual Standard Urban Storm Water Mitigation Plans (SUSMPs) for new development. Given that the federal NPDES storm water regulations, as well as the Copermittees' current storm water permit requirements, have been in place for approximately 10 years under the First and Second Term Permits, the Copermittees should require little time to develop and implement Jurisdictional Urban Runoff Management Programs which meet the requirements of the Order. The time periods provided by the Order should be more than adequate.

12. Issue: Does have the SDRWQCB have the authority to require SUSMPs and numeric sizing criteria in Order No. R9-2002-0001

Response: Yes. Pursuant to the Clean Water Act and Federal NPDES regulations, municipal storm water permits must require controls to reduce the discharge of pollutants to the maximum extent practicable including controls which address pollutant discharges resulting from new development and significant redevelopment. Both the Los Angeles Regional Water Quality Control Board (Order No. 96-54) and the San Diego Regional Water Quality Control Board (2001-01) have adopted SUSMP requirements in their Municipal Storm Water Permits. The SWRCB Order No. 2000-11(from appeal of LARWQCB permit) finds that SUSMP requirements (including numeric sizing criteria) reflect a reasonable interpretation of development controls that achieve reduction of pollutants in storm water discharges to the maximum extent practicable. In Order No. WQ 2001-15, the SWRCB continued its support of the SUSMP requirements stating "This Board very recently reviewed the need for controls on urban runoff in MS4 permits, the emphasis on best management practices (BMPs) in lieu of numeric effluent limitations, and the expectation that the level of effort to control urban runoff will increase over time. We pointed out that urban runoff is a significant contributor of impairment to waters throughout the state, and that additional controls are needed. Specifically, in Board Order WQ 2000-11 (hereinafter, LA SUSMP Order), we concluded that the Los Angeles Regional Water Board acted appropriately in determining that numeric standards for the design of BMPs to control runoff from new construction and redevelopment constituted controls to the MEP. The San Diego permit incorporates numeric design standards for runoff from new construction and redevelopment similar to those considered in the LA SUSMP order. In addition, the

⁴¹ Source: U.S. Environmental Protection Agency. 1996. Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits. 61 FR 43761.

permit addresses programmatic requirements in other areas. The LA SUSMP order was a precedential decision, and we will not reiterate our findings and conclusions from that decision.” The numeric sizing criteria is included to ensure that structural treatment BMPs are sized effectively to remove pollutants of concern to the maximum extent practicable. The Order allows Copermittees discretion in what BMPs will be implemented at a project and provides sizing options based on either runoff volume or flow.

13. Issue: Should the Order allow for urban runoff from new development and significant redevelopment to be addressed by regional BMPs (i.e., end of pipe or diversion BMPs) in lieu of site-specific BMPs?

Response: No, with the exceptions discussed below. Implementation of BMPs on a site by site basis provides many benefits. By its very definition, new development presents opportunities for on-site BMPs to be designed into the development as an integral component, at low cost, and with a greater likelihood for protecting water quality downstream over the life of the development. Treatment costs for municipal storm water generally increase with distance from the source. Regional “end of pipe” treatment also results in the loss of cost reducing opportunities for water quality improvements en route. Rather than increasing costs, small collection strategies, located at the point where runoff initially meets the ground, repeated consistently over entire projects, will usually yield the greatest water quality improvements for the least cost (BASMAA, 1999).

Furthermore, regional BMP approaches (such as end of pipe diversions) can send the wrong message to dischargers and the public, which can then cause setbacks in progress that has already been made. Instead of the idea that “business as usual” is acceptable since regional BMPs will “take care of everything” downstream, the message that SUSMPs and numeric sizing criteria should send is that behavior and site design must change in order for water quality to improve.

The SDRWQCB is skeptical that large-scale regional BMPs would be cost effective. Treatment costs for municipal storm water generally increase with distance from the source. Regional “end of pipe” treatment also results in the loss of cost reducing opportunities for water quality improvements en route. Rather than increasing costs, small collection strategies, located at the point where runoff initially meets the ground, repeated consistently over entire projects, will usually yield the greatest water quality improvements for the least cost.⁴² Furthermore, where regional approaches have been relatively successful, such as Fresno, generally few municipalities have been involved. In urbanized watersheds with many different jurisdictions, such as those in Los Angeles, Orange and San Diego Counties, there will be significantly greater organizational and jurisdictional difficulties, and hence drastically higher costs. For example, the failure in the San Diego Region of a regional BMP approach, the Carmel Valley Restoration Project, occurred due to a breakdown in coordination among agencies and resulted in a \$527,000 Administrative Civil Liability fine against the City of San Diego. While the SDRWQCB supports watershed based intergovernmental coordination, in practice,

⁴² Bay Area Stormwater Management Agencies Association. 1999. Start at the Source. Forbes Custom Publishing.

this coordination is not yet in place and may take many years to develop. Furthermore, the difficulties of coordination on a watershed level are only compounded when expanded to a regional level.

Furthermore, a regional BMP approach (i.e. end of pipe treatment) will probably lead to a progressive erosion of storm water quality gains achieved through aforementioned education programs. Since most municipalities in Southern California have historically used natural drainage features as storm water conveyances, there could be an additional loss of beneficial uses, including aesthetic benefits, in those waterways upstream of the proposed regional mitigation facilities. The inadequate implementation of on-site BMPs, which may consequently result from focusing on regional end of pipe BMP approaches, may be more damaging than maintaining the status quo. The overall result of a regional BMP approach could be additional water quality degradation to already impacted receiving waters, while new development and significant redevelopment with inadequate BMP controls continues apace.

Additionally, popular short-term regional solutions, such as end of pipe diversions into sanitary sewers, are effective only for dry weather flows. The sanitary sewerage collection systems found in the San Diego Region were not designed to handle the increased loads from dry weather flows, let alone flows from even minor storm runoff events. Likewise, the existing coastal Publicly Owned Treatment Works (POTWs) are not sized to treat wet weather flows, have almost no capacity for expansion, and will not be able to treat storm water flows.

Finally, it is important to note that in 2000, Governor Davis opposed increasing funding for regional diversion BMPs. In his veto message of a \$6.9 million bill that would have funneled money to Orange County to help curb urban runoff and clean beaches, Davis said the legislation "focuses on a temporary, seasonal fix and does not provide for identification and elimination of the sources of contamination."

Consequently, nearly all of the programs required and implemented under the Phase I Municipal Storm Water NPDES permits have been focused on source reduction through modification of behaviors/practices, in combination with the use of on-site structural BMPs, rather than on regional end of pipe treatment or diversion. In fact, on-site BMP implementation (such as a combination of pollution prevention, source control, and treatment BMPs) is a fundamental requirement of Order No. R9-2002-0001. Shifting BMP implementation from an on-site focus to a regional focus violates this fundamental requirement.

However, while onsite BMPs provide many benefits, there may be cases where offsite structural BMPs, implemented on a "neighborhood" or "sub-watershed" basis, may be more feasible. This is particularly the case for existing development, where opportunities for innovative site design do not exist. To allow more flexibility in BMP implementation, the Order SUSMP requirements regarding structural treatment BMPs have been drafted to allow BMPs to be shared by multiple new development projects on a "neighborhood" or "sub-watershed" level. The SWRCB supports this approach in Order WQ 2000-11, which states "We do note that there could be further cost savings for developers if the permittees develop a regional solution to the problem." It should be noted, however, that shared BMPs will be required to be implemented upstream from

any receiving water supporting beneficial uses. The receiving waters (such as urban streams) of the region cannot be used to transport potentially contaminated urban runoff to "regional" treatment facilities.

14. Issue: Will the SDRWQCB approve the Copermittees' Urban Runoff Management Programs (URMPs) and other submittals?

Response: No. The SDRWQCB does not approve dischargers' submittals.⁴³ It is the responsibility of the Copermittees to develop and implement adequate URMPs and other measures required by Order No. R9-2002-0001 in a timely manner. In other words, a Copermittee cannot postpone implementation of its URMP because the URMP has not been approved by the SDRWQCB. The SDRWQCB will review the URMPs and other documents and provide comments where inadequacies are observed. Provision of comments by the SDRWQCB or lack thereof does not constitute approval on the part of the SDRWQCB. The SDRWQCB will provide as much guidance as possible regarding the requirements of Order No. R9-2002-0001, but ultimately the responsibility for development and implementation lies with the Copermittees.

15. Issue: Will the Order's various requirements for implementation of structural BMPs and infiltration adversely impact wetlands by reducing flows reaching the wetlands?

Response: No. The Order will not adversely impact wetlands through a reduction in their receipt of flows. There are two conditions to consider regarding flows to wetlands: wet weather flows and dry weather flows.

The Order has been drafted to include only one requirement (F.1.b.2.b.i.) regarding wet weather flows. It is important to note this requirement only applies to new development and significant redevelopment, and therefore does not effect the majority of the area of most watersheds. The requirement states: "BMPs shall [...] Control the post-development peak storm water runoff discharge rates and velocities as necessary to maintain or reduce pre-development downstream erosion, and to protect stream habitat." As can be seen, the requirement attempts to maintain peak flow rates at predevelopment levels. Nowhere does the requirement make it necessary for peak flow rates to be reduced below predevelopment rates. By seeking to maintain predevelopment peak flow rates, the Order helps preserve the natural wet-weather runoff conditions, thereby protecting wetlands, as opposed to adversely impacting them.

The Order's SUSMP requirements include the option of infiltration of storm water. This is an option, and need not be used if concerns exist regarding unforeseen impacts. The Order also promotes infiltration of storm water runoff during wet weather. Again, these requirements seek to maintain the natural infiltration rates and thereby maintain the natural flow regime, which can only benefit wetlands. Development, with its associated impervious surfaces, greatly reduces infiltration

⁴³This response refers to the SDRWQCB's policy against staff approval of dischargers' programs or documents. At times, the SDRWQCB will approve dischargers' programs or documents at a public hearing during the public process. An example of this is the requirement in this Order for the Copermittees to develop a model Standard Urban Storm Water Mitigation Plan (SUSMP). The model SUSMP is to be approved by the SDRWQCB during a public hearing. However, in general, the documents and programs required by Order No. R9-2002-0001 will not be approved by SDRWQCB, and never by SDRWQCB staff.

at newly developed sites. Maximization of infiltration at such development sites will only swing infiltration rates back closer to their natural predevelopment levels. It is doubtful that natural predevelopment infiltration levels can even be achieved at developed sites, as many engineers attested to at the Order workshops. Therefore, it is highly unlikely that requirements promoting the use of infiltration will result in decreased flows to wetlands, thereby causing any adverse impacts. On the contrary, promotion of infiltration maintains natural groundwater recharge and overland runoff rates, both of which are necessary for most healthy wetlands. Any argument focusing only on quantity of overland flows misses the important impact groundwater recharge typically has on wetlands.

The other flow condition the Order addresses is dry weather flows. It has been stated that the Order's prohibitions on illicit discharges (section B) will impact the artificial dry weather flows upon which some wetlands are reliant. This is incorrect. The requirements for the prohibition of non-storm water discharges in section B of the Order are almost identical to requirements regarding non-storm water discharges in the current Orange County Municipal Storm Water Permit (Order No. 96-03). Clearly, these prohibitions have not led to the halt of dry weather urban runoff within Orange County over the last ten years. It has been further stated that Legal Authority section D.1.b of the Order will also result in decreased dry weather flows to wetlands. Again, this is not the case. This section requires the Copermittees to have legal authority to prohibit the discharges described in the section. It does not require the discharges to be prohibited in all instances, but rather requires the Copermittees to have the legal authority to prohibit such discharges in the event that prohibition is determined to be necessary. Irregardless, it is doubtful that any of the discharges discussed in section D.1.b would be beneficial to wetlands.

It has also been suggested that the provisions of the Order will require the diversion of dry weather flows to the sanitary sewer, thereby depriving wetlands of valuable artificial flows. Nowhere does the Order require diversion of any types of flow to the sanitary sewer. The Order actually does the opposite by promoting onsite controls and discouraging diversion. The Fact Sheet/Technical Report also discusses a preference for on site controls as opposed to diversion-type regional solutions. Furthermore, the Order's requirement that dry weather flows be diverted from structural infiltration BMPs (section F.1.b.2.i.iii) does not constitute a diversion to the sanitary sewer. Dry weather flows can simply be diverted to other BMPs such as filters, which would remove pollutants in the dry weather flows prior to their discharge to wetlands or other downstream areas.

16. Issue: Does the federal Clean Water Act and State Water Code give the SDRWQCB the broad legal authority which staff claims, and on which the validity of the Order depends?

Response: Yes. The California Water Code 13263 & 13377 give SDRWQCB authority to regulate discharges to preserve highest reasonable water quality and water quality needed to sustain beneficial uses, including aquatic habitat, etc. NPDES regulations mandate reduction of pollutants in storm water that cause or contribute to pollution to MEP by municipalities; evidence establishes risk of unreasonable degradation and pollution associated with urban runoff and

support's SDRWQCB imposition of requirements implementing "MEP" performance standards.

While CWA does not require municipalities to satisfy receiving water standards; [Defenders of Wildlife v Browner (9th c, 1999), 191F3d 1159] WQ sections 13263 & 13377 requires WDRs functioning as NPDES permits to implement water quality objectives (i.e., water quality standards) in basin plans and provisions of the CWA and NPDES regulations needed to protect beneficial uses, and to prevent nuisance.

17. Issue: Since the region's storm water problems stem from existing land use actions, will new development and redevelopment would carry a disproportionate share of the financial obligation to implement the provisions of the permit?

Response: No. The Order does not require new development and redevelopment to carry a disproportionate share of the financial burden to implement the provisions of the permit. The requirements on new development and redevelopment are required under the Federal NPDES regulations, and are designed to prevent new development and redevelopment from exacerbating existing conditions. The SWRCB supports this approach, stating in Order WQ 2000-11 that "[i]n the context of the entire effort required by the permit, the development controls can be seen as preventing the existing situation from becoming worse." The requirements for new development and redevelopment are only one section of the Order; the entire rest of the Order is focused on existing problems stemming from existing development conditions. The controls on new development do not result in a disproportionate financial obligation, since incorporation of BMPs during the planning phase of development has been consistently shown to be the most cost effective approach to reduce pollutant loads to receiving waters (USEPA, 1999).

18. Issue: Does the Order expand legal authority over local government in a manner not prescribed?

Response: No. The Order does not expand on the legal authority provided the SDRWQCB by the Clean Water Act and Porter-Cologne. The increased detail in the Order is supported by the Clean Water Act, Porter-Cologne, and more recent guidance from USEPA and the SWRCB. Where the Order has increased detail, the detailed requirements are included as necessary to achieve water quality standards.

The Clean Water Act supports increased detail in permits, where necessary, in section 402(p)(3)(B)(iii), which requires that permits for discharges from municipal storm sewers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." Porter-Cologne also supports this approach in section 13377, which requires "Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act (Clean Water Act), as amended, issue waste discharge requirements and dredged or fill material permits which apply

and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with anymore stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance."

More recent USEPA guidance also supports more detail in storm water permits where needed to meet water quality standards. In its "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits" USEPA states "The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards." The SWRCB cited this guidance in Order WQ 2000-11, which upheld SUSMP requirements as a correct interpretation of the MEP standard.

19. Issue: Is the specificity of the Order in direct conflict with an iterative process described in the Order?

Response: No. The term "iterative process" only appears in the Order once, at Finding 14, where it applies to section C of the Order. The term specifically refers to the process to be undertaken in the situation where discharges from an MS4 persist in causing or contributing to an exceedance of water quality objectives, despite the Copermittee's full implementation of its urban runoff management program (see section C of the Order). The term does not mean that compliance with the whole urban runoff management program and Order should be an "iterative process." Instead, the term means that efforts required to meet water quality standards, which go above and beyond those required in the urban runoff management program and other sections of the Order, may be implemented in an "iterative process."

VI. FINDINGS DISCUSSION

1. Finding states the following:

COPERMITTEES ARE DISCHARGERS OF URBAN RUNOFF: *Each of the persons in Table 1 below, hereinafter called Copermittees or dischargers, owns or operates a municipal separate storm sewer system (MS4), through which it discharges urban runoff into waters of the United States within the San Diego Region. The Copermittees serve a population of approximately 500,000 people within the San Diego Region. The MS4s operated by the Copermittees fall into one or more of the following categories: (1) a medium or large MS4 that services a population of greater than 100,000 or 250,000 respectively; or (2) a small MS4 that is "interrelated" to a medium or large MS4; or (3) an MS4 which contributes to a violation of a water quality standard; or (4) an MS4 which is a significant contributor of pollutants to waters of the United States.*

Table 1. Municipal Copermittees

1.	City of Aliso Viejo	8.	City of Mission Viejo
2.	City of Dana Point	9.	City of Rancho Santa Margarita
3.	City of Laguna Beach	10.	City of San Clemente
4.	City of Lake Forest	11.	City of San Juan Capistrano
5.	City of Laguna Hills	12.	County of Orange
6.	City of Laguna Niguel	13.	Orange County Flood Control District
7.	City of Laguna Woods		

Discussion: Section 402 of the Clean Water Act prohibits the discharge of any pollutant to waters of the United States from a point source, unless that discharge is authorized by a NPDES permit. Though urban runoff comes from a diffuse source, it is discharged through MS4s, which are point sources under the Clean Water Act. Federal NPDES regulation 40 CFR 122.26(a) (iii) and (iv) provide that discharges from MS4s, which service medium or large populations greater than 100,000 or 250,000 respectively, shall be required to obtain a NPDES permit. Federal NPDES regulation 40 CFR 122.26(a)(v) also provides that a NPDES permit is required for "A [storm water] discharge which the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States." Such sources are then designated into the program. See Attachment 1, NPDES Municipal Storm Water Permit Justifications, for an explanation on NPDES municipal storm water permit coverage for each municipality.

2. Finding states the following:

URBAN RUNOFF CONTAINS "WASTE" AND IS A "POINT SOURCE DISCHARGE OF POLLUTANTS": *Urban runoff contains waste, as defined in the California Water Code, and pollutants that adversely affect the quality of the waters of the State. The discharge of urban runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the United States as defined in the Clean Water Act.*

Discussion: The legal definition of "waste" can be found in California Water Code (CWC) section 13050(d), which states "'Waste' includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal." 40 CFR 122.2 defines

“point source” as “any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.” 40 CFR 122.2 defines “discharge of a pollutant” as “Any addition of any ‘pollutant’ or combination of pollutants to ‘waters of the United States’ from any point source.” Also, the justification for control of pollution into Californian waters can be found at CWC Section 13260(a)(1). The Finding was revised in response to SWRCB Order WQ 2001-15 to state that urban runoff contains waste.

3. Finding states the following:

URBAN DEVELOPMENT AND RUNOFF CAUSES RECEIVING WATER DEGRADATION: *Urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. As runoff flows over urban areas, it picks up harmful pollutants such as pathogens, sediment (resulting from human activities), fertilizers, pesticides, heavy metals, and petroleum products. These pollutants often become dissolved or suspended in urban runoff and are conveyed and discharged to receiving waters, such as streams, lakes, lagoons, bays, and the ocean without treatment. Once in receiving waters, these pollutants harm aquatic life primarily through toxicity and habitat degradation. Furthermore, the pollutants can enter the food chain and may eventually enter the tissues of fish and humans.*

There is a strong direct correlation between “urbanization” and “impacts to receiving water quality”. In general, the more heavily developed the area, the greater the impacts to receiving waters from urban runoff.

These impacts especially threaten environmentally sensitive areas (such as Clean Water Act section 303(d) impaired water bodies, areas designated as Areas of Special Biological Significance, water bodies designated with the RARE beneficial use, riparian or estuarine areas designated by the Copermittees as Critical Aquatic Resources (CARS), and regional parks and preserves containing receiving waters within the Cities and County of Orange). Such environmentally sensitive areas have a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance. In essence, urban development that is ordinarily insignificant in its impact on the environment may, in a particularly sensitive environment, be significant.

Discussion: Urbanization generally results in an increase in pollutant sources and impervious surfaces. The increase in pollutant sources associated with human land use leads to an increase in pollutant loads found in urban runoff, while the increase in impervious surfaces associated with development prevents natural processes from reducing those pollutant loads. The impervious surfaces associated with urbanization prevent soil infiltration and natural vegetation filtration of urban runoff. The end result is urban runoff flows that are higher in volume and pollutant loads. This causes the quality of receiving waters to be adversely impacted and beneficial uses to be impaired.

The US EPA supports this finding, stating in its 1996 National Water Quality Inventory that urban runoff/discharges from storm sewers are a major source of water quality impairment nationwide.⁴⁴ The 1996 Inventory also found urban runoff to be the leading cause of ocean impairment for those ocean miles

⁴⁴ US EPA. 1998. The National Water Quality Inventory, 1996 Report to Congress. EPA 841-R-97-008. As cited in 64 FR 68726.

surveyed.⁴⁵ In addition, the Region's Clean Water Act section 303(d) list (see Attachment 2), which identifies water bodies with impaired beneficial uses within the region, also indicates that the impacts of urban runoff on receiving waters are significant. Many of the impaired water bodies on the 303(d) list are impaired by constituents that have been found at high levels within urban runoff by the regional storm water monitoring program.⁴⁶ Examples of constituents frequently responsible for beneficial use impairment include total and fecal coliform, heavy metals, and sediment; these constituents have been found at high levels in urban runoff both regionally and nationwide.^{47, 48}

Beneficial use impairment resulting from urban runoff not only harms aquatic life, but can adversely impact human health as well. The US EPA finds that receiving water impairment from urban runoff can impact human health when it states "As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans."⁴⁹

4. Finding states the following:

URBAN DEVELOPMENT INCREASES POLLUTANT LOAD, VOLUME, AND VELOCITY OF RUNOFF: *During urban development two important changes occur. First, natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants providing a very effective natural purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost.*

Secondly, urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the MS4.

As a result of these two changes, the runoff leaving the developed urban area is significantly greater in volume, velocity and pollutant load than the pre-development runoff from the same area.

The significance of the impacts of urban development on receiving waters is determined by the scope of the project, such as the size of the project, the project land-use type, etc. Large projects (such as commercial developments greater than 100,000 square feet, home subdivisions greater than 10 units, and streets, roads, highways, and freeways) generally have large amounts of impervious surface, and therefore have greater potential to significantly impact receiving waters by increasing erosion (through increased peak flow rates, flow velocities, flow volumes, and flow durations) than smaller projects. Projects of particular land use types also have greater potential to significantly impact receiving waters due to the presence of typically large amounts of pollutants on site or an increased potential for pollutants to move off site (such as automotive repair shops,

⁴⁵ US EPA. 1998. The National Water Quality Inventory, 1996 Report to Congress. EPA 841-R-97-008. As cited in 64 FR 68726.

⁴⁶ City of San Diego. 1999. 1998-1999 City of San Diego and Co-permittee NPDES Storm Water Monitoring Program Report. By URS Greiner Woodward Clyde.

⁴⁷ City of San Diego. 1999. 1998-1999 City of San Diego and Co-permittee NPDES Storm Water Monitoring Program Report. By URS Greiner Woodward Clyde.

⁴⁸ US EPA. 1983. Results of the Nationwide Urban Runoff Program, Volume 1 – Final Report.

⁴⁹ US EPA. 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

restaurants, parking lots, streets, roads, highways, and freeways, hillside development, and retail gasoline outlets).

Discussion: Urbanization increases the amount of impervious ground cover of an area. For example, residential areas commonly cover the ground with approximately 30-70% impervious surfaces.⁵⁰ Regarding the impact of urbanization's impervious surfaces on urban runoff volume and velocity, the State Water Resources Control Board (SWRCB) Urban Runoff Technical Advisory Committee states in its 1994 report:

Changes in stream hydrology resulting from urbanization include: increased peak discharges; increased total volume of runoff; decreased time needed for runoff to reach the stream; increased frequency and severity of flooding; changes in stream flow during dry periods due to reduced levels of infiltration in the watershed; and greater runoff velocity during storms.

This finding is further supported by the SDRWQCB's Water Quality Control Plan (Basin Plan). Regarding the impact of urban development on urban runoff pollutant loads, the Basin Plan states:

Nonpoint source pollution is primarily the result of man's uses of land such as urbanization, roads and highways, vehicles, agriculture, construction, industry, mineral extraction, physical habitat alteration (dredging/filling), hydromodification (diversion, impoundment, channelization), silviculture (logging), and other activities which disturb land.⁵¹ As a result, when rain falls on and drains through urban freeways, industries, construction sites, and neighborhoods it picks up a multitude of pollutants. The pollutants can be dissolved in the runoff and quickly transported by gravity flow through a vast network of concrete channels and underground pipes referred to as storm water conveyance systems. Such systems ultimately discharge the polluted runoff, without treatment, into the nation's creeks, rivers, estuaries, bays, and oceans.⁵²

5. Finding states the following:

WATER QUALITY DEGRADATION INCREASES WITH PERCENT IMPERVIOUSNESS: *The increased volume and velocity of runoff from developed urban areas greatly accelerates the erosion of downstream natural channels. Numerous studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of its receiving water quality. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. (Developments of medium density single family homes range between 25 to 60% impervious). Today "% impervious coverage" is believed to be a reliable indicator and predictor of the water quality degradation expected from planned new development.*

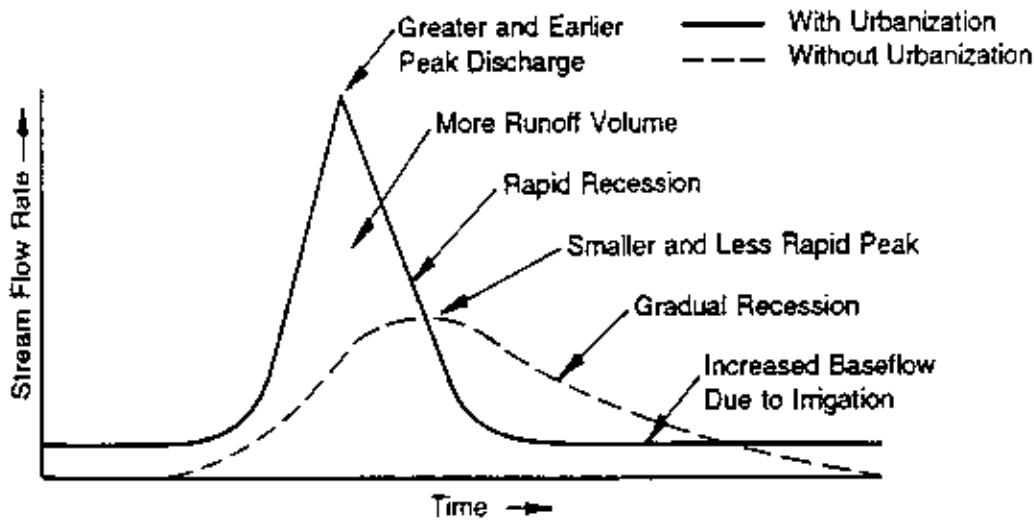
⁵⁰ Dunne, T. and Leopold, L.B. 1978. Water in Environmental Planning.

⁵¹ SDRWQCB. 1994. Water Quality Control Plan for the San Diego Basin. Page 4-66.

⁵² SDRWQCB. 1994. Water Quality Control Plan for the San Diego Basin. Page 4-69 through 4-70.

Discussion: Studies have shown that the level of imperviousness in an area strongly correlates with the quality of nearby receiving waters.⁵³ One comprehensive study, which looked at numerous areas, variables, and methods, revealed that stream degradation occurs at levels of imperviousness as low as (10% to 20%).⁵⁴ Degradation indicates a decline in the biological integrity and physical habitat conditions that are necessary to support natural biological diversity. For instance, few urban streams can support diverse benthic communities with imperviousness greater or equal to 25%.⁵⁵ To provide some perspective, a medium density, single family home area can be from 25% to 60% impervious (variation due to street and parking design).⁵⁶

The following figure shows the flow rate of an urban vs. a natural stream. What the figure demonstrates is that urban stream flows have greater peaks and volumes, as well as shorter retention times than natural stream flows. The greater peak flows and volumes result in stream degradation through increased erosion of stream banks and damage to aquatic habitat. The shorter retention times result in less time for sediments and other pollutants to settle before being carried out to the ocean. This sediment, and the associated pollutants it carries, can be a significant cause of degradation to the region's receiving waters, including coastal lagoons.



Source: Adapted from Schueler, 1997⁵⁷

⁵³ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges. 64 FR 68725.

⁵⁴ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges. 64 FR 68725.

⁵⁵ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges. 64 FR 68725.

⁵⁶ Schueler, T.R. 1994. *The Importance of Imperviousness*. Watershed Protection Techniques. As cited in 64 FR 68725.

⁵⁷ Schueler, T.R. 1987. *Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs*. Metropolitan Washington Council of Governments.

6. Finding states the following:

URBAN RUNOFF IS A HUMAN HEALTH THREAT: *Urban runoff contains pollutants, which threaten human health. Human illnesses have been clearly linked to recreating (i.e., swimming, surfing, etc.) near storm drains flowing to coastal beach waters. Such flows from urban areas often result in the posting or closure of local beaches.*

Pollutants transported to receiving waters by urban runoff can also enter the food chain. Once in the food chain they can "bioaccumulate" in the tissues of invertebrates (e.g., mussels, oysters, and lobsters) and fish which may be eventually consumed by humans. Furthermore, some pollutants are also known to "biomagnify". This phenomenon can result in pollutant concentrations in the body fat of top predators that are millions of times greater than the concentrations in the tissues of their lower trophic (food chain) counterparts or in ambient waters.

Discussion: This finding is supported by a landmark study conducted by the Santa Monica Bay Restoration Project. The study found that there was an increased occurrence of illness in people that swam in proximity to a flowing storm drain outlet.⁵⁸

In addition to the human health risk urban runoff poses from bodily contact, urban runoff also has the potential to adversely impact human health through bioaccumulation/biomagnification of urban runoff pollutants in the food chain. Pollutants such as heavy metals and pesticides, which are commonly found in urban runoff, have been found to bioaccumulate and biomagnify in long-lived organisms at the higher trophic levels.⁵⁹ Since many aquatic species are utilized for human consumption, toxic substances accumulated in species' tissues can pose a significant threat to public health.

The US EPA supports this finding when it states "As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans."⁶⁰

7. Finding states the following:

POLLUTANT TYPES: *The most common categories of pollutants in urban runoff include total suspended solids, sediment (due to anthropogenic activities); pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.*

Discussion: US EPA Nationwide Urban Runoff Program (NURP) data shows that heavy metals, organics, coliform bacteria, nutrients (e.g., fertilizers), oxygen demanding substances (e.g., decaying vegetation), and total suspended solids are

⁵⁸ Haile, R.W., et al. 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.

⁵⁹ Abel, P.D. 1996. Water Pollution Biology.

⁶⁰ US EPA. 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

found at relatively high levels in urban runoff.⁶¹ The Basin Plan goes on to identify examples of nonpoint sources in southern California to include lawn and garden chemicals, household and automotive care products dumped or drained on streets, sediment that erodes from construction sites, and various pollutants deposited by atmospheric deposition.⁶² In addition, the SWRCB Urban Runoff Technical Advisory Committee finds urban runoff pollutants to include sediment, nutrients, oxygen-demanding substances, road salts, heavy metals, petroleum hydrocarbons, pathogenic bacteria, viruses, and pesticides.”

8. Finding states the following:

URBAN STREAMS AS AN MS4 COMPONENT: *Historic and current development make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are both MS4s and receiving waters.*

Discussion: Natural drainage patterns and urban streams are frequently used by municipalities to convey urban runoff away from development within their jurisdiction. This is exhibited when urban streams and natural drainage systems are often altered (channelized, lined, widened, etc.) by municipalities in order to control and convey the increased urban runoff flows resulting from the urban development. Since the natural drainage or urban stream is used by the municipality to convey urban runoff, it becomes part of the municipality's MS4. However, urban streams and natural drainages used to convey urban runoff are part of a municipality's MS4 regardless of whether they have been altered by the municipality or not. For example, urban streams frequently run back and forth between lined and unlined (or natural) segments. Changes in the condition of an urban stream's channel (lined or unlined) does not constitute a change in the use of the urban stream or drainage by a municipality. In this manner, urban streams can be both receiving waters and MS4s.

9. Finding states the following:

URBAN RUNOFF CAUSES BENEFICIAL USE IMPAIRMENT: *Individually and in combination, the discharge of pollutants and increased flows from MS4s can cause or threaten to cause a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance. The discharge of pollutants from MS4s can cause the concentration of pollutants to exceed applicable receiving water quality objectives and impair or threaten to impair designated beneficial uses. The discharge of urban runoff may also impact the physical habitat of receiving waters. Significant stream channel incision and bank erosion is a feature common in the Aliso Creek watershed and other drainages in Orange County and may be caused in part by changes in peak flow rates and volumes resulting from urban development. Preliminary results of the Ambient Bioassessment Monitoring Program in Aliso Creek and San Juan Creek in 1998 and 1999 indicate impacts to the benthic community that may be the result of water quality and habitat degradation.*

Discussion: The Basin Plan supports this finding:

[W]hen rain falls on and drains through urban freeways, industries, construction sites, and neighborhoods it picks up a multitude of pollutants. The pollutants can be dissolved in the runoff and quickly transported by gravity flow through a vast network of concrete channels and underground

⁶¹ US EPA. 1983. Results of the Nationwide Urban Runoff Program, Volume 1-Final Report.

⁶² SDRWQCB. 1994. Water Quality Control Plan for the San Diego Basin. Page 4-1.

pipes referred to as storm water conveyance systems. Such systems ultimately discharge the polluted runoff, without treatment, into the nation's creeks, rivers, estuaries, bays, and oceans. [...] These pollutants severely degrade the beneficial uses of surface waters, and threaten the health of both humans and aquatic organisms.⁶³

The US EPA also supports this finding, stating in its 1996 National Water Quality Inventory that urban runoff/discharges from storm sewers are a major source of water quality impairment nationwide.⁶⁴ The 1996 Inventory also found urban runoff to be the leading cause of ocean impairment for those ocean miles surveyed.⁶⁵ In addition, the Region's Clean Water Act section 303(d) list (see Attachment 2), which identifies water bodies with impaired beneficial uses within the region, also indicates that the impacts of urban runoff on receiving waters are significant. Many of the impaired water bodies on the 303(d) list are impaired by constituents that have been found at high levels within urban runoff by the regional storm water monitoring program.⁶⁶ Examples of constituents frequently responsible for beneficial use impairment include total and fecal coliform, heavy metals, and sediment; these constituents have been found at high levels in urban runoff both regionally and nationwide.^{67,68}

10. Finding states the following:

COPERMITTEES IMPLEMENT URBAN RUNOFF MANAGEMENT PROGRAMS (URMPs):

Copermittee implementation of Urban Runoff Management Programs (URMPs) designed to reduce discharges of pollutants and flow into and from MS4s to the maximum extent practicable (MEP) can protect receiving water quality by promoting attainment of water quality objectives necessary to support designated beneficial uses. To be most effective, URMPs must contain both structural and non-structural best management practices (BMPs).

Discussion: US EPA finds that a "satisfactory proposed management program will address: management practices; control techniques and systems; design and engineering methods; and other measures to ensure the reduction of pollutants to the maximum extent practicable (MEP)."⁶⁹ The US EPA further states that "at a minimum, the proposed management program must include: [...] Identification of structural control measures to be included in these proposed programs."⁷⁰ These statements indicate that it is expected that URMPs be developed by the Copermittees that contain both structural and non-structural BMPs for the purpose

⁶³ SDRWQCB. 1994. Water Quality Control Plan for the San Diego Basin. Page 4-69 through 4-70.

⁶⁴ US EPA. 1998. The National Water Quality Inventory, 1996 Report to Congress. EPA 841-R-97-008. As cited in 64 FR 68726.

⁶⁵ US EPA. 1998. The National Water Quality Inventory, 1996 Report to Congress. EPA 841-R-97-008. As cited in 64 FR 68726.

⁶⁶ City of San Diego. 1999. 1998-1999 City of San Diego and Co-permittee NPDES Storm Water Monitoring Program Report. By URS Greiner Woodward Clyde.

⁶⁷ City of San Diego. 1999. 1998-1999 City of San Diego and Co-permittee NPDES Storm Water Monitoring Program Report. By URS Greiner Woodward Clyde.

⁶⁸ US EPA. 1983. Results of the Nationwide Urban Runoff Program, Volume 1 – Final Report.

⁶⁹ US EPA. 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

⁷⁰ US EPA. 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

of reducing pollutants in MS4 discharges to the maximum extent practicable. When pollutants in MS4 discharges are treated to the maximum extent practicable, receiving water quality and beneficial uses are typically protected through the attainment of water quality objectives. However, it should be noted that pollutant discharges which have the potential to cause or contribute to an exceedance of water quality objectives (such as discharges to Clean Water Act section 303(d) waterbodies) may require implementation of BMPs beyond the "maximum extent practicable" standard (40 CFR 122.44(d)(1)(i)).

11. Finding states the following:

BEST MANAGEMENT PRACTICES (BMPs): *Pollutants can be effectively reduced in urban runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control (or structural) BMPs remove pollutants from urban runoff. Where feasible, use of BMPs that utilize natural processes should be assessed. These types of BMPs, such as grassy swales and constructed wetlands, can frequently be as effective as less natural BMPs, while providing additional benefits such as aesthetics and habitat..*

Discussion: The SWRCB finds in its Order WQ 98-01 that BMPs are effective in reducing pollutants in urban runoff, stating that "implementation of BMPs [is] generally the most appropriate form of effluent limitations when designed to satisfy technology requirements, including reduction of pollutants to the maximum extent practicable." The SWRCB Urban Runoff Technical Advisory Committee further supports this finding by recommending "that nonpoint source pollution control can be accomplished most effectively by giving priority to [best management practices] in the following order:

1. Prevention – implementation of practices that use or promote pollution free alternatives;
2. Source Control – implementation of control measures that focus on preventing or minimizing urban runoff from contacting pollution sources;
3. Treatment Controls – implementation of practices that require treatment of polluted runoff either onsite or offsite."

US EPA also supports the utilization of a combination of BMPs to address pollutants in urban runoff. For example, US EPA has found there has been success in addressing illicit discharge related problems through BMP initiatives like storm drain stenciling and recycling programs, including household hazardous waste special collection days.⁷¹ Structural BMP performance data has also been compiled and summarized by US EPA.⁷² This data indicates that structural BMPs can be effective in reducing pollutants in urban runoff discharges. The summary provides the performance ranges of various types of structural BMPs for removing suspended solids, nutrients, pathogens, and metals from storm water flows. These pollutants are in general the pollutants of most concern in storm water in the San Diego Region. For suspended solids, the least effective

⁷¹ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges. 64 FR 68728.

⁷² USEPA. 1999. Preliminary Data Summary of Urban Storm Water Best Management Practices. EPA 821-R-99-012.

structural BMP type was found to remove 30-65% of the pollutant load, while the most effective was found to remove 65-100% of the pollutant load. For nutrients, the least effective structural BMP type was found to remove 15-45% of the pollutant load, while the most effective was found to remove 65-100% of the pollutant load. For pathogens, the least effective structural BMP type was found to remove <30% of the pollutant load, while the most effective was found to remove 65-100% of the pollutant load. For metals, the least effective structural BMP type was found to remove 15-45% of the pollutant load, while the most effective was found to remove 65-100% of the pollutant load.

12. Finding states the following:

POLLUTION PREVENTION: *Pollution prevention, the initial reduction/elimination of pollutant generation at its source, is the best "first line of defense" for Copermittees and should be used in conjunction with source control and treatment control BMPs. Pollutants that are never generated do not have to be controlled or treated. Encouragement during planning processes of the use of pollution prevention BMPs can be an effective means for pollution prevention BMPs to be implemented, through such methods as education, landscaping, etc.*

Discussion: Pollution prevention, the reduction or elimination of pollutant generation at its source, is an essential aspect of BMP implementation. By limiting the generation of pollutants by urban activities, less pollutants are available to be washed from urban areas, resulting in reduced pollutant loads in storm water discharges from these areas. In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media.⁷³

In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. California Water Code section 13263.3(a) also supports pollution prevention, stating "The Legislature finds and declares that pollution prevention should be the first step in a hierarchy for reducing pollution and managing wastes, and to achieve environmental stewardship for society. The Legislature also finds and declares that pollution prevention is necessary to support the federal goal of zero discharge of pollutants into navigable waters." Finally, the Basin Plan also supports this finding by stating that "[T]o eliminate pollutants in storm water, one can either clean it up by removing pollutants or prevent it from becoming polluted in the first place. Because of the overwhelming volume of storm water and the enormous costs associated with pollutant removal, pollution prevention is the only approach that makes sense."

13. Finding states the following:

RECEIVING WATER LIMITATIONS: *Compliance with receiving water limits based on applicable water quality objectives is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality objectives and the creation of conditions of pollution.*

⁷³Center for Watershed Protection, 2000. Assessing the Potential for Urban Watershed Restoration, Article 142 in the Protection, Tom Schueler.

Discussion: Urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Due to this significant contribution to the impairment of receiving waters, discharges from MS4s that cause or contribute to the violation of water quality standards (i.e., beneficial uses and the water quality objectives necessary to protect those uses) must be controlled and prohibited. MS4 permits must therefore include stringent discharge requirements to protect water bodies from discharges from MS4s.

The issue of whether storm water discharges from MS4s must meet water quality standards has been intensely debated for the past five years. The argument arises because Clean Water Act section 402(p) fails to clearly state that municipal dischargers of storm water must meet water quality standards. On the issue of industrial discharges of storm water, the statute clearly indicates that industrial dischargers must meet both (1) the technology-based standard of “best available technology economically achievable (BAT)” and (2) applicable water quality standards. On the issue of municipal discharges however, the statute states that municipal dischargers must meet (1) the technology-based standard of “maximum extent practicable (MEP)” and (2) “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants.” The statute fails, however, to specifically state that municipal dischargers must meet water quality standards.

As a result, the municipal storm water dischargers have argued that they do not have to meet water quality standards; and that they only are required to meet MEP. Environmental interest groups maintain that not only do MS4 discharges have to meet water quality standards, but that MS4 permits must also comply with numeric effluent limitations for the purpose of meeting water quality standards. On the issue of water quality standards, the US EPA, the SWRCB, and the SDRWQCB have consistently maintained that MS4s must indeed comply with water quality standards. On the issue of whether water quality standards must be met by numeric effluent limits, the US EPA, the SWRCB (in Orders WQ 91-03 and WQ 91-04), and the SDRWQCB have maintained that MS4 permits can, at this time, contain narrative requirements for the implementation of BMPs in place of numeric effluent limits.

SWRCB rationale: In addition to relying on US EPA’s legal opinion concluding that MS4s must meet MEP and water quality standards, the SWRCB also relied on the Clean Water Act’s explicit authority for States to require “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants” in addition to the technology-based standard of MEP. To further support its conclusions that MS4 permit dischargers must meet water quality standards, the SWRCB relied on provisions of the California Water Code that specify that all waste discharge requirements must implement applicable Basin Plans and take into consideration the appropriate water quality objectives for the protection of beneficial uses.

The SWRCB first formally concluded that permits for MS4s must contain effluent limitations based on water quality standards in its Order WQ 91-03. In that Order, the SWRCB also concluded that it was appropriate for Regional Boards to achieve this result by requiring best management practices, rather than by inserting

numeric effluent limitations into MS4 permits. In Order WQ 98-01, the SWRCB prescribed specific precedent setting Receiving Water Limitations language to be included in all future MS4 permits. This language specifically requires that MS4 dischargers meet water quality standards and allows for the use of narrative BMPs (increasing in stringency and implemented in an iterative process) as the mechanism by which water quality standards can be met.

In Order WQ 99-05, the SWRCB modified its receiving water limitations language in Order WQ 98-01 to meet specific objections by the US EPA (the modifications resulted in stricter compliance with water quality standards). SWRCB Order WQ 99-05 states "In Order WQ 98-01, the State Water Resources Control Board (State Water Board) ordered that certain receiving water limitation language be included in future municipal storm water permits. Following inclusion of that language in permits issued by the San Francisco Bay and San Diego Regional Water Quality Control Boards (Regional Water Boards) for Vallejo and Riverside respectively, the United States Environmental Protection Agency (EPA) objected to the permits. The EPA objection was based on the receiving water limitation language. The EPA has now issued those permits itself and has included receiving water limitation language it deems appropriate.

"In light of EPA's objection to the receiving water limitation language in Order WQ 98-01 and its adoption of alternative language, the State Water Board is revising its instructions regarding receiving water limitation language for municipal storm water permits. It is hereby ordered that Order WQ 98-01 will be amended to remove the receiving water limitation language contained therein and to substitute the EPA language. Based on the reasons stated here, and as a precedent decision, the following receiving water limitation language [which is found in Receiving Water Limitations item C. of Order No. R9-2002-0001] shall be included in future municipal storm water permits."

In a late 1999 case involving MS4 permits issued by US EPA to several Arizona cities (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035), the United States Court of Appeals for the Ninth Circuit upheld US EPA's requirement for MS4 dischargers to meet water quality standards, but it did so on the basis of US EPA's discretion rather than on the basis of strict compliance with the Clean Water Act. In other words, while holding that the Clean Water Act does not require all MS4 discharges to comply strictly with state water quality standards, the Court also held that US EPA has the authority to determine that ensuring strict compliance with state water quality standards is necessary to control pollutants. On the question of whether MS4 permits must contain numeric effluent limitations, the court upheld US EPA's use of iterative BMPs in place of numeric effluent limits.

SWRCB's final position: On October 14, 1999, the SWRCB issued a legal opinion on the federal appellate decision and provided advice to the Regional Boards on how to proceed in the future. In the memorandum, the SWRCB concludes that the recent Ninth Circuit opinion upholds the discretion of US EPA and the State to (continue to) issue permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that "[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have

to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions.” In summary, the SWRCB concludes that the Regional Boards should continue to include the Receiving Water Limitations language established in SWRCB Order WQ 99-05 in all future permits.

Accordingly, the SDRWQCB has included the Receiving Water Limitations language in Receiving Water Limitations item C. of Order No. R9-2002-0001.

14. Finding states the following:

RECEIVING WATER LIMITATION COMPLIANCE STRATEGY: *Implementation of BMPs cannot ensure attainment of receiving water quality objectives under all circumstances; some BMPs may not prove to be as effective as anticipated. An iterative process of BMP development, implementation, monitoring, and assessment is necessary to assure that an Urban Runoff Management Program is sufficiently comprehensive and effective to achieve compliance with receiving water quality objectives.*

Discussion: As discussed above in the Finding 13 discussion, the US EPA and SWRCB have discretion to issue municipal storm water permits which require compliance with water quality standards. To ensure that MS4 discharges comply with water quality standards, the SWRCB has adopted US EPA language in SWRCB Order WQ 99-05 that dictates implementation of an iterative BMP process when water quality standards are not met. This language is included in Order No. R9-2002-0001 in Receiving Water Limitations item C. The iterative BMP process requires the implementation of increasingly stringent BMPs until receiving water standards are achieved. This is necessary because implementation of BMPs alone cannot ensure attainment of receiving water quality objectives. For example, a BMP that is effective in one situation may not be applicable in another. An iterative process of BMP development, implementation, and assessment is needed to promote consistent compliance with receiving water quality objectives. If assessment of a given BMP confirms that the BMP is ineffective, the iterative process should be restarted, with redevelopment of a new BMP which is anticipated to result in compliance with receiving water quality objectives. Regarding BMP assessment, the SWRCB Urban Runoff Technical Advisory Committee states “The [Storm Water Pollution Prevention Plan] SWPPP must be revised if an inspection indicates a need to alter the BMPs: drop ineffective BMPs, add new BMPs, or modify a BMP that is to remain in the SWPPP.” It should be noted that while implementation of the iterative BMP process is a means to achieve compliance with water quality objectives, it does not shield the discharger from enforcement actions for continued non-compliance with water quality objectives.

15. Finding states the following:

COPERMITTEES' RESPONSIBILITY FOR ILLICIT DISCHARGES FROM THIRD PARTIES: *As operators of MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to the waters of the United States, the operator of an MS4 that does not prohibit and/or control discharges into its system essentially accepts responsibility for those discharges. These discharges may cause or contribute to a condition of contamination or exceedances of receiving water quality objectives*

Discussion: Clean Water Act section 402(p) requires operators of MS4s to prohibit non-storm water into their MS4s. This is necessary because pollutants that enter the MS4 generally are conveyed through the MS4 to be eventually discharged

into receiving waters. If a municipality does not prohibit non-storm water discharges, it is providing the pathway (its MS4) which enables pollutants to reach receiving waters. Since the municipality's storm water management service can result in pollutant discharges to receiving waters, the municipality must accept responsibility for the water quality consequences resulting from this service. Furthermore, third party discharges can cause a municipality to be out of compliance with its permit. Since pollutants from third parties that enter the MS4 will eventually be discharged from the MS4 to receiving waters, the third party discharges can result in a situation of municipality non-compliance if the discharges lead to an exceedance of water quality standards. For these reasons, each Copermittee must prohibit and/or control discharges from third parties to its MS4.

16. Finding states the following:

COPERMITTEES' RESPONSIBILITY BASED ON LAND USE AUTHORITY: Utilizing their land use authority, Copermittees authorize and realize benefits from the urban development which generates the pollutants and runoff that impair receiving waters. Since the Copermittees utilize their legal authority to authorize urbanization, they must also exercise their legal authority to ensure that the resulting increased pollutant loads and flows do not further degrade receiving waters.

Discussion: Storm water permits are issued to municipalities because of their land use authority. The ultimate responsibility for the pollutant discharges, increased runoff, and inevitable long-term water quality degradation that results from urbanization lies with local governments. This responsibility is based on the fact that it is the local governments that have authorized the urbanization (i.e., conversion of natural pervious ground cover to impervious urban surfaces) and the land uses that generate the pollutants and runoff. Furthermore, the MS4 through which the pollutants and increased flows are conveyed, and ultimately discharged into San Diego's natural receiving waters, are owned and operated by the same local governments. In summary, the municipal Copermittees under Order No. R9-2002-0001 are responsible for discharges into and out of their storm water conveyance systems because (1) they own and operate the MS4; and (2) they have the legal authority that authorizes the very development and land uses with generate the pollutants and increased flows in the first place.

Order No. R9-2002-0001 holds the local government accountable for this direct link between its land use decisions and water quality degradation. The permit recognizes that each of the three major stages in the urbanization process (development planning, construction, and the use or operational stage) are controlled by and must be authorized by the local government. Accordingly, this permit requires the local government to implement, or require others to implement, appropriate best management practices to reduce pollutant discharges and increased flow during each of the three stages of urbanization.

For example, since grading cannot commence prior to the issuance of a local grading permit, the Copermittees have a built-in mechanism to ensure that all grading activities are protective of receiving water quality. The Copermittee has the authority and discretion to withhold issuance of the grading permit until the project proponent has demonstrated to the satisfaction of the Copermittee that the project will not violate the Copermittee's ordinances or cause the Copermittee to

be in violation of its municipal storm water permit. Since the Copermittee will ultimately be held responsible for any discharges from the grading project by the SDRWQCB, the Copermittee will want to use its own permitting authority to ensure that whatever measures the Copermittee deems necessary to protect discharges into its MS4 are in fact taken by the project proponent.

17. Finding states the following:

THREE PHASES OF URBAN DEVELOPMENT: *Urban development has three major phases: (1) land use planning for new development; (2) construction; and (3) the "use" or existing development phase. Because the Copermittees authorize, permit, and realize benefits from each of these phases, and because each phase has a profound impact on water quality, the Copermittees have commensurate responsibilities to protect water quality during each phase. In other words, Copermittees are held responsible for the short and long-term water quality consequences of their land use planning, construction, and existing development decisions.*

Discussion: Through its permitting processes, each Copermittee authorizes the three major phases of urban development within its jurisdiction. Each Copermittee can also realize benefits from the authorization of urban development. For these reasons, each Copermittee must assume responsibility for its urban development decisions (see also the Discussion for Finding 16). The Federal Regulations clearly require municipalities to address urban runoff during each stage of development. Regarding BMP implementation during each stage of urban development, US EPA recommends that Copermittees ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for noncompliance with design, construction or operation and maintenance.⁷⁴

18. Finding states the following:

PLANNING PHASE FOR NEW DEVELOPMENT: *Because land use planning and zoning is where urban development is conceived, it is the phase in which the greatest and most cost-effective opportunities to protect water quality exists. When a Copermittee incorporates policies and principles designed to safeguard water resources into its General Plan and development project approval processes, it has taken a far-reaching step towards the preservation of local water resources for future generations.*

Discussion: Including plans for BMP implementation during the design phase of new development and redevelopment offers the most cost effective strategy to reduce urban runoff pollutant loads to surface waters.⁷⁵ The Phase II regulations for small municipalities reflect the necessity of addressing urban runoff during the early planning phase. Due to the greater water quality concerns generally experienced by larger municipalities, Phase II requirements for small municipalities are also applicable to larger municipalities such as the Copermittees. The Phase II regulations direct municipalities to develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre

⁷⁴ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68845.

⁷⁵ US EPA. 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

that are part of a larger common plan of development or sale. The program must ensure that controls are in place that would prevent or minimize water quality impacts. This includes developing and implementing strategies that include a combination of structural and/or non-structural BMPs appropriate to the locality. The program must also ensure the adequate long-term operation and maintenance of BMPs.⁷⁶ US EPA expands on the Phase II regulations for urban development when it recommends that Copermitttees:

“[A]dopt a planning process that identifies the municipality’s program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures. In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality.”

19. Finding states the following:

CONSTRUCTION PHASE: Construction activities are a significant cause of receiving water impairment. Siltation is currently the largest cause of river impairment in the United States. Sediment runoff rates from construction sites greatly exceed natural erosion rates of undisturbed lands causing siltation and impairment of receiving waters. In addition to requiring implementation of the full range of BMPs, an effective construction runoff program must include local plan review, permit conditions, field inspections, and enforcement.

Discussion: The US EPA strongly supports this finding in the Phase II regulations. The US EPA explains in the regulations that storm water discharges generated during construction activities can cause an array of physical, chemical, and biological water quality impacts. Specifically, the biological, chemical and physical integrity of the waters may become severely compromised due to runoff from construction sites. Fine sediment from construction sites can adversely affect aquatic ecosystems by reducing light penetration, impeding sight-feeding, smothering benthic organisms, abrading gills and other sensitive structures, reducing habitat by clogging interstitial spaces within the streambed, and reducing intergravel dissolved oxygen by reducing the permeability of the bed material. Water quality impairment also results, in part, because a number of pollutants are preferentially absorbed onto mineral or organic particles found in fine sediment. The interconnected process of erosion (detachment of the soil particles), sediment transport, and delivery is the primary pathway for introducing key pollutants, such as nutrients, metals, and organic compounds into aquatic systems.⁷⁷

20. Finding states the following:

⁷⁶ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68845.

⁷⁷ US EPA. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68728.

EXISTING DEVELOPMENT: *The Copermittees' wet weather monitoring results collected during the past decade, as well as volumes of other references in the literature today, confirm substantial pollutant loads to receiving waters in runoff from existing urban development. Implementation of jurisdictional and watershed URMPs, which include extensive controls on existing development, can reduce pollutant loadings over the long term.*

Discussion: This finding is supported by the results of the City of San Diego and Co-permittee NPDES Stormwater Monitoring Program annual reports.⁷⁸

21. Finding states the following:

CHANGES NEEDED: *Because the urbanization process is a direct and leading cause of water quality degradation in this Region, fundamental changes to existing policies and practices about urban development are needed if the beneficial uses of the San Diego Region's natural water resources are to be protected.*

Discussion: Urban runoff has been recognized as a leading cause of water quality degradation both regionally and nationwide. The 1998-1999 City of San Diego and Co-Permittee NPDES Stormwater Monitoring Program Report reflects the water quality issues resulting from urban runoff that have been observed in the San Diego region and on a nationwide level. Monitoring efforts indicate that instream concentrations of pathogen indicators (fecal coliform and streptococcus) and heavy metals (such as cadmium, copper, lead, and zinc) exceed state and federal water quality criteria. In addition, storm water within the region has been found to contain the pesticides diazinon and chlorpyrifos (Dursban) at levels that can cause chronic or acute toxicity.⁷⁹

As the monitoring program results indicate, urban runoff is identified as a primary source of receiving water quality impairment within the Region. Though urban land use occupies approximately 30% of the monitoring program study area, approximately 50% or more of the total pollutant load for many constituents is contributed by urbanized land uses including residential, commercial, and industrial land uses.⁸⁰ The Region's Clean Water Act Section 303(d) list, which identifies water bodies with impaired beneficial uses within the Region, also indicates that the impacts of urban runoff are significant. Many of the impaired water bodies on the 303(d) list are impaired by constituents that have been found at high levels within urban runoff by the regional storm water monitoring program. Examples of constituents frequently responsible for beneficial use impairment include total and fecal coliform, heavy metals, and sediment; these constituents have been found at high levels in urban runoff both regionally and nationwide.

Clearly, current policies and practices to protect water quality from the impacts of urbanization have not been entirely effective. A shift is toward new and expanded policies and practices is needed to achieve the requirements of the Clean Water Act. The requirements of Order No. R9-2002-0001 include and encourage new policies and practices to manage urban runoff. These new policies and practices

⁷⁸ City of San Diego. Multiple Years. City of San Diego and Co-permittee NPDES Stormwater Monitoring Program. Prepared by Woodward Clyde Consultants.

⁷⁹ City of San Diego. 1999. 1998-1999 City of San Diego and Co-permittee NPDES Stormwater Monitoring Program Report. Prepared by URS Greiner Woodward Clyde.

⁸⁰ City of San Diego. 1998. 1997-1998 City of San Diego and Co-permittee NPDES Stormwater Monitoring Program Report. Woodward Clyde Consultants.

are based on US EPA and SWRCB guidance, and are supported by recent and ongoing research. The requirements of Order No. R9-2002-0001 are discussed individually in further detail in section VII of this Fact Sheet/Technical Report.

22. Finding states the following:

DUAL REGULATION OF INDUSTRIAL AND CONSTRUCTION SITES: *Discharges of runoff from industrial and construction sites in this Region are subject to dual (state and local) regulation. (1) All industries and construction sites are subject to the local permits, plans, and ordinances of the municipal jurisdiction in which it is located. Pursuant to this Order, local (storm water, grading, construction, and use) permits, plans, and ordinances must (a) prohibit the discharge of pollutants and non-storm water into the MS4; and (b) require the routine use of BMPs to reduce pollutants in site runoff. (2) Many industries and construction sites are also subject to regulation under the statewide General Industrial Storm Water Permit or statewide General Construction Storm Water Permit¹. These statewide general permits are adopted by the State Water Resources Control Board and enforced by the nine Regional Water Quality Control Boards throughout California. Like the Copermittees' local permits and ordinances, the statewide General Industrial and Construction Permits also (a) prohibit the discharge of pollutants and non-storm water; and (b) require the routine use of BMPs to reduce pollutants in site runoff.*

Recognizing that both authorities share a common goal, the federal storm water regulations at 40 CFR 122.26 (and its preamble) call for the dual system to ensure the most effective oversight of industrial and construction site discharges. Under this dual system, each municipal Copermittee is responsible for enforcing its local permits, plans, and ordinances within its jurisdiction. Similarly, the SDRWQCB is responsible for enforcing both statewide general permits and this Order within the San Diego Region.

Discussion: US EPA finds the control of pollutant discharges from industry and construction so important to receiving water quality that it has established a double system of regulation over industrial and construction sites. This double system of regulation consists of two parallel regulatory systems with the same common objective: to keep pollutants from industrial and construction sites out of the MS4. In this double system of regulation for runoff from industrial and construction sites, local governments must enforce their legal authorities (i.e., local ordinances and permits) while the SDRWQCB must enforce its legal authority (i.e., statewide general industrial and construction storm water permits). These two regulatory systems are designed to complement and support each other. Municipalities are not required to enforce SDRWQCB and SWRCB permits; however, they are required to enforce their ordinances and permits. The Federal regulations are clear that municipalities have responsibility to address runoff from industrial and construction sites which enters their MS4s.

Municipalities have this responsibility because they have the authority to issue land use and development permits. Since municipalities are the lead permitting authority for industrial land use and construction activities, they are also the lead for enforcement regarding runoff discharges from these sites. For sites where the municipality is the lead permitting authority, the SDRWQCB will work with the municipality and provide support where needed. In some instances, where the

¹The "statewide General Industrial Storm Water Permit" refers to State Water Resources Control Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities. The "statewide General Construction Storm Water Permit" refers to State Water Resources Control Board Order No. 99-08-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity.

SDRWQCB is the primary regulatory authority and lead permitting authority (e.g., for landfills and sewage collection and treatment systems), the SDRWQCB is the lead for enforcement and will look for support from the municipalities.

23. Finding states the following:

EDUCATION: *Education is the foundation of every effective URMP and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions impact receiving water quality and how these impacts can be minimized. The proposed Drainage Area Management Plan (DAMP) that was submitted to the SDRWQCB by the Orange County Copermittees in September 2000 has a strong emphasis on education measures.*

Discussion: The SWRCB and US EPA both recognize education as a critical component of storm water management. In its 1994 report, the SWRCB Technical Advisory Committee (TAC) “recognizes that education with an emphasis on pollution prevention is the fundamental basis for solving nonpoint source pollution problems.” The TAC goes on to recommend that target audiences for education efforts include the government, youth groups, the development community, and business and industrial groups. According to the Phase II Storm Water Regulations found at 64 FR 68754 and 68754, US EPA believes that as the public gains a greater understanding of the storm water program through education, the municipality is likely to gain more support for the program (including funding initiatives). In addition, compliance with the program will probably be greater if the public understands the personal responsibilities expected of them. US EPA goes on to explain that a public education program should inform individuals and households about problems and the steps they can take to reduce or prevent storm water pollution.

24. Finding states the following:

ENFORCING LOCAL LEGAL AUTHORITY: *Enforcement of local urban runoff related ordinances, permits, and plans is an essential component of every URMP and is specifically required in the federal storm water regulations and this Order. Routine inspections provide an effective means by which Copermittees can evaluate compliance with their permits and ordinances. Inspections are especially important at high-risk areas for pollutant discharges such as industrial and construction sites.*

When industrial or construction site discharges occur in violation of local permits and ordinances, the SDRWQCB looks to the municipality that has authorized the discharge for appropriate actions (typically education followed by enforcement where education has been unsuccessful). Each Copermittee must also provide enforcement against illegal discharges from other land uses it has authorized, such as commercial and residential developments.

Discussion: Since municipalities approve and permit construction and land use within their jurisdiction, they must assume responsibility for urban runoff discharges from these activities and land uses. The Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A – D) are clear in placing responsibility on municipalities for control of urban runoff from third party activities and land uses to their MS4. In order for municipalities to assume this responsibility, they must implement ordinances, permits, and plans addressing urban runoff from third parties. Assessments for compliance with their ordinances, permits, and plans are

essential for a municipality to ensure that third parties are not causing the municipality to be in violation of its municipal storm water permit. When conditions of non-compliance is determined, enforcement is necessary to ensure that violations of municipality ordinances and permits are corrected. Without enforcement, third parties do not have incentive to correct violations. US EPA supports inspections and enforcement by municipalities when it states "Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described."⁸¹

US EPA discusses the "dual regulation" of construction sites in its *Storm Water Phase II Compliance Assistance Guide*, which states "Even though all construction sites that disturb more than one acre are covered nationally by an NPDES storm water permit, the construction site runoff control minimum measure [...] is needed to induce more localized site regulation and enforcement efforts, and to enable operators [...] to more effectively control construction site discharges into their MS4s." While the *Storm Water Phase II Compliance Assistance Guide* applies to small municipalities, requirements for small municipalities are applicable to larger municipalities, such as the Copermittees, due to the generally more serious water quality problems caused by larger municipalities.

Municipalities assume initial responsibility for enforcement against illegal discharges from land uses and activities within their jurisdiction because of their land use authority. Since the municipality approves and permits development and land use, it must ensure that its development or land use decisions do not result in receiving water quality degradation. The SDRWQCB will assist municipalities in enforcement against non-compliant sites after the municipality has exhibited a good faith effort to bring the site into compliance.

25. Finding states the following:

PUBLIC PARTICIPATION: *Public participation during the URMP development process is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.*

Discussion: This finding is supported by the Phase II Storm Water Regulations found at 64 FR 68755 which states, "[E]arly and frequent public involvement can shorten implementation schedules and broaden public support for a program." It goes on to explain, "[P]ublic participation is likely to ensure a more successful storm water program by providing valuable expertise and a conduit to other programs and governments."

26. Finding states the following:

TOXICITY: *Urban runoff discharges from MS4s often contain pollutants that cause toxicity, (i.e., adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part "All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.... The*

⁸¹ US EPA. 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge...” Urban runoff discharges from MS4s are considered toxic when (1) the toxic effect observed in an acute toxicity test exceeds zero Toxic Units Acute ($TU_a=0$); or (2) the toxic effect observed in a chronic toxicity test exceeds one Toxic Unit Chronic ($TU_c=1$).

Discussion: Consideration of urban runoff toxicity is significant because toxicity assessments measure the potential effect of a discharge on receiving waters. This is particularly useful in assessing impacts, as opposed to measurements of pollutant concentrations where the effect of the pollutant concentration on receiving waters may be unknown. Finding 26 and this discussion clarify SDRWQCB expectations regarding urban runoff toxicity. Toxicity is also further discussed in Appendix I of the SWRCB's 1997 Water Quality Control Plan – Ocean Waters of California, “California Ocean Plan.”

Toxicity is commonly evaluated in terms of both acute toxicity and chronic toxicity. “Acute toxicity concentration” can be expressed in Toxic Units Acute (TU_a). The Ocean Plan defines acute toxicity and a method for calculating TU_a in a manner that can be used for ocean waters and other waters. Using this Ocean Plan definition and calculation methodology, 100% survival of test organisms in an acute toxicity test yields an acute toxicity concentration of zero TU_a . 100% survival of test organisms corresponds to the Basin Plan narrative objective of ‘no toxics in toxic amounts.’ Therefore, an acute toxicity concentration in excess of zero TU_a would not meet the Basin Plan narrative objective for toxicity.

“Chronic toxicity concentration” can be expressed in Toxic Units Chronic (TU_c). As with acute toxicity, the Ocean Plan defines chronic toxicity and a method for calculating TU_c that can be used for ocean waters and other waters. Using this Ocean Plan definition and calculation methodology, the absence of observable effects on test organisms in undiluted test water in a critical life stage toxicity test yields a chronic toxicity concentration of 1 TU_c . The absence of observable effects on test organisms in undiluted test water corresponds to the Basin Plan narrative objective of ‘no toxics in toxic amounts.’ Therefore, a chronic toxicity concentration in excess of 1 TU_c would not meet the Basin Plan narrative objective for toxicity.

27. Finding states the following:

FOCUS ON MAN-MADE POLLUTANTS AND FLOWS: *The focus of this Order is on the control of urban runoff pollutants and flows, which are either generated or accelerated by human activities. This Order is not meant to control background or naturally occurring pollutants and flows.*

Discussion: In general, man-made pollutants and flows are the cause of receiving water impairment resulting from urban runoff. This is because human activities increase the concentrations of constituents above natural or background levels. Flow volumes and rates are also increased above background levels due to human activities, in both wet and dry weather. The focus of Order No. R9-2002-0001 is therefore placed man-made pollutants and flows. Man-made pollutants and flows are also focused on due to our ability to control them. In comparison with naturally occurring pollutants and flows, man-made pollutants and flows are significantly easier to control. The SDRWQCB has discretion to require control of

flows under a United States Supreme Court decision, which held that regulation of flow to protect beneficial uses is within the authority of the Clean Water Act (PUD No. 1 v. WA Dept. of Ecology, 511 U.S. 700 (1994)).

28. Finding states the following:

COMMON WATERSHEDS AND CWA SECTION 303(d) IMPAIRED WATERS: *The Copermittees discharge urban runoff into lakes, streams, creeks, bays, the Pacific Ocean, and tributaries thereto within six hydrologic areas within Orange County as shown in Table 2 below. During its downstream course, urban runoff is conveyed through lined and unlined (natural, manmade, and partially modified) channels, all of which are defined as components of the Copermittees' MS4.*

Some of the receiving water bodies listed below, which receive or convey urban runoff discharges, have been designated as impaired by the SDRWQCB and USEPA in 1998 pursuant to Clean Water Act section 303(d). Additional water bodies may be listed during the term of this Order pursuant to Clean Water Act section 303(d) as impaired as more information is collected and analyzed.

Table 2. Watershed Management Areas (WMAs)

SDRWQCB WATERSHED MANAGEMENT AREA (WMA)	HYDROLOGIC UNIT(S)	MAJOR SURFACE WATER BODIES	303(d) POLLUTANT(S) OF CONCERN OR WATER QUALITY EFFECT	COPERMITTEES
San Juan Creek WMA	San Juan Hydrologic Unit (901.00)	Moro Canyon Creek Laguna Canyon Creek Aliso Creek English Canyon Creek Sulphur Creek Wood Canyon Creek Salt Creek San Juan Creek Bell Canyon Creek Canada Gobernadora Arroyo Trabuco Oso Creek Prima Deshecha Canada Segunda Deshecha Canada Pacific Ocean	1. Coliform Bacteria	1. County of Orange 2. City of Aliso Viejo 3. City of Dana Point 4. City of Laguna Beach 5. City of Lake Forest 6. City of Laguna Hills 7. City of Laguna Niguel 8. City of Laguna Woods 9. City of Mission Viejo 10. City of Rancho Santa Margarita 11. City of San Juan Capistrano 12. City of San Clemente 13. Orange County Flood Control District

Discussion: The 1998 California 303(d) List and TMDL Priority Schedule identifies impaired receiving water bodies and their watersheds within the State of California. The Copermittees which discharge from MS4s to these water bodies are identified in the Regional Board *Draft Watershed Management Approach*.⁸² For an explanation on how the watershed approach fits into the NPDES municipal storm water permitting program, see Attachment 4, Municipal Storm Water Permitting and the Watershed Approach.

29. Finding states the following:

CUMULATIVE POLLUTANT LOAD CONTRIBUTIONS: *Because they are interconnected, each MS4 within a watershed contributes to the cumulative pollutant loading, volume, and velocity of urban runoff and the ensuing degradation of downstream receiving water bodies. Accordingly, inland MS4s contribute to coastal impairments.*

Discussion: A watershed is the drainage basin, outlined by topographic divides, which drain to a common outlet, such as a stream, lake, estuary, enclosed bay, or

⁸² SDRWQCB. 1999. Fifth Draft Watershed Management Approach for the San Diego Region.

ocean. Therefore, when various MS4s discharge into the same watershed, the discharges eventually flow into a common receiving water body. In this manner, individual MS4s that share the same watershed contribute to cumulative pollutant loading in the watershed's receiving water body. To help alleviate this cumulative loading, watershed based water quality protection is needed. The SWRCB Urban Runoff Technical Advisory Committee defines watershed based water quality protection as "the prevention/control of pollution and management of human activities within a geographically or other defined drainage area to protect, restore, and/or enhance the natural resources and beneficial uses within the watershed."

30. Finding states the following:

LAND USE PLANNING ON A WATERSHED SCALE: *Because urban runoff does not recognize political boundaries, "watershed-based" land use planning (pursued collaboratively by neighboring local governments) can greatly enhance the protection of shared natural water resources. Such planning enables multiple jurisdictions to work together to plan for both development and resource conservation that can be environmentally as well as economically sustainable.*

Discussion: Conventional planning and zoning can be limited in their ability to protect the environmental quality of creeks, rivers, and other waterbodies. Watershed-based planning is often ignored, despite the fact that receiving waters unite land by collecting runoff from throughout the watershed. Since watersheds unite land, they can be used as an effective basis for planning. Watershed-based planning enables local and regional areas to realize economic, social, and other benefits associated with growth, while conserving the resources needed to sustain such growth, including water quality. This type of planning can involve four steps: (1) Identify the watersheds shared by the participating jurisdictions; (2) Identify, assess, and prioritize the natural, social, and other resources in the watersheds; (3) Prioritize areas for growth, protection, and conservation, based on prioritized resources; and (4) Develop plans and regulations to guide growth and protect resources. Local governments can start with simple, yet effective, steps toward watershed planning, such as adopting a watershed-based planning approach, articulating the basic strategy in their General Plans, and beginning to pursue the basic strategy in collaboration with neighboring local governments who share the watersheds. New mechanisms have been created to facilitate watershed-based planning and zoning, such as the San Francisquito Creek Watershed Coordinated Resource Management Process and the Santa Clara Basin Watershed Management Initiative.⁸³

31. Finding states the following:

INTERGOVERNMENTAL COORDINATION: *Within their common watersheds it is essential for the Copermitees to coordinate their water quality protection and land use planning activities to achieve the greatest protection of receiving water bodies. Copermitee coordination with other watershed stakeholders, especially CALTRANS and the Department of Defense is also critical.*

Continued implementation of the management structure developed under previous permits, within which the Copermitees subject to this Order, will fund and coordinate those aspects of their joint obligations will promote implementation of Urban Runoff Management Programs on a watershed and regional basis in the most cost effective manner.

⁸³ Source: Bay Area Stormwater Management Agencies Association. 1999. Start at the Source. Forbes Custom Publishing.

Discussion: Within a given watershed, “water quality and beneficial uses may be affected by many different activities – which may occur throughout or only in certain parts of watersheds, and which may occur near to or far from locations of known water problems” (SDRWQCB,1999). This implies that pollutant sources may actually be located far from where the water quality problem manifests itself. Therefore, water quality problems generated by one municipality may impact another municipality. In addition, municipalities within a watershed all contribute pollutants to shared receiving waters. For these reasons, coordination between municipalities and stakeholders within a watershed is necessary. Watershed scale coordination provides for the highest priority water quality problems to be addressed, resulting in the greatest improvements in water quality for costs incurred. Intergovernmental coordination can also result in cost savings through the sharing of resources between Copermittees.

Also, federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires where necessary intergovernmental coordination by stating “a proposed management program covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate.” In addition, the US EPA finds that “[Copermittees] may use jurisdictional agreements to show adequate legal authority and to ensure planning, coordination, and the sharing of the resource burden of permit compliance” (1992).

32. Finding states the following:

WASTE REMOVAL: *Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the United States unless they are removed. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. Once removed, such accumulated wastes must be characterized and lawfully disposed.*

Discussion: When rain falls and drains urban freeways, industries, construction sites, and neighborhoods it picks up a multitude of pollutants. Gravity flow transports the pollutants to the MS4. Illicit discharges and connections also contribute a significant amount of pollutants to MS4s. MS4s are commonly designed to convey their contents as quickly as possible. Due to these typically high flow rates within the concrete conveyance systems of MS4s, pollutants that enter or are deposited in the MS4 and not removed are generally flushed unimpeded through the MS4 to waters of the United States. The US EPA found in its National Urban Runoff Pollution study (1983) that pollutant concentrations in urban runoff discharged from MS4s frequently exceed established receiving water quality objectives and drinking water standards. Therefore, when waste is deposited in the MS4, it is generally flushed to receiving waters, when it can potentially cause or contribute to a violation of water quality standards.

33. Finding states the following:

CHANGING THE STORM WATER MANAGEMENT APPROACH: *In contrast to the conventional “conveyance” approach, a more natural approach to storm water management seeks to filter and infiltrate runoff by allowing it to flow slowly over permeable vegetated surfaces. By “preserving and restoring the natural hydrologic cycle”, filtration and infiltration can greatly reduce the volume/peak*

rate, velocity, and pollutant loads of urban runoff. The greatest opportunities for changing from a "conveyance" to a more natural management approach occur during the land use planning and zoning processes and when new development projects are under early design.

Discussion: Urbanization generally results in an increase in pollutant sources and impervious surfaces. The increase in pollutant sources leads to an increase in pollutant loads found in storm water, while the increase in impervious surfaces prevents natural processes from reducing those pollutant loads. The impervious surfaces associated with urbanization and its storm water conveyance systems prevent storm water from infiltrating into the soil. Natural vegetation and soil are prevented from filtering urban runoff, resulting in storm water flows that are higher in volume and pollutant loads. This causes the quality of receiving waters to be adversely impacted and beneficial uses to be impaired.

Studies have revealed that the level of imperviousness resulting from urbanization is strongly correlated with the water quality impairment of nearby receiving waters.⁸⁴ Urbanization creates new sources of pollutants and provides for their rapid transport to receiving waters through storm water conveyance systems. Urbanization also adversely impacts receiving waters through changes it causes to local hydrology. Increases in population density and imperviousness stemming from urbanization result in changes to stream hydrology, including:

1. increased peak discharges compared to predevelopment levels;
2. increased volume of storm water runoff with each storm compared to pre-development levels;
3. decreased travel time to reach receiving water;
4. increased frequency and severity of floods;
5. increased runoff velocity during storms due to a combination of effects of higher discharge peaks, rapid time of concentration, and smoother hydraulic surfaces from channelization; and
6. decreased infiltration and diminished groundwater recharge.

In many cases the impacts on receiving waters due to changes in hydrology can be more significant than those attributable to the contaminants found in storm water discharges (USEPA, 1999b). These impacts include stream bank erosion (increased sediment load and subsequent deposition), benthic habitat degradation, and decreased diversity of macroinvertebrates.

For the above reasons, this Order encourages an approach to storm water management that seeks to preserve and restore the natural hydrologic cycle. Open space designs which maximize pervious surfaces and retention of "natural" drainages have been found to reduce both the costs of development and pollutant export.⁸⁵ Moreover, US EPA finds including plans for a "natural" site design and BMP implementation during the design phase of new development and

⁸⁴ U.S. Environmental Protection Agency. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule.

⁸⁵ Center for Watershed Protection. 2000. "The Benefits of Better Site Design in Residential Subdivisions." Watershed Protection Techniques. Vol. 3. No. 2.

redevelopment offers the most cost effective strategy to reduce pollutant loads to surface waters.⁸⁶

34. Finding states the following:

INFILTRATION AND POTENTIAL GROUNDWATER CONTAMINATION: *Any drainage feature that infiltrates runoff poses some risk of potential groundwater contamination. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not “inject” runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; and (3) ensuring that each drainage feature is adequately maintained in perpetuity. Minimum conditions needed to protect groundwater are specified in section F.1.b. of this Order.*

Discussion: Infiltration is an effective means for managing urban runoff. However, measures must be taken to protect groundwater quality when infiltration of urban runoff is implemented. US EPA supports urban runoff infiltration and provides guidance for protection of groundwater: “With a reasonable degree of site-specific design considerations to compensate for soil characteristics, infiltration may be very effective in controlling both urban runoff quality and quantity problems. This strategy encourages infiltration of urban runoff to replace the natural infiltration capacity lost through urbanization and to use the natural filtering and sorption capacity of soils to remove pollutants; however, the potential for some types of urban runoff to contaminate groundwater through infiltration requires some restrictions.”⁸⁷ The restrictions placed on urban runoff infiltration in Order No. R9-2002-0001 is based on recommendations provided by the US EPA Risk Reduction Engineering Laboratory. The SWRCB found in its draft order on the appeal of the Los Angeles Regional Water Quality Control Board’s (LARWQCB’s) Standard Urban Storm Water Mitigation Plan (SUSMP) requirements that the guidance provided in the above referenced document by the US EPA Risk Reduction Engineering Laboratory is sufficient for the protection of groundwater quality from urban runoff infiltration. To further protect groundwater quality, Order No. R9-2002-0001 also includes guidance from the LARWQCB,⁸⁸ the State of Washington,⁸⁹ and the State of Maryland.⁹⁰

35. Finding states the following:

VECTOR CONTROL: *Certain BMPs implemented or required by municipalities for urban runoff management may create a habitat for vectors (e.g. mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort between municipalities and local vector control agencies and the State Department of Health Services during the development and*

⁸⁶ U.S. Environmental Protection Agency. 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule.

⁸⁷ U.S. Environmental Protection Agency. 1994. Potential Groundwater Contamination from Intentional and Nonintentional Stormwater Infiltration. EPA 600 SR-94 051.

⁸⁸ Guidance on vertical distance from base of BMP to groundwater table. LARWQCB. 2000. Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County.

⁸⁹ Washington State Department of Ecology. 1999. Draft Stormwater Management in Washington State. Volume V – Runoff Treatment BMPs. Pub. No. 99-15.

⁹⁰ Maryland Department of the Environment. 1999. 2000 Maryland Stormwater Design Manual. Volume I.

implementation of the Urban Runoff Management Programs is necessary to minimize nuisances and public health impacts resulting from vector breeding.

Discussion:

The implementation of certain structural BMPs or other urban runoff treatment systems can result in significant vector problems in the form of increased breeding or harborage habitat for mosquitoes, rodents or other potentially disease transmitting organisms. The implementation of BMPs that retain water may provide breeding habitat for a variety of mosquito species, some of which have the potential to transmit diseases such as Western Equine Encephalitis, St. Louis Encephalomyelitis, and malaria. Recent BMP implementation studies by CALTRANS⁹¹ in District 7 and District 11 have demonstrated mosquito breeding associated with some types of BMPs. The CALTRANS BMP Retrofit Pilot study cited lack of maintenance and improper design as factors contributing to mosquito production. However, a Watershed Protection Techniques article⁹² describes management techniques to select, design and maintain structural treatment BMPs for urban runoff to minimize mosquito production. State and local urban runoff management programs that include structural BMPs with the potential to retain water have been implemented in Florida and the Chesapeake Bay region without resulting in significant public health threats from mosquitoes or other vectors⁹³. The finding identifies the potential vector issues related to BMP implementation and the role of collaborative program development between municipalities and vector control agencies in addressing and minimizing vector production in the implementation of the Jurisdictional Urban Runoff Management Program.

36. Finding states the following:

LEGAL AUTHORITY: *This Order is based on the federal Clean Water Act, the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable state and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board, the Regional Water Quality Control Plan (Basin Plan) adopted by the Regional Board, the California Toxics Rule, and the California Toxics Rule Implementation Plan.*

Discussion:

The United States and State of California have sought to protect streams, bays, lagoons, the ocean, and other waters from human-induced pollution. Municipal separate storm sewer systems (MS4s) are recognized as a significant conveyor of pollutants to waters of the United States and waters of the State of California. In 1987, Congress established Clean Water Act Amendments to create requirements for storm water discharges under the NPDES program, which provides for permit systems to regulate the discharge of pollutants. Under the Porter-Cologne Water Quality Control Act (California Water Code), the State Water Resources Control Board and each Regional Water Quality Control Board have primary responsibility for the coordination and control of water quality,

⁹¹ Caltrans BMP Retrofit Pilot Studies: A Preliminary Assessment of Vector Production (2000), Vicki Kramer, Vector Borne Disease Section, California Department of Health Services.

⁹² Watershed Protection Techniques (1995) 1(4):203-207 Mosquitoes in Constructed Wetlands: A Management Bugaboo?

⁹³ Shaver, E. and R. Baldwin (1995) Sand Filter Design for Water Quality Treatment in Herricks, E., Ed. Stormwater Runoff and Receiving Systems: Impact, Monitoring, and Assessment, CRC Lewis Publishers, New York, NY.

including the authority to implement the Federal Clean Water Act. Porter Cologne (section 13240) directs the Regional Boards to set water quality objectives via adoption of Basin Plans that conform to all state policies for water quality control. As a means for achieving those water quality objectives, Porter Cologne (section 13243) further authorizes the Regional Boards to establish waste discharge requirements to prohibit waste discharges in certain conditions or areas. Since 1990 the San Diego Regional Board has issued area-wide NPDES permits for storm water runoff. This Order will renew Order No. 96-03 as a means to attain water quality objectives in the Basin Plan by limiting the contributions of pollutants conveyed by urban runoff and to comply with Federal Clean Water Act. Further discussions of the broad and specific legal authority associated with the prohibitions and directives of this Order are provided throughout this document.

37. Finding states the following:

TOTAL MAXIMUM DAILY LOADS (TMDLs): *40 CFR 122.44 (d)(vii)(B) requires that NPDES permits contain effluent limitations that are consistent with waste load allocations developed under a TMDL. Several TMDLs are being developed in the San Diego Region for impaired water bodies that receive Copermitees' discharge. Once these TMDLs are approved by the SDRWQCB and USEPA, Copermitees' discharge of urban runoff into an impaired water body will be subject to load allocations established by the TMDLs. This Order may be revised by the Regional Board to implement the TMDL waste load allocations for specific water bodies within the Orange County watersheds.*

Discussion:

40 CFR 122.44 (d)(vii)(B) requires that NPDES permit effluent limitations be consistent with any waste load allocation for the discharge that are prepared by the state (Regional Board) and approved by USEPA. Furthermore, USEPA's guidance for developing TMDLs in California includes a recommendation that the state (Regional Board) evaluate how waste load allocations will be translated into NPDES permits as part of the development of the TMDL implementation plan. Once TMDL limits are established and approved by USEPA, NPDES permits will be required to include effluent limitations that are consistent with the TMDL allocations. This Order may be specifically revised by the Regional Board to implement the TMDL waste load allocations for specific water bodies within the Orange County watersheds. There are no USEPA approved TMDLs for the San Diego Region, and therefore no limitations that can be explicitly included in the Order at this time. This finding was added to the permit to reference TMDLs and their relationship to the permit.

38. Finding states the following:

ANTIDegradation: *Conscientious implementation of URMPs that satisfy the requirements contained in this Order will reduce the likelihood that discharges from MS4s will cause or contribute to unreasonable degradation of the quality of receiving waters. Therefore, this Order is in conformance with SWRCB Resolution No. 68-16 and the federal antidegradation policy described in 40 CFR 131.12.*

Discussion: Implementation of URMPs is required to reduce pollutants in urban runoff to the maximum extent practicable. Reduction of pollutants to the maximum extent practicable will prevent degradation of the quality of receiving waters. Therefore, implementation of URMPs that satisfy the requirements of Order No. R9-2002-0001 will prevent violations of receiving water quality objectives. The

Basin Plan states that "Water quality objectives must [...] conform to US EPA regulations covering antidegradation (40 CFR 131.12) and State Board Resolution 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California." As a result, when water quality objectives are met through the implementation of URMPs, US EPA and SWRCB antidegradation policy requirements are also met.

39. Finding states the following:

CEQA: *The issuance of waste discharge requirements for the discharge of urban runoff from MS4s to waters of the United States is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, § 21000 et seq.) in accordance with the CWC § 13389.*

Discussion: CWC section 13389 provides that "Neither the state board nor the regional boards shall be required to comply with the provisions of Chapter 3 (commencing with section 21100) of Division 13 of the Public Resources Code prior to the adoption of any waste discharge requirement, except requirements for new sources as defined in the Federal Water Pollution Control Act or acts amendatory thereof or supplementary thereto."

40. Finding states the following:

COMMON INTEREST DEVELOPMENTS AND HOMEOWNERS ASSOCIATIONS: *Common interest developments occur within the jurisdiction of the Copermittees. Commonly owned areas can include those used to convey urban runoff. State Law (Civil code 1350-1376) requires that an association be established to manage the commonly owned areas. Urban runoff from storm water conveyance systems within common interest developments is discharged to receiving waters and/or MS4s. This runoff is expected to have water quality and quantity characteristics similar to runoff from areas of similar land use and drainage area.*

Discussion:

Many residential neighborhoods and some commercial areas within the jurisdiction of the Copermittees are within common interest developments and are, therefore, subject to management of common areas by associations. The Declaration of the Covenants, Conditions and Restrictions (CC&Rs) contains the ground rules for the operation of such an association. CC&Rs are an appropriate method for protecting the common plan of developments and to provide for a mechanism for financial support for the upkeep of common areas including roads, storm drains, and other components of storm water conveyance systems.

In certain cases the Copermittees may neither own nor operate the storm water conveyance systems within common interest developments. Presently, some Copermittees have agreements with the responsible association(s) in which the association either allows the Copermittee to implement best management practices or the association agrees to uphold the intent of the DAMP. Rather than list the associations as Copermittees, this Order interprets common interest areas as property subject to the codes and ordinance and enforcement mechanisms of the city or county in which it resides and, therefore, holds the local government responsible for the discharge of wastes from private storm water conveyance systems.

41. Finding states the following:

REPORT OF WASTE DISCHARGE: *In September 2000, the Orange County Copermittees submitted a Report of Waste Discharge and a proposed Drainage Area Management Plan (DAMP) for 2001-2006 to the SDRWQCB.*

Discussion:

The Orange County Copermittees submitted the Report of Waste Discharge and a proposed Drainage Area Management Plan (DAMP) for Orange County. A staff level review of the Report of Waste Discharge and the proposed DAMP submitted in September 2000 concluded that implementation of the proposed DAMP would not satisfy the MEP standard as defined in this Order or adequately protect the beneficial uses of the receiving waters of Orange County within the San Diego Region. Although the Copermittees proposed performance commitments that improved the 1993 DAMP, staff concluded that the DAMP as a whole does not provide adequate specific information on the required implementation of BMPs that would prevent, treat or reduce the pollutants in the discharges of urban runoff to the maximum extent practicable. The proposed DAMP does not incorporate sufficient tools to complement public education as a means to increase public cooperation in the effort to reduce sources of urban runoff pollution.

Implementation of the DAMP has not adequately protected the beneficial uses of the receiving waters of Orange County within the San Diego region as evidenced in part by the ongoing beach closures, elevated bacterial contamination of Aliso Creek, and the continued diversion of Aliso Creek into the AMWA Regional Treatment Facility (sewer) outfall at Aliso State Beach. In addition, the Orange County Grand Jury found that local enforcement actions are insufficient to deter polluters because monetary fines related to urban runoff pollution are "so minimal that it is often more cost effective for the offender to pay the fine than to properly dispose of the pollutants." (source: OC Grand Jury, 1998-1999 "Coastal Water Quality and Urban Runoff in Orange County") Furthermore, during the May 9, 2001 meeting of the SDRWQCB in Laguna Beach, concerns were expressed regarding the adequacy of proposed BMP implementation, source identification and control, and the urban runoff management programs being employed by the Copermittees.

A more detailed analysis of the proposed DAMP has been prepared and presented as Attachment 5 of this Fact Sheet/Technical Report. In addition, this subject has been extensively addressed in the response to comments, which will be appended to this document.

42. Finding states the following:

PUBLIC NOTICE: *The SDRWQCB has notified the Copermittees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing discharge of urban runoff.*

Discussion: Public notification of development of a draft permit is required under Federal regulation 40 CFR 124.10(a)(1)(ii). This regulation states "(a) Scope. (1) The Director shall give public notice that the following actions have occurred: (ii) A draft permit has been prepared under Sec. 124.6(d)." Public notifications "shall allow at least 30 days for public comment," as required under Federal regulation 40 CFR 124.10(b)(1). Public notification is also required under California Water

Code Section 13378, which states “Waste discharge requirements and dredged or fill material permits shall be adopted only after notice and any necessary hearing.”

43. Finding states the following:

***PUBLIC HEARING:** The SDRWQCB has, at a public meeting on January 9, 2002, held a public hearing and heard and considered all comments pertaining to the terms and conditions of this Order.*

Discussion: Public hearings are required under California Water Code Section 13378, which states “Waste discharge requirements and dredged or fill material permits shall be adopted only after notice and any necessary hearing.” Federal regulation 40 CFR 124.12(a)(1) also requires public hearings for draft permits, stating “The Director shall hold a public hearing whenever he or she finds, on the basis or requests, a significant degree of public interest in a draft permit(s).” Regarding public notice of a public hearing, Federal regulation 40 CFR 124.10(b)(2) states that “Public notice of a public hearing shall be given at least 30 days before the hearing.”

VII. DIRECTIVES DISCUSSION

UNDERLYING BROAD LEGAL AUTHORITY FOR ORDER NO. R9-2002-0001

The following statutes, regulations, and Water Quality Control Plans provided the basis for Order No. R9-2002-0001: Clean Water Act, California Water Code, 40 CFR Parts 122, 123, 124 (National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, Final Rule), Part II of 40 CFR Parts 9, 122, 123, and 124 (National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule), Water Quality Control Plan – Ocean Waters of California (California Ocean Plan), Water Quality Control Plan for the San Diego Basin (Basin Plan), 40 CFR 131 Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule (California Toxics Rule), and the California Toxics Rule Implementation Plan.

The following broad legal authority citations generally apply to all directives in Order No. R9-2002-0001, and provide the SDRWQCB with ample underlying authority to require each of the directives.

CWA 402(p)(3)(B)(ii) – Prohibit Non-Storm Water

The CWA requires in section 402(p)(3)(B)(ii) that permits for discharges from municipal storm sewers “shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers.”

CWA 402(p)(3)(B)(iii) – Reduce to MEP and Whatever Else is Needed

The CWA requires in section 402(p)(3)(B)(iii) that permits for discharges from municipal storm sewers “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other

provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

40 CFR 122.26(d)(2)(i)(B,C,E, and F) – Obtain Adequate Legal Authority

Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) provide that each Copermittee’s permit application “shall consist of : (i) Adequate legal authority. A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to: [...] (B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer; (C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water; [...] (E) Require compliance with condition in ordinances, permits, contracts or orders; and (F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.”

40 CFR 122.26(d)(2)(iv) – Reduce to the MEP and Whatever Else is Needed

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) provides that the Copermittee shall develop and implement a proposed management program which “shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. [...] Proposed programs may impose controls on a systemwide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. [...] Proposed management programs shall describe priorities for implementing controls.”

CWC 13377 – Implement Clean Water Act and Whatever Else is Needed

California Water Code section 13377 provides that “Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act (Clean Water Act), as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with anymore stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

In addition to the five broad legal authority items cited above, which underlie all of the directives in Order No. R9-2002-0001, additional specific legal authority citations applicable to particular directives of Order No. R9-2002-0001 are provided in this Fact Sheet/Technical Report as necessary. Some of these additional specific legal authority citations apply to entire components of Order No. R9-2002-0001. In this case, the specific legal authority quotations are provided at the beginning of the discussion of the permit component, while the legal authority is again cited under each directive of the component. Furthermore, some specific legal authority citations only apply to distinct directives of

Order No. R9-2002-0001. When this occurs, the quotation of the specific legal authority citation will appear with the discussion of the distinct permit directive.

A. PROHIBITIONS – DISCHARGES

A.1. Prohibitions – Discharges states the following:

Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC § 13050), in waters of the state are prohibited.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: The SDRWQCB Water Quality Control Plan for the San Diego Basin (Basin Plan) contains the following waste discharge prohibition: “The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited.”

California Water Code section 13050(l) states“(1) ‘Pollution’ means an alteration of the quality of waters of the state by waste to a degree which unreasonably affects either of the following: (A) The water for beneficial uses. (B) Facilities which serve beneficial uses. (2) ‘Pollution’ may include “contamination.”

California Water Code section 13050(k) states “‘Contamination’ means an impairment of the quality of waters of the state by waste to a degree which creates a hazard to public health through poisoning or through the spread of disease. ‘Contamination’ includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.”

California Water Code section 13050(m) states “‘Nuisance’ means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes.”

California Water Code Section 13243 provides that “A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

California Water Code Section 13263(a) provides that waste discharge requirements prescribed by the SDRWQCB implement the Basin Plan.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff from commercial, residential, industrial, and construction land uses or activities.

Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges to their MS4.

Discussion: Prohibition item A.1. characterizes a basic premise and primary goal of Order No. R9-2002-0001. The entire thrust of Order No. R9-2002-0001 is to prevent discharges from MS4s from causing, or threatening to cause, a condition of pollution, contamination, or nuisance. In fact, Prohibition item A.1. exhibits a major component of the SDRWQCB's mission, and is included in its Basin Plan. The SDRWQCB seeks to preserve and enhance the quality of the region's waters, and one primary method to achieve this is by preventing conditions of pollution, contamination, or nuisance in the region's waters. As discussed in Finding 9, urban runoff discharges from MS4s can cause these conditions. Therefore, Prohibition item A.1 is included in Order No. R9-2002-0001 to prevent urban runoff discharges which may cause or threaten to cause conditions of pollution, contamination, or nuisance.

Since discharges that enter the MS4 are generally discharged unimpeded directly into receiving waters, this prohibition applies to both discharges into and from MS4s. Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff **from** commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges **to** their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states "The operators of regulated small MS4s cannot passively receive and discharge pollutants **from** third parties" (US EPA, 1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall "effectively prohibit non-stormwater discharges **into** the storm sewers."

The requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations (such as Prohibition A.1 of Order No. R9-2002-0001) is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

The SDRWQCB has discretion to require Prohibition item A.1. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

A.2. Prohibitions – Discharges states the following:

Discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

California Water Code section 13241 requires each regional board to “establish such water quality objectives in water quality control plans as in its judgement will ensure the reasonable protection of beneficial uses and the prevention of nuisance [...]”

California Water Code Section 13243 provides that “A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

California Water Code Section 13263(a) provides that waste discharge requirements prescribed by the SDRWQCB implement the Basin Plan.

Discussion: As with Prohibition item A.1., Prohibition item A.2. also characterizes a primary goal of Order No. R9-2002-0001 and the SDRWQCB. This goal is to protect the beneficial uses of the region’s waters and achieve the water quality objectives necessary to protect those uses. The overarching intent of the Clean Water Act embodies Prohibition item A.2. as well; the Act’s objective is to “restore and maintain all chemical, physical and biological integrity of the Nation’s waters [to make all surface waters] fishable [and] swimmable.”

As discussed in Finding 3, urban runoff discharges from MS4s can cause or contribute to exceedances of receiving water quality objectives. For this reason, there is a real need for municipal storm water permits to include stringent requirements such as Prohibition item A.2. to protect those water bodies. To meet this need the SDRWQCB has included receiving water limitations, which dictate water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses), in Receiving Water Limitations item C. of Order No. R9-2002-0001 (see the Discussion for this item for more information). To ensure that water quality standards are protected and receiving water limitations met, the SDRWQCB must prohibit MS4 discharges that cause or contribute to exceedances of receiving water quality objectives.

The SDRWQCB has discretion to require Prohibition item A.2. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

A.3. Prohibitions – Discharges states the following:

Discharges from MS4s containing pollutants which have not been reduced to the maximum extent practicable (MEP) are prohibited.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code Section 13243 provides that “A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

Discussion: As discussed in Findings 3 and 9, urban runoff discharges from MS4s can cause receiving water degradation and beneficial use impairment. For this reason, pollutants in these discharges must be reduced to the maximum extent practicable (see Finding 10). The Clean Water Act and Federal NPDES regulations clearly require operators of MS4s to reduce pollutants in discharges from MS4s to the maximum extent practicable. Therefore, the SDRWQCB has prohibited discharges that do not meet this requirement.

The SDRWQCB has discretion to require Prohibition item A.3. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

This prohibition has been revised and is included in the Order in response to a draft SWRCB Order WQ 2001-15, (In the Matter of the Petitions of Building Industry Association of San Diego County and Western States Petroleum Association for Review of Waste Discharge Requirements Order No. 2001-01 for Urban Runoff from San Diego County [NPDES No. CAS0108758] Issued by the California Water Quality Control Board, San Diego Region).

A.4. Prohibitions – Discharges states the following:

In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in Attachment A to this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code Section 13243 provides that “A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

California Water Code Section 13263(a) provides that waste discharge requirements prescribed by the SDRWQCB implement the Basin Plan.

Discussion: As discussed in Findings 3, 6, and 9, the discharge of pollutants from MS4s can cause the concentration of pollutants to exceed applicable

receiving water quality objectives, impair or threaten to impair designated beneficial uses, and pose a significant threat to the public health. To prevent these conditions, the Prohibitions included in the SDRWQCB's Basin Plan must therefore apply to MS4 discharges. The Basin Plan contains Prohibitions established by the SDRWQCB pursuant to California Water Code Section 13243. The SDRWQCB is required to implement Basin Plan Prohibitions in Order No. R9-2002-0001 pursuant to California Water Code Section 13263(a).

The SDRWQCB has discretion to require Prohibition item A.5. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

B. PROHIBITIONS – NON STORM WATER DISCHARGES

B.1. Prohibitions – Non-Storm Water Discharges states the following:

*Each Copermittee shall effectively prohibit **all** types of non-storm water discharges into its Municipal Separate Storm Sewer System (MS4) unless such discharges are either authorized by a separate NPDES permit; or not prohibited in accordance with B.2. and B.3. below.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittees shall prevent all types of illicit discharges into the MS4 except for the non-storm water discharges listed in Prohibition item B.2., provided that these discharges are not found to be a significant source of pollutants.

Discussion: Illicit or non-storm water discharges can constitute a significant portion of urban runoff discharges from MS4s. US EPA states “A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4” (2000).

MS4 discharges attributable to illicit or non-storm water discharges can be a significant source of pollutant loading to receiving waters. The NURP study concluded that the quality of urban runoff can be adversely impacted by illicit discharges and connections (US EPA, 1983). Furthermore, US EPA states that illicit or non-storm water discharges result in “untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic wildlife and human health” (2000).

For these reasons, CWA section 402(p)(3)(B)(ii) requires each Copermittee to prohibit non-storm water discharges into its MS4. The detection and elimination of illicit discharges and connections is also clearly identified in the federal regulations as a high priority (40 CFR 122.26(d)(2)(iv)(B) and 122.26(d)(2)(iv)(B)(1)). As guidance for detecting and eliminating illicit discharges and connections, the US EPA suggests "The proposed management program must include a description of inspection procedures, orders, ordinances, and other legal authorities necessary to prevent illicit discharges to the MS4" (1992).

The SDRWQCB has the discretion to require Prohibition item B.1. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

B.2. Prohibitions – Non-Storm Water Discharges states the following:

Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1), the following categories of non-storm water discharges need only be prohibited from entering an MS4 if such categories of discharges are identified by the Copermittee as a significant source of pollutants to waters of the United States:

- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
- d. Uncontaminated pumped ground water;
- e. Foundation drains;
- f. Springs;
- g. Water from crawl space pumps;
- h. Footing drains;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing;
- l. Landscape irrigation;
- m. Discharges from potable water sources other than water main breaks;
- n. Irrigation water;
- o. Lawn watering;
- p. Individual residential car washing; and
- q. Dechlorinated swimming pool discharges.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators "to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittees shall prevent all types of illicit discharges into the MS4 except for the non-storm water discharges listed in Prohibition item B.2., provided that these discharges are not found to be a significant source of pollutants.

Discussion: The discharges listed in Prohibition item B.2. are referred to as "de minimis" discharges in the Federal NPDES regulations. They are considered acceptable non-storm water discharges to the MS4 only when found by the municipality to not be a significant source of pollutants to the MS4 (40 CFR 122.26(d)(2)(iv)(B)(1)). Regarding these discharges, US EPA states "While EPA

does not consider these flows to be innocuous, they are only to be regulated by the storm water program to the extent that they may be identified as significant sources of pollutants to waters of the United States under certain circumstances” (1992).

The SDRWQCB has discretion to require Prohibition item B.2. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

B.3. Prohibitions – Non-Storm Water Discharges states the following:

When a discharge category above is identified as a significant source of pollutants to waters of the United States, the Copermittee shall either:

- a. *Prohibit the discharge category from entering its MS4; **OR***
- b. *Not prohibit the discharge category and implement, or require the responsible party(ies) to implement, BMPs which will reduce pollutants to the MEP; **AND***
- c. *For each discharge or discharge class not prohibited, the Copermittee shall submit the following information to the SDRWQCB within 180 days of adoption of this Order:*
 - (1) *The non-storm water discharge category listed above which the Copermittee elects not to prohibit; and*
 - (2) *The BMP(s) for each discharge category listed above which the Copermittee will implement, or require the responsible party(ies) to implement, to prevent or reduce pollutants to the MEP.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittees shall prevent all types of illicit discharges into the MS4 except for the non-storm water discharges listed in Prohibition item B.2., provided that these discharges are not found to be a significant source of pollutants.

California Water Code Section 13267 provides that “the regional board may require that any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Discussion: Discharges listed in Prohibition item B.2. which are found to be significant sources of pollutants cannot be discharged to the MS4 without implementation of applicable control measures. These control measures can include prohibition of the discharges or implementation of BMPs to reduce pollutants in the discharges to the maximum extent practicable. If a municipality chooses not to prohibit such a discharge, the municipality must supply the SDRWQCB information assuring that pollutants in the discharges will be reduced to the maximum extent practicable. This will help ensure that the municipality has

a plan in place to address the discharges, thereby reducing the potential for the discharges to impact receiving water quality.

The SDRWQCB has discretion to require Prohibition item B.3. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

B.4. Prohibitions – Non-Storm Water Discharges states the following:

***Fire Fighting Flows:** Emergency and non-emergency fire fighting flows need not be prohibited. However, where applicable, when not interfering with health and safety issues, BMPs for non-emergency fire fighting flows are encouraged.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that Copermittees “shall address discharges or flows from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States.”

Discussion: Discharges or flows from non-emergency fire fighting can be a significant source of pollutants to the MS4. Pollutants that enter the MS4 are generally flushed out to receiving waters. Discharges or flows from non-emergency fire fighting activities can therefore negatively impact receiving water quality. For this reason, non-emergency fire fighting discharges and flows must be addressed when identified as significant sources of pollutants.

The SDRWQCB has discretion to require Prohibition item B.4. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

B.5. Prohibitions – Non-Storm Water Discharges states the following:

***Dry Weather Monitoring and Non-Storm Water Discharges:** Each Copermittee shall examine all dry weather monitoring results collected in accordance with section F.5. and Attachment E of this Order to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in Non-Storm Water Discharges to MS4s Prohibition B.2. Follow-up investigations shall be conducted as necessary to identify and control any non-prohibited discharge category(ies) listed above.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(2) requires that Copermittees shall provide "A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(3) provides that Copermittees shall "investigate portions of the separate storm sewer system that, based on the results of a field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources on non-storm water."

Discussion: Non-prohibited non-storm water discharges can be a significant source of pollutants to the MS4. These discharges can reach receiving waters, causing negative impacts to receiving water quality. Field screening can be an effective tool to help prevent these conditions. Field screening results can be used to identify non-prohibited discharges that may be a significant source of pollutants to the MS4. When field screening results exhibit potential non-storm water discharges, follow-up investigations should be conducted to find if non-prohibited discharges are the source. This information can then be used to prohibit the non-prohibited discharge or require implementation of BMPs.

The SDRWQCB has discretion to require Prohibition item B.5. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

C. RECEIVING WATER LIMITATIONS

C. Receiving Water Limitations states the following:

1. *Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.*
2. *Each Copermittee shall comply with Part C.1., Part A.2 and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order through timely implementation of control measures and other actions to reduce pollutants in urban runoff discharges in accordance with the Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) and other requirements of this Order including any modifications. The Jurisdictional URMP shall be designed to achieve compliance with Part C.1., Part A.2 and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order. If exceedance(s) of water quality standards persist notwithstanding implementation of the URMP and other requirements of this Order, the Copermittee shall assure compliance with Part C.1., Part A.2 and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order by complying with the following procedure:*
 - a. *Upon a determination by either the Copermittee or the SDRWQCB that MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Copermittee shall promptly notify and thereafter submit a report to the SDRWQCB that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the annual update to the Jurisdictional URMP unless the SDRWQCB directs an earlier submittal. The report shall include an implementation schedule. The SDRWQCB may require modifications to the report;*

- b. *Submit any modifications to the report required by the SDRWQCB within 30 days of notification;*
- c. *Within 30 days following approval of the report described above by the SDRWQCB, the Copermittee shall revise its Jurisdictional URMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;*
- d. *Implement the revised Jurisdictional URMP and monitoring program in accordance with the approved schedule.*

So long as the Copermittee has complied with the procedures set forth above and are implementing the revised Jurisdictional URMP, the Copermittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the SDRWQCB to do so.

3. *Nothing in this section shall prevent the SDRWQCB from enforcing any provision of this Order while the Copermittee prepares and implements the above report.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code Section 13241 provides that the "SDRWQCB shall establish such water quality objectives in water quality control plans as in its judgement will ensure the reasonable protection of beneficial uses and the prevention of nuisance."

California Water Code Section 13263(a) provides that waste discharge requirements prescribed by the SDRWQCB implement the Basin Plan.

Discussion: See the above discussion of Finding 13 in section VI. of this Fact Sheet/Technical Report.

This section has been modified in response to a SWRCB Order WQ 2001-15 (In the Matter of the Petitions of Building Industry Association of San Diego County and Western States Petroleum Association for Review of Waste Discharge Requirements Order No. 2001-01 for Urban Runoff from San Diego County [NPDES No. CAS0108758] Issued by the California Water Quality Control Board, San Diego Region).

D. LEGAL AUTHORITY

D.1. Legal Authority states the following:

*Each Copermittee shall establish, maintain, and enforce adequate legal authority to control pollutant discharges **into** and **from** its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize the Copermittee to:*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that the Copermittees shall develop and implement legal authority to "Control through ordinance, order or similar means, the contribution of pollutants

to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that the Copermittees shall develop and implement legal authority to “Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system.”

Illicit discharge is defined under Federal NPDES regulation 40 CFR 122.26(b)(2) as “any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff from commercial, residential, industrial, and construction land uses or activities.

Discussion: As discussed in Finding 15, Copermittees cannot passively receive and discharge pollutants from third parties. As US EPA states, “The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts ‘title’ for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties” (1999).

Discharges of pollutants to the MS4 must therefore be controlled, and an important means for a municipality to achieve this is through development of municipal legal authority. USEPA states “A crucial requirement of the NPDES storm water regulation is that a municipality must demonstrate that it has adequate legal authority to control the contribution of pollutants in storm water discharged to its MS4. [...] In order to have an effective municipal storm water management program, a municipality must have adequate legal authority to control the contribution of pollutants to the MS4. [...] ‘Control,’ in this context, means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4” (1992).

Since discharges that enter the MS4 are generally discharged unimpeded directly into receiving waters, the Copermittee’s legal authority is to apply to both discharges into and from MS4s. Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff **from** commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges **to** their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states “The operators of regulated small MS4s cannot passively receive and discharge pollutants **from** third parties” (US EPA, 1999). Due to the greater water quality concerns generally experienced by larger municipalities,

Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall “effectively prohibit non-stormwater discharges **into** the storm sewers.”

The requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

The SDRWQCB has discretion to require Legal Authority item D.1 in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.a. Legal Authority states the following:

*Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity **to** its MS4 and control the quality of runoff **from** industrial and construction sites. This requirement applies both to industrial and construction sites that have coverage under the statewide general industrial or construction storm water permits, as well as to those sites that do not. Grading ordinances shall be upgraded as necessary to comply with this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that the Copermittees shall develop and implement legal authority to “Control through ordinance, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(b)(14) provides that “The following categories of facilities are considered to be engaging in ‘industrial activity’ for purposes of this subsection: [...] (x) Construction activity including clearing, grading and excavation activities [...].”

Discussion: Industrial and construction sites are frequently sources of pollutants such as hazardous materials or sediment. These pollutants are typically carried to MS4s by urban runoff. As discussed in Finding 32, pollutants in urban runoff which enter the MS4 are generally discharged from these structures into receiving waters, where they may cause or contribute to a condition of pollution. Pollutant discharges from industrial and construction sites to MS4s must therefore be controlled. As discussed in Finding 22, municipalities are responsible for discharges from industrial and construction sites to their MS4s (see also Discussion under Legal Authority item D.1). US EPA supports this when it states “To comply with its permit, a municipality must have the authority to hold dischargers accountable for their contributions to separate storm sewers” (1992).

A necessary means for controlling pollutant discharges from industrial and construction sites is the development and implementation of legal authority that

addresses urban runoff from these sites. The Federal NPDES regulations clearly emphasize the development and implementation of legal authority for controlling pollutant discharges from industrial and construction sites in 40 CFR 122.26(d)(2)(i)(A) and 40 CFR 122.26(b)(14).

Ordinances, statutes, permits, or contracts can be used to develop legal authority. For example, grading ordinances should be upgraded to control pollutant discharges from construction sites. The US EPA suggests this, stating "All construction sites, regardless of size, must be addressed by the municipality. [...] A description of the local erosion and sediment control law or ordinance is needed to satisfy this program requirement. The description should include information that links the enforcement of the law or ordinance to the legal authority of the applicant" (1992). The US EPA further states "a municipality, to satisfy its permit conditions, may need to impose additional requirements on discharges from permitted industrial facilities, as well as discharges from industrial facilities and construction sites not required to obtain permits. Therefore, a municipality should develop a mechanism to assure that all industrial facilities and construction sites that discharge to the MS4 know their obligation to comply with the applicable terms of the municipality's storm water ordinances" (1992).

The SDRWQCB has discretion to require Legal Authority item D.1.a in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.b. Legal Authority states the following:

*Prohibit **all** illicit discharges not otherwise allowed pursuant to section B.2 including but not limited to:*

- (1) Sewage;*
- (2) Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;*
- (3) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing;*
- (4) Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;*
- (5) Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;*
- (6) Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;*
- (7) Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;*
- (8) Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and*

(9) *Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26 (b)(2) defines an illicit discharge as “any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.”

California Water Code Section 13243 also provides that a “regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

Discussion: Illicit or non-storm water discharges can be a significant source of pollutants to the MS4. As discussed in Finding 32, pollutants that enter the MS4 are generally discharged to receiving waters, where they can impact receiving water quality. Illicit or non-storm water discharges must therefore be prohibited. In order to effectively prohibit illicit or non-storm water discharges, legal authority addressing the discharges must be developed and implemented by each Copermitee.

The SDRWQCB has discretion to require Legal Authority item D.1.b in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.c. Legal Authority states the following:

Prohibit and eliminate illicit connections to the MS4;

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(b)(2) defines an illicit discharge as “any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.”

California Water Code Section 13243 also provides that a “regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

Discussion: An illicit connection is a connection to the MS4 that carries illicit discharges to the MS4. Because illicit discharges to the MS4 are prohibited (discussed in section D.1.b. Legal Authority above), illicit connections are also

prohibited and must be eliminated. In order to effectively prohibit and eliminate illicit connections, legal authority addressing the discharges must be developed and implemented by each Copermittee.

The SDRWQCB has discretion to require Legal Authority item D.1.c in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.d. Legal Authority states the following:

Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code Section 13243 also provides that a “regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

Discussion: Non-storm water discharges such as spills, dumping, and disposal of materials can be a significant source of pollutants to the MS4. As discussed in Finding 32, pollutants deposited in MS4s most likely will be discharged to receiving waters, where they can impact receiving water quality. Non-storm water discharges such as spills, dumping, or disposal of materials must therefore be prohibited. In order to effectively prohibit these non-storm water discharges, legal authority addressing the discharges must be developed and implemented by each Copermittee. The SDRWQCB has discretion to require Legal Authority item D.1.d in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.e. and D.1.f. Legal Authority state the following:

Require compliance with conditions in Copermittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);

Utilize enforcement mechanisms to require compliance with Copermittee storm water ordinances, permits, contracts, or orders;

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: As discussed in Finding 15, the Copermittees cannot passively receive and discharge pollutants from third parties. Each Copermittee must implement ordinances, permits, contracts, and orders to hold dischargers to MS4s accountable for their contributions of pollutants. In order for the ordinances to be effective, each Copermittee must be able to require compliance with the ordinances. Lack of ordinance enforcement by a Copermittee allows third parties to violate a municipality’s ordinances with little fear of retribution, leading to receiving water quality degradation. US EPA recommends that a municipality in its urban runoff management program “identify the administrative and legal

procedures available to mandate compliance with appropriate ordinances, and therefore, with permit conditions. [Programs] should contain descriptions of how ordinances are implemented and appealed. In particular, a municipality should indicate if it can issue administrative orders and injunctions or if it must go through the court system for enforcement actions” (1992).

The SDRWQCB has discretion to require Legal Authority item D.1.e and D.1.f in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.g. Legal Authority states the following:

Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as CALTRANS, Native American Tribes, and the Department of Defense is encouraged;

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that the Copermittee must demonstrate that it can control “through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system.”

Discussion: Discharges from Copermittees that share an MS4 eventually reach the same receiving water body. Each Copermittee that discharges to the shared MS4 is therefore responsible for discharges from the shared MS4, and the impacts of those discharges on receiving waters. The Copermittees of a shared MS4 must demonstrate that together they can control the contribution of pollutants over the whole shared MS4. To this effect, the US EPA states “When two or more municipalities submit a joint application, each coapplicant must demonstrate that it individually possesses adequate legal authority over the entire municipal system it operates and owns. A coapplicant need not fulfill every component of legal authority specified in the regulations, as long as the combined legal authority of all coapplicants satisfies the regulatory criteria for every segment of the MS4 (including authority over all sources that discharge to the MS4). [...] Coapplicants also may use interjurisdictional agreements to show legal authority and to ensure planning, coordination, and the sharing of the resource burden of permit compliance” (1992).

The SDRWQCB has discretion to require Legal Authority item D.1.g. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.1.h. Legal Authority states the following:

Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Copermittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities discharging into its MS4, including construction sites; and

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: The Copermittees' ability to determine compliance and noncompliance with permit conditions is critical to control pollutant discharges to and from MS4s. Determination of compliance and noncompliance allows for significant sources of pollutants to be identified and addressed, thereby minimizing the discharge of pollutants from the MS4 and the resulting receiving water quality degradation. For this reason each Copermittee must have legal authority to carry out the inspections, surveillance, and monitoring necessary to assess compliance. Regarding compliance determination, US EPA states "municipalities should provide documentation of their authority to enter, sample, inspect, review, and copy records, etc., as well as demonstrate their authority to require regular reports" (1992).

The SDRWQCB has discretion to require Legal Authority item D.1.h in Order No. R9-2002-0001 under the broad legal authority cited above.

D.1.i. Legal Authority states the following:

Require the use of best management practices (BMPs) to prevent or reduce the discharge of pollutants to MS4s.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(1)(ii) requires from the Copermittee "A description of existing legal authority to control discharges to the municipal separate storm sewer system."

Discussion: As discussed in Finding 15, the Copermittees cannot passively receive and discharge pollutants from third parties. The Copermittees must ensure discharges of pollutants to the MS4 are reduced to the maximum extent practicable. In order to achieve this, and hold third party dischargers responsible for their contributions of pollutants, the Copermittees must require the use of BMPs by third party dischargers (see Discussion under Legal Authority item D.1).

The SDRWQCB has discretion to require Legal Authority item D.1.i in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

D.2. Legal Authority states the following:

Within 365 days of adoption of this Order, each Copermittee shall provide to the SDRWQCB a statement certified by its chief legal counsel that the Copermittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order. This statement shall include:

- a. *Identification of all departments within the jurisdiction that conduct urban runoff related activities, and their roles and responsibilities under this Order. Include an up to date organizational chart specifying these departments and key personnel.*
- b. *Citation of urban runoff related ordinances and the reasons they are enforceable;*
- c. *Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;*
- d. *Description of how these ordinances are implemented and appealed; and*
- e. *Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that the Copermittees shall develop and implement legal authority to “Control through ordinance, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that the Copermittee must demonstrate that it can control “through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system.”

Discussion: Copermittees must demonstrate that they can operate pursuant to legal authority to meet the requirements of Federal NPDES regulations 40 CFR 122.26(d)(2)(A-F). For the Copermittee to demonstrate this legal authority, the US EPA suggests that “One acceptable way to support a declaration of adequate legal authority, including the ability to enforce appropriate ordinances, is for the municipality to provide a certification from the Municipal General Counsel or equivalent. The certification should state that the applicant has the legal authority to apply and enforce the requirements of 40 CFR 122.26(d)(2)(i)(A-F) in State or local courts. The certification would, therefore, cite specific ordinances and the reasons why they are enforceable. The statement should discuss what the municipality can do to ensure full compliance with 40 CFR 122.26(d)(2)(i)” (1992).

The SDRWQCB has discretion to require Legal Authority item D.2 in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

E. TECHNOLOGY BASED STANDARDS

E. Technology Based Standards states the following:

*Each Copermittee shall implement, or require implementation of, best management practices to ensure that the following pollutant discharges **into** and/or **from** its MS4 are reduced to the applicable technology based standard as specified below:*

Table 3. Technology Based Standards

POLLUTANT DISCHARGE FROM	DESCRIPTION	APPLICABLE PERFORMANCE STANDARD
<i>Industrial Activity <u>owned by the Copermittee</u></i>	<i>Categorical Industry in 40 CFR 122.26</i>	<i>The Copermittees are required to implement BMPs to the BAT/BCT standard (pursuant to Statewide General Industrial Permit)</i>
<i>Industrial Activity</i>	<i>All other industry</i>	<i>The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s.⁹⁴</i>
<i>Construction Activity <u>owned by the Copermittee</u></i>	<i>Greater than or Equal to 5 Acres (or less than 5 acres and Part of a Larger Common Plan of Sale or Development)</i>	<i>The Copermittees are required to implement BMPs to the BAT/BCT standard (pursuant to Statewide General Construction Permit)</i>
<i>Construction Activity</i>	<i>All Other construction</i>	<i>The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s⁹⁵</i>
<i>Other Sources</i>	<i>All Other Land Use Activities</i>	<i>The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s</i>
<i>MS4s</i>	<i>All discharges from MS4s</i>	<i>The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for all discharges from their MS4s</i>

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: CWA section 402(p)(3)(A) requires “Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 301.”

CWA section 301(b)(2) requires “effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants.”

Federal NPDES regulation 40 CFR 122.26(b)(14) provides that “The following categories of facilities are considered to be engaging in ‘industrial activity’ for purposes of this subsection: [...] (x) Construction activity including clearing, grading and excavation activities [...].”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A-D) require municipalities to control pollutants in urban runoff discharges to the MS4 to the maximum extent practicable from urban land uses such as residential, commercial, municipal, industrial, and construction.

⁹⁴ The facility operator is required to implement BMPs to the BAT/BCT standard pursuant to the Statewide General Industrial permit.

⁹⁵ The facility operator is required to implement BMPs to the BAT/BCT standard pursuant to the Statewide General Construction permit.

Discussion: Pollutant discharges in storm water to and from MS4s are held to applicable technology based standards. Storm water discharges to the MS4 from industrial and construction activities owned by the Copermittee, which fall under the general statewide industrial and construction storm water permits, must meet the BAT/BCT performance standard per permit requirements. This BAT/BCT performance standard is required in CWA section 301(b)(2), and is further described in CWA sections 304(b)(2-4).

Pollutant discharges in storm water **to** and **from** the MS4 for all other urban land use activities, including industrial and construction activities not covered under the statewide general permits, must be reduced to the maximum extent practicable. CWA section 402(p)(3)(B)(iii) and Federal NPDES regulation 40 CFR 122.26 (d)(2)(iv) require pollutant discharges in urban runoff discharged **from** MS4s to be reduced to the maximum extent practicable.

Since discharges that enter the MS4 are generally discharged unimpeded directly into receiving waters, the maximum extent practicable standard is to apply to both discharges into and from MS4s. Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff **from** commercial, residential, industrial, and construction land uses or activities to the maximum extent practicable. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges **to** their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states "The operators of regulated small MS4s cannot passively receive and discharge pollutants **from** third parties" (US EPA, 1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall "effectively prohibit non-stormwater discharges **into** the storm sewers."

The requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

The SDRWQCB has discretion to require Technology Based Standards item E. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F. JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

The following underlying broad legal authority citations generally apply to all directives of section F. Jurisdictional Urban Runoff Management Program of Order No. R9-2002-0001, and provide the SDRWQCB with ample underlying authority to require each of the directives. These legal authority citations are also listed under the Underlying Broad Legal

Authority for Order No. R9-2002-0001 segment of section VII. of this Fact Sheet/Technical Report. They are repeated here to emphasize their pertinence to the Jurisdictional Urban Runoff Management Program section of Order No. R9-2002-0001, which is the primary component of the Order.

In addition to the five broad legal authority items cited below that underlie all of the directives in section F. of Order No. R9-2002-0001, additional specific legal authority citations applicable to particular directives of section F. are provided in this section of the Fact Sheet/Technical Report as necessary. Some of these additional specific legal authority citations apply to entire components of section F. of Order No. R9-2002-0001. In these cases, the specific legal authority quotations are provided at the beginning of the discussion of the permit component, while the legal authority is again cited under each directive of the component. Furthermore, some specific legal authority citations only apply to distinct directives of section F. of Order No. R9-2002-0001. When this occurs, the quotation of the specific legal authority citation will appear with the discussion of the distinct permit directive.

CWA 402(p)(3)(B)(ii) – Prohibit Non-Storm Water

The CWA requires in section 402(p)(3)(B)(ii) that a storm water program “shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers.”

CWA 402(p)(3)(B)(iii) – Reduce to MEP and Whatever Else is Needed

The CWA requires in section 402(p)(3)(B)(iii) that a storm water program “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

40 CFR 122.26(d)(2)(i)(B,C,E, and F) – Obtain Adequate Legal Authority

Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) provide that each Copermitee’s permit application “shall consist of : (i) Adequate legal authority. A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to: [...] (B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer; (C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water; [...] (E) Require compliance with condition in ordinances, permits, contracts or orders; and (F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.”

40 CFR 122.26(d)(2)(iv) – Reduce to MEP and Whatever Else is Needed

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) provides that the Copermitee shall develop and implement a proposed management program which “shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other

provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. [...] Proposed programs may impose controls on a systemwide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. [...] Proposed management programs shall describe priorities for implementing controls.”

CWC 13377 – Implement CWA and Whatever Else is Needed

California Water Code section 13377 provides that “Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act (Clean Water Act), as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with an more stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

F. Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall take appropriate actions to reduce discharges of pollutants and runoff flow during each of the three major phases of urban development, i.e., the planning, construction, and existing development (or use) phases. Following the adoption of the Order and prior to the full implementation of the Jurisdictional URMP, each Copermittee shall at a minimum implement the provisions and commitments of the proposed DAMP submitted in September 2000.

Each Copermittee shall implement a Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) that contains the components shown below as described in Sections F.1. through F.9:

- F.1. Land-Use Planning for New Development and Redevelopment Component*
- F.2. Construction Component*
- F.3. Existing Development Component*
 - a. Municipal*
 - b. Industrial*
 - c. Commercial*
 - d. Residential*
- F.4. Education Component*
- F.5. Illicit Discharge Detection and Elimination Component*
- F.6. Common Interest Areas and Homeowners Associations*
- F.7. Public Participation Component*
- F.8. Assessment of Jurisdictional URMP Effectiveness Component*
- F.9. Fiscal Analysis Component*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A – D) include provisions for inclusion of program components F.1 – F.9 in the Jurisdictional URMPs.

Discussion: As discussed in Finding 17, urban development has three major phases: (1) land use planning for new development; (2) construction; and (3) the land use or existing development phase. Because the Copermittees authorize each of these phases, they have commensurate responsibilities to protect water quality during each phase. Findings 18 – 20 indicate how each of these phases of development can be a significant source of pollutants in urban runoff and can impact receiving water quality. To address the potential negative impacts from the three phases of urban development, Urban Runoff Management Programs focusing on the three phases must be developed and implemented (see Finding 10). US EPA places importance on the development and implementation of URMPs when it states “Under the Part 2 application requirements, municipalities must propose site-specific storm water management programs. This is the most important aspect of the permit application” (1992).

The SDRWQCB has discretion to require development and implementation of Jurisdictional Urban Runoff Management Programs in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.1. LAND-USE PLANNING FOR NEW DEVELOPMENT AND REDEVELOPMENT COMPONENT

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority item also generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.1. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) provides that Copermittees develop and implement a proposed management program which is to include “A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed.”

F.1. Land-Use Planning for New Development and Redevelopment Component states the following:

Each Copermittee shall minimize the short and long-term impacts on receiving water quality from new development and redevelopment. In order to reduce pollutants and runoff flows from new development and redevelopment to the maximum extent practicable, each Copermittee shall at a minimum:

- F.1.a Assess General Plan*
- F.1.b Modify Development Project Approval Processes*
- F.1.c Revise Environmental Review Processes*
- F.1.d Conduct Education Efforts Focused on New Development and Redevelopment*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: As discussed in Finding 4, urban development can negatively impact receiving water quality by increasing the pollutant load, volume, and velocity of urban runoff. An effective means for minimizing these impacts is to address water quality concerns during the planning phase of urban development. US EPA supports this, stating "Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly effect receiving waterbodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management" (2000). For these reasons, Order No. R9-2002-0001 includes a requirement for the development and implementation of a Land-Use Planning for New Development and Redevelopment Component.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.1. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.1.a. Assess General Plan of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee's General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) shall include water quality and watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures for development projects. As part of its Jurisdictional Urban Runoff Management Program document, each Copermittee shall provide a workplan with time schedule detailing any changes to its General Plan regarding water quality and watershed protection. Examples of water quality and watershed protection principles and policies to be considered include the following:

- (1) *Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.*
- (2) *Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.*
- (3) *Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.*
- (4) *Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.*
- (5) *Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require*

incorporation of structural and non-structural BMPs to mitigate the projected increases in pollutant loads and flows.

- (6) *Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.*
- (7) *Reduce pollutants associated with vehicles and increasing traffic resulting from development. Coordinate local traffic management reduction efforts with Orange County Transit Authority's Congestion Management Plan.*
- (8) *Post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the maximum extent practicable.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: The US EPA finds that the Copermittee "must thoroughly describe how the municipality's comprehensive plan is compatible with the storm water regulations" (1992). To achieve this, the Copermittee shall incorporate water quality and watershed protection principles and policies into its General Plan (or equivalent plan). US EPA supports addressing urban runoff problems in General Plans (or equivalent plans) when it states "Runoff problems can be addressed efficiently with sound planning procedures. Master Plans, Comprehensive Plans, and zoning ordinances can promote improved water quality by guiding the growth of a community away from sensitive areas and by restricting certain types of growth (industrial, for example) to areas that can support it without compromising water quality" (2000).

The principles included in Jurisdictional Urban Runoff Management Program item F.1.a. are based on findings by the SWRCB Urban Runoff Technical Advisory Committee. They incorporate basic measures that have been found to minimize pollutants in urban runoff from new development and redevelopment.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.1.a. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.1.b. Modify Development Project Approval Processes of the Jurisdictional Urban Runoff Management Program states the following:

Prior to project approval and issuance of local permits, Copermittees shall require each proposed project to implement measures to ensure that pollutants and runoff from the development will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of receiving water quality objectives. Each Copermittee shall further ensure that all development will be in compliance with Copermittee storm water ordinances, local permits, all other applicable ordinances and requirements, and this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: As discussed in Finding 18, incorporating post-construction BMPs into new development and redevelopment during project planning and approval is an effective means for controlling pollutants in urban runoff. US EPA finds review of development plans during the project approval process necessary, stating: "Proposed storm water management programs should include planning procedures for both during and after construction to implement control measures to ensure that pollution is reduced to the maximum extent practicable in areas of new development and redevelopment. Design criteria and performance standards may be used to assist in meeting this objective. Further, storm water management program goals should be reviewed during planning processes that guide development to appropriate locations and steer intensive land uses away from sensitive environmental areas. [...] A municipality should describe how it plans to implement the proposed standards (e.g., through an ordinance requiring approval of storm water management programs, a review and approval process, and adequate enforcement)" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.1.b. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.1.b.(1). Development Project Requirements of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitee shall include development project requirements in local permits to ensure that pollutant discharges from development are reduced to the maximum extent practicable, peak runoff velocities and runoff volumes from development are controlled, and that receiving water quality objectives are not violated throughout the life of the project. Such requirements shall, at a minimum:

- (a) Require project proponent to implement source control BMPs for all applicable development projects.*
- (b) Require project proponent to implement site design/landscape characteristics where feasible which maximize infiltration, provide retention, slow runoff, and minimize impervious land coverage for all development projects.*
- (c) Require project proponent to implement buffer zones for natural water bodies, where feasible. Where buffer zone implementation is infeasible, require project proponent to implement other buffers such as trees, lighting restrictions, access restrictions, etc.*
- (d) Require industrial applicants subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction), (hereinafter General Industrial Permit), to provide evidence of coverage under the General Industrial Permit.*
- (e) Require project proponent to ensure its grading or other construction activities meet the provisions specified in Section F.2. of this Order.*

- (f) *Require project proponent to provide proof of a mechanism which will ensure ongoing long-term maintenance of all structural post-construction BMPs.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: Regarding conditions of approval in storm water permits, the US EPA finds that “Proposed storm water management programs should include planning procedures for both during and after construction to implement control measures to ensure that pollution is reduced to the maximum extent practicable in areas of new development and redevelopment. Design criteria and performance standards may be used to assist in meeting this objective” (1992). The US EPA further finds that “The municipality should consider storm water controls and structural controls in planning, zoning, and site or subdivision plan approval” (1992). In addition, US EPA states each Copermittee should “have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls [...]” (2000).

Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to “Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects [...]” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.1.b.(1). in Order No. R9-2002-0001 under the broad legal authority cited above.

F.1.b.(2). Standard Urban Storm Water Mitigation Plans (SUSMPs) of the Jurisdictional Urban Runoff Management Program states the following:

Within 365 days of adoption of this Order, the Copermittees shall collectively develop a model Standard Urban Storm Water Mitigation Plan (SUSMP) to reduce pollutants and to maintain or reduce downstream erosion and stream habitat from all new development and significant redevelopment projects falling under the priority project categories or locations listed in section F.1.b.(2)(a) below. The Copermittees shall submit the model SUSMP to the SDRWQCB. Within 180 days of development of the model SUSMP, each Copermittee shall adopt its own local SUSMP, and amended ordinances consistent with the model SUSMP, and shall submit both (local SUSMP and amended ordinances) to the SDRWQCB.

Immediately following adoption of its local SUSMP, each Copermittee shall ensure that all new development and significant redevelopment projects falling under the priority project categories or locations listed in F.1.b.(2)(a) below meet SUSMP requirements. The SUSMP requirements shall apply to all priority projects or phases of priority projects that have not yet begun grading or construction activities. If a Copermittee determines that lawful prior approval of a project exists, whereby application of SUSMP requirements to the project is infeasible, SUSMP requirements need not apply to the project. Where feasible, the Copermittees shall utilize the 18-month SUSMP

implementation period to ensure that projects undergoing approval processes include application of SUSMP requirements in their plans.

(a) *Priority Development Project Categories - SUSMP requirements shall apply to all new development and significant redevelopment projects falling under the priority project categories or locations listed below. Significant redevelopment is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where significant redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in section F.1.b.(2)(c) applies only to the addition, and not to the entire development.*

- i. Home subdivisions of 10 or more housing units. This category includes single-family homes, multi-family homes, condominiums, and apartments.*
- ii. Commercial developments greater than 100,000 square feet. This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; commercial airfields; and other light industrial facilities.*
- iii. Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.*
- iv. Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement F.1.b.(2)(c) and peak flow rate requirement F.1.b(2)(b)(i).*
- v. All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.*
- vi. Environmentally Sensitive Areas: All development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. Environmentally sensitive areas include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); areas designated as preserves or equivalent under the Natural Community Conservation Planning Program; and any areas designated as Critical Aquatic Resources (CARS) or other equivalent environmentally sensitive areas which have been identified by the Copermittees. "Directly adjacent" means situated within 200 feet of the environmentally sensitive area. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.*

- vii. *Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.*
 - viii. *Street, roads, highways, and freeways. This category includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.*
- (b) *BMP Requirements – The SUSMP shall include a list of recommended source control and structural treatment BMPs. The SUSMP shall require all new development and significant redevelopment projects falling under the above priority project categories or locations to implement a combination of BMPs selected from the recommended BMP list, including at a minimum (1) source control BMPs and (2) structural treatment BMPs. The BMPs shall, at a minimum:*
- i. *Control the post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion, and to protect stream habitat;*
 - ii. *Conserve natural areas where feasible;*
 - iii. *Minimize storm water pollutants of concern in urban runoff from the new development or significant redevelopment (through implementation of source control BMPs). Identification of pollutants of concern should include at a minimum consideration of any pollutants for which water bodies receiving the development's runoff are listed as impaired under Clean Water Act section 303(d), any pollutant associated with the land use type of the development, and any pollutant commonly associated with urban runoff;*
 - iv. *Remove pollutants of concern from urban runoff (through implementation of structural treatment BMPs);*
 - v. *Minimize directly connected impervious areas where feasible;*
 - vi. *Protect slopes and channels from eroding;*
 - vii. *Include storm drain stenciling and signage;*
 - viii. *Include properly designed outdoor material storage areas;*
 - ix. *Include properly designed trash storage areas;*
 - x. *Include proof of a mechanism, to be provided by the project proponent or Copermittee, which will ensure ongoing long-term structural BMP maintenance;*
 - xi. *Include additional water quality provisions applicable to individual priority project categories;*
 - xii. *Be correctly designed so as to remove pollutants to the maximum extent practicable;*
 - xiii. *Be implemented close to pollutant sources, when feasible, and prior to discharging into receiving waters supporting beneficial uses; and*
 - xiv. *Ensure that post-development runoff does not contain pollutant loads which cause or contribute to an exceedance of water quality objectives and which have not been reduced to the maximum extent practicable.*
- (c) *Numeric Sizing Criteria – The SUSMP shall require structural treatment BMPs to be implemented for all priority development projects. All structural treatment BMPs shall be located so as to infiltrate, filter, or treat the required runoff volume or flow prior to its discharge to any receiving water body supporting beneficial uses. Structural treatment BMPs may be shared by multiple new development projects as long as construction of any shared structural treatment BMPs is completed prior to the use of any new development project from which the structural treatment BMP will receive runoff.*

In addition to meeting the BMP requirements listed in item F.1.b.(2)(b) above, all structural treatment BMPs for a single priority development project shall collectively be sized to comply with the following numeric sizing criteria:

Volume

Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- i. The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (0.8 inch approximate average for the Orange County area),⁹⁶ or
- ii. The volume of runoff produced by the 85th percentile 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
- iii. The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial, (1993); or
- iv. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event;⁹⁷

OR

Flow

Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour; or
 - ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
 - iii. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.
- (d) *Equivalent Numeric Sizing Criteria* - The Copermittees may develop, as part of the model SUSMP, any equivalent method for calculating the volume or flow which must be mitigated (i.e., any equivalent method for calculating numeric sizing criteria) by post-construction structural treatment BMPs. Such equivalent sizing criteria may be authorized by the SDRWQCB for use in place of the above criteria. In the absence of development and subsequent authorization of such equivalent numeric sizing criteria, the above numeric sizing criteria requirement shall be implemented.
- (e) *Pollutants or Conditions of Concern* – As part of the model SUSMP, the Copermittees shall develop a procedure for pollutants or conditions of concern to be identified for each new development or significant redevelopment project. The procedure shall include, at a minimum, consideration of (1) receiving water quality (including pollutants for which receiving waters are listed as impaired under Clean Water Act section 303(d)); (2) land use type of the development project and pollutants associated with that land use type; (3) pollutants expected to be present on site; (4) changes in storm water discharge flow rates, velocities, durations, and volumes resulting from the development project; and (5) sensitivity of receiving waters to changes in storm water discharge flow rates, velocities, durations, and volumes.
- (f) *Implementation Process* – As part of the model SUSMP, the Copermittees shall develop a process by which SUSMP requirements will be implemented. The process shall identify at what point in the planning process development projects will be required to meet SUSMP requirements. The process

⁹⁶This volume is not a single volume to be applied to all of Orange County. The size of the 85th percentile storm event is different for various parts of the County. The Copermittees are encouraged to calculate the 85th percentile storm event for each of their jurisdictions using local rain data pertinent to their particular jurisdiction (the 0.8 inch standard is a rough average for the County and should only be used where appropriate rain data is not available). In addition, isopluvial maps may be used to extrapolate rainfall data to areas where insufficient data exists in order to determine the volume of the local 85th percentile storm event in such areas. Where the Copermittees will use isopluvial maps to determine the 85th percentile storm event in areas lacking rain data, the Copermittees shall describe their method for using isopluvial maps in the model and local SUSMPs.

⁹⁷ Under this volume criteria, hourly rainfall data may be used to calculate the 85th percentile storm event, where each storm event is identified by its separation from other storm events by at least six hours of no rain. Where the Copermittees may use hourly rainfall data to calculate the 85th percentile storm event, the Copermittees shall describe their method for using hourly rainfall data to calculate the 85th percentile storm event in the model and local SUSMPs.

shall also include identification of the roles and responsibilities of various municipal departments in implementing the SUSMP requirements, as well as any other measures necessary for the implementation of SUSMP requirements.

- (g) *Waiver Provision – A Copermittee may provide for a project to be waived from the requirement of implementing all structural treatment BMPs (F.1.b.(2)(b) & F.1.b.(2)(c)) if infeasibility can be established. A waiver of infeasibility shall only be granted by a Copermittee when all available structural treatment BMPs have been considered and rejected as infeasible. Copermittees shall notify the SDRWQCB within 5 days of each waiver issued and shall include the name of the person granting each waiver.*

As part of the model SUSMP, the Copermittees may develop a program to require project proponents who have received waivers to transfer the savings in cost, as determined by the Copermittee(s), to a storm water mitigation fund. This program may be implemented by all Copermittees that choose to provide waivers. Funds may be used on projects to improve urban runoff quality within the watershed of the waived project. The waiver program may identify:

- i. The entity or entities that will manage the storm water mitigation fund (i.e., assume full responsibility for)*
 - ii. The range and types of acceptable projects for which mitigation funds may be expended;*
 - iii. The entity or entities that will assume full responsibility for each mitigation project including its successful completion*
 - iv. How the dollar amount of fund contributions will be determined.*
- (h) *Infiltration and Groundwater Protection – To protect groundwater quality, each Copermittee shall apply restrictions to the use of structural treatment BMPs which are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins). Such restrictions shall ensure that the use of such infiltration structural treatment BMPs shall not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, use of structural treatment BMPs which are designed to primarily function as infiltration devices shall meet the following conditions:⁹⁸*
- i. Urban runoff shall undergo pretreatment such as sedimentation or filtration prior to infiltration.*
 - ii. All dry weather flows shall be diverted from infiltration devices.*
 - iii. Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration structural treatment BMPs are to be used.*
 - iv. Infiltration structural treatment BMPs shall be adequately maintained so that they remove pollutants to the maximum extent practicable.*
 - v. The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.*
 - vi. The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses.*
 - vii. Infiltration structural treatment BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Copermittee.*
 - viii. Infiltration structural BMPs shall be located a minimum of 100 feet horizontally from any water supply wells.*

As part of the model and local SUSMPs, the Copermittees may develop alternative restrictions on the use of structural treatment BMPs which are designed to primarily function as infiltration devices.

- (j) *Downstream Erosion – As part of the model SUSMP and the local SUSMPs, the Copermittees shall develop criteria to ensure that discharges from new development and significant redevelopment*

⁹⁸ These conditions do not apply to structural treatment BMPs which allow incidental infiltration and are not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.)

maintain or reduce pre-development downstream erosion and protect stream habitat. At a minimum, criteria shall be developed to control peak storm water discharge rates and velocities in order to maintain or reduce pre-development downstream erosion and protect stream habitat. Storm water discharge volumes and durations should also be considered.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

California Water Code Section 13267 provides that "the regional board may require that any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires."

Discussion: Copermittees must utilize planning procedures to reduce the discharge of pollutants from new development and redevelopment to the maximum extent practicable. This is necessary due to the potential for new development to increase the volume, flow velocity, and pollutant load of urban runoff (see Findings 4 and 5). As the SWRCB Urban Runoff Technical Advisory Committee (TAC) states, "Urban development often results in impacts to the land and consequently the water bodies adjacent to the land. The two major changes that result from urbanization are changes in stream hydrology and an increase in pollutant loading." To alleviate these potential negative impacts on receiving waters, each Copermittee must develop and implement a Standard Urban Runoff Mitigation Plan for various categories of development.

GENERAL INFORMATION ON SUSMPs

As part of the Jurisdictional Urban Runoff Management Program, Copermittees must also develop Standard Urban Runoff Management Plans (SUSMPs) for certain development and significant redevelopment projects falling under priority project categories. The project categories generally result in the large increases in impervious surfaces, are potential significant sources of pollutants, or have a history of storm water mismanagement. The SUSMPs include requirements for implementation of minimum source control and structural treatment BMPs. The structural treatment BMPs also have numeric sizing criteria that must be met based on volume or flow (of runoff). By developing and implementing the SUSMPs, the Copermittees are reducing the potential negative impacts of urban runoff on receiving waters.

SUPPORT FOR SUSMPS

Support for the inclusion of the SUSMP requirements is found in both Federal and State guidance/regulations. Pursuant to the Clean Water Act and Federal NPDES regulations, municipal storm water permits must require controls to reduce the discharge of pollutants to the maximum extent practicable including controls which address pollutant discharges resulting from new development and significant redevelopment. Clean Water Act section 402(p)(3)(B)(iii) gives USEPA

and States considerable discretion on establishing provisions for implementation in storm water programs, stating “require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of pollutants.” USEPA also recommends design criteria (such as numeric sizing criteria) and performance standards for post construction BMPs at development sites (1992). The increased specificity of the SUSMP requirements is also in line with U.S. EPA Interim Permitting Approach guidance, which states that first round permit BMPs should be expanded or better-tailored where necessary in subsequent permits to attain water quality standards (1996). The SWRCB Urban Runoff Technical Advisory Committee supports development of plans such as SUSMPs, stating that “The TAC recommends that communities of all sizes implement programs[...] to address control of urban runoff pollution from new development and construction.” Both the Los Angeles Regional Water Quality Control Board (Order No. 96-54) and the San Diego Regional Water Quality Control Board (Order No. 2001-01) have adopted SUSMP requirements in their Municipal Storm Water Permits. The SWRCB Order No. 2000-11 (from appeal of LARWQCB permit) finds that SUSMP requirements reflect a reasonable interpretation of development controls that achieve reduction of pollutants in storm water discharges to the maximum extent practicable.

The current Municipal Storm Water Permit for Orange County and Cities (Order No. 96-03) generally addresses new development and redevelopment. The Permit requires the Copermittees to implement new development BMPs that were developed under the previous first term permit (Order No. 90-38). These BMP guidelines were developed in 1993 by a New Development Task Force comprised of government and industry representatives. The guidelines are very general, resulting in development projects proceeding with minimal measures to reduce the impacts of urban runoff. Consequently, Order No. R9-2002-0001 contains SUSMP requirements that are more prescriptive than Order 96-03 to establish a framework of narrative and numeric criteria that ensure adequate measures are taken to address urban runoff.

SUSMP REQUIREMENTS IN ORANGE COUNTY PERMIT

Staff reviewed the SUSMP requirements included in the San Diego Municipal Storm Water Permit to determine applicability to the Orange County Municipal Storm Water Permit. Staff also reviewed public comments, the Los Angeles Municipal Storm Water Permit, and SWRCB Order No. 2000-11. The following sections are proposed to be included in the Orange County Permit and include discussion on intent of the requirements.

Priority Development Projects Categories

1. Home subdivisions of 10 or more housing units
2. Commercial developments greater than 100,000 square feet
3. Automotive repair shops
4. Restaurants
5. All hillside development greater than 5,000 square feet
6. Environmentally Sensitive Areas (defined in the Order)

7. Parking lots 5,000 square feet or more or with 15 or more parking spaces
8. Street, roads, highways, and freeways

The categories listed above will either result in a large increase of impervious surfaces or are potential significant sources of pollutants. These types of projects are typical of new development and significant redevelopment that are likely to occur and be locally approved by the Copermittees in Orange County. The SUSMP provisions that apply to the eight categories of new development and significant redevelopment are separated into two categories, required and optional

1. Required Provisions

BMPs Requirements

Requires SUSMPs include a list of recommended source control and structural BMPs for all projects falling under the priority development categories. Also establishes criteria that these BMPs must meet. The intent of the requirements is to allow the Copermittees and developers flexibility in choosing which combination of source control and structural treatment BMPs are to be implemented at a site. The intent of the criteria is to define what minimum performance standards must be met by these selected BMPs.

Numeric Sizing Criteria

Requires structural BMPs to meet numeric sizing criteria to mitigate (infiltrate, filter, or treat) volume or flow prior to discharge into receiving waters. The numeric sizing criteria is included to ensure that structural BMPs are sized effectively to remove the pollutants of concern. The sizing criteria are based on capture of runoff from a 24-hour 85th percentile storm. The 24-hour 85th percentile storm represents the “knee” of a precipitation probability curve from which it is no longer cost effective to treat runoff. The precipitation curve is calculated by using local historical rainfall data on the number and intensity of storm events. The Regional Board staff has calculated the average 24-hour 85th percentile storm for area covered by the permit to be 0.8 inch (see San Diego SUSMP staff report for example calculations). However, the requirements allow needed flexibility for the Copermittees and developers to mitigate runoff based on either volume or flow. In addition, the requirements allow for several different options to calculate the amount of runoff to ensure that projects are not required to capture runoff from storm events beyond the point of diminishing returns. For example, a project proponent may demonstrate that the 24-hour 85th storm event may be less than the average 0.8 inch by using local precipitation data.

Pollutants or Conditions of Concern

As part of the model SUSMP, requires the Copermittees to develop a procedure to identify pollutants or conditions of concern for each development or significant redevelopment project. The intent of the requirements is to provide consistency in the application of the SUSMPs between the Copermittees. This requirement was included in response to consistency concerns of the Copermittees.

Implementation Process

As part of the model SUSMP, requires identification at what point in the planning process that projects must meet SUSMP requirements and what are roles/responsibilities of municipal departments. The intent of this requirement is to provide consistency in the application of the SUSMPs between the Copermittees. This requirement was included in response to consistency concerns of the Copermittees.

Infiltration and Groundwater Protection

Requires restrictions for structural treatment BMPs that are designed to primarily function as infiltration devices to protect groundwater quality. Defines what restrictions are placed on these BMPs, but allows Copermittees to develop alternative restrictions. Applying large amounts of runoff water in a small area has the potential to adversely impact groundwater quality. The intent of these requirements is to provide necessary restrictions for use of these structural BMPs to protect the beneficial uses (municipal, agricultural, industrial) of groundwater in the Orange County section of the San Juan Creek Watershed Management Area. The intent of the requirements is also to provide the Copermittees needed flexibility to develop alternative restrictions for projects or locations.

Downstream Erosion

Require Copermittees to develop criteria to ensure discharges from new development and significant redevelopment maintain or reduce pre-development downstream erosion and protect stream habitat. Development and significant redevelopment can cause increases in runoff amount and velocity causing down erosion problems. The intent of these requirements is to mitigate these potential increases and prevent downstream erosion problems as seen in Aliso & San Juan Creeks.

2. Optional Provisions

Equivalent Numeric Sizing Criteria

Allows Copermittees the opportunity to develop an equivalent method for calculating the volume or flow to be mitigated. The intent of the requirement is to provide necessary flexibility to Copermittees to develop equivalent methods in calculating the volume or flow that must be mitigated from the 24-hour 85th percentile storm event.

Waiver Provision

Allows Copermittees to waive structural treatment BMPs when all available BMPs have been considered and rejected as infeasible. Also allows the Copermittees to develop a program to require projects that receive waivers, to transfer the cost savings to a fund. The intent of the requirements is to allow Copermittees necessary flexibility to waive structural BMPs when it can be established that the implementation of structural BMPs that meet numeric sizing criteria is not feasible at a given site. This provision also allows Copermittees

discretion to transfer the costs saving from such a waiver to a fund for water quality projects within the watershed.

The SDRWQCB has discretion to require Standard Urban Runoff Mitigation Plans in Jurisdictional Urban Runoff Management Program item F.1.b.(2). of Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.1.c. Revise Environmental Review Processes of the Jurisdictional Urban Runoff Management Program states the following:

- (1) *To the extent feasible, the Copermitees shall revise their current environmental review processes to include requirements for evaluation of water quality effects and identification of appropriate mitigation measures. The following questions are examples to be considered in addressing increased pollutants and flows from proposed projects:*
 - (a) *Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).*
 - (b) *Could the proposed project result in significant alteration of receiving water quality during or following construction?*
 - (c) *Could the proposed project result in increased impervious surfaces and associated increased runoff?*
 - (d) *Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?*
 - (e) *Could the proposed project result in increased erosion downstream?*
 - (f) *Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?*
 - (g) *Is project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?*
 - (h) *Could the proposed project have a potentially significant environmental impact on surface water quality, to either marine, fresh, or wetland waters?*
 - (i) *Could the proposed project have a potentially significant adverse impact on ground water quality?*
 - (j) *Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?*
 - (k) *Can the project impact aquatic, wetland, or riparian habitat?*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: Consideration of the effects of new development and redevelopment on water quality during project approval processes will help ensure that potential water quality problems resulting from the development are identified and addressed. The US EPA finds that "Proposed storm water management programs should include planning procedures for both during and after construction to implement control measures to ensure that pollution is reduced to the maximum extent practicable in areas of new development and redevelopment. Design criteria and performance standards may be used to assist in meeting this objective"

(1992). The US EPA further finds that "The municipality should consider storm water controls and structural controls in planning, zoning, and site or subdivision plan approval" (1992). The SWRCB Urban Runoff Technical Advisory Committee advises that the Copermittees' CEQA initial study checklists be revised to include consideration of water quality effects from new development or redevelopment. The questions included in Jurisdiction Urban Runoff Management Program item F.1.c. are based on questions recommended by the Technical Advisory Committee. The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.1.c. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.1.d. Conduct Education Efforts Focused on New Development and Redevelopment of the Jurisdictional Urban Runoff Management Program states the following:

(1) *Internal: Municipal Staff and Others*

Each Copermittee shall implement an education program to ensure that its planning and development review staffs (and Planning Boards and Elected Officials, if applicable) have an understanding of:

- (a) *Federal, state, and local water quality laws and regulations applicable to development projects;*
- (b) *The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and*
- (c) *How impacts to receiving water quality resulting from development can be minimized (i.e., through implementation of various source control and structural BMPs).*

(2) *External: Project Applicants, Developers, Contractors, Property Owners, Community Planning Groups*

As early in the planning and development process as possible, each Copermittee shall implement a program to educate project applicants, developers, contractors, property owners, and community planning groups on the following topics:

- (a) *Federal, state, and local water quality laws and regulations applicable to development projects;*
- (b) *Required federal, state, and local permits pertaining to water quality;*
- (c) *Water quality impacts of urbanization; and*
- (d) *Methods for minimizing the impacts of development on receiving water quality.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.1. Land-Use Planning for New Development and Redevelopment Component of Order No. R9-2002-0001.

Discussion: Training of municipal planning and development review staff is a critical aspect of an urban runoff management program. As discussed in Finding 18, development and implementation of urban runoff control measures as early in the project planning process as possible is an effective means (in terms of both cost and performance) for minimizing the impacts of urban runoff to receiving

waters. Municipal planning and development review staff are well-positioned to ensure that water quality considerations are incorporated into development projects in the early planning stages. With adequate training, municipal planning and development review staff can require implementation of BMPs early in the project planning process, thereby minimizing the urban runoff impacts of development in a cost effective manner. US EPA supports training of municipal staff when it identifies "training for appropriate employees" as a measurable goal of an urban runoff management program (2000).

Education on storm water planning issues for the public sector involved with development is equally critical. When the public sector has knowledge of storm water issues and regulations, it is more likely to incorporate storm water planning in the development and redevelopment process. In this manner, implementation of measures to address storm water issues will be included in development plans, saving time and money for the developer and the municipality. The SWRCB Urban Runoff Technical Advisory Committee finds that Copermittees should "Establish an education/information dissemination program that includes such things as: brochures to distribute to developers and contractors at permit counters and by mail; reference and training manuals for planners, engineers, inspectors, developers, contractors; and training and information exchange workshops."

Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to "...implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities [...]" (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.1.d. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.2. CONSTRUCTION COMPONENT

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority item also generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.2. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) provides that the proposed management program include "A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system."

F.2. Construction Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement a Construction Component of its Jurisdictional URMP to reduce pollutants in runoff from construction sites during all construction phases. At a minimum the construction component shall address:

- F.2.a. Pollution Prevention*
- F.2.b. Grading Ordinance Update*
- F.2.c. Modify Construction and Grading Approval Process*
- F.2.d. Source Identification*
- F.2.e. Threat to Water Quality Prioritization*
- F.2.f. BMP Implementation*
- F.2.g. Inspection of Construction Sites*
- F.2.h. Enforcement of Construction Sites*
- F.2.i. Reporting of Non-compliant Sites*
- F.2.j. Education Focused on Construction Activities*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Discussion: CWA sections 402(p)(3)(B)(ii-iii) requires each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for construction activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) requires that this program include components which address construction sites and activities.

Natural erosion processes are accelerated when existing protective cover is removed during construction. Suspended sediments constitute the largest mass of pollutant loadings to surface waters. As discussed in Finding 19, the primary source of these sediments is construction sites. Sediments from construction site erosion can be effectively reduced in urban runoff by the application of a wide range of BMPs, which emphasize pollution prevention and source control and are supplemented by treatment control BMPs. For these reasons, each Copermittee must develop and implement a Construction Component that utilizes BMPs to control pollutants in runoff generated from construction sites.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.2 in Order No. R9-2002-0001 under broad legal authority cited above.

F.2.a. Pollution Prevention (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement pollution prevention methods in its Construction Component and shall require its use by construction site owners, developers, contractors, and other responsible parties, where appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(1) provides that the proposed management program include “A description of procedures for site planning which incorporate consideration of potential water quality impacts.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2) provides that the proposed management program include “A description of requirements for nonstructural and structural best management practices.”

Discussion: Each Copermittee must develop a program to reduce the discharge of pollutants in storm water from construction sites to the maximum extent practicable. In order to achieve this level of pollution reduction, BMPs must be implemented.⁹⁹ As discussed in Finding 12, pollution prevention (the reduction or elimination of pollutant generation at its source) is an essential aspect of BMPs. By limiting the generation of pollutants, less pollutants are available to be washed from construction sites, resulting in reduced pollutant loads in storm water discharges from these sites. In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media. In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the Construction Component of the Jurisdictional URMP.¹⁰⁰

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.2.a in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.b. Grading Ordinance Update (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

⁹⁹Santa Clara Valley Urban Runoff Pollution Program, 1995. Blueprint for a Clean Bay:Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities.

¹⁰⁰U.S. EPA, 1996. Controlling Stormwater Runoff Discharges from Small Construction Sites: A National Review.

Each Copermittee shall review and update its grading ordinances as necessary for compliance with its storm water ordinances and this Order. The updated grading ordinance shall require implementation of BMPs and other measures during all construction activities, including the following BMPs and other measures or their equivalent:

- (1) Erosion prevention;
- (2) Seasonal restrictions on grading;
- (3) Slope stabilization requirements;
- (4) Phased grading;
- (5) Revegetation as early as feasible;
- (6) Preservation of natural hydrologic features;
- (7) Preservation of riparian buffers and corridors;
- (8) Maintenance of all source control and structural treatment BMPs; and
- (9) Retention and proper management of sediment and other construction pollutants on site.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(1) provides that the proposed management program include “A description of procedures for site planning which incorporate consideration of potential water quality impacts.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2) provides that the proposed management program include “A description of requirements for nonstructural and structural best management practices.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermittee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(b)(14) provides that “The following categories of facilities are considered to be engaging in ‘industrial activity’ for the purposes of this subsection: [...] (x) Construction activity including cleaning, grading and excavation activities [...].”

Discussion: Copermittees must reduce pollutant discharges in storm water from construction sites to the maximum extent practicable. In order to achieve this level of pollution reduction, BMPs must be implemented. An effective means for ensuring BMP implementation at construction sites is through the development and implementation of grading ordinances which require pollution prevention, source control, and structural treatment BMPs. Updated grading ordinances that adequately address water quality considerations will provide Copermittees with the necessary legal authority to require effective BMPs at construction sites.

The US EPA suggests that local ordinance be used to require implementation of BMPs, stating that “A description of the local erosion and sediment control law or

ordinance is needed to satisfy this requirement [i.e., Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2)]” (1992). Regarding Copermittee approval of construction activities, the US EPA further states that “applicants must propose site review and approval procedures that address sediment and erosion controls, storm water management, and other appropriate measures. Approvals should be clearly tied to commitments to implement structural and nonstructural BMPs during the construction process” (1992).

Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to develop and implement for construction sites “An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance [...]” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.2.b in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.c. Modify Construction and Grading Approval Process (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Prior to approval and issuance of local construction and grading permits, each Copermittee shall require all individual proposed construction and grading projects to implement measures to ensure that pollutants from the site will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of water quality objectives. Each Copermittee shall further ensure that all grading and construction activities will be in compliance with applicable Copermittee ordinances (e.g., storm water, grading, construction, etc.) and other applicable requirements, including this Order.

(1) Construction and Grading Project Requirements

Include construction and grading project requirements in local grading and construction permits to ensure that pollutant discharges are reduced to the maximum extent practicable and water quality objectives are not violated during the construction phase. Such requirements shall include the following requirements or their equivalent:

- (a) Require project proponent to develop and implement a plan to manage storm water and non-storm water discharges from the site at all times;*
- (b) Require project proponent to minimize grading during the wet season and coincide grading with seasonal dry weather periods to the extent feasible. If grading does occur during the wet season, require project proponent to implement additional BMPs for any rain events which may occur, as necessary for compliance with this Order;*
- (c) Require project proponent to emphasize erosion prevention as the most important measure for keeping sediment on site during construction;*
- (d) Require project proponent to utilize sediment controls as a supplement to erosion prevention for keeping sediment on-site during construction, and never as the single or primary method;*
- (e) Require project proponent to minimize areas that are cleared and graded to only the portion of the site that is necessary for construction;*
- (f) Require project proponent to minimize exposure time of disturbed soil areas;*
- (g) Require project proponent to temporarily stabilize and reseed disturbed soil areas as rapidly as possible;*
- (h) Require project proponent to permanently revegetate or landscape as early as feasible;*
- (i) Require project proponent to stabilize all slopes; and*
- (j) Require project proponents subject to California’s statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities, (hereinafter General*

Construction Permit), to provide evidence of existing coverage under the General Construction Permit.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(1) provides that the proposed management program include “A description of procedures for site planning which incorporate consideration of potential water quality impacts.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2) provides that the proposed management program include “A description of requirements for nonstructural and structural best management practices.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermittee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(b)(14) provides that “The following categories of facilities are considered to be engaging in ‘industrial activity’ for the purposes of this subsection: [...] (x) Construction activity including cleaning, grading and excavation activities [...].”

Discussion: As discussed in Finding 16, since each Copermittee approves and issues construction and grading permits, and discharges from construction and grading activities enter its MS4, each Copermittee is responsible for the pollutant discharges resulting from construction and grading activities. Each Copermittee must ensure that pollutant discharges from construction and grading activities are reduced to the maximum extent practicable and do not result in degradation of receiving waters. An effective means for achieving this is to develop conditions of approval for grading and construction permits that require measures to minimize pollutant discharges. The US EPA recommends approval processes which consider water quality impacts, stating that approval process requirements should “include phasing development to coincide with seasonal dry periods, minimizing areas that are cleared and graded to only the portion of the site that is necessary for construction, exposing areas for the briefest period possible, and stabilizing and reseeding disturbed areas rapidly after construction activity is completed” (1992). Other suggested construction and grading conditions of approval listed in this item are based on SWRCB Urban Runoff Technical Advisory Committee recommendations.

During approval and issuance of grading and construction permits, each Copermittee must review construction and grading plans to ensure that the conditions of approval are met. US EPA states that to determine if a construction

site is in compliance with construction and grading ordinances and permits, the “MS4 operator should review the site plans submitted by the construction site operator before ground is broken” (2000). Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to develop and implement for construction sites “Procedures for site plan review which incorporate consideration of potential water quality impacts” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.2.c in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.d. Source Identification (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall annually develop and update, prior to the rainy season, a watershed-based inventory of all construction sites within its jurisdiction regardless of site size or ownership. This requirement is applicable to all construction sites regardless of whether the construction site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities (hereinafter General Construction Permit), or other individual NPDES permit. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended, but not required.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.”

Discussion: In order to prohibit non-storm water discharges, reduce construction pollutant sources to the maximum extent practicable, and ensure that adequate BMPs are implemented, Copermittees must first identify all of the construction sites within their jurisdiction. The construction sites are to be inventoried on a watershed basis in order to help with prioritization of the sites. For example, construction sites which are found to be located in a watershed with impaired receiving waters for sediment should be considered a high priority for BMP implementation, inspections, and enforcement. The US EPA requires that all construction sites be addressed (and therefore inventoried), stating: “All construction sites, regardless of size, must be addressed by the municipality. To begin to identify these sites, the applicant should obtain lists of construction site operators that are covered by general or individual storm water NPDES permits from the NPDES permitting authority. However, construction sites not covered by a storm water discharge permit also need to be addressed by the municipality.

The best way to identify these construction sites and implement an effective BMP program to reduce pollutants in their runoff is through the site planning process” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.4.d in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.e. Threat to Water Quality Prioritization (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

- (1) *To establish priorities for construction oversight activities under this Order, the Copermittee shall prioritize its watershed-based inventory (developed pursuant to F.2.d. above) by threat to water quality. Each construction site shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality each Copermittee shall consider (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; and (7) any other relevant factors.*
- (2) *A high priority construction site shall at a minimum be defined as a site meeting either of the following criteria or equivalent criteria:*
 - (a) *The site is 50 acres or more and grading will occur during the wet season; OR*
 - (b) *The site is (1) 5 acres or more and (2) tributary to a Clean Water Act section 303(d) water body impaired for sediment or is within or directly adjacent to or discharging directly to a receiving water within an environmentally sensitive area (as defined in section F.1.b.(2)(a)vi. of this Order).*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.”

Discussion: As discussed in Finding 19, construction sites are high risk areas for pollutant discharges to storm water. Development of an inventory of construction sites within a watershed will help identify potential sources of pollutants in storm water. By assessing information provided in the inventory (such as site topography and site proximity to receiving waters), sites can be prioritized by threat to water quality. Those sites that pose the greatest threat can then be targeted for inspection and monitoring. This will allow for limited inspection and monitoring time to be most effective.

The types of construction sites identified as high priority in this item are identified as such due to their high potential for erosion and impacting receiving waters. These types of construction sites are generally large, requiring grading of a large

area, resulting in a large area of disturbed earth which is susceptible to erosion. Hillside construction is also high priority, due to its susceptibility to slope erosion. Any construction sites tributary to a CWA section 303(d) waterbody are also high priority due to their potential to further degrade those waterbodies. US EPA supports this type of prioritization, stating that municipalities should “identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, and the characteristics of soils and receiving water quality” (2000).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.2.e in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.f.(1), F.2.f.(2), and F.2.f.(3) BMP Implementation (Construction) of the Jurisdictional Urban Runoff Management Program state the following:

- (1) *Each Copermitttee shall designate a set of minimum BMPs for high, medium, and low threat to water quality construction sites (as determined under section F.2.e). BMPs are to be implemented year round.*
- (2) *Each Copermitttee shall implement, or require the implementation of, the designated minimum BMPs (based upon the site's threat to water quality rating) at each construction site within its jurisdiction year round. If particular minimum BMPs are infeasible at any specific site, each Copermitttee shall implement, or require the implementation of, other equivalent BMPs. Each Copermitttee shall also implement or require any additional site specific BMPs as necessary to comply with this Order, including BMPs which are more stringent than those required under the statewide General Construction Permit.*
- (3) *Each Copermitttee shall implement, or require the implementation of, BMPs year round; however, BMP implementation requirements can vary based on wet and dry seasons.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2) provides that the proposed management program include “A description of requirements for nonstructural and structural best management practices.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.”

Discussion: Copermitttees must reduce the discharge of pollutants in storm water from construction sites to the maximum extent practicable. To achieve this level of pollutant reduction, BMPs must be implemented (see Finding 11). Designation of a set of minimum BMPs for high, medium, and low threat construction sites will help ensure that appropriate BMPs are implemented at construction sites. These

minimum BMPs will also serve as guidance as to the level of water quality protection required.

Regarding designation of BMPs to be implemented, the US EPA states that “the proposed management program should describe requirements for nonstructural and structural BMPs that operators of construction activities that discharge to MS4s must meet” (1992). While minimum BMPs will be required at all construction sites, implementation of particular BMPs will be site specific in order to address various conditions at different sites. Regarding site specific BMPs, the US EPA states “Appropriate structural and nonstructural control requirements will vary by project. Project type, size, and duration, as well as soil composition, site slope, and proximity to sensitive receiving waters will determine the appropriate structural and nonstructural BMPs” (1992).

In order to comply with Order No. R9-2002-0001 requirements, implemented BMPs may need to be more stringent than those required under the statewide General Construction Permit. The US EPA implies that local sediment and erosion control requirements may be more stringent than statewide General Construction Permit requirements when it states that “construction sites covered under NPDES permit regulations must indicate whether they are in compliance with State and local sediment and erosion control plans” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items F.2.f.(1-3) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.f.(4) BMP Implementation (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitttee shall implement, or require implementation of, additional controls for construction sites tributary to Clean Water Act section 303(d) water bodies impaired for sediment as necessary to comply with this Order. Each Copermitttee shall implement, or require implementation of, additional controls for construction sites within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Discussion: CWA section 303(d) water bodies are impaired water bodies that are not achieving the water quality objectives necessary to protect their beneficial uses. As discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges that cause or contribute to an exceedance of water quality standards are prohibited (see section C.1. of Order No. R9-2002-0001), any discharges to CWA section 303(d) waterbodies of pollutants for which the waterbody is impaired are prohibited. Therefore, construction sites and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

With regards to coastal lagoons and other sensitive water bodies, additional controls are needed to protect these valuable and unique resources. In their Nonpoint Source Program Strategy and Implementation Plan, the SWRCB and California Coastal Commission support additional controls for critical coastal areas, stating "the State will seek to attain and maintain applicable water quality standards, and protect waters threatened by land uses, or by substantial expansion of existing land uses, by implementing additional management measures."

Furthermore, US EPA supports additional controls for construction sites tributary to impaired or sensitive water bodies, stating "The proximity and sensitivity of the receiving water to which the construction site discharges is an important consideration. For construction sites that discharge to receiving waters that do not support their designated use or other waters of special concern, additional construction site controls are probably warranted and should be strongly considered" (1992).

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Program item F.2.f.(4) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.g. Inspection of Construction Sites (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

- (1) *Each Copermitttee shall conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order. Inspections shall include review of site erosion control and BMP implementation plans..*
- (2) *Each Copermitttee shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in F.2.e above. During the wet season (i.e., October 1 through April 30 of each year), each Copermitttee shall inspect, at a minimum, each High Priority construction site, either:*

(a) *Weekly*

OR

(b) *Monthly for any site that the responsible Copermitttee certifies in a written statement to the SDRWQCB all of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):*

- i. *Copermitttee has record of construction site's Waste Discharge Identification Number (WDID#) documenting construction site's coverage under the statewide General Construction Permit; and*

- ii. Copermittee has reviewed the construction site's Storm Water Pollution Prevention Plan (SWPPP); and
- iii. Copermittee finds SWPPP to be in compliance with all local ordinances, permits, and plans; and
- iv. Copermittee finds that the SWPPP is being properly implemented on site.

At a minimum, Medium and Low Priority construction sites shall be inspected by Copermittees twice during the wet season. All construction sites shall be inspected by the Copermittees as needed during the dry season (i.e., May 1 through September 30 of each year).

- (3) *Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include "A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality."

Discussion: As discussed in Finding 24, inspections provide a necessary means by which Copermittees can evaluate compliance with their municipal ordinances. Inspections are especially important at high-risk areas for pollutant discharges, such as industrial and construction sites. To ensure that BMPs are properly installed and maintained, US EPA states MS4 operators should "develop procedures for site inspection and enforcement of control measures to deter infractions" (2000). Inspections of construction projects in the early stages of land disturbance have been shown to be an effective tool to ensure initial compliance with its local ordinances, permits and erosion control plans. A study was conducted by the North Carolina Department of Environment, which evaluated the effectiveness of their Erosion and Sediment Control Program (Malcom et al., 1990). The study found that at the start of construction, less than half of construction sites inspected had installed all of the sediment and erosion control measures specified on their approved plans, and even higher degrees of noncompliance were found in the maintenance of these measures once they were installed.¹⁰¹

Construction site inspections shall be conducted to determine compliance with applicable ordinances and permits, including Order No. R9-2002-0001. To this effect, the US EPA finds that "Site inspections are expected to be the primary enforcement mechanism by which erosion and sediment controls are maintained" (1992). When inspections result in findings of noncompliance, follow-up by the Copermittee to ensure compliance is necessary. The US EPA states "Effective inspection and enforcement requires [...] intervention by the municipal authority to

¹⁰¹Malcom, H.R., A.C. Beard, R.J. Burby, E.J. Kaiser, M.I. Luger, and R.G. Patterson. 1990. *Evaluation of the North Carolina Erosion and Sediment Control Program*. Raleigh NC: Land Quality Section, Division of Land Resources, North Carolina Department of Environmental Health and Natural Resources.

correct violations” (1992). This is supported by the North Carolina Study that provided empirical support for the importance of inspections in increasing construction site compliance with local and state ordinances. Both the frequency and duration of project inspections were positively associated with the level of installation and maintenance compliance at the construction sites (Malcom et al., 1990). US EPA further finds “inspections give the MS4 operator an opportunity to provide additional guidance and education, issue warnings or assess penalties”(2000)”. Frequent inspections by Copermittees of high priority construction sites will keep compliance a priority, and allow opportunities for inspectors to enhance problem-solving skills among site personnel.

Construction site inspection frequencies are to be based on threat to water quality prioritization. US EPA supports this, stating that site inspection procedures should “identify priority sites for inspection and enforcement based on the nature and extent of the construction activity, topography, and the characteristics of soils and receiving water quality” (2000). For example, construction sites that are considered a high threat to water quality are to be given a high priority for inspection. This will allow for limited inspection and monitoring time to be most effective. Weekly to monthly inspection of high threat sites is necessary due to the dynamic nature of construction activities. Medium and low threat construction sites can be inspected less frequently, due to their reduced risk of negatively impacting receiving waters. Review of SWPPPs can be one effective tool for determining frequency of site inspections. Construction sites which effectively implement the measures of a comprehensive SWPPP may not need to be inspected as frequently as less diligent sites.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.2.g in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.h. Enforcement of Construction Sites (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall enforce its ordinances (grading, storm water, etc.) and permits (construction, grading, etc.) at all construction sites as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.”

Discussion: Each Copermittee must develop grading and storm water ordinances under its Jurisdictional Urban Runoff Management Program. As discussed in Finding 24, when a Copermittee determines a violation of its grading or storm water ordinance, it must pursue correction of the violation. A critical aspect of the correction of violations is enforcement of ordinances. Enforcement increases the probability of correction of a violation. The US EPA supports development of enforceable ordinances and permits when it states “applicants must describe proposed regulatory programs to reduce pollutants in storm water runoff from construction sites to the MS4” (1992). The US EPA supports enforcement of these ordinances and permits at construction sites when it states “Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described” (1992).

Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to develop and implement “An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance [...]” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.2.h of Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.i. Reporting of Non-compliant Sites (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall provide oral notification to the SDRWQCB of non-compliant sites that are determined to pose a threat to human or environmental health within its jurisdiction within 24 hours of the discovery of noncompliance, as required under section R.1 (and B.6 of Attachment C) of this Order.

Each Copermittee shall develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. These criteria shall be submitted in the Jurisdictional Urban Runoff Management Program Document and Annual Reports for SDRWQCB review.

Such oral notification shall be followed up by a written report to be submitted to the SDRWQCB within 5 days of the incidence of non-compliance as required under section R.1 (and B.6 of Attachment C) of this Order. Sites are considered non-compliant when one or more violations of local ordinances, permits, plans, or this Order exist on the site.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

California Water Code section 13267 provides that “the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Federal NPDES regulation 40 CFR 122.44(l)(6) states “The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.”

Discussion: Follow-up with non-compliant construction sites is essential to ensure that the site has taken adequate corrective measures to achieve compliance. To help ensure that compliance has been achieved, the Copermittees shall report non-compliant industrial sites to the SDRWQCB. The SDRWQCB can then participate in follow-up efforts to assure that the construction site is in compliance. Notification of non-compliance is common to all NPDES permits under Federal NPDES regulation 40 CFR 122.44(l)(6).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(7) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.2.j. Education Focused on Construction Activities (Construction) of the Jurisdictional Urban Runoff Management Program states the following:

(1) *Internal: Municipal Staff*

Each Copermittee shall implement an education program to ensure that its construction, building, and grading review staffs and inspectors have an understanding of:

- (a) *Federal, state, and local water quality laws and regulations applicable to construction and grading activities.*
- (b) *The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization).*
- (c) *How erosion can be prevented.*
- (d) *How impacts to receiving water quality resulting from construction activities can be minimized (i.e., through implementation of various source control and structural BMPs).*
- (e) *Applicable topics listed in section F.4. of this Order.*

(2) *External: Project Applicants, Contractors, Developers, Property Owners, and other Responsible Parties*

Each Copermittee shall implement an education program to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the topics outlined in section F.2.j.(1) above of this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.2. Construction Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(4) provides that the proposed management program include “A description of appropriate educational and training measures for construction site operators.”

Discussion: As discussed in Finding 23, implementation of an education program is an important best management practice for construction sites and activities. The SWRCB Technical Advisory Committee “recognizes that education with an emphasis on pollution prevention is the fundamental basis for solving nonpoint source pollution problems.” The TAC points out several target communities for education efforts, including “Government: Educate agencies and officials to achieve better communication, consistency, collaboration, and coordination at the federal, state and local levels” and “Development Community: Educate the development community, including developers, contractors, architects, and local government planners, engineers, and inspectors, on nonpoint source pollution problems associated with development and redevelopment and construction activities and involve them in problem definitions and solutions.”

The US EPA also supports education efforts for parties involved in construction, stating “technical information on how to incorporate storm water management with erosion and sediment control and other BMP training courses are recommended for municipal employees and construction site operators.”

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.2.j. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3. EXISTING DEVELOPMENT COMPONENT

F.3. Existing Development Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitttee shall minimize the short and long-term impacts on receiving water quality from all types of existing development.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: CWA sections 402(p)(3)(B)(ii-iii) require each Copermitttee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3 of Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a. MUNICIPAL (EXISTING DEVELOPMENT)

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority items also generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.3.a. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(1) provides that the proposed management program include "A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(3) provides that the proposed management program include "A description for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(4) provides that the proposed management program include "A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(5) provides that the proposed management program include "A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities."

F.3.a. Municipal (Existing Development) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement a Municipal (Existing Development) Component to prevent or reduce pollutants in runoff from all municipal land use areas and activities. At a minimum the municipal component shall address:

- F.3.a.(1) Pollution Prevention*
- F.3.a.(2) Source Identification*
- F.3.a.(3) Threat to Water Quality Prioritization*
- F.3.a.(4) BMP Implementation*
- F.3.a.(5) Maintenance of Municipal Separate Storm Sewer System*
- F.3.a.(6) Management of Pesticides, Herbicides, and Fertilizers*
- F.3.a.(7) Inspection of Municipal Areas and Activities*
- F.3.a.(8) Enforcement of Municipal Areas and Activities*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: CWA sections 402(p)(3)(B)(ii-iii) requires each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for municipal activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1) and 40 CFR 122.26(d)(2)(iv)(A)(3-6) require that this program include components which address municipal areas and activities.

US EPA targets municipal areas and activities “to help ensure a reduction in the amount and type of pollution that (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems” (2000). To reduce pollutant discharges from municipal areas and activities to the maximum extent practicable, BMPs must be implemented. Therefore, a municipal existing development component requiring BMPs must be developed and implemented as part of each Copermittee’s Jurisdictional URMP.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(1) Pollution Prevention (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall include and describe pollution prevention methods within its Municipal (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by municipal departments, contractors, and personnel, where appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Each Copermittee must develop a program to reduce the discharge of pollutants to and from the MS4 to the maximum extent practicable for all urban land uses and activities, including municipal areas and activities. In order to achieve this level of pollution reduction, BMPs must be implemented. Pollution prevention, the reduction or elimination of pollutant generation at its source, is an essential aspect of BMPs. By limiting the generation of pollutants, less pollutants are available to be washed from municipal areas and activities, resulting in reduced pollutant loads in storm water discharges from these areas and activities. In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media. In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the municipal existing development component.¹⁰²

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(1) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(2) Source Identification (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall develop, and update annually, a watershed-based inventory of the name, address (if applicable), and description of all municipal land use areas and activities which generate pollutants.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

¹⁰²National Association of Counties, 1995. Preventing pollution in Our Cities and Counties: A Compendium of Case Studies.

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: In order to prohibit non-storm water discharges, reduce municipal pollutant sources to the maximum extent practicable, and ensure that adequate BMPs are implemented, Copermittees must first identify all of the municipal areas and pollutant source activities within their jurisdiction. The municipal areas and pollutant source activities are to be inventoried on a watershed basis in order to help with prioritization of the sites. For example, municipal pollutant sources which are found to be located in a watershed with impaired receiving waters should be considered a high priority for BMP implementation, inspections, and monitoring. Regarding municipal pollutant source inventories, the US EPA states "The first step is to identify facilities that handle municipal waste and summarize their operations" (1992). The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(2) of Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(3)(a) Threat to Water Quality Prioritization (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

To establish priorities for oversight of municipal areas and activities required under this Order, each Copermittee shall prioritize each watershed inventory in F.3.a.2. above by threat to water quality and update annually. Each municipal area and activity shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality, each Copermittee shall consider (1) type of municipal area or activity; (2) materials used; (3) wastes generated; (4) pollutant discharge potential; (5) non-storm water discharges; (6) size of facility or area; (7) proximity to receiving water bodies; (8) sensitivity of receiving water bodies; and (9) any other relevant factors.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Many municipal pollutant sources pose a high risk for pollutant discharges to storm water. By assessing information provided in the municipal pollutant source inventory (such as principal pollutants used or services provided by a municipal facility), sites can be prioritized by threat to water quality. Those sites which pose the greatest threat can then be targeted for BMP implementation, inspection, and monitoring. This will allow for limited resources to be most effective in reducing pollutant discharges from municipal sources.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(3)(a) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(3)(b) Threat to Water Quality Prioritization (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

At a minimum, the high priority municipal areas and activities shall include the following:

- i. Roads, Streets, Highways, and Parking Facilities.*
- ii. Flood Management Projects and Flood Control Devices.*
- iii. Areas and activities tributary to a Clean Water Act section 303(d) impaired water body, where an area or activity generates pollutants for which the water body is impaired. Areas and activities within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order).*
- iv. Municipal Waste Facilities.*
 - *Active or closed municipal landfills;*
 - *Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;*
 - *Municipal separate storm sewer systems;*
 - *Incinerators;*
 - *Solid waste transfer facilities;*
 - *Land application sites;*
 - *Uncontrolled sanitary landfills;*
 - *Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles;*
 - *Sites for disposing and treating sewage sludge; and*
 - *Hazardous waste treatment, disposal, and recovery facilities.*
- v. Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.*
- vi. Municipal airfields.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Identification of high priority municipal pollutant areas and activities allows for limited pollution reduction resources to be most effective. Targeting high priority municipal areas and activities for BMP implementation, inspection, and monitoring provides the greatest reduction in risk of degrading receiving waters per expenditure.

Items (i), (ii), and (iv) above are considered to be high priority sources since they are specifically addressed in Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(3-5). Regarding roads, highways, and parking facilities, the US EPA states "Road maintenance practices, especially snow management and road repair, and traffic are significant sources of pollutants in storm water discharges. [...] Municipal equipment yards and maintenance shops that support road maintenance activities can also be significant sources of pollutants" (1992). Regarding flood management projects and flood control devices, the US EPA states "Storm water management devices and structures that focus solely on water quantity are usually not designed to remove pollutants, and may sometimes harm aquatic habitat and aesthetic values" (1992). Regarding

municipal waste facilities, the US EPA states “Applicants must describe programs that identify measures to monitor and reduce pollutants in storm water discharges from facilities that handle municipal waste, including sewage sludge. [...] The types of facilities that should be included are: active or closed municipal waste landfills; publicly owned treatment works, including water and wastewater treatment plants; incinerators; municipal solid waste transfer facilities; land application sites; uncontrolled sanitary landfills; maintenance and storage yards for waste transportation fleets and equipment; sites for disposing or treating sludge from municipal treatment works; and other treatment, storage, or disposal facilities for municipal waste” (1992).

Areas and activities included in item (iii) are considered high priority due to their location in relation to CWA section 303(d) water bodies. Pollutant loading of these water bodies must be avoided to aid in their recovery and ensure against their further degradation.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(3)(b) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(4)(a) and F.3.a.(4)(b) BMP Implementation (Municipal) of the Jurisdictional Urban Runoff Management Program state the following:

- (a) *Each Copermittee shall designate a set of minimum BMPs for high, medium, and low threat to water quality municipal areas and activities (as determined under section F.3.a.(3)). The designated minimum BMPs for high threat to water quality municipal areas and activities shall be area or activity specific as appropriate.*
- (b) *Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs (based upon the threat to water quality rating) at each municipal area or activity within its jurisdiction. If particular minimum BMPs are infeasible for any specific area or activity, each Copermittee shall implement, or require implementation of other equivalent BMPs. Each Copermittee shall also implement any additional BMPs as are necessary to comply with this Order.*
 - i. *Each Copermittee shall evaluate feasibility of retrofitting existing structural flood control devices and retrofit where needed.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Copermittees must reduce the discharge of pollutants to the MS4 to the maximum extent practicable. In order to achieve this level of pollution reduction in storm water discharges from municipal areas and activities, BMPs must be implemented. To ensure that adequate BMPs are utilized for various municipal areas and activities, each Copermittee shall designate and implement a set of minimum BMPs for high, medium, and low threat to water quality municipal

areas and activities. The designated minimum BMPs will provide guidance as to the level of water quality protection required for various municipal areas and activities.

The US EPA recommends that Copermittees include in the proposed management program BMP measures for addressing municipal area and activities. Regarding public street, road, or highway BMPs, the US EPA states that "proposed management programs must include a description of practices for operation and maintenance of public streets, roads, and highways, and procedures for reducing the impact of runoff from these areas on receiving waters. [...] Pollutants from traffic can be minimized by using nonstructural controls (e.g., traffic reduction and improved traffic management), structural controls (e.g., traditional and innovative BMPs), and changing maintenance activities" (1992).

Regarding flood management projects, the US EPA finds that flood management projects can be harmful to receiving waters, stating that "Storm water management devices and structures that focus solely on water quantity are usually not designed to remove pollutants, and may sometimes harm aquatic habitat and aesthetic values" (1992). As flood control structures and other elements of the MS4 age and retrofitting becomes necessary, opportunities for water quality improvements arise. Conveyance systems which take water quality consideration into account (such as grassed swales, vegetated detention ponds, etc.) can often cost less to construct than traditional concrete systems. Evaluation of the applicability of such systems during retrofitting must occur to ensure that pollutants in urban runoff are reduced to the maximum extent practicable. The US EPA supports utilizing BMPs for pollution reduction in flood management projects, stating that "The proposed management program must demonstrate that flood management projects take into account the effects on the water quality of receiving water bodies. [...] Opportunities for pollutant reduction should be considered" (1992).

Regarding municipal waste facility BMPs, the US EPA states that "Procedures to evaluate, inspect, monitor, and establish control measures for municipal waste sites over the term of the NPDES permit should be described" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(4)(a) and F.3.a.(4)(b) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(4)(c) BMP Implementation (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement, or require implementation of, any additional controls for municipal areas and activities tributary to Clean Water Act section 303(d) impaired water bodies (where an area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for municipal areas and activities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Discussion: CWA section 303(d) water bodies are water bodies which are not achieving the water quality objectives necessary to protect their beneficial uses. As discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges which cause or contribute to an exceedance of water quality standards must be controlled and are prohibited (see section C.1. of Order No. R9-2002-0001), discharges to CWA section 303(d) waterbodies of pollutants for which the waterbody is impaired must be controlled and are prohibited. Therefore, municipal areas and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

With regards to coastal lagoons and other sensitive water bodies, additional controls are needed to protect these valuable and unique resources. In their Nonpoint Source Program Strategy and Implementation Plan, the SWRCB and California Coastal Commission support additional controls for critical coastal areas, stating “the State will seek to attain and maintain applicable water quality standards, and protect waters threatened by land uses, or by substantial expansion of existing land uses, by implementing additional management measures.”

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Program item F.3.a.(4)(c) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.a.(5) Maintenance of Municipal Separate Storm Sewer System (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

- (a) *Each Copermitttee shall implement a schedule of maintenance activities at all structural controls designed to reduce pollutant discharges to or from its MS4s and related drainage structures.*
- (b) *Each Copermitttee shall implement a schedule of maintenance activities for the municipal separate storm sewer system.*
- (c) *The maintenance activities must, at a minimum, include:*
 - i. *Inspection and removal of accumulated waste (e.g. sediment, trash, debris and other pollutants) between May 1 and September 30 of each year;*

- ii. *Additional cleaning as necessary between October 1 and April 30 of each year;*
- iii. *Record keeping of cleaning and the overall quantity of waste removed;*
- iv. *Proper disposal of waste removed pursuant to applicable laws;*
- v. *Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Maintenance is critical to the successful implementation of every URMP. The US EPA finds that "Lack of maintenance often limits the effectiveness of storm water structural controls such as detention/retention basins and infiltration devices. [...] The proposed program should provide for maintenance logs and identify specific maintenance activities for each class of control, such as removing sediment from retention ponds every five years, cleaning catch basins annually, and removing litter from channels twice a year. If maintenance activities are scheduled infrequently, inspections must be scheduled to ensure that the control is operating adequately. In cases where scheduled maintenance is not appropriate, maintenance should be based on inspections of the control structure or frequency of storm events. If maintenance depends on the results of inspections or if it occurs infrequently, the applicant must provide an inspection schedule. The applicant should also identify the municipal department(s) responsible for the maintenance program" (1992). The maintenance schedule included in this item is based on the above US EPA recommendations. This maintenance schedule will help ensure that structural controls are in adequate condition to be effective year round but especially at the beginning of and throughout the rainy season.

Maintenance of municipal facilities, control structures, and the MS4 is considered so essential by US EPA that the requirement to conduct a maintenance program is specifically directed in both the Phase I and Phase II storm water regulations. In both cases, the maintenance programs must include a training component and have the ultimate goal of preventing pollutant runoff from municipal operations. Municipal activities should set a good example for all non-municipal personnel and the public.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.a.(5) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(6) Management of Pesticides, Herbicides, and Fertilizers (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

The Copermittees shall implement BMPs to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from municipal areas and activities to MS4s. Important municipal areas and activities include municipal facilities, public rights-of-way, parks, recreational facilities, golf courses, cemeteries, botanical or zoological gardens and exhibits, landscaped areas, etc.

Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators and distributors; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) schedules for irrigation and chemical application; and (5) the collection and proper disposal of unused pesticides, herbicides, and fertilizers.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: Regarding the municipal use of pesticides, herbicides, and fertilizers, the US EPA finds that “The proposed program should include educational measures for the public and commercial applicators, and should include integrated pest management measures that rely on non-chemical solutions to pest control. The program should also describe how educational materials will be developed and distributed. Applicants are encouraged to consider providing information for the collection and proper disposal of unused pesticides, herbicides, and fertilizers, or to establish their own program. [...] In addition, applicants must include a discussion of controls for the application of pesticides, herbicides, and fertilizers in public rights-of-way and at municipal facilities. Planting low-maintenance vegetation, such as perennial ground covers, reduces pesticide and herbicide use. Native vegetation is often preferable because there is less need to apply fertilizers and herbicides, and to perform other forms of maintenance, such as mowing” (1992). Based on these US EPA recommendations, the SDRWQCB included Jurisdictional Urban Runoff Management Program item F.3.a.(6) in Order No. R9-2002-0001.

The SDRWQCB has discretion to include Jurisdictional Urban Runoff Management Program item F.3.a.(6) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(7) Inspection of Municipal Areas and Activities (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

At a minimum, each Copermittee shall inspect high priority municipal areas and activities annually. Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: The USEPA finds that the municipal areas and activities listed in section F.3.a.(3) of Order No. R9-2002-0001 can be a significant source of pollutants in urban runoff (see Discussion for F.3.a.(3) above). Since these municipal areas and activities can be a significant source of pollutants, annual inspections are necessary to ensure that proper measures are being undertaken to reduce pollutant discharges to the maximum extent practicable. The USEPA supports inspections of municipal areas and activities, stating "Applicants must describe programs that identify measures to monitor and reduce pollutants in storm water discharges from facilities that handle municipal waste, including sewage sludge. [...] The types of facilities that should be included are: active or closed municipal waste landfills; publicly owned treatment works, including water and wastewater treatment plants; incinerators; municipal solid waste transfer facilities; land application sites; uncontrolled sanitary landfills; maintenance and storage yards for waste transportation fleets and equipment; sites for disposing or treating sludge from municipal treatment works; and other treatment, storage, or disposal facilities for municipal waste" (1992). The USEPA further states that "Procedures to evaluate, inspect, monitor, and establish control measures for municipal waste sites over the term of the NPDES permit should be described" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(7) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.a.(8) Enforcement of Municipal Areas and Activities (Municipal) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitttee shall enforce its storm water ordinance for all municipal areas and activities as necessary to maintain compliance with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) (A)(1,3,4,5, and 6) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.a. Municipal (Existing Development) of Order No. R9-2002-0001.

Discussion: When a Copermitttee determines a violation of its storm water ordinance, it must pursue correction of the violation. A critical aspect of the correction of violations is enforcement of ordinances. Enforcement increases the

probability of correction of a violation. Regarding inspection and enforcement measures, the US EPA states "Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.a.(8) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.b. INDUSTRIAL (EXISTING DEVELOPMENT)

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority items also generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.3.b. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C) provides that the proposed management program include "A description of a program to monitor and control pollutants in storm water discharges to municipal systems 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 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(1) provides that the Copermittee must "identify priorities and procedures for inspections and establishing and implementing control measures for such discharges."

F.3.b. Industrial (Existing Development) for the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement an Industrial (Existing Development) Component to reduce pollutants in runoff from all industrial sites. At a minimum the industrial component shall address:

- F.3.b.(1) Pollution Prevention*
- F.3.b.(2) Source Identification*
- F.3.b.(3) Threat to Water Quality Prioritization*
- F.3.b.(4) BMP Implementation*
- F.3.b.(5) Monitoring of Industrial Sites*
- F.3.b.(6) Inspection of Industrial Sites*
- F.3.b.(7) Enforcement Measures for Industrial Sites*
- F.3.b.(8) Reporting of Non-compliant Sites*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under

Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Discussion: CWA sections 402(p)(3)(B)(ii-iii) require each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for industrial activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C) requires that this program include a component which addresses industrial sites.

Due to their numerous potential pollutant sources, industrial sites are relatively high risk areas for pollutant discharges to storm water. In order to control the discharge of pollutants from industrial sites to the maximum extent practicable, implementation of BMPs is necessary. As discussed in Finding 12, BMPs effectively reduce pollutants in urban runoff by emphasizing pollution prevention and source controls, followed by treatment controls. The industrial existing development component will provide a program for the development and implementation of BMPs to address pollutants in storm water discharges from industrial sites. The US EPA supports such a program, stating "NPDES permits for MS4s will establish responsibilities for municipal system operators to control pollutants from industrial storm water discharged through their system" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.3.b. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.b.(1) Pollution Prevention (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall include and describe pollution prevention methods within its Industrial (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by industry, where appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Discussion: Each Copermittee must develop a program to reduce the discharge of pollutants to and from its MS4 to the maximum extent practicable for all urban land uses, including industrial land uses. In order to achieve this level of pollution

reduction, BMPs must be implemented. Pollution prevention, the reduction or elimination of pollutant generation at its source, is an essential aspect of BMPs. By limiting the generation of pollutants, less pollutants are available to be washed from industrial sites, resulting in reduced pollutant loads in storm water discharges from these sites. In addition, there is no need to control or treat pollutants which are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media.¹⁰³ In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the industrial existing development component.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(1) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.b.(2) Source Identification (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall develop and update annually a watershed-based inventory of all industrial sites within its jurisdiction regardless of site ownership. This requirement is applicable to all industrial sites regardless of whether the industrial site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Industrial Activities, Except Construction (hereinafter General Industrial Permit) or other individual NPDES permit.

The inventory shall include the following minimum information for each industrial site: name; address; and a narrative description including SIC codes which best reflects the principal products or services provided by each facility.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(ii) provides that the Copermittee "Provide an inventory, organized by watershed of the name and address, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, storm water associated with industrial activity."

Discussion: Due to their numerous potential pollutant sources, industrial sites are high risk areas for pollutant discharges to storm water. In order to prohibit non-storm water discharges, reduce industrial pollutant sources to the maximum extent practicable, and ensure that adequate BMPs are implemented, each

¹⁰³U.S. EPA, 1992. Storm Water Management of Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices

Copermittee must first identify all industrial sites within their jurisdiction. Development of an inventory of industrial sites within a watershed will help identify potential industrial sources of pollutants in storm water. By assessing information provided in the inventory (such as principal products, services provided, and location), sites with the highest risk to receiving water quality can be identified, and priority for inspection, monitoring, and enforcement can be placed on those sites. By focusing inspection and monitoring on high priority sites, the effectiveness of limited inspection and monitoring resources can be maximized.

The SDRWQCB has discretion to require inventories of industrial sites in Jurisdictional Urban Runoff Program item F.3.b.(2) of Order No. R9-2002-0001 under the broad and specific legal authority above.

F.3.b.(3) Threat to Water Quality Prioritization (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

- (a) *To establish priorities for industrial oversight activities under this Order, the Copermittee shall prioritize each watershed-based inventory in F.3.b.(2) above by threat to water quality and update annually. Each industrial site shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality each Copermittee shall consider (1) type of industrial activity (SIC Code); (2) materials used in industrial processes; (3) wastes generated; (4) pollutant discharge potential; (5) non-storm water discharges; (6) size of facility; (7) proximity to receiving water bodies; (8) sensitivity of receiving water bodies; (9) whether the industrial site is subject to the statewide General Industrial Permit; and (10) any other relevant factors.*
- (b) *At a minimum the high priority industrial sites shall include industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); industrial facilities tributary to a Clean Water Act section 303(d) impaired water body, where a facility generates pollutants for which the water body is impaired; industrial facilities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order); facilities subject to the statewide General Industrial Permit (excluding those facilities that have been approved for No Exposure Certification); and all other industrial facilities that the Copermittee determines are contributing significant pollutant loading to its MS4, regardless of whether such facilities are covered under the statewide General Industrial Permit or other NPDES permit.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(ii) provides that the Copermittee "Provide an inventory, organized by watershed of the name and address, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, storm water associated with industrial activity."

Discussion: Due to their numerous pollutant sources, industrial sites are high risk areas for pollutant discharges to storm water. Development of an inventory

of industrial sites within a watershed will help identify potential sources of pollutants in urban runoff. By assessing information provided in the inventory (such as principal products or services provided by the facility), sites can be prioritized by threat to water quality. Those sites that pose the greatest threat can then be targeted for inspection and monitoring. This will allow for limited inspection and monitoring time to be most effective. Regarding industrial site priority designation, the US EPA states that "When municipalities develop criteria for identifying additional priority industrial facilities, they are advised to consider, at a minimum:

- The type of industrial activity (SIC codes can help characterize the type of industrial activity);
- The use and management of chemicals or raw products at the facility and the likelihood that storm water discharge from the site will be contaminated; and
- The size and location of the facility in relation to sensitive watersheds" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(3) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.b.(4)(a) and F.3.b.(4)(b) BMP Implementation (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

- (a) *Each Copermittee shall designate a set of minimum BMPs for high, medium, and low threat to water quality industrial sites (as determined under section F.3.b.(3)). The designated minimum BMPs for high threat to water quality industrial sites shall be industry and site specific as appropriate.*
- (b) *Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs (based upon the site's threat to water quality rating) at each industrial site within its jurisdiction. If particular minimum BMPs are infeasible at any specific site, each Copermittee shall implement, or require implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order including BMPs which are more stringent than those required under the statewide General Industrial Permit.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Discussion: Copermittees must reduce the discharge of pollutants to the MS4 from industrial sites to the maximum extent practicable. In order to achieve this level pollution reduction in storm water discharges from industrial sites, BMPs must be designated and implemented. To ensure that adequate BMPs are utilized at the industrial sites, each Copermittee shall designate and require implementation of a set of minimum BMPs for high, medium, and low threat to water quality

industrial sites. The designated minimum BMPs will provide guidance on level of water quality protection required. The US EPA recommends that Copermitees provide BMP guidance to industrial facilities, stating “the applicant should suggest procedures for requiring pollutant control measures in runoff from priority industrial facilities. Applicants should provide information to the industrial facilities that discharge to the MS4s and industry-specific guidance on appropriate control measures that industries discharging to the systems should follow” (1992).

In order to adequately protect receiving water quality and allow Copermitees to meet their permit responsibilities under Order No. R9-2002-0001, additional BMPs may be required, including BMPs more stringent than those required under the state wide General Industrial Permit. Regarding additional BMP requirements of this type, the US EPA finds that “nothing in the Federal regulations would prohibit the municipality from requiring additional controls beyond the permit requirements for industrial activities. For this reason, the EPA recommends that municipal applicants incorporate a provision in the proposed storm water management program that allows the municipality to require priority industrial facilities to implement the controls necessary for the municipality to meet its permit responsibilities” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items F.3.b.(4)(a) and F.3.b.(4)(b) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.b.(4)(c) BMP Implementation (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement, or require implementation of, additional controls for industrial sites tributary to Clean Water Act section 303(d) impaired water bodies (where a site generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for industrial sites within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Discussion: CWA section 303(d) water bodies are water bodies that are not achieving the water quality objectives necessary to protect their beneficial uses. As

discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges which cause or contribute to an exceedance of water quality standards must be controlled and are also prohibited (see section C.1. of Order No. R9-2002-0001), discharges to CWA section 303(d) water bodies of pollutants for which the waterbody is impaired must be controlled and prohibited. Therefore, municipal areas and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

Regarding coastal lagoons and other sensitive water bodies, additional controls are needed to protect these valuable and unique resources. In their Nonpoint Source Program Strategy and Implementation Plan, the SWRCB and California Coastal Commission support additional controls for critical coastal areas, stating "the State will seek to attain and maintain applicable water quality standards, and protect waters threatened by land uses, or by substantial expansion of existing land uses, by implementing additional management measures."

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Program item F.3.b.(4)(c) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.b.(5) Monitoring of Industrial Sites (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

- (a) *Each Copermitttee shall conduct, or require industry to conduct, a monitoring program for runoff from each high threat to water quality industrial site (identified in F.3.b.(3) above). Group monitoring by multiple industrial sites conducted under group monitoring programs approved by the State Water Resources Control Board is acceptable.*
- (b) *At a minimum, the monitoring program shall provide quantitative data from two storm events per year on the following constituents:*
 - i. *Any pollutant listed in effluent guidelines subcategories where applicable;*
 - ii. *Any pollutant for which an effluent limit has been established in an existing NPDES permit for the facility;*
 - iii. *Oil and grease or Total Organic Carbon (TOC);*
 - iv. *pH;*
 - v. *Total suspended solids (TSS);*
 - vi. *Specific conductance; and*
 - vii. *Toxic chemicals and other pollutants that are likely to be present in storm water discharges.*
 - viii. *Any pollutant that may be used, stored, or generated at the facility, which may be discharged to a water body or a tributary of that water body that is listed as impaired under Clean Water Act Section 303(d) for that pollutant(s), unless the facility can demonstrate approval of No Exposure Certification.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(2) provides that the proposed management program shall “Describe a monitoring program for storm water discharges associated with the industrial facilities identified in paragraph (d)(2)(iv)(C) of this section, to be implemented during the term of the permit, including the submission of quantitative data on the following constituents: any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing NPDES permit for a facility; oil and grease, COD, pH, BOD₅, TSS, total phosphorus, total Kjeldhal nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).”

Discussion: The purpose of the monitoring program is to provide the information needed by each Copermittee to assess the effectiveness of its Industrial BMP Program. Quantitative data is required for two storm events per year in order to identify potential trends and/or anomalies in the data. The Copermittee may be able to obtain this monitoring information from some industrial sites by requesting submittal of the Annual Reports required under the General Industrial Storm Water Permit.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(5) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.b.(6) Inspection of Industrial Sites (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

- (a) *Each Copermittee shall conduct industrial site inspections for compliance with its ordinances, permits, and this Order. Inspections shall include review of BMP implementation plans.*
- (b) *Each Copermittee shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in F.3.b.(3) above. Each Copermittee shall inspect high priority industrial sites, at a minimum:*
 - i. *Annually*

OR

 - ii. *Bi-annually for any site that the responsible Copermittee certifies in a written statement to the SDRWQCB all of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):*
 - *Copermittee has record of industrial site’s Waste Discharge Identification Number (WDID#) documenting industrial site’s coverage under the statewide General Industrial Permit; and*
 - *Copermittee has reviewed the industrial site’s Storm Water Pollution Prevention Plan (SWPPP); and*
 - *Copermittee finds SWPPP to be in compliance with all local ordinances, permits, and plans; and*
 - *Copermittee finds that the SWPPP is being properly implemented on site.*

Each Copermittee shall inspect medium and low threat to water quality industrial sites as needed.

- (c) *Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.*

(d) To the extent that the SDRWQCB has conducted an inspection of a high priority industrial site during a particular year, the requirement for the responsible Copermittee to inspect this site during the same year will be satisfied.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Discussion: Routine inspections provide an effective means by which Copermittees can evaluate compliance with their ordinances. Inspections are especially important at high risk areas for pollutant discharges, such as industrial and construction sites. Industrial site inspection frequencies are to be based on threat to water quality prioritization. For example, industrial sites that are considered a high threat to water quality are to be given a high priority for inspection. This allows for limited inspection resources to be most effective. Annual or bi-annual inspection of high threat sites is necessary to ensure that changes to the site that may be detrimental to water quality are identified and addressed.

Review of a facility's Storm Water Pollution Prevention Plan (SWPPP) can be an effective tool in inspecting the facility's storm water controls. The US EPA recommends that municipalities review SWPPPs during inspections when it states "Municipalities are urged to evaluate pollution prevention plans and discharge monitoring data collected by the industrial facility to ensure that the facility is in compliance with its NPDES storm water permit. Site inspections should include (1) an evaluation of the pollution prevention plan and any other pertinent documents, and (2) an onsite visual inspection of the facility to evaluate the potential for discharges of contaminated storm water from the site and to assess the effectiveness of the pollution prevention plan" (1992).

Regarding industrial site inspections, the US EPA finds that "The proposed management program should describe the inspection procedures that will be followed.[...] Proposed management programs should address minimum frequency for routine inspections. For example, how often, how much of the site, and how long an inspection may take are appropriate to explain in this proposed management program component. Applicants should also describe procedures for conducting inspections and provide an inspector's checklist" (1992). The US EPA also finds that follow-up actions are to be implemented based upon site inspection findings: "The results of inspection may be used as a basis for requiring storm water management controls and enhanced pollution prevention measures" (1992).

Due to the large number of industrial sites within the region, sites that have been inspected by the SDRWQCB do not need to be re-inspected by a Copermittee within the same year. This practice will increase collaboration between the SDRWQCB and the Copermittees for industrial site inspections. Collaboration

between the SDRWQCB and the Copermittees can provide for more efficient and effective overall inspection of industrial sites within the region. Regarding collaboration for inspection of industrial sites, US EPA states "The storm water regulations envision that NPDES permitting authorities and municipal operators will cooperate to develop programs to monitor and control pollutants in storm water discharges to municipal systems from various sites that handle waste and certain industrial facilities" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(6) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.b.(7) Enforcement of Industrial Sites (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall enforce its storm water ordinance at all industrial sites as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermittee must demonstrate that it can control "through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity."

Discussion: The Copermittee is ultimately responsible for discharges to and from their MS4. Each Copermittee must therefore develop and enforce storm water ordinances in order reduce pollutant discharges to the MS4 to the maximum extent practicable and comply with its permit responsibilities. These ordinances must be applied at all industrial sites to ensure that pollutant discharges to the MS4 are reduced to the maximum extent practicable and permit requirements are met. To this effect, the US EPA "recommends that municipal applicants incorporate a provision in the proposed management program that allows the municipality to require priority industrial facilities to implement the controls necessary for the municipality to meet its permit responsibilities" (1992). Regarding enforcement at industrial sites, the US EPA further states "The municipality, as a permittee, is responsible for compliance with its permit and must have authority to implement the conditions in its permit. To comply with its permit, a municipality must have the authority to hold dischargers accountable for their contributions to separate storm sewers" (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(7) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.b.(8) Reporting of Non-compliant Sites (Industrial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitee shall provide oral notification to the SDRWQCB of non-compliant sites that are determined to pose a threat to human or environmental health within its jurisdiction within 24 hours of the discovery of noncompliance, as required under section R.1 (and B.6 of Attachment C) of this Order.

Each Copermitee shall develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. These criteria shall be submitted in the Jurisdictional Urban Runoff Management Program Document and Annual Reports for SDRWQCB review.

Such oral notification shall be followed up by a written report to be submitted to the SDRWQCB within 5 days of the incidence of non-compliance as required under section R.1 (and B.6 of Attachment C) of this Order. Sites are considered non-compliant when one or more violations of local ordinances, permits, plans, or this Order exist on the site.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(C) and 40 CFR 122.26(d)(2)(iv)(C)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.3.b. Industrial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermitee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.”

Federal NPDES regulation 40 CFR 122.44(l)(6) states “The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.”

Discussion: Follow-up with non-compliant industrial sites is essential to ensure that the site has taken adequate corrective measures to achieve compliance. To help ensure that compliance has been achieved, the Copermitees shall report non-compliant industrial sites to the SDRWQCB. The SDRWQCB can then

participate in follow-up efforts to assure that the industrial site is in compliance. The US EPA supports this type of collaboration when it states “the municipality will help EPA and authorized NPDES states: [...] Inspect and monitor industrial facilities to verify that the industries discharging storm water to the municipal systems are in compliance with their NPDES storm water permit, if required” (1992). Notification of non-compliant sites is a common requirement of all NPDES permits under Federal NPDES regulation 40 CFR 122.44(l)(6).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.b.(8) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.c. COMMERCIAL (EXISTING DEVELOPMENT)

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority item also generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.3.c. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) provides that the Copermittee develop a proposed management program which includes “A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls.”

F.3.c. Commercial (Existing Development) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement a Commercial (Existing Development) Component to reduce pollutants in runoff from commercial sites. At a minimum the commercial component shall address:

- F.3.c.(1) Pollution Prevention*
- F.3.c.(2) Source Identification*
- F.3.c.(3) BMP Implementation*
- F.3.c.(4) Inspection of Commercial Sites and Sources*
- F.3.c.(5) Enforcement Measures for Commercial Sites and Sources*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Discussion: CWA sections 402(p)(3)(B)(ii-iii) require each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants

to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for commercial activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) requires that this program include a component which addresses commercial sites and sources.

Commercial sites and sources have the potential to be significant sources of pollutants in urban runoff. To reduce the discharge of pollutants in urban runoff from commercial sites to the maximum extent practicable, BMPs must be implemented. As discussed in Finding 12, BMPs effectively reduce pollutants in urban runoff by emphasizing pollution prevention and source controls, followed by treatment controls. The commercial existing development component will provide a program for the development and implementation of BMPs to address pollutants in storm water discharges from commercial sites and activities.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.c. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.c.(1) Pollution Prevention (Commercial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall include and describe pollution prevention methods within its Commercial (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by commercial facilities, where appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Discussion: Each Copermittee must develop a program to reduce the discharge of pollutants to and from its MS4 to the maximum extent practicable. In order to achieve this level of pollution reduction, BMPs must be implemented. As discussed in Finding 12, pollution prevention (the reduction or elimination of pollutant generation at its source) is an essential aspect of BMP programs. By limiting the generation of pollutants, less pollutants are available to be washed from commercial sites and sources, resulting in reduced pollutant loads in storm water discharges from these sites and sources. In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media.¹⁰⁴ In the Pollution

¹⁰⁴Urban Runoff Technical Advisory Group, 1992. Urban Runoff Pollution Prevention Practices.

Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the commercial existing development component of the Jurisdictional URMP.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.c.(1) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.c.(2) Source Identification (Commercial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitttee shall develop and update annually an inventory of the following high priority threat to water quality commercial sites/sources listed below. (If any commercial site/source listed below is inventoried as an industrial site, as required under section F.3.b.(2) of this Order, it is not necessary to also inventory it as a commercial site/source).

- (a) *Automobile mechanical repair, maintenance, fueling, or cleaning;*
- (b) *Airplane mechanical repair, maintenance, fueling, or cleaning;*
- (c) *Boat mechanical repair, maintenance, fueling, or cleaning;*
- (d) *Equipment repair, maintenance, fueling, or cleaning;*
- (e) *Automobile and other vehicle body repair or painting;*
- (f) *Mobile automobile or other vehicle washing;*
- (g) *Automobile (or other vehicle) parking lots and storage facilities;*
- (h) *Retail or wholesale fueling;*
- (i) *Pest control services;*
- (j) *Eating or drinking establishments;*
- (k) *Mobile carpet, drape or furniture cleaning;*
- (l) *Cement mixing or cutting;*
- (m) *Masonry;*
- (n) *Painting and coating;*
- (o) *Botanical or zoological gardens and exhibits;*
- (p) *Landscaping;*
- (q) *Nurseries and greenhouses;*
- (r) *Golf courses, parks and other recreational areas/facilities;*
- (s) *Cemeteries;*
- (t) *Pool and fountain cleaning;*
- (u) *Marinas;*
- (v) *Port-a-Potty servicing;*
- (w) *Other commercial sites/sources that the Copermitttee determines may contribute a significant pollutant load to the MS4;*
- (x) *Any commercial site or source tributary to a Clean Water Act section 303(d) impaired water body, where the site or source generates pollutants for which the water body is impaired; and*
- (y) *Any commercial site or source within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within an environmentally sensitive area (as defined in F.1.b(2)(a)vi. of this Order).*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Discussion: In order to prohibit non-storm water discharges, reduce commercial pollutant sources to the maximum extent practicable, and ensure that adequate BMPs are implemented, Copermittees must first identify all high priority threat to water quality commercial pollutant sources. Based on the number of complaints received by the SDRWQCB and the Copermittees, the types of commercial sites and activities listed in item F.3.c.(2) are potential high risk areas for pollutant discharges to storm water. The sites and activities are identified as such due to their frequent use of substances often found to be present as pollutants in urban runoff, combined with frequent mismanagement of runoff from the sites and activities. Therefore, development of an inventory of these commercial sites within a watershed will help identify the location of potential sources of pollutants in storm water. Pollutants found to be present in receiving waters can then be traced to the sites that frequently use such substances. In this manner an inventory of commercial sites can help in targeting commercial sites for inspection, monitoring, and potential enforcement. This will allow for limited inspection, monitoring, and enforcement time to be most effective.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.c.(2) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.c.(3)(a) and F.3.c.(3)(b) BMP Implementation (Commercial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall designate a set of minimum BMPs for the high priority threat to water quality commercial sites/sources (listed above in section F.3.c.(2)). The designated minimum BMPs for the high threat to water quality commercial sites/sources shall be site and source specific as appropriate.

Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs at each high priority threat to water quality commercial site/source within its jurisdiction. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall implement, or require the implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Discussion: Copermittees must reduce the discharge of pollutants in storm water from commercial sites and activities to the maximum extent practicable. To achieve this level of pollutant reduction, BMPs must be implemented (see Finding 11). Designation of a set of minimum BMPs for high threat commercial sites will help ensure that appropriate BMPs are implemented at the sites. These minimum BMPs will also serve as guidance as to the level of water quality protection required. While minimum BMPs will be required at all high threat commercial sites, implementation of particular minimum BMPs will be site and source specific in

order to address different conditions at various sites. BMPs to be implemented must comply with Order No. R9-2002-0001. As such, additional site specific BMPs may be necessary to comply with other aspects of Order No. R9-2002-0001. The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items F.3.c.(3)(a) and F.3.c.(3)(b) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.c.(3)(c) BMP Implementation (Commercial) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermitttee shall implement, or require implementation of, additional controls for commercial sites or sources tributary to Clean Water Act section 303(d) impaired water bodies (where a site or source generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermitttee shall implement, or require implementation of, additional controls for commercial sites or sources within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Discussion: CWA section 303(d) water bodies are water bodies that are not achieving the water quality objectives necessary to protect their beneficial uses. As discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges which cause or contribute to an exceedance of water quality standards must be controlled and are also prohibited (see section C.1. of Order No. R9-2002-0001), discharges to CWA section 303(d) water bodies of pollutants for which the waterbody is impaired must be controlled and prohibited. Therefore, commercial sites and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

Regarding coastal lagoons and other sensitive water bodies, additional controls are needed to protect these valuable and unique resources. In their Nonpoint Source Program Strategy and Implementation Plan, the SWRCB and California Coastal Commission support additional controls for critical coastal areas, stating “the State will seek to attain and maintain applicable water quality standards, and

protect waters threatened by land uses, or by substantial expansion of existing land uses, by implementing additional management measures.”

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Program item F.3.c.(3)(c) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.c.(4) Inspection of Commercial Sites and Sources (Commercial) and F.3.c.(5) Enforcement of Commercial Sites and Sources (Commercial) of the Jurisdictional Urban Runoff Management Program state the following:

Each Copermitttee shall inspect high priority commercial sites and sources as needed. Based upon site inspection findings, each Copermitttee shall implement all follow-up actions necessary to comply with this Order.

Each Copermitttee shall enforce its storm water ordinance for all commercial sites and sources as necessary to maintain compliance with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.c. Commercial (Existing Development) of Order No. R9-2002-0001.

Discussion: BMPs must be implemented for commercial sites and activities to reduce the discharge of pollutants from the sites and activities to the maximum extent practicable. Inspection of commercial sites is necessary to ensure that implemented BMPs are adequate. As discussed in Finding 24, inspections provide a necessary means by which Copermitttees can evaluate compliance with their ordinances and requirements of Order No. R9-2002-0001. Inspections are especially important for high risk commercial sites and activities, such as commercial sites and activities where urban runoff is not properly managed. If inspections identify noncompliance conditions, enforcement of storm water ordinance is also necessary to ensure adequate BMP implementation. Regarding inspection and enforcement measures, the US EPA states “Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items F.3.c.(4) and F.3.c.(5) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.d. RESIDENTIAL (EXISTING DEVELOPMENT)

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority item also generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.3.d. are provided as necessary.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) provides that the Copermittee develop a proposed management program which includes "A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls."

F.3.d. Residential (Existing Development) of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement a Residential (Existing Development) Component to prevent or reduce pollutants in runoff from all residential land use areas and activities. At a minimum the residential component shall address:

- F.3.d.(1) Pollution Prevention*
- F.3.d.(2) Threat to Water Quality Prioritization*
- F.3.d.(3) BMP Implementation*
- F.3.d.(4) Enforcement of Residential Areas and Activities*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Discussion: CWA sections 402(p)(3)(B)(ii-iii) require each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for residential activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) requires that this program include a component which addresses residential areas and activities.

Residential areas and activities have the potential to be significant sources of pollutants in urban runoff. In residential areas pollution sources conveyed by the MS4 include activities related to automobile maintenance, landscaping/gardening, home-improvement, pets, and others, including those described below in section F.3.d.(2). Through the DAMP, Orange County Copermittees have instituted or promoted residential pollution prevention BMPs, including street sweeping, household hazardous waste collections, and education. Nationally, education is increasingly being used as a tool for pollution prevention in residential areas, where the use of regulatory enforcement actions has traditionally been less than in other land use areas. Pollution prevention can encourage responsible residential nutrient management, such as proper fertilization rates and proper pet waste disposal, when a connection is established between such practices and local or regional water quality needs (see "A Survey of Residential Nutrient Behavior" in Nonpoint Source News Notes, July 2000). Similarly, source control is vital to protect urban watersheds from pesticides that are applied in residential areas and are transported to streams via the MS4. For example in a review, "Diazinon Sources in Runoff from the San Francisco Region," the Center for Watershed Protection concluded that, "the only real tool to control diazinon in urban watersheds is source control to either reduce the use of diazinon or to apply it in a safer manner." In addition, where structural BMPs or MS4 facilities are owned or operated by the residential community, pollution prevention activities taken by local governments can include maintenance guidance. For example, the Northern Virginia Regional Planning Commission offers maintenance guidance because after finding that reduced or improper maintenance by some private owners contributed to a higher failure rate of BMPs (see "Maintaining Your BMP: A guidebook for Private Owners and Operators in Northern Virginia").

To reduce the discharge of pollutants in urban runoff from residential areas and activities to the maximum extent practicable, BMPs must be implemented. As discussed in Finding 12, BMPs effectively reduce pollutants in urban runoff by emphasizing pollution prevention and source controls, followed by treatment controls. The residential existing development component will provide a program for the development and implementation of BMPs to address pollutants in storm water discharges from residential areas and activities.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.d. in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.d.(1) Pollution Prevention (Residential) for the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall include pollution prevention methods in its Residential (Existing Development) Component and shall encourage their use by all residents, where appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management

Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Discussion: Each Copermittee must develop a program to reduce the discharge of pollutants to and from its MS4 to the maximum extent practicable. In order to achieve this level of pollution reduction, BMPs must be implemented. As discussed in Finding 12, pollution prevention (the reduction or elimination of pollutant generation at its source) is an essential aspect of BMP programs. By limiting the generation of pollutants, less pollutants are available to be washed from residential areas and activities, resulting in reduced pollutant loads in storm water discharges from these areas and activities. In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media.¹⁰⁵ In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the residential existing development component of the Jurisdictional URMP.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.d.(1) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.d.(2) Threat to Water Quality Prioritization (Residential) for the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall identify high priority residential areas and activities. At a minimum, these shall include:

- *Automobile repair and maintenance;*
- *Automobile washing;*
- *Automobile parking;*
- *Home and garden care activities and product use (pesticides, herbicides, and fertilizers);*
- *Disposal of household hazardous waste (e.g., paints, cleaning products, and other wastes generated during home improvement or maintenance activities);*
- *Disposal of pet waste;*
- *Disposal of green waste;*
- *Any other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4; and*
- *Any residence tributary to a Clean Water Act section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired; and*
- *Any residence within or directly adjacent to or discharging directly to coastal waters or other receiving waters within an environmentally sensitive area (as defined in F.1.b.(2)(a)vi. of this Order).*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

¹⁰⁵Center for Watershed Protection, 1998. Better Site: A Handbook for Changing Development Rules in Your Community.

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Discussion: The above residential areas and activities are identified as high priority threats to water quality due to their wide distribution, their association with pollutants of concern in urban runoff, and their historical mismanagement of associated urban runoff. Identification of high priority residential areas and activities will help focus BMP implementation efforts on these areas and activities. By focusing efforts on high priority areas and activities, the greatest potential for water quality improvements will result. Therefore, limited Copermittee staff time will be focused where it can be most effective.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.d.(2) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.d.(3)(a) and F.3.d.(3)(b) BMP Implementation (Residential) for the Jurisdictional Urban Runoff Management Program state the following:

- (a) *Each Copermittee shall designate a set of minimum BMPs for high threat to water quality residential areas and activities (as required under section F.3.d.(2)). The designated minimum BMPs for high threat to water quality residential areas and activities shall be area or activity specific.*
- (b) *Each Copermittee shall implement or require implementation of the designated minimum BMPs for high threat to water quality residential areas and activities. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall require implementation of other equivalent BMPs. Each Copermittee shall also implement, or require implementation of, any additional BMPs as are necessary to comply with this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Discussion: Copermittees must reduce the discharge of pollutants in storm water from residential areas and activities to the maximum extent practicable. To achieve this level of pollutant reduction, BMPs must be implemented (see Finding 11). Designation of a set of minimum BMPs for high threat residential areas and activities will help ensure that appropriate BMPs are implemented. These minimum BMPs will also serve as guidance as to the level of water quality protection required. While minimum BMPs will be required for all high threat residential areas and activities, implementation of particular minimum BMPs will be site and source specific in order to address different conditions for various areas and activities. BMPs to be implemented must comply with Order No. R9-2002-0001. As such, additional site specific BMPs may be necessary to comply with other aspects of Order No. R9-2002-0001.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items F.3.d.(3)(a) and F.3.d.(3)(b) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.3.d.(3)(c) BMP Implementation (Residential) for the Jurisdictional Urban Runoff Management Program states the following:

- (c) *Each Copermittee shall implement, or require implementation of, any additional controls for residential areas and activities tributary to Clean Water Act Section 303(d) impaired water bodies (where a residential area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for residential areas within or directly adjacent to or discharging directly to coastal waters or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Discussion: CWA section 303(d) water bodies are water bodies that are not achieving the water quality objectives necessary to protect their beneficial uses. As discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges which cause or contribute to an exceedance of water quality standards must be controlled and are also prohibited (see section C.1. of Order No. R9-2002-0001), discharges to CWA section 303(d) water bodies of pollutants for which the waterbody is impaired must be controlled and prohibited. Therefore, residential areas and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

Regarding coastal lagoons and other sensitive water bodies, additional controls are needed to protect these valuable and unique resources. In their Nonpoint Source Program Strategy and Implementation Plan, the SWRCB and California Coastal Commission support additional controls for critical coastal areas, stating “the State will seek to attain and maintain applicable water quality standards, and protect waters threatened by land uses, or by substantial expansion of existing land uses, by implementing additional management measures.”

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Program item F.3.d.(3)(c) in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.3.d.(4) Enforcement of Residential Areas and Activities (Residential) for the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall enforce its storm water ordinance for all residential areas and activities as necessary to maintain compliance with this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) generally applies to all directives under Jurisdictional Urban Runoff Management Program item F.3.d. Residential (Existing Development) of Order No. R9-2002-0001.

Discussion: As discussed in Finding 24, enforcement of storm water ordinances, permits, and plans is an essential aspect of a Jurisdictional URMP. Enforcement measures increase the probability that non-compliance situations will not occur or will be corrected. Regarding enforcement measures, the US EPA states “Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.d.(4) in Order No. R9-2002-0001 under the broad legal authority cited above.

F.4. EDUCATION COMPONENT

F.4. Education Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement an Education Component using all media as appropriate to (1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. At a minimum the education component shall address the following target communities:

- *Municipal Departments and Personnel*
- *Construction Site Owners and Developers*
- *Industrial Owners and Operators*
- *Commercial Owners and Operators*
- *Residential Community, General Public, and School Children*
- *Quasi-Governmental Agencies/Districts (i.e., educational institutions, water districts, sanitation districts, etc.)*

F.4.a. All Target Communities

The Education Program for each target audience may contain information on the following topics where applicable:

- *State and Federal water quality laws*
- *Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)*
- *Water conservation*
- *Impacts of urban runoff on receiving waters*
- *Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)*
- *Distinction between MS4s and sanitary sewers*
- *Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)*
- *Pollution prevention and safe alternatives*
- *Household hazardous waste collection*
- *Recycling*
- *BMPs: Site specific, structural and source control*
- *BMP maintenance*
- *Non-storm water disposal alternatives (e.g., all wash waters)*
- *Pet and animal waste disposal*
- *Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)*
- *Equipment and vehicle maintenance and repair*
- *Public reporting mechanisms*
- *Green waste disposal*
- *Integrated pest management*
- *Native vegetation*
- *Proper disposal of boat and recreational vehicle waste*
- *Traffic reduction, alternative fuel use*

F.4.b. Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (educational institutions, water districts, sanitation districts, etc.) Communities

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities may also be educated on the following topics where applicable:

- *Basic urban runoff training for all personnel*
- *Additional urban runoff training for appropriate personnel*
- *Illicit Discharge Detection and Elimination observations and follow-up during daily work activities*
- *Lawful disposal of catchbasin and other MS4 cleanout wastes*
- *Water quality awareness for Emergency/First Responders*
- *California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).*
- *California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities*
- *SDRWQCB's General NPDES Permit for Groundwater Dewatering*
- *401 Water Quality Certification by the SDRWQCB*
- *Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)*
- *SDRWQCB Waste Discharge Requirements for Dredging Activities*
- *Local requirements beyond statewide general permits*
- *Federal, state and local water quality regulations that affect development projects*
- *Water quality impacts associated with land development*
- *Alternative materials & designs to maintain peak runoff values*
- *How to conduct a storm water inspection*
- *Potable water discharges to the MS4*
- *Dechlorination techniques*
- *Hydrostatic testing*
- *Spill response, containment, & recovery*
- *Preventive maintenance*
- *How to do your job and protect water quality*

F.4.c. Residential, General Public, School Children Communities

In addition to the topics listed in F.4.a. above, the Residential, General Public, and School Children Communities may be educated on the following topics where applicable:

- *Public reporting information resources*
- *Residential and charity car-washing*
- *Community activities (e.g., "Adopt a Storm Drain, Watershed, or Highway" Programs, citizen monitoring, creek/beach cleanups, environmental protection organization activities, etc.)*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(6) provides that the proposed management program include "A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(4) provides that the proposed management program include "A description of appropriate educational and training measures for construction site operators."

Discussion: As discussed in Finding 23, implementation of an Education Component is a critical best management practice and an important aspect of the Jurisdictional URMP. The SWRCB Technical Advisory Committee "recognizes that education with an emphasis on pollution prevention is the fundamental basis for solving nonpoint source pollution problems." The US EPA finds that "An informed and knowledgeable community is critical to the success of a storm water management program since it helps ensure the following:

Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important. [...]

Greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters" (2000).

Regarding target audiences, US EPA states "The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities, including minority and disadvantaged

communities, as well as children” (2000). The target communities included in Education item 7 are based on recommendations of the TAC, which states:

“Target Audiences should include:

1. Government: Educate government agencies and officials to achieve better communication, consistency, collaboration, and coordination at the federal, state and local levels.
2. K-12/Youth Groups: Establish statewide education programs, including curricula, on watershed awareness and nonpoint source pollution problems and solutions, based on a state lead role building upon and coordinating with existing local programs.
3. Development Community: Educate the development community, including developers, contractors, architects, and local government planners, engineers, and inspectors, on nonpoint source pollution problems associated with development and redevelopment and construction activities and involve them in problem definitions and solutions.
4. Business and Industrial Groups.”

The required topics to be covered in the Education Component are based on topics of concern as discussed by the US EPA (1992) and the SWRCB Technical Advisory Committee. Additional education topics were also added based on the number of complaints received by the SDRWQCB and the Copermittees for various topics of concern.

US EPA identifies measurable goals for urban runoff education programs, including such goals as creation of a website, halting dumping of grease and other pollutants into the storm drain by a certain percentage of restaurants, and detecting a percent reduction in litter or animal waste in discharges (2000).

Public education was strongly emphasized in the 1993 DAMP implemented under the First and Second Term Permits. Consequently, the Copermittees already have well-developed education programs that may be readily reviewed and as necessary revised to satisfy the requirements of this Order. The specific detail provided in this section and other sections of the permit where education is identified as a necessary part of the Jurisdictional Program, is provided to establish a framework within which the Copermittees will review and as necessary update their already extensive programs.

The SDRWQCB has the discretion to require item F.4 of the Jurisdictional URMP in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5. ILLICIT DISCHARGE DETECTION AND ELIMINATION COMPONENT

In addition to the underlying broad legal authority citations listed above in section VII. of this Fact Sheet/Technical Report, the following specific legal authority items also generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge and Detection Elimination Component of Order No. R9-2002-0001. Other specific legal authority items applicable only to distinct directives of Jurisdictional Urban Runoff Management Program item F.5. are provided as necessary.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) provides that the proposed management program “shall be based on a description of a program, including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittee include in its proposed management program “a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system.” This regulation excludes prohibition of those non-storm water discharges listed in Section B.1 of Order No. R9-2002-0001.

F.5. Illicit Discharge Detection and Elimination Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement an Illicit Discharge Detection and Elimination Component containing measures to actively seek and eliminate illicit discharges and connections. At a minimum the Illicit Discharge Detection and Elimination Component shall address:

- F.5.a Illicit Discharges and Connections*
- F.5.b Dry Weather Monitoring*
- F.5.c Investigation / Inspection and Follow-up*
- F.5.d Elimination of Illicit Discharges and Connections*
- F.5.e Enforce Ordinances*
- F.5.f Prevent and Respond To Sewage Spills (Including from Private Laterals and Failing Septic Systems) and Other Spills*
- F.5.g Facilitate Public Reporting of Illicit Discharges and Connections – Public Hotline*
- F.5.h Facilitate Disposal of Used Oil and Toxic Materials*
- F.5.i Limit Infiltration From Sanitary Sewer to MS4*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Discussion: Illicit discharges and connections can constitute a significant portion of urban runoff discharges from MS4s. US EPA states “A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4” (2000).

MS4 discharges attributable to illicit discharges and connections can be a significant source of pollutant loading to receiving waters. The NURP study concluded that the quality of urban runoff can be adversely impacted by illicit discharges and connections (US EPA, 1983). Furthermore, US EPA states that illicit discharges and connections result in “untreated discharges that contribute

high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic wildlife and human health” (2000).

For these reasons, CWA section 402(p)(3)(B)(ii) requires each Copermittee to prohibit non-storm water discharges into its MS4. The detection and elimination of illicit discharges and connections is also clearly identified in the federal regulations as a high priority (40 CFR 122.26(d)(2)(iv)(B) and 122.26(d)(2)(iv)(B)(1)). As guidance for detecting and eliminating illicit discharges and connections, the US EPA suggests “The proposed management program must include a description of inspection procedures, orders, ordinances, and other legal authorities necessary to prevent illicit discharges to the MS4” (1992).

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Management Program item F.5 in Order No. R9-2002-0001 under the broad legal authority cited above.

F.5.a. Illicit Discharges and Connections of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with Section B. of this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Discussion: See discussion for F.5 Illicit Discharge Detection and Elimination Component above.

F.5.b. Dry Weather Monitoring of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall conduct dry weather inspections, field screening, and analytical monitoring of MS4 outfalls within its jurisdiction to detect illicit discharges and connections in accordance with Attachment E of this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under

Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(2) provides that the Copermittee include in its proposed management program “a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens.”

Discussion: Since illicit discharges and connections can be significant sources of pollutants in urban runoff, and can cause receiving water degradation, the locations of all illicit discharges and connections need to be identified. An effective means for achieving this is analytical monitoring of dry weather urban runoff flows. Through frequent, geographically widespread MS4 inspections, field screening and laboratory analysis of dry weather urban runoff, the Copermittees can identify locations potentially impacted by illicit discharges or connections. If results indicate that an illicit discharge or connection may be present, then follow-up procedures can be followed to pinpoint the source of the illicit discharge or connection. Once the illicit discharge or connection source is identified, steps may be taken to eliminate the discharge or connection. In this manner, dry weather analytical monitoring of urban runoff can lead to the elimination of illicit discharges and connections and the reduction of pollutants in urban runoff.

The Copermittees directed in Attachment E to review their Illegal Discharge and Illicit Connections programs and update them to include more frequent, geographically widespread inspections, field screening analysis, and laboratory analysis of specific parameters. Although the minimum number of inspections is set at twice during the period of May 1st to September 30th of each year, it is expected that more frequent inspections may be necessary. An emphasis is placed on designing a program with clear criteria and rationale. The programs designed should be flexible and implemented in a manner that will enable the Copermittees to identify illicit discharges and illegal connections, respond to citizen complaints, and follow-up on ongoing investigations to identify and eliminate sources.

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Management Program item F.5.b in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.c. Investigation/Inspection and Follow-up of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall investigate and inspect any portion of the MS4 that, based on dry weather monitoring results or other appropriate information, indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water (including non-prohibited discharge(s) identified in Section B. of this Order). Each Copermittee shall establish criteria to identify portions of the system where such follow-up investigations are appropriate.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(3) provides that the Copermittee include in its proposed management program “procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water.”

Discussion: The quality of urban runoff can be adversely impacted by illicit discharges and connections (US EPA, 1983). Elimination of these sources of pollutants can therefore result in a dramatic improvement in the quality of urban runoff discharges from MS4s, which in turn can result in improved receiving water quality. If field screening results indicate the presence of illicit discharges to the MS4, that portion of the MS4 must be investigated to eliminate the illicit discharge and prevent further potential degradation of receiving waters. To determine when follow-up procedures should be undertaken, US EPA states “Applicants should propose criteria to identify portions of the system where follow-up investigations are appropriate” (1992).

Procedures to investigate priority locations for illicit connections include sampling for such constituents as Total Coliform Bacteria Fecal Coliform Bacteria, Enterococcus Bacteria, surfactants (MBAS), residual chlorine, oil and grease, selected dissolved metals, fluoride, phenolic compounds, and potassium. Inspection of the storm sewer system, use of remote-control cameras, on-site inspections, and dye testing at priority or suspect facilities, and additional discharge monitoring to pinpoint pollutant sources are also important elements of such programs.

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Management Program item F.5.c in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.d. Elimination of Illicit Discharges and Connections of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall eliminate all detected illicit discharges, discharge sources, and connections immediately.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Water Quality Control Plan for the San Diego Basin Waste Discharge Prohibition 8 states "Any discharge to a storm water conveyance system that is not entirely composed of 'storm water' is prohibited unless authorized by the Regional Board." California Water Code Section 13263(a) provides that waste discharge requirements prescribed by the SDRWQCB implement the Basin Plan.

Discussion: Under CWA section 402(p)(3)(B)(ii) and Water Quality Control Plan for the San Diego Basin Waste Discharge Prohibition 8 non-storm water discharges are prohibited. By definition, illicit discharges and connections are non-storm water discharges. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) also requires illicit discharges and connections to be detected and removed. Therefore, any detected illicit discharges or connections must be eliminated. US EPA supports elimination of detected illicit discharges and connections when it states "Once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action."

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5.d in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.e. Enforce Ordinances of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. Each Copermittee shall also implement and enforce its ordinance, orders, or other legal authority to eliminate detected illicit discharges and connections to it MS4.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Discussion: To prevent and eliminate illicit discharges and connections, the Copermittee must implement and enforce its ordinance, orders, or other legal authority over illicit discharges and connections. The US EPA states that this "proposed management program component should describe how the prohibition on illicit discharges will be implemented and enforced. The description could include a schedule and allocation of staff and resources. A direct linkage should exist between this program component and the adequate legal authority requirements for the ordinances and orders to effectively implement the prohibition of illicit discharges" (1992).

The SDRWQCB has the discretion to require Jurisdictional Urban Runoff Management Program item F.5.e in Order No. R9-2002-0001 under the broad legal authority cited above.

F.5.f. Prevent and Respond to Sewage Spills (Including from Private Laterals and Failing Septic Systems) and Other Spills of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall prevent, respond to, contain and clean up all sewage and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Spill response teams shall prevent entry of spills into the MS4 and contamination of surface water, ground water and soil to the maximum extent practicable. Each Copermittee shall coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times.

Each Copermittee shall develop and implement a mechanism whereby it is notified of all sewage spills from private laterals and failing septic systems into its MS4. Each Copermittee shall prevent, respond to, contain and clean up sewage from any such notification.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) provides that the Copermittee include in its proposed management program “a description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.”

Discussion: Sewage and other spills frequently enter the MS4, to be carried and discharged to receiving waters. Such spills into and from the MS4 can severely impair receiving water quality and pose a significant threat to public health. To avoid these negative impacts, the proposed management program must describe procedures that the Copermittee will implement to prevent, contain, and respond to spills that may discharge into the MS4. The US EPA states “The goal of a spill prevention program is to reduce the frequency and extent of spills of hazardous materials which can cause water quality impairment. Spill containment programs may establish minimum chemical storage and handling requirements, require users to submit prevention and control plans, and ensure site inspections. [...] Spill response teams should attempt to prevent or minimize contamination of surface water, groundwater, and soil. Spill response programs often require a coordinated response from a number of municipal departments. Municipalities should describe how response procedures within these programs attempt to mitigate potential pollutant discharges to surface waters and the MS4” (1992). Spills from private laterals have been identified in the San Diego Region as a significant source of illicit discharges to MS4s and must be addressed by the Copermittees. Failing private septic systems have also been identified as potential illicit discharges that should be addressed by Copermittees that may have septic systems within their jurisdictions. The Copermittees are directed to implement a program in which they are notified of all such spills. One mechanism to achieve compliance with this requirement is to update business licenses or permits of plumbers or other potential responders (e.g. apartment management agencies,

homeowners associations, etc) to these spills to report them to the Copermittee in whose jurisdiction the spill occurred.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5.f in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.g. Facilitate Public Reporting of Illicit Discharges and Connections – Public Hotline of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Copermittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Copermittee-specific or shared by Copermittees. All storm water hotlines shall be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Copermittees shall respond to and resolve each reported incident. All reported incidents, and how each was resolved, shall be summarized in each Copermittee's individual Jurisdictional URMP Annual Report.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) provides that the Copermittee include in its proposed management program “a description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers.”

Discussion: Regarding public reporting of illicit discharges or water quality impacts associated with discharges from MS4s, the US EPA states “Timely reporting by the public of improper disposal and illicit discharges are critical components of programs to control such sources. To enhance public awareness, programs may include setting up a public information hotline number, educating school students, community and volunteer watchdog groups, using inserts into utility bills, and newspaper, radio, and television announcements to inform the public about what to look for and how to report incidents” (1992). As indicated in the Report of Waste Discharge and proposed DAMP, the Orange County Copermittees already have mechanisms in place to facilitate public reporting of potential illicit discharges that meet or exceed the requirements of this section.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5.g in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.h. Facilitate Disposal of Used Oil and Toxic Materials of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation shall include educational activities, public information activities, and establishment of collection sites operated by the Copermittee or a private entity. Neighborhood collection of household hazardous wastes is encouraged.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(6) provides that the Copermittee include in its proposed management program “a description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.”

Discussion: The US EPA states “If private individuals find the proper disposal of used oil or toxic materials difficult, incidents of improper disposal (such as into the MS4) increase” (1992). Therefore Copermittees are required to propose a program component that will facilitate the proper disposal of used oil and toxics from households by establishing municipally operated collection sites, or ensuring that privately operated collections sites are available. The US EPA suggests this program component “should describe outreach plans to handlers of used oil and to the public, and operating plans for oil and household waste collection programs” (1992). As indicated in the Report of Waste Discharge and proposed DAMP, the Orange County Copermittees already have mechanisms in place to facilitate the proper management and disposal of used oil and toxic materials that meets or exceed the requirements of this section.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5.h in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.5.i. Limit Infiltration from Sanitary Sewer to MS4 / Provide Preventive Maintenance of Both of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall implement controls and measures to limit infiltration of seepage from municipal sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4. Each Copermittee that operates both a municipal sanitary sewer system and a MS4 shall implement controls and measures to limit infiltration of seepage from the municipal sanitary sewers to the MS4s that shall include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1) generally apply to all directives under Jurisdictional Urban Runoff Management Program item F.5. Illicit Discharge Detection and Elimination Component of Order No. R9-2002-0001.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) provides that the Copermittee include in its proposed management program “a description of controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary.”

Discussion: Regarding seepage from sanitary sewers, the US EPA states “Raw sewage can seep from sanitary sewage collection systems through leaks and cracks in aging pipes, poorly constructed manholes and joints, and main breaks. Sewage from a leaky sanitary system can flow to storm sewers or contaminate ground water supplies. Interaction between sanitary sewers and separate storm sewers may occur at manholes and where sanitary sewer laterals and storm sewer trenches cross. Separate storm sewers and sanitary sewers may share the same trench, which is generally filled with very porous material such as gravel” (1992). When raw sewage enters the storm water system, it can reach receiving waters untreated, posing a threat to water quality and public health. In order to prevent this condition, the Copermittees are directed to perform these inspection and maintenance activities. To the extent that a Copermittee operates both a MS4 and a sanitary sewer, the Copermittee is directed to coordinate the thorough, routine preventive maintenance of both systems. In cases where the Copermittee does not operate the sanitary sewer, the Copermittee is implicitly encouraged to coordinate the maintenance of the MS4 and sanitary sewer with the operator of the sanitary sewer, but must at a minimum ensure the thorough, routine preventive maintenance of the MS4 system.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5.i in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.6. COMMON INTEREST AREAS AND HOMEOWNERS ASSOCIATIONS

F.6 Common Interest Areas and Homeowners Associations Component of the Jurisdictional Urban Runoff Management Plan states the following:

- a. *Each Copermittee shall develop and implement a plan for ensuring that urban runoff within common interest areas from private roads, drainage facilities, and other components of the storm water conveyance system, including those managed by associations, meets the objectives of this Order.*
- b. *As part of its individual Jurisdictional URMP Annual Report, each Copermittee shall describe the measures taken to ensure that urban runoff from common interest areas to the MS4 meets the objectives of this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: Many residential neighborhoods and some commercial areas within the jurisdiction of the Copermittees are within common interest developments and are, therefore, subject to management of common areas by associations. The Declaration of the Covenants, Conditions and Restrictions (CC&Rs) contains the ground rules for the operation of such an association. CC&Rs are an appropriate method for protecting the common plan of developments and to provide for a mechanism for financial support for the upkeep of common areas including roads, storm drains, and other components of storm water conveyance systems.

In certain cases the Copermittees may neither own nor operate the storm water conveyance systems within common interest developments. Presently, some Copermittees have agreements with the responsible association(s) in which the association either allows the Copermittee to implement best management practices or the association agrees to uphold the intent of the DAMP. Rather than list the associations as Copermittees, this Order interprets common interest areas as property subject to the codes and ordinance and enforcement mechanisms of the city or county in which it resides and, therefore, holds the local government responsible for the discharge of wastes from private storm water conveyance systems.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.6 in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.7. PUBLIC PARTICIPATION COMPONENT

F.7. Public Participation Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall incorporate a mechanism for public participation in the implementation of the Jurisdictional URMP.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: Public participation can be an important tool for strengthening an urban runoff management program. US EPA strongly supports public participation when it states "An active and involved community is crucial to the success of a storm water management program because it allows for:

Broader public support since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;

Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers;

A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and

A conduit to other programs as citizens involved in the storm water program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis, as encouraged by EPA" (2000).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.7 in Order No. R9-2002-0001 under the broad legal authority cited above.

F.8. ASSESSMENT OF JURISDICTIONAL URMP EFFECTIVENESS COMPONENT

F.8. Assessment of Jurisdictional URMP Effectiveness Component of the Jurisdictional Urban Runoff Management Program states the following:

- a. *As part of its individual Jurisdictional URMP, each Copermittee shall develop a long-term strategy for assessing the effectiveness of its individual Jurisdictional URMP. The long-term assessment strategy shall identify specific direct and indirect measurements that each Copermittee will use to track the long-term progress of its individual Jurisdictional URMP towards achieving improvements in receiving water quality. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.*
- b. *As part of its individual Jurisdictional URMP Annual Report, each Copermittee shall include an assessment of the effectiveness of its Jurisdictional URMP using the direct and indirect assessment measurements and methods developed in its long-term assessment strategy.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(v) provides that the Copermittees must include "Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water." Under Federal NPDES regulation 40 CFR 122.42(c) applicants must provide annual reports on the progress of their storm water management programs.

Discussion: Regarding the assessment of the effectiveness of URMPs, the US EPA states that "At a minimum, applicants must submit estimated reductions in pollutant loads expected to result from implemented controls and describe known impacts of storm water controls on groundwater" (1992). The US EPA suggests that the assessments include direct and indirect measurements of effectiveness, stating that "Reductions in pollutant loads due to the implementation and maintenance of structural controls provide direct measurements of the effectiveness of the storm water management program. In addition, EPA encourages applicants to go beyond the minimum requirement and assess the

effectiveness of their storm water management program through other direct measurements as well as indirect measurements" (1992). The US EPA also recommends that monitoring data be used to substantiate or refine the assessment, suggesting that "the estimated removal efficiencies can be refined through the monitoring program. [...] Throughout the permit term, the municipality must submit refinements to its assessment or additional direct measurements of program effectiveness in its annual report" (1992). Finally, the US EPA suggests that the assessment be used for long-term assessment of progress when it states "The applicant should use direct measurements of program effectiveness as it begins to assess its long-term progress in improving water quality through storm water management practices. [...] [A]pplicants are encouraged to use direct measurements of program effectiveness, such as annual pollutant loads, event mean concentrations, and seasonal pollutant loadings, to begin to estimate long-term trends" (1992).

The SDRWQCB has discretion to require Jurisdiction Urban Runoff Management Program item F.8 in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

F.9. FISCAL ANALYSIS COMPONENT

F.9. Fiscal Analysis Component of the Jurisdictional Urban Runoff Management Program states the following:

Each Copermittee shall secure the resources necessary to meet the requirements of this Order. As part of its individual Jurisdictional URMP, each Copermittee shall develop a strategy to conduct a fiscal analysis of its urban runoff management program in its entirety. In order to demonstrate sufficient financial resources to implement the conditions of this Order, each Copermittee shall conduct an annual fiscal analysis as part of its individual Jurisdictional URMP Annual Report. This analysis shall, for each fiscal year covered by this Order, evaluate the expenditures (such as capital, operation and maintenance, education, and administrative expenditures) necessary to accomplish the activities of the Copermittee's urban runoff management program. Such analysis shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(vi) provides that "[The Copermittee must submit] for each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs under paragraphs (d)(2)(iii) and (iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds."

Discussion: A fiscal analysis can be an important planning tool. The US EPA finds that "examining the levels of proposed spending and funding allows the permitting authority to gauge the ability of the applicant to implement the program and predict its effectiveness. The fiscal analysis also will help the [SDRWQCB] determine whether the applicant has met the statutory requirement of reducing the discharge

of pollutants to the MS4 to the maximum extent practicable. Finally, the estimates help the applicant evaluate the feasibility and cost-effectiveness of its program” (1992).

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management item F.9 in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

G. IMPLEMENTATION OF JURISDICTIONAL URMP

G. Implementation of Jurisdictional URMP states the following:

*Each Copermittee shall have completed full implementation of all requirements of the Jurisdictional URMP section of this Order no later than **365 days after adoption** of this Order, except as stated as follows: Within 180 days of development of the model SUSMP, each Copermittee shall adopt its own local SUSMP, and amended ordinances consistent with the model SUSMP, and shall submit both (local SUSMP and amended ordinances) to the SDRWQCB.*

Following the adoption of the Order and prior to the full implementation of the Jurisdictional URMP, the Copermittees shall at a minimum implement the provisions and commitments of the proposed DAMP submitted in September 2000.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: The requirements of the NPDES regulations for urban runoff have been in place for many years. Falling under these regulations, the Copermittees should currently be implementing adequate urban runoff programs to be in compliance with the regulations. The requirements in Order No. R9-2002-0001 are based on the NPDES regulations; therefore, the vast majority of the requirements in Order No. R9-2002-0001 should already be implemented by the Copermittees. For this reason, implementation schedules of 180 days and 365 days should be more than adequate to meet the requirements of Order No. R9-2002-0001.

The SDRWQCB has discretion to require Implementation of Jurisdictional URMP item G. in Order No. R9-2002-0001 under the broad legal authority cited above.

H. SUBMITTAL OF JURISDICTIONAL URMP DOCUMENT

H. Submittal of Jurisdictional URMP Document states the following:

The written account of the overall program to be conducted by each Copermittee within its jurisdiction during the five-year life of this Order is referred to as the “Jurisdictional URMP Document”.

1. *Individual – Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP document which describes all activities it has undertaken or is undertaking to implement the requirements of each component of the Jurisdictional URMP section F. of this Order.*
 - a. *At a minimum, the individual Jurisdictional URMP document shall contain the following information for the following components:*

(1) *Construction Component*

- (a) *Which pollution prevention methods will be required for implementation, and how and where they will be required*
- (b) *Updated grading ordinances*
- (c) *A description of the modified construction and grading approval process*
- (d) *Updated construction and grading project requirements in local grading and construction permits*
- (e) *A completed watershed-based inventory of all construction sites*
- (f) *A completed prioritization of all construction sites based on threat to water quality*
- (g) *Which BMPs will be implemented, or required to be implemented, for each priority category*
- (h) *How BMPs will be implemented, or required to be implemented, for each priority category*
- (i) *Planned inspection frequencies for each priority category*
- (j) *Methods for inspection*
- (k) *A description of enforcement mechanisms and how they will be used*
- (l) *A description of how non-compliant sites will be identified and the process for notifying the SDRWQCB, including a list of current non-compliant sites*
- (m) *A description of the construction education program and how it will be implemented*

(2) *Municipal (Existing Development) Component*

- (a) *Which pollution prevention methods will be required for implementation, and how and where they will be required*
- (b) *A completed watershed-based inventory of all municipal land use areas and activities*
- (c) *A completed prioritization of all municipal areas and activities based on threat to water quality*
- (d) *Which BMPs will be implemented, or required to be implemented, for each priority category*
- (e) *How BMPs will be implemented, or required to be implemented, for each priority category*
- (f) *Municipal maintenance activities and schedules*
- (g) *Management strategy for pesticides, herbicides, and fertilizer use.*
- (h) *Planned inspection frequencies for the high priority category*
- (i) *Methods for inspection*
- (j) *A description of enforcement mechanisms and how they will be used*

(3) *Industrial (Existing Development) Component*

- (a) *Which pollution prevention methods will be required for implementation, and how and where they will be required*
- (b) *A completed watershed-based inventory of all industrial sites*
- (c) *A completed prioritization of all industrial sites based on threat to water quality*
- (d) *Which BMPs will be implemented, or required to be implemented, for each priority category*
- (e) *How BMPs will be implemented, or required to be implemented, for each priority category*
- (f) *A description of the monitoring program to be conducted, or required to be conducted*
- (g) *Planned inspection frequencies for each priority category*
- (h) *Methods for inspection*
- (i) *A description of enforcement mechanisms and how they will be used*
- (j) *A description of how non-compliant sites will be identified and the process for notifying the SDRWQCB, including a list of current non-compliant sites*

(4) *Commercial (Existing Development) Component*

- (a) *Which pollution prevention methods will be required for implementation, and how and where they will be required*
- (b) *A completed watershed-based inventory of high priority commercial sites*

- (c) *Which BMPs will be implemented, or required to be implemented, for high priority sites*
 - (d) *How BMPs will be implemented, or required to be implemented, for high priority sites*
 - (e) *Planned inspection frequencies for high priority sites*
 - (f) *Methods for inspection*
 - (g) *A description of enforcement mechanisms and how they will be used*
- (5) *Residential (Existing Development) Component*
- (a) *Which pollution prevention methods will be encouraged for implementation, and how and where they will be encouraged*
 - (b) *A completed inventory of high priority residential areas and activities*
 - (c) *Which BMPs will be implemented, or required to be implemented, for high priority areas and activities*
 - (d) *How BMPs will be implemented, or required to be implemented, for high priority areas and activities*
 - (e) *A description of enforcement mechanisms and how they will be used*
- (6) *Education Component*
- (a) *A description of the content, form, and frequency of education efforts for each target community*
- (7) *Illicit Discharges Detection and Elimination Component*
- (a) *A description of the program to actively seek and eliminate illicit discharges and connections*
 - (b) *A description of dry weather monitoring to be conducted to detect illicit discharges and connections (see Attachment E)*
 - (c) *A description of investigation and inspection procedures to follow-up on dry weather monitoring results or other information which indicate potential for illicit discharges and connections*
 - (d) *A description of procedures to eliminate detected illicit discharges and connections*
 - (e) *A description of enforcement mechanisms and how they will be used*
 - (f) *A description of methods to prevent, respond to, contain, and clean up all sewage (including spills from private laterals and failing septic systems) and other spills in order to prevent entrance into the MS4*
 - (g) *A description of the mechanism to receive notification of spills from private laterals*
 - (h) *A description of efforts to facilitate public reporting of illicit discharges and connections, including a public hotline*
 - (i) *A description of efforts to facilitate proper disposal of used oil and other toxic materials*
 - (j) *A description of controls and measures to be implemented to limit infiltration of seepage from sanitary sewers to MS4s*
 - (k) *A description of routine preventive maintenance activities on the sanitary system (where applicable) and the MS4*
- (8) *Public Participation Component*
- (a) *A description of how public participation will be included in the implementation of the Jurisdictional URMP*
- (9) *Assessment of Jurisdictional URMP Effectiveness Component*
- (a) *A description of strategies to be used for assessing the long-term effectiveness of the individual Jurisdictional URMP.*

- (10) *Fiscal Analysis Component*
 - (a) *A description of the strategy to be used to conduct a fiscal analysis of the urban runoff management program.*
 - (11) *Land-Use Planning for New Development and Redevelopment Component*
 - (a) *Workplan for inclusion in General Plan (or equivalent plan) of water quality and watershed protection principles and policies*
 - (b) *Development project requirements in local development permits*
 - (c) *Participation efforts conducted in the development of the Model SUSMP*
 - (d) *Environmental review processes revisions*
 - (e) *A description of the planning education program and how it will be implemented*
 - (12) *Fire Fighting*
 - (a) *A description of a program to reduce pollutants from non-emergency fire fighting flows identified by the Copermittee to be significant sources of pollutants.*
 - (13) *Common Interest Areas and Homeowners Associations*
 - (a) *A description of the program that will be implemented to ensure that urban runoff within common interest areas from private roads, drainage facilities, and other components of the storm water conveyance system including those managed by associations meets the objectives of this Order.*
- b. *Each Copermittee shall submit to the Principal Permittee each part of its individual Jurisdictional URMP document by the dates specified by the Principal Permittee.*
 - c. *In addition to submittal of the Jurisdictional URMP document, each Copermittee shall submit to the SDRWQCB its own adopted local SUSMP consistent with the submitted Model SUSMP, as described in section F.1.b.(2). of this Order. Each Copermittee's own local SUSMP, along with its amended ordinances, shall be submitted to the SDRWQCB within 180 days of the submittal of the Model SUSMP to the SDRWQCB.*
2. *Unified – The Principal Permittee(s) shall submit the unified Jurisdictional URMP document to the SDRWQCB. The unified Jurisdictional URMP document shall be submitted in two parts (the collected Jurisdictional URMPs and the model SUSMP).*
 - a. *The unified Jurisdictional URMP document submittal shall address the requirements of the entire Jurisdictional URMP sections F.1 – F.9. of this Order, with the exception of the local SUSMP requirements (which are to be implemented 180 days after approval of the model SUSMP by the SDRWQCB).*
 - b. *The unified Jurisdictional URMP document submittal shall contain a section covering common activities conducted collectively by the Copermittees including jointly developed reporting formats (section O.4), to be produced by the Principal Permittee(s), and the thirteen individual Jurisdictional URMP documents.*
 - c. *The Principal Permittee(s) shall be responsible for the development and production of a stand alone Model SUSMP document meeting the requirements of section F.1.b.(2) of this Order.*
 - d. *The Principal Permittee(s) shall submit the unified Jurisdictional URMP document, including the Model SUSMP, to the SDRWQCB within **365 days of adoption** of this Order.*
 3. *Universal Reporting Requirements*

All individual and unified Jurisdictional URMP document submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit its individual Jurisdictional Urban Runoff Management Program Document with a signed certified statement. The Principal Permittee(s) shall submit a signed

certified statement referring to its individual Jurisdictional Urban Runoff Management Program Document, the section covering common activities conducted collectively by the Copermittees, and the Model SUSMP document meeting the requirements of section F.1.b.(2) of this Order as produced by the Principal Permittee(s).

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code section 13267 provides that “the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Discussion: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) require each Copermittee to develop and implement an urban runoff management program. The SDRWQCB must assess the urban runoff management program to ensure that it is adequate to prohibit non-storm water discharges and reduce pollutant discharges to and from the MS4 to the maximum extent practicable. In order for the SDRWQCB to assess the urban runoff management program, each Copermittee must submit to the SDRWQCB a description of their program. The description must detail all activities the Copermittee is undertaking to implement the requirements of each component of the Jurisdictional URMP section of Order No. R9-2002-0001.

The submittal schedule of 365 days for Jurisdictional URMP documents is designed to provide each Copermittee some time to develop its Jurisdictional URMP. However, this time is limited since the Jurisdictional URMP requirements are based on NPDES regulations that have been in place for many years. The vast majority of the requirements in the Jurisdictional URMP should already be implemented by each Copermittee. Therefore, the provided submittal schedule should be more than adequate for each Copermittee to rework its Jurisdictional URMP to meet the Jurisdictional URMP requirements of Order No. R9-2002-0001.

Compilation of the individual Jurisdictional URMP documents into a unified Jurisdictional URMP document by the Principal Permittee will ease the effort needed to assess and digest the information contained in the documents. The Principal Permittee’s provision of a summary covering common activities conducted collectively by the Copermittees will provide a useful overview of urban runoff management efforts within the County of San Diego. This type of compilation of the Copermittees’ documents has been recommended by the Copermittees in the past.

The SDRWQCB has discretion to require Submittal of Jurisdictional URMP Document item H. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

I. SUBMITTAL OF JURISDICTIONAL URMP ANNUAL REPORT

I. Submittal of Jurisdictional URMP Annual Report states the following:

1. *Individual - Each individual Jurisdictional URMP Annual Report shall be a documentation of the activities conducted by each Copermittee during the past annual reporting period. Each Jurisdictional URMP Annual Report shall, at a minimum, contain the following*
 - a. *Comprehensive description of all activities conducted by the Copermittee to meet all requirements of each component of the Jurisdictional URMP section of this Order;*
 - F.1. *Land-Use Planning for New Development and Redevelopment Component*
 - F.2. *Construction Component*
 - F.3. *Existing Development Component (Including Municipal, Industrial, Commercial, Residential, and Education)*
 - F.4. *Education Component*
 - F.5. *Illicit Discharge Detection and Elimination Component*
 - F.6. *Common Interest Areas and Homeowners Associations*
 - F.7. *Public Participation Component*
 - F.8. *Assessment of Jurisdictional URMP Effectiveness Component*
 - F.9. *Fiscal Analysis Component*
 - b. *Each Copermittee's accounting of all:*
 - (1) *Reports of illicit discharges (i.e., complaints) and how each was resolved (indicating referral source);*
 - (2) *Inspections conducted;*
 - (3) *Enforcement actions taken; and*
 - (4) *Education efforts conducted.*
 - c. *Public participation mechanisms utilized during the Jurisdictional URMP implementation process;*
 - d. *Proposed revisions to the Jurisdictional URMP;*
 - e. *A summary of all urban runoff related data not included in the annual monitoring report (e.g., special investigations);*
 - f. *Budget for upcoming year;*
 - g. *Identification of management measures proven to be ineffective in reducing urban runoff pollutants and flow; and*
 - h. *Identification of water quality improvements or degradation.*
2. *Unified - The unified Jurisdictional URMP Annual Report shall contain a section covering common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee(s), and the thirteen individual Jurisdictional URMP Annual Reports. Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP Annual Report by the date specified by the Principal Permittee(s). The Principal Permittee(s) shall submit a unified Jurisdictional URMP Annual Report to the SDRWQCB prior to **November 9, 2003 and prior to every November 9th thereafter**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2003 shall cover the reporting period July 1, 2002 to June 30, 2003.*
3. *Universal Reporting Requirements*

All individual and unified Jurisdictional URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit its individual Jurisdictional Urban Runoff Management Program Annual Report with a signed certified statement. The Principal Permittee(s) shall submit a signed certified statement referring to its individual Jurisdictional Urban Runoff Management Program Annual Report and

the section covering common activities conducted collectively by the Copermittees as produced by the Principal Permittee(s).

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.42(c) requires that "The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer system that has been designated by the director under § 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation."

Discussion: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) require each Copermittee to develop and implement an urban runoff management program. The SDRWQCB must assess the urban runoff management program to ensure that it is adequate to prohibit non-storm water discharges and reduce pollutant discharges to and from the MS4 to the maximum extent practicable. In order for the SDRWQCB to assess the urban runoff management program, each Copermittee must submit to the SDRWQCB an annual report describing all of the activities it undertook to meet the requirements of the Jurisdictional URMP section of Order No. R9-2002-0001.

The Jurisdictional URMP Annual Reports can also be useful tools for the Copermittees. They provide a focus to review, update, or revise the URMPs on an annual basis. Successful and unsuccessful measures can be identified, helping to focus efforts on areas or issues that provide the greatest results. Areas or issues that have received insufficient efforts can also be identified and improved.

The SDRWQCB has the discretion to require Submittal of Jurisdictional URMP Annual Report item I. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

J. WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM

J.1. Watershed Urban Runoff Management Program states the following:

Each Copermittee shall collaborate with other Copermittees to identify, address, and mitigate the highest priority water quality issues/pollutants in the six (Table 4) watersheds in the San Juan Creek Watershed Management Area.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: Urban runoff does not follow municipality boundaries, and often travels through many municipalities while flowing towards receiving waters. The actions of various municipalities within a watershed regarding urban runoff can therefore have a cumulative impact upon shared receiving waters. Due to the interrelated nature of urban runoff management, Copermittee collaboration is necessary to minimize shared receiving water quality degradation (see Finding 31). Copermittee collaboration of this type focuses water quality protection on watersheds, which is effective because it “more clearly identif[ies] critical areas and practices which need to be targeted for pollution prevention and corrective actions” (SDRWQCB, 1994). The highest priority water quality issues/pollutants in each watershed can be identified and addressed, providing the greatest water quality improvements for the amount of effort. The SWRCB Urban Runoff Technical Advisory Committee recommends Copermittee collaboration for watershed based water quality protection, stating “Municipal permits should have watershed specific components.” Rather than duplicating requirements implemented at a Jurisdictional level, the watershed-level requirements of this section build upon and enhance the Jurisdictional programs and focus on water issues specific to each hydrologic unit of the San Juan Creek Watershed Management Area within Orange County.

The SDRWQCB has discretion to require Watershed Urban Runoff Management Program item J.1. in Order No. R9-2002-0001 under the broad legal authority cited above.

J.2. Watershed Urban Runoff Management Program states the following:

Each Copermittee shall collaborate with all other Copermittees discharging urban runoff into the same watershed to develop and implement a Watershed Urban Runoff Management Program (Watershed URMP) for the six watersheds in the San Juan Creek Watershed Management Area. The Watershed URMP shall, at a minimum contain the following:

- a. *An accurate map of the watersheds of the San Juan Creek Watershed Management Area in Orange County (preferably in Geographical Information System [GIS] format) that identifies all receiving waters (including the Pacific Ocean); all Clean Water Act section 303(d) impaired receiving waters (including the Pacific Ocean); existing and planned land uses; MS4s, major highways; jurisdictional boundaries; and inventoried commercial, construction, industrial, municipal sites, and residential areas.*
- b. *An assessment of the water quality of all receiving waters in the watershed based upon (1) existing water quality data; and (2) annual dry weather monitoring that satisfies requirements of section F.5 and Attachment E of this Order; and (3) watershed receiving water quality monitoring that satisfies the watershed monitoring requirements of Attachment B;*
- c. *An identification and prioritization of major water quality problems in the watershed caused or contributed to by MS4 discharges and the likely source(s) of the problem(s);*
- d. *An implementation time schedule of short and long-term recommended activities (individual and collective) needed to address the highest priority water quality problem(s) identified in section J.2.c of this Order. For this section, “short-term activities” shall mean those activities that are to be completed during the life of this Order and “long-term activities” shall mean those activities that are to be completed beyond the life of this Order;*

- e. *A mechanism for public participation throughout the entire watershed URMP process;*
- f. *A watershed-based education program that builds on and expands upon the education activities conducted by each Copermittee in a given watershed and that can focus on water quality issues specific to that watershed;*
- g. *A mechanism to facilitate collaborative “watershed-based” (i.e., natural resource-based) land use planning with neighboring local governments in the watershed.*
- h. *Short-term strategy for assessing the effectiveness of the activities and programs implemented under the Watershed URMP. The short term assessment strategy shall identify methods to assess the Watershed URMP effectiveness and include specific direct and indirect performance measurements that will track the immediate progress and accomplishments of the Watershed URMP towards improving receiving water quality impacted by urban runoff discharges. The short-term strategy shall also discuss the role of monitoring data collected by the Copermittees in substantiating or refining the assessment.*
- i. *Long-term strategy for assessing the effectiveness of the Watershed URMP. The long-term assessment strategy shall identify specific direct and indirect performance measurements that will track the long-term progress of Watershed URMP towards achieving improvements in receiving water quality impacted by urban runoff discharges. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.*

Table 4. Orange County Copermittees by Watershed for the San Juan Creek Watershed Management Area

Watershed	Major Receiving Water Bodies	Copermittees Receiving Water Bodies
<i>Orange County Coastal Streams - Laguna</i>	<i>Moro Canyon Creek Emerald Canyon Creek Laguna Canyon Creek Blue Bird Canyon Creek Rim Rock Canyon Creek Hobo Canyon Creek</i>	<i>Aliso Viejo County of Orange Laguna Beach Laguna Woods Orange County Flood Control District</i>
<i>Aliso Creek</i>	<i>Aliso Creek English Canyon Creek Sulphur Canyon Creek Wood Canyon Creek</i>	<i>Aliso Viejo Laguna Beach Laguna Hills Laguna Niguel Laguna Woods Lake Forest Mission Viejo County of Orange Orange County Flood Control District</i>
<i>Dana Point Coastal Streams</i>	<i>Salt Creek Arroyo Salada Creek San Juan Canyon</i>	<i>Dana Point Laguna Niguel Orange County Flood Control District</i>
<i>San Juan Creek</i>	<i>San Juan Creek Trampas Canyon Creek Canada Gobernadora Canada Chiquita Horno Creek Arroyo Trabuco Creek Tijeras Canyon Creek Live Oak Canyon Creek Oso Creek La Paz Creek Lucas Canyon Creek Verdugo Canyon Creek Bell Canyon Creek</i>	<i>San Juan Capistrano Mission Viejo Laguna Hills Laguna Niguel Dana Point Rancho Santa Margarita County of Orange Orange County Flood Control District San Clemente</i>

<i>Watershed</i>	<i>Major Receiving Water Bodies</i>	<i>Copermittees Receiving Water Bodies</i>
	<i>Dove Canyon Creek Crow Canyon Creek</i>	
<i>Orange County Coastal Streams - San Clemente</i>	<i>Prima Deshecha Canada Segunda Deshecha Canada</i>	<i>San Clemente San Juan Capistrano County of Orange Orange County Flood Control District Dana Point</i>
<i>San Mateo Creek</i>	<i>Christianitos Creek Gambino Canyon Creek La Paz Canyon Creek Talega Canyon Creek</i>	<i>San Clemente County of Orange</i>

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: Management of urban runoff on a watershed basis is recommended by the SWRCB and the SDRWQCB. The SWRCB Urban Runoff Technical Advisory Committee (TAC) defines watershed based water quality protection as “the prevention/control of pollution and management of human activities in a geographically or other defined drainage area to protect, restore, and/or enhance the natural resources and beneficial uses within the watershed.” The TAC recommends that “All NPDES permits and Waste Discharge Requirements should be considered for reissuance on a watershed basis.” The SDRWQCB also recommends watershed based water quality protection, stating in its Basin Plan that “public agencies and private organizations concerned with water resources have come to recognize that a comprehensive evaluation of pollutant contributions on a watershed scale is the only way to realistically assess cumulative impacts and formulate workable strategies to truly protect our water resources. Both water pollution and habitat degradation problems can best be solved by following a basin-wide approach.” Moreover, under the First and Second Term Permits, the Orange County Copermittees implemented a Drainage Area Management Plan that embodied watershed concepts. However, in actual practice, most of the significant elements of the DAMP were implemented on a countywide basis rather than an actual watershed basis. The SDRWQCB has therefore required development of a Watershed URMP specific to the six hydrologic units of the San Juan Creek Watershed Management Area within Orange County by the Orange County Copermittees.

Development and implementation of the Watershed URMP will provide for more effective and focused receiving water quality protection. The Watershed URMP will provide for threatened or impaired receiving waters, including their pollutants or concern, to be identified. The entire watershed for the receiving water can then be assessed, allowing for critical areas and practices to be targeted for corrective actions. Known sources of pollutants of concern can be investigated for potential water quality impacts. Problem areas can then be addressed, leading to eventual improvements in receiving water quality. Management of urban runoff on a watershed basis allows for specific water quality problems to be targeted so that efforts result in maximized water quality improvements.

Regarding watershed-based land-use planning, see the discussion of Finding 30. For a more detailed discussion of the municipal storm water permitting and

SDRWQCB watershed management approach, see the discussion in Attachment 4 and the Watershed Management Approach Chapter for the San Diego Region.

The SDRWQCB has discretion to require Watershed Urban Runoff Management Program item J.2. in Order No. R9-2002-0001 under the broad legal authority cited above.

K. IMPLEMENTATION OF WATERSHED URMP

K. Implementation of Watershed URMP states the following:

Each Copermittee shall implement of all requirements of the Watershed URMP section of this Order by August 13, 2003 unless otherwise specified. Following the adoption of the Order and prior to the full implementation of the Watershed URMP, the Copermittees shall at a minimum collectively implement the provisions and commitments of the proposed DAMP submitted in September 2000.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Discussion: As discussed above in section J.2 and Attachment 4, the SDRWQCB finds watershed based urban runoff management to be an effective means for managing urban runoff. Watershed based urban runoff management focuses on the most pressing water quality concerns, so that management efforts result in the greatest water quality improvements. The SDWQCB is seeking to expand practical watershed based urban runoff management, including the potential for reissuance of municipal storm water permits on a watershed basis. In order to work towards this goal, the SDRWQCB is requiring implementation of a Watershed URMP by the Copermittees. The SWRCB Urban Runoff Technical Advisory Committee supports watershed management of urban runoff, stating "Municipal permits should have watershed specific components" and "All NPDES permits and Waste Discharge Requirements should be considered for reissuance on a watershed basis." The SDRWQCB foresees the shift to extensive watershed management of urban runoff to be gradual; it is therefore providing the Copermittees with several years before Watershed URMP implementation is required.

The SDRWQCB has discretion to require Watershed Urban Runoff Management Program item K. in Order No. R9-2002-0001 under the broad legal authority cited above.

L. SUBMITTAL OF WATERSHED URMP DOCUMENT

L. Submittal of Watershed URMP Document states the following:

The written account of the overall watershed program to be conducted by each Copermittee during the remaining life of this Order is referred to as the "Watershed URMP Document". The Watershed URMP is conducted concurrently with the Jurisdictional URMP.¹⁰⁶

¹⁰⁶As the Copermittees jointly revise and implement the submitted proposed DAMP and each Copermittee revises and implements its jurisdictional level program to satisfy the requirements of this Order, it is expected that many activities will

1. *The Watershed URMP document shall state how the member Copermittees within each watershed will develop and implement the requirements of the Watershed URMP section J. of this Order. The Watershed URMP document shall include:*
 - (1) *A completed watershed map*
 - (2) *A water quality assessment of the San Juan Creek Watershed Management Area within Orange County and watershed monitoring needed*
 - (3) *Prioritization of water quality problems within Orange County in the San Diego Region*
 - (4) *Recommended activities (short and long term) to be conducted jointly by the Copermittees and a timeline for implementation*
 - (5) *Individual Copermittee implementation responsibilities and time schedules for implementation*
 - (6) *A description of watershed public participation mechanisms*
 - (7) *A description of watershed education mechanisms*
 - (8) *A description of the mechanism and implementation schedule for watershed-based land use planning*
 - (9) *A strategy for assessing the short-term effectiveness of the Watershed URMP*
 - (10) *A strategy for assessing the long-term effectiveness of the Watershed URMP*
 - (11) *A program to address common interest areas and homeowners associations*
2. *The Principal Permittee(s) shall submit the Watershed URMP document to the SDRWQCB by August 13, 2003.*
3. *Universal Reporting Requirements.*

All Watershed URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit a signed certified statement covering its responsibilities in the Watershed URMP Document. The Principal Permittee(s) shall submit a signed certified statement referring to its responsibilities in the Watershed URMP Document and the section covering common activities conducted collectively by the Copermittees as produced by the Principal Permittee(s).

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code section 13267 provides that “the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Discussion: Order No. 200-128 requires each Copermittee to participate in the development and implementation of the Watershed URMP under Federal NPDES regulation 40 CFR 122.26(d)(2)(iv). The SDRWQCB must assess the Watershed URMP to ensure that it is adequate to assess and address the specific water quality problems within the six hydrologic units in the San Juan Creek Watershed Management Area within Orange County. In order for the SDRWQCB to assess the Watershed URMP, a detailed description of the Watershed URMP must be submitted to the SDRWQCB. The descriptions must detail all activities the applicable Copermittees have undertaken under the 1993 DAMP, the

be conducted on both a jurisdictional level (e.g., enforcement of local ordinances and permits) and a watershed level. Implementation of the Watershed URMP is not meant to replace, but to expand and complement implementation of the Jurisdictional URMP. For this reason, it is necessary to report management activities on both levels. This can be accomplished either by submitting both a Jurisdictional URMP Annual Report and a Watershed URMP Annual Report or by submitting a single Watershed URMP Annual Report that contains two separate sections (i.e., watershed activities and jurisdictional activities). Information need only be reported once (to the extent something is covered in the Watershed URMP Annual Report, it need not be covered again the Jurisdictional URMP Annual Report).

commitments of the proposed DAMP, and the new activities they are undertaking to implement the requirements of Watershed URMP section of Order No. R9-2002-0001.

The submittal schedule for Watershed URMP Document is designed to provide the Copermitees with adequate time to review and revise the proposed DAMP and develop, submit and implement the Watershed URMP. Based on their previous experience working at a watershed level under the First and Second Term Permits (i.e. the 1993 DAMP), the submittal schedule should be more than adequate for the Copermitees to collaborate for the development and implementation of the Watershed URMP.

The requirement for the Principal Permittee to provide a summary covering common activities conducted collectively by the Copermitees will provide a useful overview of watershed efforts within the San Juan Creek Watershed Management Area with Orange County. This type of compilation and submittal of the Copermitees' documents has been recommended by the Copermitees in the past.

The SDRWQCB has discretion to require Submittal of Watershed URMP Document item L. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

M. SUBMITTAL OF WATERSHED URMP ANNUAL REPORT

M. Submittal of Watershed URMP Annual Report states the following:

1. *Each Watershed URMP Annual Report shall be a documentation of the activities conducted by watershed member Copermitees during the previous annual reporting period to meet the requirements of all components of the Watershed URMP section of this Order. Each Watershed URMP Annual Report shall, at a minimum, contain the following:*
 - a. *Comprehensive description of all activities conducted by the watershed member Copermitees to meet all requirements of each component of Watershed URMP section J. of this Order*
 - b. *A section covering common activities conducted collectively by the Copermitees, to be produced by the Principal Permittee(s)*
 - c. *Public participation mechanisms utilized during the Watershed URMP implementation process;*
 - d. *Mechanism for watershed-based land use planning;*
 - e. *Assessment of effectiveness of Watershed URMP;*
 - f. *Proposed revisions to the Watershed URMP;*
 - g. *A summary of watershed effort related data not included in the annual monitoring report (e.g., special investigations); and*
 - h. *Identification of water quality improvements or degradation.*
2. *The Principal Permittee(s) shall submit the Watershed URMP Annual Report to the SDRWQCB prior to November 9, 2004 and prior to every November 9th thereafter. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2004 shall cover the reporting period July 1, 2003 to June 30, 2004.*
3. *Universal Reporting Requirements*

All Watershed URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermitee shall submit a signed certified statement covering its responsibilities in the Watershed URMP Annual Report. The Principal Permittee(s) shall submit a signed certified statement referring to its responsibilities in the Watershed URMP Annual Report and the section covering common activities conducted

collectively by the Copermittees as produced by the Principal Permittee(s).

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: California Water Code section 13267 provides that “the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Federal NPDES regulation 40 CFR 122.42(c) requires that “The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer system that has been designated by the director under § 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation.”

Discussion: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) require the Copermittees to develop and implement urban runoff management programs, of which the Watershed URMP is a part. The SDRWQCB must assess the Watershed URMP to ensure that is adequate to assess and address the specific water quality problems within the six hydrologic units of the San Juan Creek Watershed Management Area within Orange County. In order for the SDRWQCB to assess the Watershed URMP, the Copermittees must submit to the SDRWQCB annual reports describing all of the activities undertaken to meet the requirements of the Watershed URMP section of Order No. R9-2002-0001.

The Watershed URMP Annual Reports can also be useful tools for the Copermittees. They provide a focus to review, update, or revise the URMPs on an annual basis. Successful and unsuccessful measures can be identified, helping to focus efforts on areas or issues that provide the greatest results. Areas or issues that have received insufficient efforts can also be identified and improved.

The SDRWQCB has the discretion to require Submittal of Watershed URMP Annual Report item M. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

N. PROGRAM MANAGEMENT

N. Program Management states the following:

The Copermittees shall implement the Program Management activities and commitments as described in section 2 (Program Management) of the proposed DAMP.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that "[The Copermittee must demonstrate that it can control] through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system."

Discussion: Storm water runoff does not follow municipality boundaries, and often travels through many municipalities while flowing towards receiving waters. Municipalities' actions towards storm water can therefore have a cumulative impact upon shared receiving waters. Due to the interrelated nature of storm water management, Copermittee collaboration is necessary.

Copermittee collaboration results in more effective storm water management, while also aiding the process of complying with permit requirements. For example, formal agreements between Copermittees can help define Copermittee roles and ensure that all permit requirements are addressed. Agreements can also be made to share the costs necessary to maintain compliance with the permit. In addition, designation of a Principal Permittee, through which reporting tasks can be coordinated, provides for standardization and compilation of required reports, thereby easing reporting efforts. This in turn improves digestion and assessment of report information, making the reports more useful to the Copermittees, which in turn can result in more effective urban runoff management.

The US EPA recommends Copermittee collaboration when it suggests "Coapplicants [...] may use interjurisdictional agreements to show adequate legal authority and to ensure planning, coordination, and the sharing of the resource burden of permit compliance. When more than one entity is submitting an application for a MS4 (either as coapplicants or as individual applicants for different parts of a system), the role of each party must be well defined. Each applicant or coapplicant must show the ability to fulfill its responsibilities, including legal authority for the separate storm sewers it owns or operates" (1992).

In recognition of these factors, the Copermittees included a Program Management structure and commitments in their proposed DAMP. This section requires the Copermittees, at a minimum, to implement those activities and commitments in developing and implementing the various components of their Jurisdictional and Watershed Urban Runoff Management Programs.

The SDRWQCB has discretion to require the Program Management section N. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

O. PRINCIPAL PERMITTEE RESPONSIBILITIES

O. Principal Permittee Responsibilities states the following:

Within 90 days of adoption of this Order, the Copermittees shall designate the Principal Permittee(s) and notify the SDRWQCB of the name(s) of the Principal Permittee(s). The Principal Permittee(s) may require the Copermittees to reimburse the Principal Permittee(s) for reasonable costs incurred while performing coordination responsibilities and other related tasks. The Principal Permittee(s) shall, at a minimum:

1. *Be responsible for implementing or coordinating the implementation of the Program Management activities and commitments described in section 2 (Program Management) of the proposed DAMP.*
2. *Serve as liaison(s) between the Copermittees and the SDRWQCB on general permit issues.*
3. *Coordinate permit activities among the Copermittees and facilitate collaboration on the development and implementation of programs required under this Order;*
4. *Coordinate the joint development by all of the Copermittees of standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be used by all Copermittees and shall include protocols for electronic reporting. The Principal Permittee(s) shall submit the standardized format(s) to the SDRWQCB as part of the unified Jurisdictional URMP document no later than **365 days after adoption** of this Order.*
5. *Integrate individual Copermittee documents and reports required under this Order into single unified documents and reports for submittal to the SDRWQCB as described below. If a reporting date falls on a non-working day or State holiday, then the report is to be submitted on the following working day.*
 - a. *Unified Jurisdictional URMP Document – The Principal Permittee(s) shall submit the unified Jurisdictional URMP document in its entirety (including the model SUSMP) to the SDRWQCB within 365 days of the adoption of this Order.*

The Principal Permittee(s) shall be responsible for producing the sections of the unified Jurisdictional URMP document submittals covering common activities conducted by the Copermittees. The Principal Permittee(s) shall be responsible for the development and production of a stand alone Model SUSMP document meeting the requirements of section F.1.b.(2). of this Order. The Principal Permittee(s) shall also be responsible for collecting and assembling the individual Jurisdictional URMP document submittals covering the activities conducted by each individual Copermittee.

- b. *Unified Jurisdictional URMP Annual Reports – The Principal Permittee(s) shall submit unified Jurisdictional URMP Annual Reports to the SDRWQCB prior to November 9th of each year, beginning on **November 9, 2003**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2003 shall cover the reporting period July 1, 2002 to June 30, 2003.*

The Principal Permittee(s) shall be responsible for producing the section of the unified Jurisdictional URMP Annual Reports covering common activities conducted by the Copermittees. The Principal Permittee(s) shall also be responsible for collecting and assembling the individual Jurisdictional URMP Annual Reports covering the activities conducted by each individual Copermittee.

- c. *Watershed URMP Document – The Principal Permittee(s) shall prepare and submit the Watershed URMP document to the SDRWQCB by **August 13, 2003**.*
- d. *Watershed URMP Annual Report - The Principal Permittee(s) shall prepare and submit the Watershed URMP Annual Reports to the SDRWQCB prior to November 9th of each year, beginning on **November 9, 2004**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2004 shall cover the reporting period July 1, 2003 to June 30, 2004.*
- e. *Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall be responsible for the production and submittal of the Previous Monitoring and Future Recommendations Report. The report shall be submitted to the SDRWQCB within 180 days of adoption of this Order.*
- f. *Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall be responsible for the development and production of the Receiving Waters Monitoring Program as it is outlined in Attachment B. The Principal Permittee(s) shall submit the Receiving Waters Monitoring Program to the SDRWQCB within 180 days of adoption of this Order.*
- g. *Receiving Waters Monitoring and Reporting Program – The Principal Permittee(s) shall be responsible for coordinating the joint development by all of the Copermittees of monitoring reporting formats (Section O.4) and for implementing the Receiving Waters Monitoring Program as outlined in Attachment B by August 13, 2002.*
- h. *Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall submit the Receiving Waters Monitoring Annual Report to the SDRWQCB prior to November 9th of each year, beginning on November 9, 2003.*
- i. *Formal Agreements/Standardized Formats - The Principal Permittee(s) shall submit to the SDRWQCB, within 365 days of adoption of this Order, a formal agreement between the Copermittees which provides a management structure for meeting the requirements of this Order (as described in section N.1.). The Principal Permittee(s) shall submit to the SDRWQCB, within 365 days of adoption of this Order, standardized formats for all reports and documents required under this Order.*
- j. *Dry Weather Monitoring - The Principal Permittee(s) shall collectively submit the Copermittees' dry weather monitoring maps and procedures to the SDRWQCB within 365 days of adoption of this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(a)(3)(iii)(C) provides that "A regional authority may be responsible for submitting a permit application."

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that "[The Copermittee must demonstrate that it can control] through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system."

Discussion: Intergovernmental coordination is necessary in urban runoff management, given the transitory nature of urban runoff problems. A Principal Permittee will facilitate intergovernmental coordination, which will improve the development, implementation, and effectiveness of urban runoff management efforts within the region. One way in which a Principal Permittee will improve urban runoff management efforts is through the coordination of reporting tasks.

This provides for the standardization and compilation of required reports, which in turn increases the ease with which report information can be digested and assessed. Standardized documents provide for easier assessment and application of report data, making reports more useful for Copermittees, which can result in more effective storm water management. In section 2.2.3 of the proposed DAMP, the role of the Principal Permittee is further described to include providing program management, budgeting, developing public education materials, and conducting water quality monitoring.

The SDRWQCB has discretion to require Principal Permittee Responsibilities item O. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

P. RECEIVING WATERS MONITORING AND REPORTING PROGRAM

P. Receiving Waters Monitoring and Reporting Program states the following:

1. Pursuant to California Water Code section 13267, each Copermittee shall comply with the Receiving Waters Monitoring and Reporting Program for Order No. R9-2002-0001 contained in **Attachment B** of this Order.
2. Each Copermittee shall also comply with standard provisions, reporting requirements, and notifications contained in **Attachment C** of this Order.

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Copermittees must conduct a comprehensive monitoring program as required under Federal NPDES regulations 40 CFR 122.26(d)(2)(iii). Standard provisions, reporting requirements, and notifications included in Attachment C are consistent to all NPDES permits and are generally found in Federal NPDES regulation 40 CFR 122.41 (Federal NPDES regulation citations are provided in the Attachment).

Discussion: A comprehensive monitoring program is an important aspect of an urban runoff management program. The primary objectives of the monitoring program include:

- 1) Assessing compliance with Order No. R9-2002-0001;
- 2) Measuring the effectiveness of Urban Runoff Management Plans;
- 3) Assessing the chemical, physical, and biological impacts to receiving waters resulting from urban runoff; and
- 4) Assessing the overall health and evaluating long-term trends in receiving water quality.

Receiving waters monitoring programs are important and powerful regulatory and management tools. Using data collected from a monitoring program, urban runoff management efforts can be prioritized, helping limited resources be most effective in improving receiving water quality. For example, a monitoring program can provide data that can allow for specific receiving waters and watersheds to be targeted for urban runoff management efforts based on their need. Particular

pollutants, contaminants, stressors, and their respective sources can also be identified and targeted using monitoring data. In addition, monitoring data can be useful in assessing the effectiveness of an urban runoff management program. Successful efforts that have resulted in receiving water quality improvements can be analyzed for application elsewhere, while areas that need greater efforts can also be identified. In general, a comprehensive monitoring program can supply a wealth of data that can be used in a wide range of applications for improving water quality. In recognition of these facts, the Orange County Copermittees initiated the Orange County Water Quality Monitoring Program (99-04 Plan) in 1999 to assess the impact of urban runoff on receiving waters as well as to evaluate the methodologies underlying those assessments.

The Copermittees are directed to collaborate and prepare a technical report that summarizes and analyzes the water quality data collected under the previous Orders including the 99-04 Plan. This requirement is necessary to place the current monitoring program being implemented in the Orange County portion of the San Juan Creek Watershed Management Area into perspective. The 99-04 Plan was developed to assess urban runoff in Orange County as a whole, but a strong emphasis was placed on the northern parts of the County outside of the San Diego Region covered under this Order. Moreover, it is necessary to review and revise the 99-04 Plan and other monitoring efforts to include specific monitoring requirements of Attachment B. This technical report will provide the Copermittees as well as the public with an important summary and analysis of the monitoring data collected and a framework within which to develop a Receiving Waters Monitoring Program to be implemented under this Order.

The monitoring and reporting requirements in Attachment B and C of this Order address the need for a comprehensive, flexible, iterative monitoring approach that is focused on compliance issues relevant to the different conditions existing in Orange County within the San Diego Region. A number of monitoring tools and approaches are available to achieve the objectives of this compliance oriented monitoring program.

Order No. R9-2002-0001 may be modified for a specified period of time to direct the Copermittees to participate in comprehensive regional monitoring activities conducted in the Southern California Bight during the term of the permit. This provision is consistent with other NPDES permits issued by the SDRWCB. Such participation maximizes scientific and financial resources using a wide ranging and cost-effective monitoring design to assess the chemical, physical and biological impacts of urban runoff on receiving waters throughout the Southern California Bight.

The following is a discussion of each of the principal aspects of the proposed monitoring program required in Attachment B of Order No. R9-2002-0001:

Within 180 days of the adoption of this Order the Copermittees shall submit to the SDRWQCB a Receiving Waters Monitoring Program Document, subject to SDRWQCB review, that incorporates the following components:

- I. Previous Monitoring and Future Recommendations (Technical) Report; and

II. Receiving Waters Monitoring Program

I. Previous Monitoring and Future Recommendations (Technical) Report

The Orange County Copermittees have conducted dry and wet weather monitoring since 1990. Prior to the adoption of Order No. 90-38, Orange County routinely collected data from drainage facilities tributary to receiving waters. In addition, numerous other studies have been conducted in the Southern California Bight that bear on the issue of impacts to receiving waters resulting from municipal urban runoff discharges. Although significant historic data exists in Orange County to characterize discharges of urban runoff, Orange County has also changed significantly in the last ten years. Because land use has changed and continues to change dramatically in Orange County, historic trends and characterizations identified during the previous monitoring efforts may have also changed. To adequately assess compliance with this Order, assess the chemical, physical, and biological impacts of urban runoff discharges on receiving waters, and better characterize historic trends, the data collected and the methods utilized in the previous monitoring programs must be re-evaluated in the San Diego Region with respect to urban runoff and receiving waters in Orange County.

As identified in the 99-04 Plan, the Receiving Waters Monitoring Program implemented by the Orange County Copermittees should be based on a sound understanding of urban runoff issues and the results of previous monitoring efforts to avoid duplicative or unproductive monitoring and to ensure that the data collected is the most scientifically valid and useful as practicable. This requirement will help establish that the Receiving Waters Monitoring Program to be implemented in Orange County within the San Diego Region will achieve those goals.

II. Receiving Waters Monitoring Program

As described above, the objectives of this program are assessment of compliance and assessment of the physical, chemical, and biological impacts of the discharge of urban runoff on receiving waters. This section requires the Copermittees to utilize the findings of the Previous Monitoring and Future Recommendations Report and the most recent 99-04 Plan monitoring results to collaborate, develop, conduct, and report on a year round Receiving Waters Monitoring Program.

The Receiving Waters Monitoring Program, at a minimum shall include, but is not limited to the following components:

A. Urban Stream Bioassessment Monitoring.

Bioassessment is the direct measurement of the biological and physical condition of receiving waters, such as rivers and streams, using benthic macroinvertebrates. It is a direct measurement of the attainment or maintenance of the beneficial uses¹⁰⁷ of a water body. This methodology utilizes in-situ biological endpoints as an integrative measure of receiving water integrity. Bioassessment monitoring integrates the effects of both

¹⁰⁷ Specifically COLD or WARM, and to a lesser extent WILD or RARE beneficial uses.

water chemistry impacts and the physical habitat impacts (e.g. sedimentation or erosion) of various discharges on the biological community native to the receiving waters. Moreover, bioassessment is a direct measurement of the impact of cumulative, sub-lethal doses of pollutants or contaminants that may be below reasonable water chemistry detection limits, but that are not without biological affect.

Because bioassessment focuses on communities of living organisms as integrators of cumulative impacts resulting from water quality or habitat degradation, it defines the ecological risks resulting from urban runoff that are as important to human health and well-being as the more obvious threats of toxic pollution or pathogens. Bioassessment not only identifies that an impact has occurred, but also measures the affect of the impact and tracks recovery when control or restoration measures have been taken. These features make bioassessment a powerful tool to assess compliance, evaluate the effectiveness of BMPs (e.g. artificial wetlands), and to track both short term and long term trends.

B. Long Term Mass Loading

For purposes of evaluating long-term trends and assessing the effectiveness of urban runoff management programs, the Copermittees shall continue to implement the long term mass loading sampling and analysis initiated under the Orange County Water Quality Monitoring Program (99-04 Plan) in Orange County in the San Diego Region. The 99-04 Plan shall be revised as necessary to ensure more complete coverage of the six hydrologic units in the Orange County portion of the San Juan Creek Watershed Management area of the San Diego Region. The program shall also be revised to specify that when findings or observations indicate the possible presence of toxicity, a Toxicity Identification Evaluation (TIE) shall be conducted to determine the cause(s) of the toxicity.

Wet weather monitoring by the Copermittees has focused on estimations of pollutant loadings in storm water runoff. Although this approach has drawbacks, it continues to represent the best long-term trend assessment of pollutant discharges to receiving waters from municipal storm water sewer systems.

C. Coastal Storm Drain Outfall Monitoring

One of the primary impacts to coastal receiving waters is the loss of recreational beneficial uses resulting from urban runoff. This component of the monitoring program is meant to be integrated and coordinated with similar monitoring programs to address this issue. The Copermittees are provided with a significant degree of discretion in designing and implementing the Coastal Storm Drain Outfall Monitoring and are encouraged to collaborate with other agencies. The determination of the location of the sampling stations, frequency of sampling, and the criteria by which these factors are defined are left to the Copermittees and their collaborators in order to provide them with the flexibility to design the most

scientifically applicable program. The program must, however, monitor the principle indicators (Total and Fecal Coliform Bacteria and Enterococcus Bacteria) used in assessing the public health impacts of urban runoff on coastal receiving waters. It necessary to implement this program year-round in order to address the different seasonal recreational uses and potential public health impacts of urban runoff discharges. The Copermittees may also include any other pathogens or indicators that they conclude are useful to assess the recreational and public health impacts of urban runoff on coastal receiving waters.

D. Ambient Coastal Receiving Water Monitoring

This monitoring program component addresses the overall health of the receiving waters and assesses the impact on these water bodies from urban runoff. The Copermittees will develop a program for the coastal receiving waters that integrates measures of the physical, chemical, and biological conditions of the coastal waters as a function of urban runoff. Monitoring that is currently being performed under the 99-04 Plan may continue to be implemented under the Receiving Waters Monitoring Program, but the scope of the program will be significantly increased to include coverage of the entire coastline of the Orange County portion of the San Juan Creek Watershed Management area. The Ambient Coastal Receiving Waters Monitoring program may be required to include parameters and methods not presently part of the 99-04 Plan. The Copermittees have a wide degree of discretion in designing the Ambient Coastal Receiving Waters Monitoring component and are encouraged to collaborate with other agencies or organizations conducting similar monitoring.

Significant changes in the format and detail of the Receiving Waters Monitoring Program will be required to make the reports specific to the San Diego Region of Orange County and more readily useable by members of the public not familiar with the history and the specific details of water quality monitoring in Orange County. The monitoring reports shall provide the data and results, the methods of evaluating the data, graphical summaries of the data and an explanation and discussion of the data for each monitoring component listed above. The report will also provide an analysis of each component, prioritize water quality problems, identify the sources of the problems, and recommend future monitoring and BMP implementation measures. The Copermittees will be expected to make both long term and short term use of this data to refine and improve their Jurisdictional and Watershed Urban Runoff Management Programs. To this extent, the analysis shall also include an evaluation of the effectiveness of existing control measures with respect to water quality problems identified in the course of the review of previous monitoring methods and results as well as data collected under this Order. The Copermittees will also be required to clearly identify exceedances of receiving water quality objectives, provide ongoing analysis of short term and long term trends in urban runoff and receiving water quality, provide a three person committee review of the reports prior to submitting them to the SDRWQCB, and provide comprehensive interpretations and conclusions. These provisions are necessary to provide contextually and scientifically useful data regarding the

impact of urban runoff discharges on the receiving waters of Orange County within the San Juan Creek Watershed Management Area of the Diego Region.

The SDRWQCB has discretion to require Receiving Waters Monitoring and Reporting Program item P. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

Q. TASKS AND SUBMITTAL SUMMARY

Q. Tasks and Submittal Summary states the following:

The tasks and submittals required under this Order are summarized in Tables 5 and 6 below:

Table 5. Task Summary

Task No.	Task	Permit Section	Completion Date	Frequency
1	Identify discharges not to be prohibited and BMPs required for treatment of discharges not prohibited	B.3.	365 days after adoption of Order	One Time
2	Examine field screening results to identify water quality problems resulting from non-prohibited non-storm water discharges, including follow-up of problems	B.5.	Prior to November 9, 2003	Annually
3	Notify SDRWQCB of discharges causing or contributing to an exceedance of water quality standards	C.2.a.	Immediate	As Needed
4	Establish adequate legal authority to control pollutant discharges into and from MS4	D.1.	365 days after adoption of Order	One Time
5	Assess General Plan to incorporate water quality and watershed protection principles	F.1.a.	365 days after adoption of Order	One Time
6	Include Development Project Requirements in local permits	F.1.b.(1).	365 days after adoption of Order	One Time
7	Develop Model SUSMP	F.1.b.(2).	365 days after adoption of Order	One Time
8	Develop and adopt individual local SUSMP and amended ordinances	F.1.b.(2).	180 days after development of Model SUSMP	One Time
9	Implement individual jurisdictional SUSMP	F.1.b.(2).	180 days after approval of Model SUSMP by SDRWQCB	Continuous
10	Revise environmental review processes	F.1.c.(1).	365 days after adoption of Order	One Time
11	Conduct education program for municipal planning and development review staff, project applicants, developers, contractors, community planning groups, and property owners	F.1.d.(1). And F.1.d.(2).	365 days after adoption of Order	Ongoing
12	Implement all requirements of Construction Component of Jurisdictional URMP	F.2.a. – F.2.j.	365 days after adoption of Order	Ongoing
13	Notify SDRWQCB of non-compliant construction sites that pose a threat to human or environmental health	F.2.i.	Within 24 hours of discovery of noncompliance	As Needed
14	Implement all requirements of Municipal	F.3.a.(1). –	365 days after	Ongoing

Task No.	Task	Permit Section	Completion Date	Frequency
	<i>Existing Development Component of Jurisdictional URMP</i>	<i>F.3.a.(8).</i>	<i>adoption of Order</i>	
15	<i>Implement all requirements of Industrial Existing Development Component of Jurisdictional URMP</i>	<i>F.3.b.(1) – F.3.b.(8)</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
16	<i>Notify SDRWQCB of non-compliant industrial sites that pose a threat to human or environmental health</i>	<i>F.3.b.8.</i>	<i>Within 24 hours of discovery of noncompliance</i>	<i>As Needed</i>
17	<i>Implement all requirements of Commercial Existing Development Component of Jurisdictional URMP</i>	<i>F.3.c.(1) – F.3.c.(5)</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
18	<i>Implement all requirements of Residential Existing Development Component of Jurisdictional URMP</i>	<i>F.3.d.(1) – F.3.d.(4)</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
19	<i>Implement all requirements of Education Component of Jurisdictional URMP</i>	<i>F.4.a. – F.4.c.</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
20	<i>Implement all requirements of Illicit Discharge Detection and Elimination Component of Jurisdictional URMP</i>	<i>F.5.a. – F.5.i.</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
21	<i>Develop a plan to manage urban runoff from common interest areas, private roads, drainage facilities, and other components of the storm water conveyance system, including those managed by homeowners associations.</i>	<i>F.6.</i>	<i>365 days after adoption of Order</i>	<i>One Time</i>
22	<i>Implement all requirements of Public Participation Component of Jurisdictional URMP</i>	<i>F.7.</i>	<i>365 days after adoption of Order</i>	<i>Ongoing</i>
23	<i>Develop strategy for assessment of Jurisdictional URMP effectiveness</i>	<i>F.8.a.</i>	<i>365 days after adoption of Order</i>	<i>One Time</i>
24	<i>Assess Jurisdictional URMP effectiveness</i>	<i>F.8.b.</i>	<i>Prior to November 9, 2003</i>	<i>Annually</i>
25	<i>Develop strategy for fiscal analysis of urban runoff management program</i>	<i>F.9.</i>	<i>365 days after adoption of Order</i>	<i>One Time</i>
26	<i>Conduct fiscal analysis of urban runoff management program in entirety</i>	<i>F.9.</i>	<i>Prior to November 9, 2003</i>	<i>Annually</i>
27	<i>Develop and implement Watershed URMP</i>	<i>J.2.</i>	<i>August 13, 2003</i>	<i>Ongoing</i>
28	<i>Implement Program Management activities and commitments in proposed DAMP</i>	<i>N.1</i>	<i>Immediately</i>	<i>Ongoing</i>
29	<i>Develop standardized formats for all required reports of this Order</i>	<i>O.4.</i>	<i>365 days after adoption of Order</i>	<i>One Time</i>
30	<i>Develop Receiving Waters Monitoring Document</i>	<i>Attachment B</i>	<i>180 days after adoption of Order</i>	<i>One Time</i>
31	<i>Implement Receiving Waters Monitoring Program</i>	<i>Attachment B</i>	<i>180 days after adoption of Order</i>	<i>Continuous</i>
32	<i>Develop Dry Weather Monitoring Program Document</i>	<i>Attachment E</i>	<i>365 days after adoption of Order</i>	<i>One Time</i>
33	<i>Conduct Dry Weather Monitoring Program</i>	<i>Attachment E</i>	<i>Begins May 1, 2003 Thereafter conducted May 1st to September 30th</i>	<i>Annually</i>
34	<i>Complete NPDES applications for issuance of renewal watershed-based permits</i>	<i>Attachment C</i>	<i>At least 180 days prior to expiration of Order</i>	<i>One Time</i>
35	<i>Notify SDRWQCB of any incidence of non-compliance with this Order that</i>	<i>R.1, B.6 of Attachment C</i>	<i>Within 24 hours of discovery of non-</i>	<i>As Needed</i>

Task No.	Task	Permit Section	Completion Date	Frequency
	<i>poses a threat to human or environmental health.</i>		<i>compliance</i>	
36	<i>Designate Principal Permittee(s) and notify SDRWQCB</i>	O.	<i>90 days after adoption of the Order</i>	<i>One Time</i>

Table 6. Submittal Summary

Submittal No.	Submittal	Permit Section	Completion Date	Frequency
1	<i>Submit identification of discharges not to be prohibited and BMPs required for treatment of discharges not prohibited</i>	B.3.	<i>365 days after adoption of Order</i>	<i>One Time</i>
2	<i>Report on discharges causing or contributing to an exceedance of water quality standards, including description of BMP implementation</i>	C.2.a.	<i>With individual Jurisdictional URMP Annual Reports</i>	<i>As Needed</i>
3	<i>Submit Certified Statement of Adequate Legal Authority</i>	D.2.	<i>365 days after adoption of Order</i>	<i>One Time</i>
4	<i>Submit certified statement if particular high priority construction sites are to be inspected monthly rather than weekly in the rainy season</i>	F.2.g.(2).	<i>365 days after adoption of Order and as needed thereafter</i>	<i>As Needed</i>
5	<i>Submit report on non-compliant construction sites that pose a threat to human or environmental health.</i>	F.2.i.	<i>Within 5 Days of discovery of non-compliance</i>	<i>As Needed</i>
6	<i>Submit report on non-compliant industrial sites that pose a threat to human or environmental health.</i>	F.3.b.8.	<i>Within 5 days of discovery of non compliance</i>	<i>As Needed</i>
7	<i>Submit to Principal Permittee(s) individual Jurisdictional URMP document covering requirements for all Components</i>	H.1.a.	<i>Prior to 365 days after adoption of Order (Principal Permittee(s) specifies date of submittal)</i>	<i>One Time</i>
8	<i>(This space reserved).</i>			
9	<i>Principal Permittee(s) shall submit to SDRWQCB unified Jurisdictional URMP document covering requirements for all Components, including Model SUSMP</i>	H.2.a.	<i>365 days after adoption of Order</i>	<i>One Time</i>
10	<i>(This space reserved).</i>			
11	<i>Submit to SDRWQCB local SUSMP and amended ordinances</i>	F.1.b.(2). and H.1.d.	<i>180 days after development of Model SUSMP</i>	<i>One Time</i>
12	<i>Submit to Principal Permittee(s) individual Jurisdictional URMP Annual Report</i>	I.1.	<i>Prior to November 9, 2003 (Principal Permittee(s) specifies date of submittal)</i>	<i>Annually</i>
13	<i>Principal Permittee(s) shall submit 1st unified Jurisdictional URMP Annual Report to SDRWQCB</i>	I.2.	<i>Prior to November 9, 2003</i>	<i>One Time and Annually Thereafter</i>
14	<i>Submit to Principal Permittee(s) Watershed Specific URMP document</i>	L.1.	<i>Prior to August 13, 2003 (Principal Permittee(s) specifies date of</i>	<i>One Time</i>

Submittal No.	Submittal	Permit Section	Completion Date	Frequency
			submittal)	
15	Principal Permittee(s) shall submit Watershed URMP document to SDRWQCB	L.2.	August 13, 2003	One Time
16	Principal Permittee(s) shall submit 2nd unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2004	One Time
17	(This space reserved).			
18	Principal Permittee(s) shall submit 1st Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2004	One Time and Annually Thereafter
19	Principal Permittee(s) shall submit 3rd unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2005	One Time
20	Principal Permittee(s) shall submit 2 nd Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2005	One Time
21	Principal Permittee(s) shall submit 4 th unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2006	One Time
22	Principal Permittee(s) shall submit 3 rd Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2006	One Time
23	Principal Permittee(s) shall submit 5 th unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2007	One Time
24	Principal Permittee(s) shall submit standardized formats for all reports required under this Order	O.4.	365 days after adoption of Order	One Time
25	Principal Permittee(s) submits Receiving Waters Monitoring Program Document	Attachment B	180 days after adoption of Order	One Time
26	Principal Permittee(s) submits Receiving Waters Monitoring Annual Report to SDRWQCB	Attachment B	Prior to July 9, 2003	Annually
27	Submit to Principal Permittee(s) Dry Weather Monitoring Program Document	Attachment E	Prior to 365 days after adoption of Order	One Time
28	Principal Permittee(s) submits collective Dry Weather Monitoring Program Documents	Attachment E	365 days after adoption of Order	One Time
29	Submit to Principal Permittee(s) Dry Weather Monitoring Program results as part of individual Jurisdictional URMP Annual Report	Attachment E	Prior to November 9, 2003, as part of individual Jurisdictional URMP Annual Report	Annually
30	Principal Permittee(s) shall submit NPDES applications for issuance of renewal watershed-based permits	Attachment C	At least 180 days prior to expiration of this Order	One Time
31	Submit reports of any incidence of non-compliance with this Order that poses a threat to human or environmental health.	R.1, B.6 of Attachment C	Within 5 days of discovery of non compliance	As Needed

Discussion: See the legal authority citations and discussions of the applicable permit sections.

R. STANDARD PROVISIONS, REPORTING REQUIREMENTS AND NOTIFICATIONS

R. Standard Provisions, Reporting Requirements and Notifications states the following:

1. *Each Copermitee shall comply with Standard Provisions, Reporting Requirements, and Notifications contained in **Attachment C** of this Order. This includes 24 hour/5day reporting requirements for any instance of non-compliance with this Order as described in section B.6 of Attachment C.*
2. *All plans, reports and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified) and shall be an enforceable part of this Order upon submission to the SDRWQCB. All submittals by Copermitees must be adequate to implement the requirements of this Order.*

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Standard provisions, reporting requirements, and notifications included in Attachment C are consistent to all NPDES permits and are generally found in Federal NPDES regulation 40 CFR 122.41 (Federal NPDES regulation citations are provided in the Attachment).

Federal NPDES regulation 40 CFR 122.44(l)(6) states "The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance."

Discussion: Implementation of plans, reports, and subsequent amendments by the Copermitees is an important requirement of Order No. R9-2002-0001. Many of the requirements of Order No. R9-2002-0001 rely upon the Copermitees' development and implementation of plans and programs. Without implementation, plans and programs will not improve water quality. For this reason, the plans must be implemented and shall be enforceable upon submission to the SDRWQCB. Incidences of noncompliance with the requirements of this Order must be reported to the SDRWQCB within 24 hours, as required for all NPDES permits under Federal NPDES regulation 40 CFR 122.44(l)(6).

The SDRWQCB has discretion to require Standard Provisions, Reporting Requirements and Notifications item R. in Order No. R9-2002-0001 under the broad and specific legal authority cited above.

VIII. REFERENCES

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Attachment 1

NPDES Municipal Storm Water Permit Justifications

Copermittee	Large or Medium MS4?	Contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the U.S'?
Aliso Viejo	No	Yes. Pacific Ocean Shoreline, Aliso Beach HA 901.13; Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Dana Point	No	Yes. Pacific Ocean Shoreline, Dana Point HA, Salt Creek (large), Salt Creek Service Rd, Dana Strand, North Beach Creek, Capo Beach, San Juan Creek(Lower), San Juan Creek (Mouth)
Laguna Beach	No	Yes. Pacific Ocean Shoreline, Laguna Beach HA 901.12; Laguna Beach, Irvine Cove-Riveria, Heisler Park-North, Main Beach (large), Laguna Ave., Cleo Street, Bluebird Canyon Rd., Ocean Way, Dumond Dr, Lagunita/Blue Lagoon, South Coast Hwy at Hospital, West St, Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Lake Forest	No	Yes. Pacific Ocean Shoreline, Aliso Beach HAS 901.13; Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Laguna Hills	No	Yes. Pacific Ocean Shoreline, Aliso Beach HAS 901.13; Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Laguna Niguel	No	Yes. Pacific Ocean Shoreline, Dana Point HA 901.14, Salt Creek (large), Salt Creek Service Rd, Dana Strand, North Beach Creek, Capo Beach, San Juan Creek(Lower), San Juan Creek (Mouth), Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Laguna Woods	No	Yes. Pacific Ocean Shoreline, Aliso Beach HAS 901.13; Aliso Beach; Aliso Creek; Aliso Creek (Mouth)
Mission Viejo	No	Yes. Pacific Ocean Shoreline, San Juan HU 901.10, San Juan Creek (Lower), San Juan Creek (Mouth), Aliso Beach, Aliso Creek; Aliso Creek (Mouth)
Rancho Santa Margarita	No	Yes. Pacific Ocean Shoreline, San Juan HU 901.10, San Juan Creek (Lower), San Juan Creek (Mouth)
San Juan Capistrano	No	Yes. Pacific Ocean Shoreline, San Juan HU 901.10, San Juan Creek (Lower), San Juan Creek (Mouth)
San Clemente	No	Yes. Pacific Ocean Shoreline, San Clemente HA 901.30; Poche Beach (large), Pico Drain (large), El Portal Stairs, Mariposa, Linda Lane, South Linda Lane, Lifeguard Headquarters, Trafalgar Canyon, Under Pier, La Ladera, Riveria Beach, Salem Tressel, , San Juan Creek (Lower), San Juan Creek (Mouth)
Orange, Co	Yes, by population. ²	Yes. See Attachment 2, 1998 Clean Water Act Section 303(d) List. San Juan Creek WMA and Aliso Creek WMA.
Orange County Flood Control District	Yes, Interrealionaship ¹ with Aliso Viejo, Dana Point, Laguna Beach, Lake Forest, Laguna Hills, Laguna Niguel, Laguna Woods, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, San Clemente, and Orange County.	Pacific Ocean Shoreline, San Juan HU 901.10, San Juan Creek (Lower), San Juan Creek (Mouth), Aliso Beach , Aliso Creek; Aliso Creek (Mouth)

¹ See 40 CFR 122.26(b)(4)(iii) and (7)(iii).

² See Attachment 3, Copermittee Populations.

Attachment 2 - 1998 Clean Water Act Section 303(d) Impaired Waterbody List

Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
Aliso Creek	Aliso Creek WMA	901.13	7.2 mi			1 mi	Point/Nonpoint	Coliform	Rec-1, Rec-2	Medium	1	7/97	7/01
Aliso Creek, mouth of	Aliso Creek WMA	901.13	0.3 ac			0.3 ac	Point/Nonpoint	Coliform	Rec-1, Rec-2	Medium	1	7/97	7/01
Pacific Ocean Shoreline, Aliso Beach HSA 901.13; Aliso Beach	Aliso Creek WMA	901.13	1 mi		0.01 mi		Point/Nonpoint	Coliform	Rec-1, Rec-2	Medium	1	7/97	7/01
Agua Hedionda Lagoon	Carlsbad WMA	904.31	320 ac		5 ac		Point/Nonpoint	Sediment	Aquatic life	Medium	3	7/04	7/07
						5 ac	Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
					5 ac		Point/Nonpoint	Coliform	Shellfish harvest	Low	2	7/99	7/09
Buena Vista Lagoon	Carlsbad WMA	904.21	350 ac		350 ac		Point/Nonpoint	Sediment	Aquatic life	Medium	3	7/04	7/07
					150 ac		Point/Nonpoint	Nutrients	Aquatic life	Low	3	7/04	7/07
						350 ac	Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
Loma Alta Slough	Carlsbad WMA	904.10	8 ac	8 ac			Nonpoint	Eutrophication	Aquatic life	Low	2	7/99	7/09
						8 ac	Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
Pacific Ocean Shoreline, Loma Alta HA 904.10; Loma Alta Creek Mouth	Carlsbad WMA	904.10	1.5 mi	0.01 to 1 mi*			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, Buena Vista Creek HA 904.20; Pine Street (Carlsbad), Carlsbad Village Pkwy (Carlsbad)	Carlsbad WMA	904.20	2.2 mi	0.02 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, San Marcos HA 904.50; Moonlight State Beach	Carlsbad WMA	904.50	5.8 mi	0.01 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, Escondido Creek HA 904.60; Solana Beach, San Elijo Lagoon	Carlsbad WMA	904.60	3.0 mi	0.02 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09

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SDRWQCB Order No. R9-2002-0001

Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
San Elijo Lagoon	Carlsbad WMA	904.61	330 ac	330 ac			Point/Nonpoint	Eutrophication	Aquatic life	Low	2	7/99	7/09
					150 ac		Point/Nonpoint	Sediment	Aquatic life	Medium	3	7/04	7/07
						150 ac	Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest, Fish consumption	Low	2	7/99	7/09
Famosa Slough	Mission Bay WMA	906.40	28 ac		28 ac		Nonpoint	Eutrophication	Aquatic life	Medium	3	7/05	7/08
Los Penasquitos Lagoon	Mission Bay WMA	906.10	385 ac	385 ac			Point/Nonpoint	Sediment	Aquatic life	Medium	3	7/05	7/08
Mission Bay	Mission Bay WMA	906.30	1540 ac	1 ac			Point/Nonpoint	Eutrophication, Lead	Aquatic life	Medium	3	7/05	7/08
		906.40	906.50	1540 ac			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, Scripps HA 906.30, El Paseo Grande, Del Oro, Vallecitos, Avenida de la Playa, Coast Blvd, Children's Pool, Ravina, Vista de la Playa, Bonair, Playa del Norte, Palomar (La Jolla); Tourmaline, Grand Avenue (Pacific Beach)	Mission Bay WMA	906.30	13 mi	0.13 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Tecolote Creek	Mission Bay WMA	906.50	6 mi		6 mi		Point/Nonpoint	Stormwater (Cadmium, Copper, Lead, Zinc, Toxicity)	Aquatic life	Medium	3	7/05	7/08
						6 mi	Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
Chollas Creek	San Diego Bay WMA	908.22	4.8 mi		1 mi		Point/Nonpoint	Stormwater (Cadmium, Copper, Lead, Zinc, Toxicity)	Aquatic life	High	1	1/98	7/03
						1 mi	Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09

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Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
Pacific Ocean Shoreline, Coronado HA 910.10; North Beach, Loma Avenue, Pine Street, Sunset Park (Coronado)	San Diego Bay WMA	910.00	10.2 mi	.04 mi			Point/ Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
San Diego Bay; Near Sub Base	San Diego Bay WMA	900.00	12000 ac	16 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Shelter Island Yacht Basin	San Diego Bay WMA	900.00	12000 ac			50 ac	Point/ Nonpoint	Dissolved copper	Aquatic life	High	1	1/98	7/03
San Diego Bay; Near Grape Street	San Diego Bay WMA	900.00	12000 ac	7 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Downtown Piers	San Diego Bay WMA	900.00	12000 ac	10 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Near Switzer Creek	San Diego Bay WMA	900.00	12000 ac	6 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Near Coronado Bridge	San Diego Bay WMA	900.00	12000 ac	30 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Near Chollas Creek	San Diego Bay WMA	900.00	12000 ac	14 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; San Diego Naval Station	San Diego Bay WMA	900.00	12000 ac	76 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay; Seventh Street Channel	San Diego Bay WMA	900.00	12000 ac	9 ac			Point/ Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03

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Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
San Diego Bay; North of 24th Street Marine Terminal	San Diego Bay WMA	900.00	12000 ac	10 ac			Point/Nonpoint	Benthic community degradation*, Toxicity*	Aquatic life	High	1	1/98	7/03
San Diego Bay Shoreline, Lindbergh HSA 908.21; G St, B St Pier	San Diego Bay WMA	908.21	8.7 mi	0.2 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
San Diego Bay Shoreline, Telegraph HSA 909.11; Chula Vista Marina	San Diego Bay WMA	909.11	0.5 mi	0.01 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/99	7/09
Pacific Ocean Shoreline, San Diego HU 907.00, San Diego River Mouth, (Ocean Beach)	San Diego River WMA	907.00	1.4 mi	0.02 to 0.5 mi*			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, San Dieguito HU 905.00; Del Mar (Anderson Canyon), San Dieguito Lagoon Mouth	San Dieguito River WMA	905.00	3.0 mi	0.02 mi			Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Pacific Ocean Shoreline, Laguna Beach HSA 901.12; Laguna Beach, Irvine Cove-Riveria, Heisler Park -North, Main Beach (large), Laguna Ave, Cleo Street, Bluebird Canyon Road, Ocean Way, Dumond Dr, Lagunita/ Blue Lagoon, South Coast Hwy at Hospital, West St, 1000 Steps, Table Rock	San Juan Creek WMA	901.12	2.5 mi		0.15 mi		Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/00	7/10
Pacific Ocean Shoreline, Dana Point HSA 901.14, Salt Creek (large), Salt Creek Service Rd, Dana Strand, North Beach Creek, Capo Beach	San Juan Creek WMA	901.14	6.5 mi		0.06 mi		Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/00	7/10
Pacific Ocean Shoreline, Lower San Juan HSA 901.27; San Juan Creek (large)	San Juan Creek WMA	901.3	1 mi		0.02 mi		Point/Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/00	7/10

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Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
Pacific Ocean Shoreline, San Clemente HA 901.30; Poche Beach (large), Pico Drain (large), El Portal Stairs, Mariposa, Linda Lane, South Linda Lane, Lifeguard Headquarters, Trafalgar Canyon, Under Pier, La Ladera, Riveria Beach, Salem Tressel, Cypress Shores	San Juan Creek WMA	901.30	7 mi		0.15 mi		Point/ Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/00	7/10
San Juan Creek, Lower	San Juan Creek WMA	901.20	3.4 mi			1 mi	Point/ Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/00	7/10
San Juan Creek, Mouth	San Juan Creek WMA	901.20	2 ac			2 ac	Point/ Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/00	7/10
Guajome Lake	San Luis Rey River WMA	903.11	25 ac	25 ac			Point/ Nonpoint	Eutrophication	Aquatic life	Medium	3	7/08	7/11
Pacific Ocean Shoreline, San Luis Rey HU 903.00; San Luis Rey River Mouth	San Luis Rey River WMA	903.00	1 mi	0.01 mi			Point/ Nonpoint	Coliform	Rec-1, Rec-2, Shellfish harvest	Low	2	7/99	7/09
Rainbow Creek	Santa Margarita River WMA	902.20	11 mi	5 mi			Point/ Nonpoint	Rec-1, Rec-2, Eutrophication	Aquatic life	High	1	7/98	7/00
Santa Margarita Lagoon	Santa Margarita River WMA	902.11	268 ac	1 ac			Point/ Nonpoint	Eutrophication	Aquatic life, Rec-1, Rec-2	High	2	7/96	7/05
Pacific Ocean Shoreline, Tijuana HU 911.00; Tijuana River	Tijuana River WMA	911.00	3.2 mi	3.2 mi			Point/ Nonpoint	Coliform	Rec-1, Rec-2	Low	2	7/98	7/11
			3.2 mi		3.2 mi		Point/ Nonpoint	Coliform	Shellfish harvest, Fish consumption	Low	2	7/98	7/11
Tijuana River	Tijuana River WMA	911.11	7 mi	7 mi			Point/ Nonpoint	Coliform	Rec-1, Rec-2, Fish consumption	Low	2	7/98	7/11

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Waterbody ¹	Watershed Management Area	HU, HA, or HSA ²	Total Size ³	Non Support ⁴	Partially Support ⁵	Exceeds Standard ⁶	Sources ⁷	Impairment ⁸	Beneficial Uses ⁹	TMDL Priority ¹⁰	Level ¹¹	Start ¹²	End ¹³
				7 mi			Point/ Nonpoint	Eutrophication , Low dissolved oxygen, Solids, Trace metals, Synthetic organics, Pesticides	Aquatic life	Low	3	7/98	7/11
				7 mi			Point/ Nonpoint	Eutrophication , Trash, Pesticides, Synthetic organics, Trace metals	Fish consumption	Low	3	7/98	7/11
Tijuana River Estuary	Tijuana River WMA	911.11	150 ac		1 ac		Point/ Nonpoint	Nickel, Thallium, Lead, Pesticides, Eutrophication , Trash	Aquatic life	Low	3	7/98	7/11
				1 ac			Point/ Nonpoint	Pesticides	Fish consumption	Low	3	7/98	7/11
				150 ac			Point/ Nonpoint	Coliform	Rec-1, Rec-2, Fish consumption, Shellfish harvest	Low	2	7/98	7/11

Attachment 3

Copermittee Populations (2000 U.S. Census Bureau)

Copermittee	Population
Aliso Viejo	40,200
Dana Point	35,100
Laguna Beach	23,750
Lake Forest	58,700
Laguna Hills	31,200
Laguna Niquel	61,900
Laguna Woods	16,500
Mission Viejo	93,100
Rancho Santa Margarita	47,200
San Clemente	49,950
San Juan Capistrano	33,800
County of Orange	2,846,300
Orange County Flood Control District	N/A

Attachment 4

Discussion of Municipal Storm Water Permitting and the Watershed Approach

Municipal Storm Water Requirements, Order No. R9-2002-0001

Under the municipal storm water requirements, municipalities are responsible for pollutant discharges into and out of storm water conveyance systems from land uses within their jurisdiction and watershed. This responsibility is based in large part on land use and permitting authority, and underscores the direct link between land use decisions and the resulting long-term water quality consequences of those decisions.

Accordingly, the municipal storm water requirements require municipalities to impose controls on existing and future development as necessary to reduce pollutant discharges. A critical provision of this Order is that Copermittees' required to obtain and enforce the legal authorities (i.e., local ordinances, permits) as necessary to maintain (or restore) compliance with the municipal storm water requirements contained in this Order.

Municipal storm water requirements contained in the Federal Regulations and this Order also specifically direct permittees to prohibit illicit discharges¹⁰⁸ from entering into their storm water conveyance systems. This means ongoing requirements to detect (actively seek out) polluted runoff entering the systems, identify the source(s) causing the problem, and eliminate the problem(s).

SDRWQCB's Watershed Approach

The term "watershed approach" can mean different things to different people. It often involves several agencies, organizations, and communities addressing numerous environmental concerns. When the SDRWQCB defines a watershed approach, as it has

¹⁰⁸ The term "illicit discharge" is defined in the federal storm water regulations at 40 CFR 122.26 in very broad terms. An illicit discharge is any discharge that is not composed entirely of "storm water". Storm water is one of two components of "urban runoff". Urban runoff is the correct term for any and all flows in a municipal storm water conveyance system. Storm water is defined as any flow that originated from precipitation only. Non-storm water is the "catch-all" phrase referring to all flows in the system that originated from any source other than precipitation.

Technically, uncontaminated rainwater is the only "allowable" flow in the storm water conveyance system. As a practical matter, we are currently assuming a rather lenient enforcement position against municipalities for discharging precipitation that has picked up urban pollutants. We have however assumed a much more aggressive enforcement position against municipalities that have failed to enforce their own legal authorities or implement appropriate source control and structural best management practices (BMPs) to the maximum extent practicable. Such BMPs must effectively reduce or eliminate pollutants that would otherwise be available for transport to receiving waters by precipitation. The SDRWQCB has also taken a much more stringent view of runoff originating from sources other than precipitation (e.g., excess irrigation, car washing, etc.) which convey urban pollutants. Such non-storm water flows are prohibited under the municipal storm water requirements. In all cases, the SDRWQCB looks to see if the responsible municipality(s) have truly demonstrated a "good faith" and thorough effort to find, reduce or eliminate pollutants, and their sources. Such good faith efforts must include enforcement of local ordinances and permits, education efforts that are focused on pollutant(s) of concern, and implementation of effective source control and structural BMPs. These efforts should concentrate on man-made, man-accelerated, or "controllable" sources, rather than on uncontrollable sources (e.g., focus on eliminating pet waste rather than wild animal waste).

in the document entitled “Watershed Management Approach for the San Diego Region,”¹⁰⁹ it is limiting its concerns exclusively to water quality issues.

The SDRWQCB’s watershed approach considers each geographic watershed (or subwatershed) as a whole and seeks to identify and mitigate all sources of pollutants (both point and non-point sources) throughout the watershed which contribute to the impairment of common downstream receiving waters. This definition emphasizes the important contribution (of pollutants and flow) from “inland sources” to “coastal problems”, such as those that have historically plagued San Diego and Orange County Beaches. Like the municipal storm water requirements, one of the most important steps in the SDRWQCB’s watershed effort is the identification and elimination of the sources causing such water quality impairments.

A word about what a watershed approach is “not” is also in order. The SDRWQCB’s (or any one else’s) watershed approach is not:

1. A reduction in the responsibility or authority of the SDRWQCB;
2. An abdication of responsibility or authority by the SDRWQCB;
3. A reduction in the tools at the disposal of the SDRWQCB;
4. A reduction in or limit on the discretion of the SDRWQCB; or
5. A substitution for compliance with regulatory requirements (i.e. NPDES permits or Waste Discharge Requirements).

Nexus Between Municipal Storm Water Permit and Watershed Approach

The municipal storm water requirements and the SDRWQCB’s watershed approach are fully consistent with each other. Both have the same overall objectives and both direct many of the same specific actions; for example identification and elimination sources of pollutants. The municipal storm water requirements is a traditional regulatory measure. These are addressed in the form of NPDES permits and Waste Discharge Requirements issued to dischargers. In actual practice, the “watershed approach” is, at the moment, largely a non-regulatory measure.

It should be emphasized that regulatory and non-regulatory measures are not mutually exclusive. The premise that the watershed approach “contrasts” with regulation is incorrect. The best way to explain the relationship between the two is to say that a “watershed approach” includes, but is not limited to, the issuance of regulatory requirements by the SDRWQCB and regulatory compliance on the part of permitted dischargers. Waste Discharge Requirements and NPDES Permits may or may not include a watershed effort. While a community watershed effort often involves issues beyond the scope of complying with waste discharge requirements, compliance with applicable requirements is always an essential component of any watershed effort. Furthermore, because urban runoff pollution is inextricably linked to cumulative pollutants in runoff contributed by all sources in a watershed, it makes a great deal of sense that Copermittees would choose to implement the requirements of the municipal storm water permit in the context of a watershed approach. This was the objective of the 1993 Drainage Area Management Plan (DAMP) implemented under the First and

¹⁰⁹ “Watershed Management Approach for the San Diego Region”; Sixth version (draft). Regional Water Quality Control Board, San Diego Region; January 7, 2000.

Second Term Permits. Nonetheless, a municipal storm water permit is issued to each Copermittee and each Copermittee is individually responsible for implementing the requirements of the permit. Within the context of a watershed effort (e.g. the Watershed Urban Runoff Management Plan or Watershed URMP), the watershed-wide efforts undertaken by a set of Copermittees in a given drainage builds upon and enhances the jurisdictional efforts of each Copermittee. Under the First and Second Term Permits, significant elements of the DAMP were actually implemented on a countywide basis in two watershed areas within two different Regional Boards with little actual emphasis on specific watershed issues or programs. The implementation of solid jurisdictional level programs, the program management component of the proposed DAMP, and the Watershed URMP focused on the San Juan Creek Watershed Management Area within Orange County, will bring the implementation of the concepts expressed in the proposed DAMP to fruition.

In addition to fully supporting a watershed approach for protecting water quality, the SDRWQCB is engaged in a gradual process to shifting its regulatory efforts towards a watershed (rather than programmatic¹¹⁰) basis. This means that in the future waste discharge requirements may be issued on a watershed basis. Indeed, the renewal of this Order represents a true watershed level application of the municipal storm water regulatory tool envisioned in the DAMP, since the provisions of this Order will be specifically applied by the Copermittees to that part of the San Juan Creek Watershed Management Area within Orange County. The remaining part of that watershed management area lies within Camp Pendleton and a small part of unincorporated San Diego County between Camp Pendleton and Orange County. These areas will be addressed in the future renewal of this Order under the Phase II storm water regulations.

At this time, a few waste discharge requirements “encourage” required activities to be conducted on a watershed basis. In the future, it is likely that waste discharge requirements will “require” that activities be conducted on a watershed basis by all dischargers within the watershed in order to address common water quality problems. The fact that many watershed efforts today are voluntary, but may soon be required under waste discharge requirements, illustrates the “three-tiered” watershed approach described in the SDRWQCB’s “Watershed Management Approach for the San Diego Region”. The three-tiered concept embodies the gradual shift from “tier one” stakeholder driven voluntary watershed efforts to “tier three” efforts mandated by waste discharge requirements.

To the extent that a watershed stakeholder is also subject to waste discharge requirements, a tier one, or voluntary watershed effort can only exist in conjunction with, and acknowledgment of, the mandatory requirements of the waste discharge requirements. This is the current situation for the Orange County Copermittees that will be emphasized under this Order. It is the responsibility of the SDRWQB to ensure that the Copermittees are complying with the municipal storm water requirements and to the extent that they are not, to take appropriate enforcement action.

¹¹⁰ Our office is currently organized into a combination of discrete program units (e.g. Land Discharge, Site Mitigation, and Tank Mitigation and Cleanup Units) and two watershed protection units (Northern and Southern Watershed Protection Units).

Attachment 5 - DAMP Analysis for Order No. R9-2002-0001

Order No. R9-2002-0001 Orange County Municipal Storm Water Permit Component	Order No. R9-2002-0001 Section	Proposed Orange County DAMP Section	Order No. R9-2002-0001 Orange County Permit Requirements	Proposed Orange County DAMP Discussion
Findings	1-43	Not Addressed	Findings	Not applicable
Prohibitions – Discharges	A.1	4.0 Appendix E1	Prohibit all discharges into and from MS4s that cause or threaten to cause conditions of pollution, contamination or nuisance in waters of the State.	Neither the DAMP nor the Model Water Quality Ordinance (Appendix E1 Water Quality Ordinance) adequately addresses this requirement. The Water Quality Ordinance should be updated to better detail the specific language as well as the intent already implied in sections II and IV of the ordinance.
Prohibitions – Discharges	A.2	4.0 Appendix E1	Prohibit all discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives.	Neither the DAMP nor the Water Quality Ordinance (Appendix E1) adequately addresses this requirement. Sections II, III, and IV of the Water Quality Ordinance should be updated to better detail the specific language as well as the intent already implied in sections II and IV of the ordinance to include and implement this prohibition.
Prohibitions – Discharges	A.3	1.2; 4.0 Appendix E1	Prohibit all discharges containing pollutants not reduced to the MEP.	The DAMP does specifically address this prohibition requirement in several sections. The Water Quality Ordinance, however, does not address this requirement.
Prohibitions – Discharges	A.4	4.0 Appendix E1	Discharges from MS4s are subject to Basin Plan Prohibitions.	This prohibition is not addressed in either the DAMP or the Water Quality Ordinance. Both should be updated to include and implement this prohibition.

Prohibitions – Non-Storm Water Discharges	B.1	1.2; 4.2; 4.3; 4.4; Appendix E1	Copermittees prohibit all non - storm water discharges into MS4s unless separately authorized by NPDES or are not prohibited as per B.2 or B.3.	DAMP and Water Quality Ordinance (Appendix E1) effectively prohibits all non storm water discharges not separately authorized by NPDES permits or that are not prohibited as per B.2 and B.3 of the Order No. R9-2002-0001.
Prohibitions – Non-Storm Water Discharges	B.2	1.2; 4.2; 4.3; 4.4; Appendix E1	Non-Storm Water, Non-Prohibited Discharges that are not a significant source of pollutants.	The list in the Water Quality Ordinance (App. E1) is incomplete and includes exemptions not identified in the Federal Regulations or the Order (e.g. sewage spills, roof runoff, agricultural irrigation runoff, and reclaimed water runoff).
Prohibitions – Non-Storm Water Discharges	B.3	1.2; 4.2; 4.3; 4.4; Appendix E1	Procedures to address non-storm, non-prohibited discharges that are a significant source of pollutants.	<p>The DAMP and the Water Quality Ordinance do not adequately address the B.2 non-storm water discharges that are determined by the Copermittee(s) to be a significant source of pollutants. The Water Quality Ordinance (section IV.D) only addresses the prohibition of otherwise exempted discharges on a case by case basis as determined by an Authorized Inspector. The DAMP and the Water Quality Ordinance does not address the requirement that the discharge <u>category</u> be prohibited from entering the MS4; OR that the Copermittee shall not prohibit the discharge category and implement or require the implementation of BMPs; AND a file report with the SDRWQCB within 365 days of the adoption of the Order describing the discharge category and the BMPs to be required by the Copermittee.</p> <p>Section IV.D of the Water Quality Ordinance details only site specific instances in which B.2 allowable discharges may be prohibited, but does not discuss the permissible discharge conditions, the implementation of BMPs, nor the report to the SDRWQCB describing the above.</p>

				Both the DAMP and the Water Quality Ordinance should be updated to completely address this requirement.
Prohibitions – Non-Storm Water Discharges	B.4	1.2 4.0 5.0 10.0 Appendix E1	Emergency fire fighting flows are not prohibited. Copermittees develop and implement a program within 365 days to reduce pollutants from non-emergency fire fighting flows identified as significant sources of pollutants.	A program to reduce pollutants from non-emergency fire fighting flows identified by the Copermittees to be a significant source of pollutants is not specified in the DAMP. The Water Quality Ordinance does not specifically address the issue of non-emergency fire fighting activities. The Water Quality Ordinance should be revised to address this requirement.
Prohibitions – Non-Storm Water Discharges	B.5	4.0; 10.0; Appendix K	Examine all dry weather monitoring results collected in accordance with section F.5 and Attachment E to identify water quality problems resulting from non-storm water, non-prohibited discharges. Follow-up investigations to be conducted as necessary to identify and control such discharges when they are found to be significant sources of pollutants.	The DAMP discusses historical efforts conducted under the First and Second Term Permits, but does not specify how Dry Weather Monitoring will be performed and the data evaluated by each Copermittee as per section B.5 of the Order. Nor does Appendix K provide sufficient specific detail on the monitoring and inspections to be performed in each jurisdiction that would satisfy the requirements of section B.5 of the Order. See section F.5 for more discussion on the inadequacy of Dry Weather Monitoring Program to be implemented under the proposed DAMP.
Receiving Water Limitations	C.1	Not Addressed	Discharges from MS4s that cause or contribute to the violation of water quality standards are prohibited.	Neither the DAMP nor the Water Quality Ordinance specifically prohibits discharges that cause or contribute to exceedances of receiving water quality objectives. The DAMP and the Water Quality Ordinance should be updated to include and implement this prohibition.
Receiving Water Limitations	C.2	1.0; 1.2; 1.3; 1.4; 2.2;	Requirement that each Copermittee shall comply with section C.1 above through the timely implementation of the Jurisdictional Urban Runoff	The DAMP does not specifically address how the Copermittees will prohibit and respond to discharges that cause or contribute to exceedances of receiving water quality objectives. The DAMP sections that address discharge

		<p>2.3; 3.2; 3.3; 3.5; 4.0 4.1; 4.2; 4.3; 4.4</p>	<p>Management Program (i.e. BMPs and programs). Procedure to address MS4 discharges that are causing or contributing to an exceedance of receiving water quality objectives. The Copermittees are required to notify the SDRWQCB and thereafter submit a report that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards.</p> <p>Modifications to the report must be reported to the SDRWQCB within 30 days of notification.</p> <p>The requirement also includes a provision that the Copermittee(s) revise and implement the revised Jurisdictional Urban Runoff Management Program to incorporate the approved BMPs, the implementation schedule, and any monitoring required.</p> <p>The revised Jurisdictional Urban Runoff Management Program, monitoring program,</p>	<p>prohibitions, BMP implementation, legal authority, and regulatory requirements do not include or implement the requirement that discharges do not cause or contribute to receiving water quality objectives as a condition of the DAMP implementation and permit compliance. This section, which contains precedential language required by the State Board and USEPA, is a one of the most important components of the Order that is inadequately addressed in the DAMP.</p> <p>The DAMP provides only general discussions of iterative BMP implementation/evaluation that lack specific performance measures or time lines sufficient to address protection of beneficial uses and compliance with receiving water quality objectives. The DAMP describes limitations to their ability to evaluate BMPs and states that several years would be required to evaluate the effectiveness of BMPs (section 3.3.2).</p> <p>The DAMP does not specify how the requirements of section C of the Order, which contains precedential language required by the State Board and USEPA, will be implemented at a jurisdictional or a collective level by the Copermittees.</p>
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			and implementation schedule must be implemented within 30 days of approval by the SDRWQCB.	
Receiving Water Limitations	C.3	Not Addressed	SDRWQCB has authority to enforce any provision of the Order while the Copermittee prepares and implements the report required in C.2.	The DAMP does not address this provision of section C of the Order.
Legal Authority	D.1	4.0; 4.1; 4.2; Appendix E1	Each Copermittee establishes, maintains, and enforces adequate legal authority to control pollutant discharges into and from its MS4.	The DAMP and the Water Quality Ordinance generally satisfies the requirements of section D of the Order.
Legal Authority	D.1.a	4.2; 8.0; 8.1; 8.2; 8.3; 8.4; 8.6; 8.7; Appendix H	Legal authority to control contribution of pollutants to MS4 from construction and industrial sites.	<p>The DAMP addresses the requirement of each Copermittee to certify legal authority to control contribution of pollutants to the MS4 from industrial activity, but does not address construction (section 4.2).</p> <p>Section 8.2 of the proposed DAMP discusses the regulatory requirements pertaining to construction sites, but does not acknowledge Copermittee responsibility to certify legal authority to control the contribution of pollutants to the MS4 from construction sites apart from coordinating enforcement actions under the Water Quality Ordinance with the SDRWQCB.</p> <p>Section 8.3 discusses Public Works Construction Practices, but does not address the responsibility of the Copermittees to certify legal authority to control contribution of pollutants to the MS4.</p> <p>Section 8.4 discusses Copermittee oversight of private construction practices through enforcement of grading codes to protect slopes</p>

				<p>from erosion and failure, but does not adequately address the requirement of the Copermittees to certify legal authority to control the contribution of pollutants to the MS4 from construction sites.</p> <p>Appendix H and the new commitments of section 8.7 of the proposed DAMP do not adequately address the requirement of the Copermittees to certify their legal authority to control the contribution of pollutants to the MS4 from construction sites.</p>
Legal Authority	D.1.b		Prohibit all identified illicit discharges not exempted under B.2 including list of discharges 1-9.	<p>The DAMP and the Water Quality Ordinance adequately addresses the requirement to prohibit all illicit discharges not exempted under B.2.</p> <p>The DAMP, however, does not describe in sufficient detail how the Copermittees will address sewage, discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive facilities; Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and portable toilet servicing, etc.; Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;</p> <p>Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;</p> <p>Discharges of runoff from material storage areas</p>

				<p>containing chemicals, fuels, grease, oil, or other hazardous materials; Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;</p> <p>Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).</p>
Legal Authority	D.1.c	4.2	Prohibit all illicit connections to MS4.	<p>The DAMP and the Water Quality Ordinance adequately address the requirement to prohibit all illicit connections to MS4.</p> <p>With respect to Jurisdictional Urban Runoff Management Program requirements required under the Order, the DAMP, however, lacks the specificity necessary for successful implementation and assessment of compliance.</p>
Legal Authority	D.1.d	4.2	Control discharge of spills, dumping, or disposal of materials to MS4.	<p>The DAMP and the Water Quality Ordinance adequately address the requirement to control of discharges (i.e. spills, dumping, or disposal of materials) into the MS4.</p> <p>With respect to Jurisdictional Urban Runoff Management Program requirements required under the Order, the DAMP, however, lacks the specificity necessary for successful implementation and assessment of compliance.</p>
Legal Authority	D.1.e	4.2; Appendix E1	Require compliance with conditions of Copermittee ordinances, permits, contracts, or Orders.	<p>The DAMP includes the requirement of compliance with conditions in ordinances, permits, contracts or orders.</p> <p>Although, the Water Quality Ordinance (Appendix E1) generally implements the prohibitions of the Order, it lacks significant elements (see above)</p>

				<p>that should be included.</p> <p>The Enforcement Consistency Guide (Appendix E2) provides guidance for enforcement activities to be undertaken by Copermitttee inspectors.</p> <p>The Water Quality Ordinance and the Enforcement Consistency Guide, however, are somewhat dated and should be updated to include and implement requirements of the Order.</p>
Legal Authority	D.1.f	4.2; Appendix E1	Utilize enforcement tools to require compliance with Copermitttee ordinances, permits, contracts or orders.	<p>The DAMP includes the requirement of compliance with conditions in ordinances, permits, contracts or orders.</p> <p>Although, the Water Quality Ordinance (Appendix E1) generally implements the prohibitions of the Order, it lacks significant elements (see above) that should be included.</p> <p>The Enforcement Consistency Guide (Appendix E2) provides guidance for enforcement activities to be undertaken by Copermitttee inspectors.</p> <p>The Water Quality Ordinance and the Enforcement Consistency Guide, however, are somewhat dated and should be updated to include and implement requirements of the Order.</p>
Legal Authority	D.1.g	2.2.9; 4.1; 4.2 Appendix C	Interagency agreements to control contribution of pollutants from one portion of a shared MS4 to another portion of the MS4.	<p>The DAMP adequately addresses the requirement, but fails to provide sufficient detail with regards to the implementation by the Copermitttees of the interagency agreement that controls the contribution of pollutants from one portion of a shared MS4 to another portion of the MS4.</p>
Legal Authority	D.1.h	4.2	Carry out inspections, surveillance, and monitoring necessary to determine compliance and	<p>The DAMP adequately addresses the requirement for inspections, surveillance, and monitoring necessary to determine compliance and non-compliance with permit conditions. However, the</p>

			noncompliance with local ordinances and permits under the Order.	DAMP lacks specificity in regards to various program components, inspection frequencies, time-lines for implementation, assessment of program effectiveness, and follow-up activities by Copermittees individually and collectively.
Legal Authority	D.1.i	1.2; 1.3; 1.4; 3.1; 3.2; 3.3; 3.4; 3.5; 4.1; 4.2; 4.3	Require use of BMPs to prevent or reduce discharge of pollutants to MS4s.	The DAMP adequately addresses the requirement for BMP implementation, but lacks specificity in regards to BMP implementation, program components, time lines for implementation, assessment of program effectiveness, and follow-up activities by Copermittees individually and collectively.
Legal Authority	D.2	4.2	Submit statement within 365 days certified by chief legal counsel that the Copermittee has adequate legal authority to implement and enforce each of the requirements in 40 CFR 122.26(d)(2)(I)(A-F) and this Order.	<p>The DAMP states that the Copermittees submitted certification of legal authority to regulate the discharge of pollutants to the MS4 system (40 CFR 122.26(d)(2)(I)(A-F)) as of July 31, 1997.</p> <p>The DAMP does not commit the Copermittees to submitting an updated certification of legal authority that reflects the requirements of the Order.</p>
Technology Based Standards	E (Table 3)	Not Addressed	Copermittee implements or requires implementation of BMPs to ensure that pollutant discharges into and from its MS4 are reduced to the applicable technology based standard.	<p>The DAMP does not specify the Technology Based Standards applicable to pollutant discharges from industrial activities owned by the Copermittee, or general industrial and construction activity.</p> <p>The DAMP incorrectly identifies MEP as the standard for construction activity owned by the Copermittee (Appendix H.3.1). The standard to be applied under the terms of the Order is the BAT/BCT standard applicable to construction activities authorized under the Statewide General</p>

				<p>Construction Storm Water Permit. It should be noted, in fact, that Order No. 96-03 did not specifically exempt the Copermittees from implementing BMPs at the BAT/BCT level at municipal construction sites > 5 acres. The Order only exempted the Copermittees from applying for coverage under the statewide permit. Provision No. 24 stated "All other terms and conditions of the latest version of the State's General Construction Activity Storm Water Permit shall be applicable."</p> <p>Order No. R9-2002-0001 does not continue the provisions (Nos. 19-24) of Order No. 96-03 that exempted municipal construction activities from coverage under the Statewide General Construction Storm Water Permit.</p>
<p>Jurisdictional Urban Runoff Management Program</p>	<p>F</p>	<p>Sections 1-12</p>	<p>Each Copermittee reduces discharges of pollutants and runoff flow during each of the three major phases of urban development (planning, construction, and land-use phases).</p> <p>Each Copermittee shall implement the provisions and commitments of proposed DAMP until full implementation of the Jurisdictional Urban Runoff Management Program.</p>	<p>The proposed DAMP and appendices does not adequately address in specific detail how the Copermittees will reduce the discharge of pollutants and runoff flow during each of the three major phases of urban development. The various sections of the proposed DAMP provides general and over-arching discussion of the need to address these issues through the implementation of BMPs, but fails to provide sufficient detail and implementation timelines by which to assess compliance with the Order.</p> <p>The proposed DAMP also fails entirely to address the requirement to prevent or respond to <u>exceedances of receiving water quality objectives</u> resulting from the discharge of urban runoff from these three phases of land-use through the implementation of pollution prevention, source identification and elimination, enforcement, education, and other structural and non structural</p>

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				BMPs and programs. Specific deficiencies of the DAMP are discussed below with respect to the Order.
Land-Use Planning for New Development and Redevelopment Component	F.1	7.0; Appendix G	Minimize short-term and long-term impacts on receiving waters from new development and redevelopment.	
Land-Use Planning for New Development and Redevelopment Component	F.1.a	7.0; Appendix G	Assess General Plan	The DAMP does not indicate that the Copermitees will assess their general plans or equivalent to include watershed protection principles.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.1	7.0; Appendix G	Modify Development Project Approval Processes	The DAMP has requirements for all projects to develop a water quality management plan that include BMPs to be used at the site. However, the DAMP does not require all projects meet the minimum requirements listed in the Order (e.g., source control).
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2	7.0; Appendix G	Modify Development Project Approval Processes	The DAMP does not include the development of Standard Urban Storm Water Mitigation Plans on watershed (model) and jurisdictional (local) levels.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.a	7.0; Appendix G	Standard Urban Storm Water Mitigation Plans (SUSMPs)	The DAMP does not include the priority development categories listed in the Order. The DAMP has BMP requirements at all development projects regardless of size or land use. However, the BMP requirements in the DAMP do not meet the minimum SUSMP requirements. The Copermitees do have discretion to require all projects meet SUSMP requirements.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.b	7.0; Appendix G	SUSMPs - BMP Requirements	The BMPs listed in the DAMP are inadequate and do not meet the minimum requirements of this Section. The Copermitees must develop their own list of recommended source control and structural BMPs to be implemented at least the priority development projects listed in the order. The recommended BMPs must also meet

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				minimum performance criteria.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.c	7.0; Appendix G	SUSMPs – Numeric Sizing Criteria	The DAMP does not include numeric sizing criteria for structural BMPs
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.d	7.0 Appendix G	SUSMPs – Equivalent Numeric Sizing Criteria	The DAMP does not include a process for developing as part of the Model SUSMP an equivalent method for calculating the volume or flow which must be mitigated (i.e. an equivalent method for calculating numeric sizing criteria) by post construction BMPs.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.e	7.0; Appendix G	SUSMPs- Pollutants or Conditions of Concern	The DAMP does not include a specific procedure for identifying pollutants or conditions of concern.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.f	7.0; Appendix G	SUSMPs – Implementation Process	The DAMP does not include a procedure for implementation of SUSMP requirements.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.g	7.0 Appendix H	SUSMPs – Waiver Provision	The DAMP does not include a procedure for developing and implementing a waiver provision.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.h	7.0; Appendix G	SUSMPs – Infiltration and Groundwater Protection	The DAMP does not include groundwater protection restrictions for use with infiltration structural BMPs.
Land-Use Planning for New Development and Redevelopment Component	F.1.b.2.i	7.0; Appendix G	SUSMPs – Downstream Erosion	The DAMP does not address downstream erosion from development and redevelopment projects.
Land-Use Planning for New Development and Redevelopment Component	F.1.c	7.0; Appendix G	Revise Environmental Review Processes	The DAMP does not include clear and specific language that indicates water quality and mitigation measures will be evaluated during the Copermittees environmental review processes.
Land-Use Planning for New Development and Redevelopment Component	F.1.d	7.0; Appendix G	Conduct Education Efforts Focused on New Development and Redevelopment	The DAMP adequately addresses the education requirements of the Order, but additional specific detail regarding implementation should be included with respect to the requirements of this section of the Order.
Construction Component	F.2	8.0 Appendix H	Implement a construction component of the Jurisdictional URMP to reduce	The Construction section of the DAMP is generally inadequate to address the requirements of Order No. R9-2002-0001. It focuses mainly on

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			pollutants in runoff from construction sites during all construction phases.	Public Works construction projects, and does not address requirements for private construction projects.
Construction Component	F.2.a	Not addressed	Pollution Prevention	The DAMP does not include pollution prevention methods for construction, and should be updated to include and implement these methods.
Construction Component	F.2.b	8.4 8.7	Grading Ordinance Update	The DAMP does include a new commitment to review grading/erosion control ordinances on an as needed basis to achieve consistency with other regulatory requirements, but it does not contain language requiring the implementation of BMPs to be include in the update.
Construction Component	F.2.c	Not addressed	Modify Construction and Grading Approval Process	The DAMP does not include clear and specific language that indicates the construction and grading approval process will be modified to ensure that pollutants will be reduced to MEP.
Construction Component	F.2.d	Not addressed	Source Identification	The DAMP does not address the development of a watershed-based construction site inventory of all sites within their jurisdiction.
Construction Component	F.2.e	Not addressed	Threat to Water Quality Prioritization	The DAMP does not address the threat to water quality prioritization of construction sites.
Construction Component	F.2.f	8.6; Appendix H	BMP Implementation	The DAMP does not set minimum BMP requirements based on threat to water quality prioritization. The DAMP does set minimum BMP requirements, but only for public works construction projects and not private construction sites.
Construction Component	F.2.g	8.4	Inspection of Construction Sites	Although the DAMP does address inspection frequencies of construction sites by construction and grading inspectors, these frequencies are not based on the threat to water quality prioritization, and are not adequate to comply with the requirements of Order No. R9-2002-0001.
Construction Component	F.2.h	8.2	Enforcement of Construction Sites	The DAMP includes provisions for coordination of enforcement efforts between Regional Board and the Copermittees. However, the DAMP lacks

				specific reference to the enforcement efforts of Copermittees' ordinances with respect to construction activities within their jurisdiction.
Construction Component	F.2.i	Not addressed	Reporting of Non-Compliant Sites	The DAMP does not include criteria for Copermittee evaluation and notification to the Regional Board of non-compliant construction sites.
Construction Component	F.2.j	8.7	Education Focused on Construction Activities.	The DAMP provides for adequate educational efforts for Municipal staff, developers and project proponents.
Existing Development Component	F.3		Minimize short-term and long-term impacts on receiving water quality from all types of existing development.	As the proposed DAMP attempts to broadly address countywide storm water discharges, the specificity required to manage discharges locally and on a watershed basis is compromised. As a result, for the region of Orange County subject to the San Diego Regional Water Quality Control Board, the DAMP does not result in a plan to reduce pollutants in urban runoff discharges from existing municipal, industrial, commercial, and residential areas to the maximum extent practicable (MEP). For instance, although the Permit allows for a BMP-based approach to reaching MEP, an assessment of BMP effectiveness (DAMP section 3.3) at the jurisdictional level is not effectively attainable under the current monitoring program.
Municipal (Existing Development)	F.3.a.1 F.3.a.2 F.3.a.3 F.3.a.4 F.3.a.5 F.3.a.6 F.3.a.7 F.3.a. 8	5.0; Appendix M	Pollution Prevention Source Identification Threat to Water Quality Prioritization BMP Implementation Maintenance of MS4 Management of Pesticides, Herbicides, and Fertilizers Inspection of Municipal Areas and Activities Enforcement of Municipal	Although the DAMP describes a Hazardous Waste Management/Environmental Performance Report (section 5.3.6), the program description does not provide sufficient detail to evaluate the pollution prevention and source identification (Inventory) components of this report. With respect to public agency (Municipal – Existing Development) land uses, the DAMP and Appendices F and M provide sufficient detail concerning the pollution prevention, source

			<p>Areas and Activities</p>	<p>identification, and threat to water quality prioritization for many of the categories identified in the Order. However, it is not apparent that the source identification included the active landfills, publicly owned treatment works, the MS4 systems, incinerators, land application sites, or uncontrolled sanitary landfills. To the extent that these public agency land use activities or areas are present, the DAMP and Appendix M should be updated to address these areas and activities. Also, it is not apparent in Appendix 3 of Appendix M that San Juan Capistrano, Rancho Santa Margarita, Laguna Woods, and Lake Forest have complied with this requirement of the DAMP.</p> <p>The BMP Reference Manual provided in Appendix 2 of Appendix M is dated and should be updated by the Copermittees.</p> <p>Furthermore, the DAMP and Appendices do not establish minimum required BMPs to be implemented by public agencies with respect to the municipal areas and activities. This section and the Appendices should be updated to address all of the municipal areas and activities identified as high priority categories and include the required designated minimum BMPs for the public agency areas and activities inventoried and identified as low, medium, or high priorities.</p> <p>The MS4 maintenance activities described by the Copermittees in sections 5.3.3 and 5.4 satisfy the requirements of section F.3.a.5. The new commitment by the Copermittees to annually inspect and clean out as necessary (to be determined by criteria under development) is in particular a significant commitment. The</p>
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				commitment to update MS4 maps both on paper and electronically following significant changes is also a noteworthy commitment that satisfies requirements in the Order.
Industrial (Existing Development)	F.3.b.1 F.3.b.2 F.3.b.3 F.3.b.4 F.3.b.5 F.3.b.6 F.3.b.7 F.3.b.8	9.0;	Pollution Prevention Source Identification Threat to Water Quality Prioritization BMP Implementation Monitoring of Industrial Sites Inspection of Industrial Sites Enforcement of Industrial Sites Reporting of Non-Compliant Sites	<p>The proposed DAMP is insufficient to effectively identify industrial sources of discharges to the municipal separate storm sewer system (MS4). The proposed DAMP commitment to assess the feasibility of establishing a mechanism to ensure coverage under the State's Industrial General Permit prior to issuance of a business license does address an action (identification) that is required under Federal regulations (40 CFR 122.26(d)(2)(ii)), yet does not actually commit the Copermittees to providing an inventory of industrial facilities (DAMP section 9). Given the relatively small size and limited industrial activity within most of the municipalities subject to the Order, the DAMP commitment seems to unnecessarily delay compliance with the Federal regulations.</p> <p>The proposed DAMP does not provide for effective inspection, surveillance, and monitoring procedures to determine compliance with permit conditions, including illicit discharges to the MS4. Inspections of industrial facilities for local compliance are performed by various County agencies, but there is no documentation of visits, findings, monitoring, or follow-up actions, thus, there is no means for assessing whether high priority sites within a local jurisdiction are in compliance with prohibitions on illicit discharges (DAMP sections 9 and 10).</p>
Commercial (Existing Development)	F.3.c.1 F.3.c.2	3.0; 3.1;	Pollution Prevention Source Identification	The proposed DAMP does not base development of BMP guidance, education, or selection of target

	F.3.c.3 F.3.c.4 F.3.c.5	3.2; 10.0	BMP Implementation Inspection of Commercial Sites and Sources Enforcement of Commercial Sites and Sources.	<p>commercial activities on jurisdictional needs and does not propose to address many commercial activities known to be threats to water quality (DAMP section 6 and Appendix L). Commercial activities targeted for BMP guidance and education are selected on Countywide criteria, regardless of the threat a targeted commercial activity poses in a specific municipality.</p> <p>The proposed DAMP does not adequately ensure that high priority commercial activities are inspected for compliance with local storm water ordinances. Inspections of commercial facilities for local compliance are performed by various County agencies, but there is no documentation of visits, findings, or follow-up actions, thus, there is no means for assessing whether high priority sites within a local jurisdiction are being inspected or for assessing the effectiveness of the inspection procedures (DAMP sections 3.0 and 10.0).</p>
Residential (Existing Development)	F.3.d.1 F.3.d.2 F.3.d.3 F.3.d.4		Pollution Prevention Threat to Water Quality Prioritization BMP Implementation Enforcement of Residential Areas and Activities	<p>Although the proposed DAMP would continue a strong educational effort targeting residential activities, it neglects to prioritize particular residential activities for action (DAMP section 6). Furthermore, it does provide a framework from which to assess the need or feasibility of structural BMPs. Given the proliferation of residential development and the documented contribution of pollutants from residential activities that enter receiving waters via the MS4, the DAMP provides inadequate commitments for ensuring that pollutants in urban runoff from residential activities are reduced to the maximum extent practicable.</p>
Education Component	F.4	6.0; 6.3.2 6.4;	Implement the Education Component of the Jurisdictional URMP to	<p>The proposed DAMP continues a strong commitment to public education shown by the Copermittees during the first two Permit periods.</p>

		Appendix L	measurably increase the knowledge of target communities and change behavior of target communities.	<p>Two notable new commitments are the formation of a public education committee and the implementation of the Public and Business Education Strategy. The Copermittees should review the various educational programs to ensure that they satisfy all the requirements of the Order in sections F.1.d, F.2.j, F.4.a, F.4.b, and F.4.c., especially with respect to the target audiences and contents of the Educational Components.</p> <p>The DAMP correctly emphasizes “effective” education programs, but could provide more specific information regarding the criteria that have been found to characterize effective educational programs.</p>
Illicit Discharge Detection and Elimination Component	F.5.	10.0; Appendix K	Implement the Illicit Discharge and Elimination Component of the Jurisdictional URMP to actively seek and eliminate illicit discharges and connections.	<p>See comments regarding industrial and commercial facility inspections (DAMP section 10.3).</p> <p>In addition, investigation and enforcement measures in the proposed DAMP appear to be insufficient to implement and enforce means to prevent illicit discharges to the MS4 (DAMP section 10). For example, as reported in the Report of Waste Discharge and NPDES Annual Progress Reports, the overwhelming majority of enforcement actions consist of educational letters in response to complaints and actual observances of discharges that violate local ordinances. There is no proposed mechanism, however, for determining the effectiveness of such letters. For example, there is no attempt to assess whether a recipient of an educational letter understands the content of the letter, any enclosed storm water brochures, or the actual liability of continuing to discharge illegally to the MS4.</p>

				<p>The proposed DAMP calls for reviewing and revising coordinated spill response procedures with sewerage agencies, but there is no timeframe (DAMP section 10). In addition, although spills from private laterals are a threat to water quality, there is no indication of a plan to address this source of pollution.</p>
<p>Illicit Discharge Detection and Elimination Component</p>	F.5.a	10.0	<p>Illicit Discharges and Connections</p>	<p>Section 10.1 incorrectly identifies illicit discharges as “any <u>intentional</u> discharge...that is not entirely composed of storm water...” (emphasis added). The DAMP does not adequately address <u>unintentional</u> discharges not composed entirely of storm water that enter the MS4 system. In fact, the Water Quality Ordinance specifically provides an exception for accidental sewage spills, roof runoff, and reclaimed water runoff from enforcement as illicit discharges.</p>
<p>Illicit Discharge Detection and Elimination Component</p>	F.5.b	10.0; Appendix K	<p>Dry Weather Monitoring Program</p>	<p>The discussion of the dry weather monitoring component of the Orange County Water Quality Monitoring Program in Appendix K provides a general description of the program development and goals, but leaves unanswered, or insufficiently described, how the program will be implemented year by year at a jurisdictional level. The monitoring proposal in Appendix K is insufficiently detailed and where detail is provided, the program appears to be too rigid and focused on specific locations to detect episodic illicit discharges in a broader, watershed context.</p> <p>Only three “warm spot” stations and three “reconnaissance warm spot” sampling stations are located in the San Juan Creek Watershed Management Area covered under this Order. It is not clear in Appendix K from sections 5.1, 5.1.2, Table 5.1, and Figure 5.2 that these</p>

				<p>reconnaissance stations are included in the 5 year plan for Source Identification for Warm Spots and CARs (Critical Aquatic Resources). Furthermore, the San Juan Creek watershed, the largest hydrologic unit in the San Juan Creek Watershed Management Area, does not seem to be included in this program. Moreover, the section (5.1.4) of Appendix K discussing Aliso Creek is very dated (even with respect to information available in September 2000) and does not describe in any detail how the results of the previous investigations will be addressed in the Dry Weather Monitoring Program or the implementation of the proposed DAMP.</p> <p>Section 5.2.2 of Appendix K provides only very general description of monitoring tools and techniques that may be used to identify sources. Although the use of a mobile lab on a monthly basis is proposed, the section lacks clearly presented, specific information with respect to the sites to be sampled, parameters to be analyzed at each, and the follow-up mechanisms and investigative measures to be employed.</p> <p>The sampling parameters and frequencies are not sufficiently detailed, and where described, they may be insufficient to detect incidental, episodic, and short duration illicit discharges even in these drainages. The monitoring program described does not provide enough information to the Copermittees in a timely enough manner to result in the detection and elimination of illicit discharges and illegal connections. The monitoring program is insufficiently linked to the jurisdictional level program.</p>
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				<p>Where land use investigation studies are proposed, these focus only on various, select, BMPs (i.e. trash dumpster areas, street sweeping efficiencies, inlet trash racks, and motor fuel concrete dispensing area interruptible drainages). To the extent that land use investigations are performed, they should include each of the major categories of land use. Land use investigations may not provide adequate, timely information regarding episodic illicit discharges or illegal connections.</p> <p>Finally, the program reevaluation period of five years for this monitoring effort (ending June 2003) is too long to provide timely information and adaptive management opportunities to a Dry Weather Monitoring Program intended to detect and eliminate illicit discharges and illegal connections.</p> <p>The Dry Weather Monitoring Program should be extensively reviewed and revised to address the requirements of the Order and to provide a broader scope for reconnaissance and surveillance Dry Weather Monitoring that considers the entire San Juan Creek Watershed Management Area within Orange County.</p>
<p>Illicit Discharge Detection and Elimination Component</p>	<p>F.5.c F.5.d F.5.e</p>	<p>10.0; Appendix K</p>	<p>Investigation/Inspection and Follow-up</p> <p>Elimination of Illicit Discharges and Connections</p> <p>Enforce Ordinances</p>	<p>DAMP does not provide necessary detail for detection and elimination of Illicit Discharges and Illegal Connections (IC/IDs). It does provide for training of inspectors and regular meetings to discuss compliance inspections, but only for industrial inspections. This should be expanded to include municipal, residential, and commercial land uses and to address detection and elimination of IC/IDs. The dry weather monitoring program should be describe specific minimum</p>

				frequencies of inspections, monitoring requirements, trigger thresholds for further investigation, and minimum response and enforcement actions.
Illicit Discharge Detection and Elimination Component	F.5.f	10.0	Prevent and Respond to Sewage Spills (Including Private Laterals and Failing Septic Systems) and Other Spills	The New Commitment to coordinate with major sewerage agencies the review and revision of procedures and practices for sewage spill response does not have sufficient detail by which to evaluate the compliance by the Copermittees with the Order. For example, the new commitment does not address the Copermittee level prevention, response, and clean up of all sewage and other spills from any source, including private laterals and failing septic systems. Also, the new commitment does not address the prevention of entry of silts into the MS4 and contamination of surface water, ground water, and soil to the MEP. Finally, the new commitment and section 10 in general does not address in sufficient detail how the Copermittees will satisfy the requirement to coordinate spill prevention, containment, and response activities throughout all appropriate departments, programs, and agencies.
Illicit Discharge Detection and Elimination Component	F.5.g	10.0	Facilitate Public Reporting of Illicit Discharges and Connections – Public Hotline	The proposed DAMP includes very good countywide programs to facilitate public reporting of illicit discharges and connections. Additional specific detail is necessary at a jurisdictional level regarding the implementation of this requirement.
	F.5.h	5.1; 5.3.2; 5.3.7; 10.0	Facilitate Public Disposal of Used Oil and Toxic Materials	The DAMP adequately describes the programs implemented to facilitate the public disposal of used oil and toxic materials. These programs have been very successfully implemented by the Copermittees and should be continued.
	F.5.i	5.1; 5.4; 10.0	Limit Infiltration from Sanitary Sewer to MS4	Although the DAMP discusses the extensive inspection and clean out program proposed for the MS4 system, the DAMP does not adequately

				describe the measures undertaken by the Copermittees to limit infiltration from sanitary sewers to the MS4. For example, the DAMP proposes an annual inspection rate 80% of the MS4 system, but does not describe measures to be implemented that would provide for the thorough, preventative maintenance of the MS4. Moreover, the role of the Copermittees that own or operate both a sanitary sewer and a MS4 system is not adequately described in the DAMP.
Common Interest Areas and Homeowners Associations	F.6.a F.6.b	7.0; Appendix G	Each Copermittee develops and implements a plan to ensure that urban runoff originating within common interest areas meets the objectives of the Order. Each Copermittee describes in its Annual Report measures taken to ensure that urban runoff discharged from common interest areas into its MS4 meets the objectives of the Order.	The DAMP addresses new developments subject to ownership and management by common interest associations (DAMP section 7 and Appendix G), but does not provide adequate means for assuring that existing development in common interest areas are reducing pollutants to the MEP.
Public Participation Component	F.7	3.3.4	Each Copermittee incorporates a mechanism for public participation in the implementation of the Jurisdictional URMP.	The proposed DAMP encourages public participation in accordance with the NPDES Storm Water Permits, but does not specifically describe a mechanism for public participation in the implementation of the Jurisdictional Urban Runoff Management Program (or DAMP).
Assessment of Jurisdictional URMP Effectiveness Component	F.8.a F.8.b	Section 5.0 (ROWD); 3.1; 3.2; 3.3.1; 3.3.2; 3.4;	Each Copermittee develops a long-term strategy to assess the effectiveness of its Jurisdictional URMP. Strategy shall include direct and indirect measurements.	Although the DAMP relies on a BMP-based approach to reducing pollutants in storm water discharges to the maximum extent practicable, an assessment of BMP effectiveness (DAMP section 3.3) at the jurisdictional level is not effectively attainable under the current monitoring program (see comments for F.3 above).

		3.5	<p>Strategy shall consider the role of monitoring data in substantiating or refining the assessment.</p> <p>Each Copermittee shall include an assessment of the effectiveness of the Jurisdictional URMP in its Annual Report as described above.</p>	<p>Section 5.0 of the Report of Waste Discharge and section 3.3.2 of DAMP lacks specificity with regard to the assessment of the effectiveness of all of the general programs or individual BMP implemented to reduce pollutant loading to the MS4 and receiving waters. These sections, rather, discusses why the Copermittees feel they are unable to evaluate BMPs and a list of studies that have or will be performed, mostly by non-Copermittees. Section 3.3.2 refers to a number of programs that are currently contributing to the assessment of individual project BMP performance, but does not list, refer to, or describe these programs.</p> <p>Where the DAMP commits to the assessment BMP effectiveness, the DAMP fails to provide sufficient information regarding how the assessments will be performed, what the time lines for the assessments will be followed, and how the implementation of the DAMP will incorporate the data collected from the assessments.</p> <p>Section 3.3.3 of the DAMP states that the DAMP will be revised and submitted as the proposed plan for each Report of Waste Discharge. Section 3.5 includes as a new commitment the assessment and evaluation of data from site-specific BMPs in order to determine effectiveness of the BMP implementation. It is not clear from section 3.3.3 that the DAMP will be revised and updated as data from the assessments of program and BMP implementation is made available. The DAMP proposes to be a dynamic document subject to revision and improvement on</p>
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				<p>an annual basis, but review of previously submitted DAMPs does not indicate that this has in practice been accomplished. The 1993 DAMP and the 2001 DAMP are very similar in structure and content. Section 3.3.2 states that the BMPs implemented under the previous permits will be largely continued and indicates that in many instances, changes have been included to further improve the effectiveness over the Third Permit Term and to increase Copermittee commitment to their implementation. However, it is not clear in the subsequent sections of the DAMP where or how these changes have been made. Section 3.3.2 also includes two statements that make it appear unlikely that the DAMP will be significantly updated annually: "Assessing the cumulative effect of BMPs employed countywide on the water quality of receiving waters may take a number of years" and "it has not proven possible to characterize the effects of ...BMPs." Given the lack of specificity in these sections, and the apparent inability to assess the effectiveness of the BMPs implemented, the DAMP approaches to assessing program effectiveness as required in sections F.8 and J.2.h and J.2.i is considered inadequate.</p>
Fiscal Analysis Component	F.9	2.2.2; 2.2.5; 3.4; Appendix C; Appendix D	<p>Each Copermittee shall secure the resources necessary to meet the requirements of the Order</p> <p>Each Copermittee shall develop a strategy to conduct a fiscal analysis of its Jurisdictional URMP in its entirety.</p>	<p>Federal NPDES regulations require the Copermittees to estimate the funds required to carry out the capital and operations and maintenance activities of their programs and to provide a description of the source(s) of funds to be used. The DAMP calls for the Copermittees to report each year on their non-shared expenditures for the previous fiscal year, the budget for the current fiscal year and a description of the source of funds. In addition, shared costs fund activities performed by the County of Orange as Principal</p>

			<p>Each Copermittee shall conduct an annual fiscal analysis as part of its Jurisdictional URMP Annual Report.</p> <p>The fiscal analysis shall evaluate the expenditures necessary to accomplish the activities of the Jurisdictional URMP.</p> <p>The fiscal analysis shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures including legal restrictions on the use of such funds.</p>	<p>Permittee on behalf of the Copermittees. In general this fiscal analysis approach satisfies the requirements of the Order.</p> <p>In the 2000 NPDES Annual Report, however, where 8 cities and the County of Orange provide fiscal analyses in a table format corresponding to DAMP section commitments, we are concerned about the following trends. "Drainage facility maintenance" is the only element projected for funding by every Copermittee. Four cities (50%) and the County project no funds for "public property and street chemical spill response." Six cities (75%) and the county project no spending on "environmental performance," which is an evaluation of municipal facilities. Four cities (50%) and the County project no spending on "nonpoint source pollution awareness" and six cities (75%) and the County project no spending on "household hazardous waste collection." Four cities (50%) and the County project no spending on "requiring new development BMPs (supportive of planning, etc.)," and "requiring construction BMPs (supportive of plan check and inspection)." In addition, three cities (38%) project no spending on "facility inspection," although this may presumably be attributed to some cities delegating inspection to the Principal Permittee. Yet, seven cities (88%) and the County project no spending on "other efforts to identify and eliminate illicit connections."</p> <p>Taken together, these spending projections imply that either the reporting system should be modified or there is a systemic lack of commitment to addressing DAMP elements at the jurisdictional level.</p>
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<p>Implementation of Jurisdictional URMP</p>	<p>G</p>		<p>Each Copermittee shall have completed full implementation of the requirements of the Jurisdictional URMP no later than 365 days following adoption of the Order.</p> <p>Full implementation does not include the implementation of the model SUSMP. Within 180 days of the development of the model SUSMP, each Copermittee shall adopt its own local SUSMP and amended ordinances consistent with the model SUSMP.</p> <p>Within 180 days of the development of the model SUSMP, each Copermittee shall submit its local SUSMP and amended ordinances consistent with the model SUSMP.</p> <p>Following the adoption of the Order and prior to the implementation of the Jurisdictional URMP, each Copermittee shall at a minimum implement the provisions and commitments of the proposed DAMP.</p>	<p>The DAMP does not adequately address the requirements of section G as described in the preceding section (F) of the Order.</p>
<p>Submittal of Jurisdictional URMP Document</p>	<p>H</p>	<p>Not Addressed</p>	<p>Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP</p>	<p>The DAMP does not adequately address the requirements of section H of the Order since it is specific to the requirements of sections F and G of</p>

			<p>Document.</p> <p>The Jurisdictional URMP Document shall contain a written account of the overall program to be conducted by the Copermittee within its jurisdiction.</p>	<p>the Order. See discussion of these sections above.</p>
<p>Submittal of Jurisdictional URMP Annual Report</p>	I	Not Addressed	<p>Requirements for the submittal of each Copermittee's Jurisdictional URMP Report.</p>	<p>The DAMP does not adequately address the requirements of section I of the Order since it is specific to the requirements of sections F, G, and H of the Order. See discussion of these sections above.</p>
<p>Watershed Urban Runoff Management Program (Watershed URMP)</p>	J.1	1.3; 3.3.1; 11.4	<p>Copermittees collaborate to review and revise as necessary the proposed DAMP to identify, address, and mitigate the highest priority water quality issues/pollutants in the six hydrologic units in the San Juan Creek Watershed Management Area.</p>	<p>The DAMP indicates that water quality problems have been and will be identified and prioritized. However, the water quality planning initiatives referred to in section 1.3 and described in sections 3.3.1 and 11.4 consist primarily of monitoring activities Section 11.4 describes water quality planning initiatives underway in Orange County, only one of which is located in the San Juan Creek Watershed Management Area. The DAMP does not adequately address the other five hydrologic units. Moreover, most of the section discussing the Aliso Creek watershed focuses on the 205(j) grant study and the SDRWQCB directives for increased monitoring in the Aliso Creek watershed. The activities or plans of the Copermittees to identify and eliminate sources of the elevated bacteria levels and toxicity identified in the Aliso Creek watershed are not addressed. None of the new commitments in 11.5 address the requirement to identify and eliminate sources and to implement BMPs to reduce pollutants in the discharges.</p>
<p>Watershed Urban Runoff</p>	J.2	1.3;	<p>Copermittees collaborate to</p>	<p>The DAMP does not specifically address the</p>

Management Program (Watershed URMP)		3.3.1; 11.4	develop and implement a Watershed Urban Runoff Management program for the six hydrologic units of the San Juan Creek Watershed Management Area.	requirement to collaborate to develop and implement a Watershed URMP or equivalent for each of the six hydrologic units of the San Juan Creek Watershed Management Area within Orange County. See also the discussion above for section J.1.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.a	1.3; 3.3.1; 11.4	Prepare an accurate map of the watersheds in the San Juan Creek Watershed Management Area that identifies all receiving waters, all 303(d) listed water bodies, existing and planned land uses, MS4s, major highways, jurisdictional boundaries, and inventoried commercial, construction, industrial, municipal sites, and residential areas.	Although the Copermittees have prepared maps of the Aliso Creek watershed in response to directives from the SDRWQCB, the preparation of these maps as described in section J.2.a is not addressed in the DAMP.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.b	3.3.1; 3.3.2; 10.0; 11.0; 11.4; Appendix K	An assessment of water quality of all receiving waters in the watershed based on existing water quality data, annual dry weather monitoring, and watershed receiving water quality monitoring.	It is not apparent that the water quality monitoring program discussed in the DAMP and Appendix K will adequately assess water quality of all receiving waters in the San Juan Creek Watershed Management Area. The DAMP and monitoring programs should be updated to comply with this requirement of the Order.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.c	3.3.1; 3.3.2; 10.0; 11.0; 11.3.3 11.4; Appendix K	Identify and prioritize major water quality problems caused or contributed to by MS4 discharges and the likely source(s) of the problem(s).	This requirement is not adequately addressed in the DAMP or Appendix K. The DAMP states that one purpose of the monitoring is to determine the role "if any" that storm water discharges in the impairment of beneficial uses. However, it is not clear that the monitoring plan described in Appendix K and the DAMP is adequate in scope to address this question in the San Juan Creek Watershed Management Area. See the

<p>Watershed Urban Runoff Management Program (Watershed URMP)</p>	<p>J.2.d</p>		<p>Implementation time schedule for short and long term recommended activities (individual and collective) needed to address the highest priority water quality problems identified above.</p>	<p>discussion for section P below.</p> <p>The DAMP does not include an implementation time schedule for short or long term recommended activities (individual or collective) needed to address the highest water quality problems in the San Juan Creek Watershed Management Area.</p> <p>It should be noted here that many of the new commitments proposed in the DAMP are activities that were logically required under both the First Term and Second Term Permits (e.g. attendance at workshops, training seminars, and Copermittee TAC meetings) rather than implementation of specific BMPs to address either watershed level or jurisdictional level water quality impacts from MS4 discharges.</p>
<p>Watershed Urban Runoff Management Program (Watershed URMP)</p>	<p>J.2.e</p>		<p>Mechanism for public participation</p>	<p>The proposed DAMP encourages public participation in accordance with the NPDES Storm Water Permits, but does not specifically describe a mechanism for public participation in the implementation of the Watershed Urban Runoff Management Program (or the DAMP water quality planning initiatives such as the one on Aliso Creek).</p>
<p>Watershed Urban Runoff Management Program (Watershed URMP)</p>	<p>J.2.f</p>		<p>Watershed based education program that builds on and expands upon the education activities conducted by each Copermittee.</p>	<p>The proposed DAMP continues a strong commitment to public education shown by the Copermittees during the first two Permit periods. Two notable new commitments are the formation of a public education committee and the implementation of the Public and Business Education Strategy. The Copermittees should review the various educational programs to ensure that they satisfy all the requirements of the Order, especially with respect to the target audiences and contents of the Educational Component at both a jurisdictional as well as a</p>

				watershed level. The DAMP correctly emphasizes “effective” education programs, but does not provide more specific information regarding the criteria for effective educational programs.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.g	Not Addressed	A Mechanism to facilitate collaborative watershed-based land use planning with neighboring governments in the watershed.	The DAMP does not address this requirement of the Order.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.h	Not Addressed	Short-term strategy for assessing the effectiveness of the activities and programs implemented under the Watershed URMP. The short-term assessment strategy shall identify methods to assess Watershed URMP effectiveness and include specific direct and indirect performance measures that will track the immediate progress and accomplishments of the Watershed URMP towards improving water quality impacted by urban runoff discharges. The short-term strategy shall address the use of monitoring data collected by the Copermittees in substantiating and refining the assessment.	The DAMP does not address this requirement of the Order. As discussed above, the DAMP fails in most sections to adequately describe a detailed strategy for assessing program effectiveness on either a jurisdictional or watershed level.
Watershed Urban Runoff Management Program (Watershed URMP)	J.2.i		Long- term strategy for assessing the effectiveness of the activities and programs	The DAMP does not address this requirement of the Order. As discussed above, the DAMP fails in most sections to adequately describe a detailed

			implemented under the Watershed URMP. The long-term assessment strategy shall identify include specific direct and indirect performance measures that will track the long-term progress of the Watershed URMP towards improving water quality impacted by urban runoff discharges. The measures shall include surveys, pollutant loading estimations, and receiving water quality monitoring (or their equivalents). The long-term strategy shall address the use of monitoring data collected by the Copermitttees in substantiating and refining the assessment.	strategy for assessing program effectiveness on either a jurisdictional or watershed level.
Implementation of Watershed URMP	K	Not Addressed	Requirements for the implementation of the requirements of the Watershed URMP for the San Juan Creek Watershed Management Area.	The DAMP does not adequately address the requirements of section G as described in the preceding section (J) of the Order.
Submittal of Watershed URMP Document	L	Not Addressed	Requirements for the submittal of the Watershed URMP Document for the San Juan Creek Watershed Management Area.	The DAMP does not adequately address the requirements of section L of the Order since it is specific to the requirements of sections J and K of the Order. See discussion of these sections above.
Submittal of Watershed URMP Annual Report	M	Not Addressed	Requirements for the submittal of the Watershed URMP Annual Report for the San Juan Creek Watershed Management Area.	The DAMP does not adequately address the requirements of section L of the Order since it is specific to the requirements of sections J, K, and L of the Order. See discussion of these sections above.

Program Management	N	2.0; Appendix C; Appendix D	The Copermittees shall implement the Program Management activities and commitments as described in section 2 (Program Management) of the proposed DAMP.	The DAMP contains adequate information and commitments by the Copermittees with regard to program management. See also the discussion below regarding the Principal Permittee Responsibilities.
Principal Permittee Responsibilities	O	2.0; Appendix C;	Description of the designation of the Principal Permittee by the Copermittees and the responsibilities of the Principal Permittee.	The DAMP adequately describes the Principal Permittee Responsibilities, but does address the provision in the Order for the selection of more than one Principal Permittee.
Receiving Waters Monitoring and Reporting Program	P	10.0; 11.0; Appendix K	The Copermittees shall comply with the Receiving Water Monitoring and Reporting Program for Order No. R9-2002-0001 (Attachment B).	<p>The monitoring program described in the DAMP is not adequate to assess compliance with the Order. Section 11.0 of the DAMP describes the objectives of previous monitoring efforts and indicates that the results of the monitoring will be used to “provide technical information to support effective stormwater management program activities...”but does not sufficiently describe what technical information is being collected in the monitoring program or how that information will be used. Other sections of the DAMP where this information might be employed are also vague and non-committal. The DAMP should include specific detail in this regard, especially with respect to identifiable performance standards and time lines for implementation.</p> <p>Two of the four “new commitments,” in which the Copermittees propose to review and revise elements of the water quality monitoring program, are activities that should have been implemented and continue to be implemented as a matter of course. They do not represent significant new commitments.</p>

				<p>The new commitments to participate in the Southern California Bight Regional Monitoring Programs and Southern California Stormwater Monitoring/Research Cooperative Program are supportive of section B. 2.b.5 of Attachment B of the Order. The DAMP, however, should identify how role the Copermittees will specifically participate in these activities and what the anticipated products or results will be.</p> <p>Notably absent in section 11 as a whole, and sections 11.2 and 11.3 in particular, is the assessment of compliance objective of the monitoring program. Since the Second Term Permit monitoring program will carry over into the Third Term, it is necessary that the monitoring also be designed to assess compliance with the Order. This is a critical component of an NPDES and WDR Monitoring and Reporting Program and should be addressed in the DAMP and Appendix K.</p> <p>As discussed in section F.5, only three warm spots and three reconnaissance sites will be monitored under the program. The main effort of the monitoring program described in section 11 and Appendix K is focused in northern Orange County. Significant areas of the San Juan Creek Watershed Management Area covered under the Order are not adequately addressed in the Orange County Water Quality Monitoring Program as it is now described. Also, the monitoring to be performed will not adequately assess the biological, physical and chemical impacts to the receiving waters resulting from the discharge of urban runoff. In particular, coastal storm drain outfall monitoring, ambient coastal receiving</p>
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				<p>waters (apart from Dana Harbor) monitoring, and urban stream bioassessment are not adequately addressed in the DAMP and Appendix K.</p> <p>The DAMP and Appendix K should be updated to satisfy the requirements of section P and Attachment B of the Order.</p>
Task and Submittal Summary	Q	Not Addressed	Tables of Tasks and Submittals required specifically under Order No. R9-2002-0001.	The DAMP does not adequately specify the tasks and deliverables apart from the Annual Reports, next Report of Waste Discharge and submittal of the proposed DAMP at the end of the Third Term Permit cycle. Also, the DAMP does not adequately address reporting of events of non-compliance.
Standard Provisions, Reporting Requirements and Notifications	R	Not Addressed	Requirement for each Copermittee to comply with Standard Provisions, Reporting Requirements, and Notifications contained in Attachment C of the Order.	The DAMP does not adequately address all of the Standard Provisions and Reporting Requirements and Notifications. In particular, the DAMP fails to address the reporting of events of non-compliance. Also, it is not clear that the DAMP meets the requirements in section R.2 that all plans reports, and subsequent amendments submitted in compliance with the Order will be implemented immediately unless otherwise specified and that they will be an enforceable part of the Order upon submission to the SDRWQCB.
Attachment A – Basin Plan Prohibitions		Not Addressed		The DAMP does not adequately address implementation of the Basin Plan Prohibitions under the Third Term Permit as required in the Order.
Attachment B – Receiving Waters Monitoring and Reporting Program for Order No. R9- 2002-0001		10.0; 11.0; Appendix K		See discussion in section P above.
Attachment C – Standard Provisions, Reporting Requirements, and Notifications		Not Addressed		Not specifically addressed by the DAMP.

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Attachment D – Glossary		Glossary (pp. vi-ix)		The DAMP includes a glossary, but it does not define all of the terms contained in Attachment D of the Order.
Attachment E – Dry Weather Analytical and Field Screening Monitoring Specifications – Urban Runoff		10.0; Appendix K		See discussion in section F.5 above.

ATTACHMENT 6 - RESPONSE TO COMMENTS

(Please note, Tentative Order No. 2001-93 was renumbered to Order No. R9-2002-0001)

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GENERAL COMMENTS

Comment: California Coastal Commission appreciates the opportunity to comment on a subject that has long been of high priority to the Coastal Commission: contaminated storm water runoff and its prevention. We applaud your vision and leadership and strongly support the Waste Discharge Requirements. The Coastal Commission enthusiastically supports your work on the Waste Discharge Requirements, for they are an important step towards attaining the goal of healthy, clean watersheds and beaches. The Coastal Commission staff looks forward to our continued partnership with you on these issues, as we recognize that only through collaboration can we protect water quality to the greatest extent. *(California Coastal Commission)*

Response: Comment noted.

Comment: In the draft Technical Report it states that the permit is very prescriptive which helps with repeated requests from the Permittees about what they should be doing in order to comply. If this is the case, why does the permit not include the 69, measurable proactive performance commitments that the Permittees proposed in the 2000 DAMP? *(County of Orange)*

Response: Tentative Order is more prescriptive than Order 96-03 in that it clearly identifies the nature of actions that the copermitttees must implement to address urban runoff from their jurisdictions. The performance measures proposed in the 2000 DAMP, where applicable, can be included in the JURMP and WURMP.

Comment: Bob Morris indicated that the proposed draft permit is very similar to the 1996 permit. One only has to read each permit to see that the 1996 and 2001 permits are totally different. If the Regional Board wanted to keep the permits similar, couldn't the suggested changes be worked out with the permittees in revising the DAMP? *(County of Orange)*

Response: The Tentative Order is similar to the 1996 permit in that both are based on applicable Federal and State law. The Tentative Order does, however, require more specific items to be addressed in each municipality's urban runoff management plan. This is intentional because the municipal management programs revised per each renewal of the 5-year NPDES permit need to be strengthened. Recognizing the effort put forth in the development of the revised DAMP to address countywide issues, the Tentative Order does not prohibit each copermitttee from using the DAMP as a starting point from which to develop jurisdictional plans.

Comment: Response (to first comment, page 2 of Draft Response to Workshop 1) references a "review of technical and economic data that has determined what is broadly feasible." Will this review be provided to the Copermittees so we understand the basis of your assumptions? (*Laguna Niguel*)

Response: The Tentative Order represents the SDRWQCB's framework for MEP. The response to the comment cited above referred to the 10 years work reviewing reports, plans, monitoring data, and other information submitted by municipal storm water Copermittees throughout the San Diego Region. Additionally, a number of references, most of which are cited in the Fact Sheet/Technical Report, also provided information that was incorporated in the Tentative Order. These resources are available to the Copermittees and the public.

Comment: The Cities congratulate the Board Staff for a thorough and very detailed draft, one which attempts to clarify arcane points as well as spell out fundamental requirements in coming to grips with the most important issue of protection of the quality of the waters into which storm water and urban runoff flow. (*Lake Forest & Laguna Woods*)

Response: Comment noted.

Comment: Concerned about County Planning Commission in current Ladera runoff and proposals to add 25,000 new homes east of M.V. What mitigation is planned? (*Mission Viejo*)

Response: Comment noted. The Tentative Order would require new developments of the size mentioned in the comment to comply with SUSMP (Section F.1.b.(2)) criteria to mitigate the impacts of storm water on receiving waters.

Comment: Effluent-dependent (urban runoff) ephemeral streams (e.g. Aliso Creek) are being proposed as potential re-claimed water harvests. Who owns and who may treat and sell these discharges? (*Richard Gardner*)

Response: Aliso Creek meets the definition of both Waters of the State and Waters of the United States. As such, the water in Aliso Creek may be allocated for use by the SWRCB. A water right is a legal entitlement authorizing water to be diverted from a specified source and put to beneficial, nonwasteful use. Water rights are property rights, but their holders do not own the water itself, they possess the right to use it. The exercise of some water rights requires a permit or license from the State Water Resources Control Board, whose objective is to ensure that the State's waters are put to the best possible use and that the public interest is served. In making decisions, the Board must keep three major goals in mind: 1) developing water resources in an orderly manner; 2) preventing waste and unreasonable use of water; and 3) protecting the environment. Water right permits and licenses contain conditions for the use of the water. Water right permits carefully spell out the amounts, conditions, and construction timetables for the proposed water project. Before the Board issues a permit, it must take into account all prior rights and the availability of water in the basin. The Board considers, too, the flows needed to preserve instream uses such as recreation and fish and wildlife habitat. Records of water appropriation and use statewide are maintained by the State Board's Division of Water Rights.

Comment: "Fishable/Swimmable" is Rec-1, so why is there a Rec-2 standard that allows confusion via basin plans? Does Fed EPA recognize Rec-2? (*South Orange County Watershed Conservancy*)

Response: The REC-2 beneficial use includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. The beneficial uses of waterbodies in the San Diego Region are designated by the SDRWQCB and are consistent with USEPA beneficial use categories. The USEPA includes a "secondary" water recreation beneficial use in addition to fishable and swimmable beneficial uses.

Comment: The RWQCB should state that they will provide assistance and support on issues that may arise between Copermittees when addressing jurisdictional issues (shared MS4's -what is coming in to one jurisdiction's MS4 from another's). (*Surfrider Foundation*)

Response: The Principal Permittee is identified in the Tentative Order as the liason(s) between the Copermittees and the SDRWQCB on general permit issues as well as the coordinator of permit activities among the Copermittees. Working with the Principal Permittee, the SDRWQCB will provide such assistance and support as appropriate on issues that may arise between Copermittees when addressing interjurisdictional issues related to the implementation and enforcement of the TentativeOrder.

Comment: We urge the State Board to fully fund and assist in the enforcement and implementation of this order. As you know, in Orange County alone last year there were 881 beach closings. We believe that this permit will help minimize pollution and urban runoff, which is directly impacting water quality along the Orange County coast. (*Surfrider Foundation*)

Response: Comment noted.

Comment: The Surfrider Foundation strongly supports the San Diego Regional Water Quality Control Boards draft Orange County Stormwater Permit which implements urban runoff and pollution control measures, as well as monitoring and assessment throughout southern Orange County.

We believe that this permit details appropriate actions that need to be taken by Copermittees, requiring them to develop and implement Urban Runoff Management Plans (URMP's) to reduce discharges of pollutants to the Maximum Extent Practicable through implementation of Best Management Practices for new development and redevelopment, construction activities, existing development (municipal, industrial, commercial and residential), discharge detection and elimination, and assessment of the effectiveness of the URMP. We also support the requirements for public education and participations part of the URMP development process.

While we are aware that many of the cities and other entities involved with this permit may cite budget constraints as reasons to delay or reduce the scope of the required programs, we believe that full implementation of this order should proceed according to the schedule proposed by the RWQCB.

The RWQCB has developed the framework for a comprehensive urban runoff control program that we believe is crucial to the environmental health of Orange County's beaches and the ocean. (*Surfrider Foundation*)

Response: Comment noted.

Comment: The costs to the Copermittees and the public to implement the requirements of the Tentative Order may be prohibitive.

Economic Considerations:

The proposed permit and the "Economic Issues" section in the draft Fact Sheet do not include any discussion of the costs to Copermitees to comply with the draft Order does not address the economic impacts that the Order would have on the City and the other Copermitees. Instead, the Technical Report focuses on the potential economic impacts to the Permittees of polluted beaches and other waters. These are economic costs of the status quo, not the economic costs of the Tentative Order. To the extent the Technical Report does discuss potential costs of the Tentative Order, it is only with respect to potential costs to developers to comply with the new development requirements of the Tentative Order. Water Code section 13241 only authorizes the Regional Board to require water quality "conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area." Without an adequate analysis of the costs of the proposed permit, the Regional Board cannot fulfill its obligation to take "economic considerations" into account when making its case-by-case determination of appropriate permit requirements meeting the maximum extent practicable standard and in issuing waste discharge requirements pursuant to state law. Therefore, the proposed permit fails to comply with Section 13241(d) of the Water Code and the Clean Water Act.

The Regional Board has both a legal and moral duty to consider the adverse impacts of its actions, together with the beneficial impacts, prior to acting. Water Code Section 13000 requires that: "...activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made, and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." This section generally has been interpreted to mean that, in the course of regulating water quality, Regional Boards must consider and balance various public interest factors and regulate in a reasonable manner consistent with the interests of the people of the State. This directive of the State Legislature should serve to guide all of the regulatory activities of the Regional Board, including the issuance of waste discharge requirements. Water Code Section 13263(a) requires the Regional Boards to address the factors specified in Section 13241 prior to adopting waste discharge requirements. Among other factors, Water Code Section 13241 requires the Regional Board to consider economic considerations prior to adopting water quality objectives that ensure the reasonable protection of beneficial uses:

Generally an assessment of "economic considerations" as required by the Water Code means an assessment and comparison of costs and benefits. See Economic Considerations Task Force Report to the State Board Regarding Development of the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan, October 1995. The State Board's Chief Counsel has expressed the opinion that, when considering economics, the Regional Boards should not simply rely on economic information supplied by the regulated community. Rather the Regional Boards should independently assess economics. See January 4, 1994 Memorandum from William R. Attwater, Chief Counsel, State Water Resources Control Board, to Regional Water Board Executive Officers and Regional Water Board Attorneys entitled: "Guidance on Consideration of Economics in the Adoption of Water Quality Objectives."

MEP Standard:

Under Section 402(p)(3) of the CWA, permits for MS4s must require controls to reduce the discharge of pollutants to the maximum extent practicable. 33 U.S.C. § 1342(p)(3). EPA has not developed effluent guidelines for this MEP standard, and both EPA and the State Board have determined to use BMPs to implement the MEP standard in MS4 permits. In the absence of effluent guidelines, Section 402(a) requires a case-by-case determination of what is practicable, taking into account technical feasibility, cost and affordability.² Accordingly, the State Board has acknowledged that the MEP standard requires the rejection of BMPs when they are not technically feasible or the "cost would be

prohibitive.” See State Board Order WQ 2000- 11 at 20. Similarly, Section 13263(a) of the Water Code requires the Regional Board to consider all of the factors enumerated in Section 13241 when issuing a MS4 permit. The Technical Report does not indicate that any of the required factors have been adequately considered.

“MEP” means to the maximum extent practicable, taking into account considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, technical feasibility, fiscal feasibility, public health risks, societal concerns, and social benefits. See Regional Board Order No. 96-03 (current permit), p. 2, fn. 1; Santa Ana Regional Board Order No. 01-20 (Interim Draft, June 15, 2001), p. 7, fn. 7; Los Angeles Regional Board Order No. 01-XXX (Second Draft, June 29, 2001), Part 5, Definitions, p. 50. See also State Board Office of Chief Counsel, Memorandum dated February 11, 1999, interpreting MEP to include technical feasibility, cost, and benefit.

Cost Estimates and Analyses:

The County of Orange (County) is providing the following analysis of the potential costs and impacts of Tentative Order No. 2001-193 (Tentative Order) for consideration by the San Diego Regional Water Quality Control Board (Regional Board or RWQCB). The analysis addresses: (1) the costs that the citizens and businesses of the County may be required to incur as a result of the Tentative Order; (2) the adverse environmental impacts which may result from adoption of the Tentative Order; (3) the legal exposure which the County and the cities may face if the Tentative Order were to be adopted as proposed; and (4) the potential secondary impacts of the increased costs on the County’s economy and citizens.

The purpose of this analysis is to demonstrate that adoption of the Tentative Order could result in significant costs and adverse impacts, which the Regional Board needs to consider, together with the beneficial impacts, prior to acting on the Tentative Order. The analysis is not intended to be exhaustive or complete, but rather indicative of the costs and impacts that could occur if the Tentative Order were to be adopted. The County believes that, on the basis of this analysis, the Regional Board should conduct its own independent analysis of costs and impacts, beneficial and detrimental, weigh the costs and relative impacts, and modify the Tentative Order accordingly. The impact analysis addresses only the most significant of the new requirements proposed in the Tentative Order, including the following requirements:

1. The requirements to immediately comply with water quality standards, as contained in Prohibition A.2, Receiving Water Limitation C.1, and numerous references in Jurisdictional Urban Runoff Management Plan Section F.
2. The replacement of the current Drainage Area Management Plan (DAMP), with the prescriptive Jurisdictional Urban Runoff Management Program (JURMP), as contained in Section F.

The Impact Analysis is organized as follows. First, there are summaries of the overall costs and impacts of the Tentative Order. Second, there is a discussion of the duty of the Regional Board to consider such costs and impacts prior to adoption of the Tentative Order. Finally, there is a detailed analysis of the costs and impacts of the two major new requirements of concern listed above.

The draft permit imposes several requirements resulting in excessive financial burdens for both program and management costs on municipalities. Under the current NPDES permit, the County and cities are required to implement the DAMP, which was approved by the Regional Board in 1996. For fiscal year 2002-2003, the County estimates that implementation of the DAMP will require an annual expenditure of \$4 million per year. For the same fiscal year, the County estimates that performance of the new tasks necessary under the prescriptive program would require an additional \$14 million per

year to administer. This includes many new full time equivalent employees and additional outside consultant costs that would increase annual implementation costs incurred by the County and the cities under the DAMP by 100%.

Compliance with the Tentative Order would require the County and the cities to incur the following costs:

- It would require construction of a massive system to collect and treat urban runoff, estimated to cost on the order of \$1.4 billion.
- It would require the County and the cities to add many new full time equivalent employees and increase use of outside consultants to administer the program, at an additional cost of \$14 million per year.

Increased Costs to Local Residents and Businesses

In order to finance the construction and operation of the urban runoff treatment system and the increased administrative costs, it would be necessary to increase residential and business costs:

- Residential costs for urban drainage service would have to be increased by approximately \$65 per month (\$59 per month for the urban runoff treatment system and \$6 per month for increased administrative costs).
- The average business costs for urban drainage would have to be increased by approximately \$208 per month (\$190 per month for the urban runoff treatment system and \$18 per month for increased administrative costs).

Adverse Secondary Impacts of Additional Costs

The imposition of additional costs on the citizens and business within the area covered by the Tentative Order could also have a number of adverse secondary impacts. For example, it could adversely impact employment, new development, and the economy of the area. It could also adversely impact public health in lower income families by causing them to divert discretionary income from health care to urban drainage.

Weighing of Beneficial and Adverse Impacts

Although the Tentative Order would result in a number of beneficial impacts, it would also result in a number of adverse impacts. A weighing of the beneficial and adverse impacts leads to the unavoidable conclusion that adoption of the Tentative Order would result in more harm than good. This should cause the RWQCB to amend the Tentative Order prior to adoption to remove the problematic requirements and replace them with requirements that are based on a balancing of public interest factors and which result in more good than harm. The most significant costs and adverse impacts are attributable to the requirement to immediately comply with water quality standards, but significant impacts also result from the requirement to implement a prescriptive management program. The costs and impacts associated with each of these requirements are discussed later in this analysis.

As previously stated, the Tentative Order requires that discharges from the MS4s immediately comply with water quality standards. The County's analysis of the costs and impacts of this requirement is presented below.

Costs of Requirement to Achieve Water Quality Standards Required Treatment Controls

The County and cities currently implement best management practices (BMPs) in accordance with the Regional Board-approved Drainage Area Management Plan (DAMP), as required by the current NPDES permit. With respect to attainment of water quality standards, Section C of the current permit establishes an iterative process for investigating and addressing exceedances of water quality

standards, with the intent that continued refinement of BMPs will eventually lead to compliance with standards. However, if BMPs ultimately prove insufficient to achieve current water quality objectives, federal and State policies provide for the development of alternative water quality objectives that provide reasonable protection of beneficial uses based on local site-specific conditions. Such policies exist because most of the current water quality objectives are based on US EPA national water quality criteria, or a one-size fits all approach, rather than on local water quality uses and conditions. US EPA acknowledges that the national criteria may not be appropriate in all situations.¹ In this regard, it should be noted that many of the inland surface waters within the area are not naturally perennial streams and, but for the discharge of urban runoff, would not contain flow through most of the year. It would be reasonable, therefore, to apply less stringent standards to these streams than natural perennial streams, just as the State Board is presently considering in drafting its "Effluent Dependent Waters" Policy. The Receiving Water language that the State Board adopted in Order No. 99-05 and which was subsequently incorporated into Section C of our current NPDES permit allows consideration of alternative site-specific objectives prior to the requirement of controls that go beyond practicable BMPs. That is one reason the County is willing to accept similar language in the new permit, even though the Ninth Circuit Court of Appeals has clarified that the Clean Water Act does not require that discharges from MS4s strictly comply with water quality standards. The Tentative Order, however, does not comport with Order No. 99-05, and in Prohibition A.2 requires that all urban runoff discharges immediately comply with all water quality standards, irrespective of whether they are achievable with practicable BMPs and irrespective of whether they are appropriate for the types of streams in the area covered by the Tentative Order.

Based on current evidence, the County has to assume that current standards for certain constituents, including but not limited to fecal coliform bacteria, copper, lead, zinc, and nickel, are not going to be achievable through practicable BMPs. For example, the applicable objectives for copper, lead, and other metals are based on US EPA-recommended national water quality criteria for protection of aquatic life developed from laboratory studies. US EPA acknowledges that its metals criteria may be overly conservative in natural waters and has developed processes to adjust the criteria on a site-specific basis. Based on site-specific studies performed in other streams similar to those in the area, it is reasonable to expect that the site-specific copper objective that would be protective of water in local streams would be three to ten times the currently applicable objective.

Thus, pursuant to the Tentative Order, additional controls beyond BMPs would have to be implemented to achieve strict compliance with water quality standards. In the County's judgment, strict compliance with water quality standards would necessitate implementation of structural controls to treat all urban runoff discharges prior to discharge to any local stream or water body. The exact level of treatment necessary to assure compliance with these standards cannot be determined with any degree of certainty. Chemical coagulation, sedimentation, filtration, and disinfection (processes similar to those employed in a conventional water treatment plant) would likely be necessary. Advanced treatment processes, such as carbon treatment or membrane filtration, may also be necessary. In order to ascertain the exact treatment controls needed for compliance with water quality standards, it would be necessary to gather more information and conduct pilot studies. This was not possible within the time frame allowed for commenting on the Tentative Order. An important element of the urban runoff treatment system is a system to intercept the urban runoff before it reaches local streams and to convey it to one or more central locations for treatment. This element is required because it is infeasible to place treatment plants at every point where a storm drain discharges to streams. Moreover, because of the nature of storm events and runoff, it is necessary to provide equalizing storage prior to treatment in order to minimize the size of the treatment plant. Within this particular area, it would be most logical to construct interceptor lines along the length of each creek to convey the storm water to the coast. At a point at or near the coast, equalizing storage would be provided and the storm water could either be treated at individual, watershed treatment plants, or pumped to one or more central plants. Most likely the treated storm water would be discharged to the

ocean. The nature of the Orange County coastal area would present considerable challenges to siting storage facilities of the size necessary to trim storm water peaks and treatment plants. All in all, the system would be a massive, unprecedented undertaking. The County is unaware of any MS4 in the country that has collected and treated all its urban runoff to a level necessary to achieve water quality standards prior to discharge.

Irrespective of this, a prudent person would have to conclude that the only actions that could be taken to assure consistent compliance with current water quality standards, and therefore the proposed permit requirement, would be to collect and treat all urban runoff prior to discharge. The time required to plan, design, finance, and construct a system of this size and complexity would be between ten and twenty years. In the interim, before the system became operational, the County and cities would be in violation of this requirement and subject to enforcement action, fines, and other penalties.

Treatment Costs

The County has not had sufficient time to conduct the engineering studies necessary to determine the exact nature and cost of the collection, storage and treatment facilities that would be necessary to achieve strict compliance with water quality standards. Instead the County has relied for this purpose on a 1997 analysis performed by the County of Sacramento. That analysis assessed the controls and costs necessary to bring urban runoff from the Sacramento metropolitan area into compliance with water quality standards proposed and later adopted in the California Toxics Rule (CTR). The CTR standards are currently applicable to all inland surface waters and enclosed bays and estuaries in California, including such waters within Orange County. Since the Tentative Order requires the discharges from MS4s to comply with all applicable standards, including the CTR standards, it is reasonable to rely on the Sacramento analysis to estimate the costs necessary to bring discharges from local MS4s into compliance with water quality standards. Although the Sacramento County analysis only addressed compliance with CTR standards, a similar system of collection, storage and treatment, and therefore similar costs, would be necessary to achieve certain other applicable standards, including the current Basin Plan objectives for fecal coliform.

Sacramento did a thorough analysis of the reductions that may be achievable through aggressive implementation of BMPs, determined that such BMPs would be insufficient to achieve standards for a number of constituents, and then sized facilities to collect, store, and treat urban runoff from the metropolitan area prior to discharge to the Sacramento River. Based on this analysis (See Appendix B-1), Sacramento determined that it would cost the metropolitan area of approximately 1 million people on the order of \$2.54 billion (in 1997 dollars) to construct the facilities necessary to comply with water quality standards. The annual costs, including amortized capital costs at 7% over twenty years and annual operation and maintenance costs, were estimated to be \$258 million per year. Updating these costs to 2001 dollars, the capital costs would be \$2.9 billion and the total annual cost would be \$295 million per year.

The Orange County population within the San Diego Region is approximately 500,000 people. Therefore, on a strict proportional basis, one could assume that it would cost the County and cities subject to the Tentative Order on the order of \$1.4 billion to construct the necessary collection and treatment facilities and on the order of \$148 million per year to pay for the construction and the ongoing operation and maintenance costs. A comparison of the climatic characteristics of the Sacramento and Orange County areas suggests that this strict proportional-based estimate is reasonable. Sacramento's mean rainfall (16.7 inches per year) is comparable with the mean annual rainfall in the Orange County area covered by the Tentative Order (13.5 inches at the coast and 20.5 inches in the foothills). There are a number of factors, however, that suggest Orange County's costs under the Tentative Order could be greater than those calculated on a proportional basis. First, Sacramento based its estimates on a 2.33-year return storm, whereas to eliminate violations even for one permit term, Orange County would have to design for at least a five-year storm. Second,

Sacramento's estimate was based on placing storm water collection lines along the two major rivers through the metropolitan area, whereas Orange County would have to place collection lines along each of the urban streams, for what appears to be a total length greater than that which formed the basis of the Sacramento cost estimate. Finally, Sacramento had considerable, low-cost agricultural land available next to the Sacramento River upon which to site large equalizing storage ponds and treatment facilities. Orange County does not have large amounts of low-cost land available along the coast for this purpose. For the purpose of these comments, it is reasonable to apply Sacramento's estimated costs for compliance with water quality standards, updated to year 2001 costs, on a strict proportional basis to that portion of Orange County covered by the Tentative Order. (On that basis, as previously stated, it would cost the County and cities subject to the Tentative Order on the order of \$1.4 billion to construct the necessary collection and treatment facilities and on the order of \$148 million per year to fund the construction and the ongoing operation and maintenance costs.) Detailed engineering studies of collection and treatment facilities sizing and alternatives, and pilot studies, would be necessary to develop more accurate cost estimates. However, the above costs represent the best possible engineering estimate based on the available information.

Adverse Impacts of Requirement to Achieve Water Quality Standards Increased Costs to Local Residents and Businesses

Implementation of the necessary treatment controls would have a significant impact on urban drainage costs paid by the area's residents and businesses. Based on a total annual cost of \$148 million per year and 500,000 residents, and assuming that local residents would be responsible for 80% of the total annual cost and local businesses would be responsible for the remaining 20%, the average household would be required to pay an additional \$59 per month (based on a population of 500,000, 3.0 persons per household, and 80% of the costs spread among those households). Assuming that the remaining 20% of the treatment costs would be divided between 13,000 businesses, the average business would be required to pay an additional \$190 per month as a result of this requirement. The estimated number of businesses is based on allocating the number of private non-farm establishments in Orange County as determined in the 2000 Census (75,154), to the southern portion of the County in proportion to the respective populations (500,000 for the southern portion and 2,846,289 for the entire County).

Adverse Secondary Impacts of Compliance Costs

The increased residential and business fees necessary to construct and operate the urban runoff treatment system could have adverse secondary impacts, as discussed below. Adverse impacts on the local economy. The increased residential and business costs required to achieve strict compliance with water quality standards could have a potential adverse impact on employment, personal and discretionary income, new development, and the general economy of the area. An economic impact analysis performed by the State of Ohio estimated that significant adverse economic impacts would occur if per capita costs were raised by about \$91 per year. The State of Ohio estimated that imposing effluent limitations in municipal wastewater and industrial permits requiring reverse osmosis would have had economic impacts well beyond just the increase in rates needed to pay for the additional treatment. Based on an estimated annualized cost of \$1 billion per year, Ohio, with a population on the order of 11 million people, estimated that real output would have decreased in all sectors of the State's economy, approximately 47,000 jobs would have been lost, total personal income would have fallen by 0.8%, and real discretionary income would have been reduced by 1.2%. The area of Orange County impacted by the Tentative Order has a population of about 500,000 people, and this population is facing a per capita cost increase of about \$296 per year to collect and treat urban runoff (total annual cost of \$148 million per year divided by 500,000 people), or about three times the per capita costs assumed in the Ohio study. The County has not attempted to estimate the adverse economic impacts that would occur as a result of the requirement to achieve strict compliance with water quality standards.

However, it is reasonable to assume, based on the Ohio study, that there would be adverse economic impacts as a result of this requirement. The Regional Board needs to independently evaluate the potential for adverse economic impacts before acting on the Tentative Order.

Adverse Impacts of the Prescriptive Program.

Implementation of the prescriptive program would have a significant impact on urban drainage costs paid by the area's residents and businesses. Based on a total annual cost of \$14 million per year and 500,000 residents, and assuming that local residents would be responsible for 80% of the total annual cost and local businesses would be responsible for the remaining 20%, the average household would be required to pay an additional \$6 per month (based on a population of 500,000, 3.0 persons per household, and 80% of the costs spread among those households). Assuming that the remaining 20% of the increased drainage costs would be divided between 13,000 businesses, the average business would be required to pay an additional \$18 per month.

Based on estimates by cities under the San Diego permit, the City of Lake Forest's storm water budget during the second year of the permit could easily approach \$500,000. The City understands the need to reinforce our efforts with respect to storm water quality management; however, the proposed permit takes an alarmingly expansive view of the role of the Regional Board in mandating the manner in which to achieve these objectives.

The Tentative Order would require resources intended for implementation of the DAMP be spent on some lower priority drainage issues as well as other high priority community needs.
(Lake Forest, Aliso Viejo, MJF Consulting, Rancho Santa Margarita, Mission Viejo, County of Orange, Richard Watson & Associates)

Response: The public adoption process for the Tentative Order enables to the SDRWQCB to consider all potential impacts, both beneficial and detrimental, consistent with the public interest.

The regional board is not required to undertake a formal Cost/Benefit Analysis, or other comprehensive economic analysis for the issuance of waste discharge requirements. While regional boards are required to consider economic factors in the development of basin plans (W.C. 13241), regional boards are not specifically required to undertake Cost/Benefit Analysis. Neither do federal regulations compel reliance on any particular form of economic analysis in the implementation of requirements based on the MEP performance standard; the admonition quoted from 64 Fed. Reg. 68722 & 68732 calls for flexible interpretation of MEP based on site-specific characteristics and "cost considerations as well as water quality effects...." Thus, while the regional board is advised to consider costs as a factor in determining the reasonableness or practicability of requirements, there is no state or federal mandate for a more formal economic analysis involving the development of Cost/Benefit or Cost-Effectiveness relationships.

The SDRWQCB considers factors that balance environmental protection with job creation, housing construction and affordability, and maintain a healthy economy during the process of adoption of the Tentative Order. It is the responsibility of the SDRWQCB to protect the beneficial uses of receiving waters within the San Diego Region through the implementation and enforcement of waste discharge requirements and permits while considering the costs required to protect or restore those waters. It is the responsibility of the Copermittees, however, to secure the resources and implement and enforce the programs necessary to meet the requirements of the Tentative Order.

The SDRWQCB has considered the costs associated with implementation of requirements for discharges to MS4 as well as the costs incurred as a result of exceedances of receiving water quality objectives associated with discharges from MS4. While there will be, undoubtedly, increased costs to municipalities to implement requirements of the Tentative Order, the increased burden associated

with these requirements is not unreasonable in view of the following factors: municipalities can pass costs for planning and permitting on to permit applicants; municipalities can impose fees on persons who use MS4 infrastructure or require services from the municipality; municipalities can incorporate pollution prevention and control planning into existing planning activities; and municipalities can incorporate pollution and control implementation into existing regulatory functions.

The Copermittees estimate that the Tentative Order will require an additional \$14 million (over DAMP costs) per year to achieve with the Tentative Order. However, it is the responsibility of the Copermittees to develop and implement a balanced program in compliance with the Tentative Order that will minimize costs and maximize benefits. The Copermittees have used an analysis by the County of Sacramento to estimate costs of compliance with the Tentative Order to be \$1.4 billion to construct a system to collect and treat all runoff. This analysis represent only one highly engineered alternative to achieve compliance and additional alternatives should be considered that may reduce costs.

Several of the commenters assert that the provisions of section 13241 of the CWC directly apply to the adoption of the Tentative Order. While the provisions of section 13241 may apply to the Tentative Order, they do not apply in the direct manner proposed by commenters. Section 13241 clearly applies to the development of water quality objectives. It includes a list of "factors to be considered by a regional board in establishing water quality objectives." Therefore, section 13241 may only apply to the Tentative Order's application of the water quality objectives designated in the Basin Plan. These water quality objectives are developed during the Basin Plan's planning process, not during adoption of permits meant to implement the Basin Plan (see section D.1 for further discussion). As such, the provisions of 13241 are met by the SDRWQCB during the process of adoption and re-issuance of the Basin Plan, as well as during the Triennial Review of water quality standards the SDRWQCB conducts pursuant to the Clean Water Act. Because the Tentative Order implements the Basin Plan's water quality objectives, these efforts to meet the provisions of 13241 during the Basin Plan planning process also apply to the Tentative Order. Therefore, the SDRWQCB has met the requirements of 13241 with respect to both the Basin Plan and the Tentative Order.

While the provisions of section 13241 do not directly apply to the adoption of the Tentative Order, the SDRWQCB has an adequately process in which to include "economic considerations" into its decision to adopt the Tentative Order. The Draft Fact Sheet/Technical Report for the Tentative Order contains a four page discussion of economic issues regarding the regulation and management of urban runoff. The Staff Report for Standard Urban Storm Water Mitigation Plans and Numerical Sizing Criteria for Best Management Practices for Order No. 2001-01 also includes calculations for estimated costs for compliance with the Tentative Order's SUSMP provisions. Information regarding the costs and benefits of implementing the SUSMP provisions were also provided to the SDRWQCB during a March 8, 2000 SUSMP workshop. In addition, the SDRWQCB received, reviewed, and responded to many comments regarding the cost of implementing the permit. Furthermore, largely effective urban runoff management programs, such as by the City of Encinitas, have been implemented with some success and have not been found to be cost prohibitive. At the time this response was prepared, the 20 Copermittees in San Diego County have spent eight months allocating and developing resources, hiring staff, and developing and implementing programs required under Order No. 2001-01, the model permit for the San Diego Region. Nearly all of these Copermittees argued that the costs would be prohibitive, but have not communicated to the SDRWQCB that they have found this to be the case.

The commenters assert that the SDRWQCB failed to consider the need for developing housing within the region in the Tentative Order. While the SDRWQCB is not strictly required to consider this issue in adopting permits, in actuality it has considered the Tentative Order's potential for impacting housing costs. The SDRWQCB has estimated that implementation of the SUSMP requirements would constitute less than 1% of total project construction costs. Moreover, the SWRCB has found that an

increase in cost of 1-2% for new development (including housing) is reasonable. As noted in a SDRWQCB response to another comment regarding the cost of housing in Southern California, other factors such as supply and demand have far more significant impact on the availability of affordable housing in Orange County. In light of these cost calculations and SWRCB guidance, it is clear that the SDRWQCB considered the need for developing housing with the region.

It should also be noted that by the County of Orange's estimate, annual costs for the program implemented under the status quo (i.e. the existing DAMP programs) will only increase by about 4 million dollars per year. This has been the case since the first term permit. However, it is apparent from the Copermittees own monitoring reports and comments submitted regarding the Tentative Order that very significant exceedances of receiving water quality exist and that deleterious impacts to the beneficial uses of those receiving waters is common. So common are these exceedances in the Aliso Creek watershed, that the entire flow of the creek in the summer months is diverted into a sanitary sewer outfall. Clearly the resources allocated thus far by the Copermittees in this watershed in particular, and in Orange County in general, in implementing their current programs and protecting the beneficial uses of the receiving waters has been far from satisfactory. While the implementation of the requirements of the Tentative Order will require greater resources than merely implementing the current programs, including the DAMP, the benefits to be derived merit the increased costs. While the SDRWQCB has not performed a cost analysis, the costs cited by the Copermittees appear to be excessive and based on engineering solutions that constitute only a limited, and very expensive cross section of the available alternatives. The Tentative Order provides the Copermittees with a framework of minimum requirements and standards and does not specify the manner of compliance. Within that framework, the Copermittees have a wide degree of flexibility and latitude to select the BMP programs that are the most cost effective to prevent or reduce pollutants to the MEP and to protect receiving water quality and beneficial uses.

Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this assertion was prominently stated, the SWRCB has thus far declined to address this issue.

COMMENTS ON MULTIPLE SECTIONS

Comment: Tentative Order No. 2001-193 is basically a clone of the recently issued San Diego Permit and requires the Copermitees to develop new Jurisdictional and Watershed Urban Runoff Management Programs.

Regional Board staff has prepared an all-encompassing Tentative Order that marks a significant departure from the direction taken by the Regional Board in the first two permits issued to Orange County. The Tentative Order is inappropriate for south Orange County and should be significantly revised. The Tentative Order essentially requires the preparation of thirteen (13) Jurisdictional URMPs and one (1) Watershed URMP. This is not practical, cost-effective or prudent. The Copermitees will be required to spend hundreds of thousands of dollars and an enormous amount of staff and consultant time to produce new plan documents. This time and money would be much better spent on real projects and activities that improve water quality. If the Regional Board staff feels that the Draft DAMP requires more detail or specificity in certain areas, or if additional requirements are to be imposed, the DAMP should be amended as necessary.

The JURMP requirements should not be adopted unless and until the Permittees have been given an opportunity to revise the 2000 DAMP. When the Tentative Order was issued, the Regional Board staff dismissed the 2000 DAMP out of hand stating, "The SDRWQCB has determined the implementation of [sic] proposed DAMP would be inadequate to reduce pollutants in the discharge of urban runoff to the maximum extent practicable (MEP) and to protect the beneficial uses of the receiving waters of Orange County within the San Diego Region." Likewise, in the Technical Report, staff repeated its claim that the 2000 DAMP would not satisfy the MEP standard and protect beneficial uses, but failed to provide any real support for this assertion. Staff instead cited to perceived inadequacies in the prior DAMP as the main basis for rejecting the 2000 DAMP. Finding 10 is, in fact, a directive causing us to abandon the Drainage Area Management Plan developed on a regional basis in favor of a Jurisdictional Urban Runoff Management Program. This directive disregards the benefits of the DAMP and causes this relatively homogeneous region to create unnecessary individual URMPs for each jurisdiction. Enhancement of the existing DAMP should be the collaborative approach for this Order.

The Tentative Order should not be imposed until the Copermitees until have had sufficient time to review and analyze staff's comments on and concerns with the 2000 DAMP and have been provided with an adequate opportunity to address such comments and concerns. Even if the Regional Board staff's conclusions concerning the adequacy of the 2000 DAMP were accurate, its proposal to unilaterally impose JURMP requirements in its stead clearly puts the cart before the horse. Such requirements should not be imposed unless and until the Permittees have had sufficient time to review and analyze staff's comments on and concerns with the 2000 DAMP and have been provided with an adequate opportunity to address such comments and concerns. The obligation to provide this opportunity for review and revision is not only a component of the Permittees' existing permit, but also a requirement of all MS4 permits, as set forth in State Board Order WQ 98-01. Finally, staff's approach gives short shrift to the significant efforts the Permittees already have made to develop a comprehensive program for managing municipal storm water runoff. As acknowledged by staff, "[C]opermitees have been pro-active in developing [and] implementing a storm water management program, and have stated their intention to continue the development and implementation of storm water management programs." Transcript of Regional Board Hearing adopting Order 96-03, August 8, 1996, p. 20:20-24. That stated intent has been acted upon. The 2000 DAMP documents a program for improving water quality which the Permittees believe is both reasoned and reasonable, in light of the technical and economic exigencies municipalities face in dealing with the problems associated with storm water runoff. Nonetheless, if the Regional Board staff feels that the 2000 DAMP is deficient,

then it has an obligation to explain to the Permittees exactly what those deficiencies are and to provide the Permittees with an opportunity to correct them.

The JURMP requirements in the Tentative Order conflicts with the unified countywide storm water program developed in the DAMP that covers two Regional Board jurisdictions. In Orange County, we do not think a "one size fits all" approach is warranted, considering that we have made great strides in refining and strengthening our program. The Orange County program has a Drainage Area Management Plan (DAMP) that was adopted in 1993. The DAMP has guided the activities of our City and other Orange County cities within the jurisdictions of both Regional Boards. Furthermore, the 2000 DAMP contains many new commitments to strengthen our integrated NPDES program. We respectfully request continuation and enhancement of the DAMP. The DAMP continuation will provide a more beneficial program than to change management practices mid-stream and form separate, individual Jurisdictional Urban Runoff Management Programs (JURMP). The County of Orange, our Principal Permittee, has created a new Watershed & Coastal Resources Division that includes the Storm Water Program and provides a new framework for our watershed-based efforts. A new watershed structure imposed by your Board would confuse the issue and could undermine the existing Division.

Instead of requiring separate Watershed Urban Runoff Management Programs, why doesn't the Regional Board require a watershed section of the DAMP similar to the State Board's requirement that the CALTRANS Statewide Storm Water Management Plan contain a section describing location-specific requirements? Since the DAMP currently has a focus on developing watershed specific chapters that focus in on pollutants of concern, what not simply update the DAMP to include a chapter on each of the watersheds that incorporate the elements of the WURMP program that is in the Tentative Order?

The Revised DAMP should serve as the basis for the new NPDES Permit. The Copermitees have spent considerable time, money, and effort to develop and implement the DAMP which will provide a more beneficial program than to than the Jurisdictional Urban Runoff Management Programs (JURMP) required by the Tentative Order. The Copermitees estimates that DAMP implementation would cost \$9.5 to \$10.5 million annual cost to municipalities from 02/03 to 05/06 as opposed to \$23 to \$25 million annual cost for the Tentative Order. The Regional Board staff's evaluation of the adequacy of the 2000 DAMP was completely skewed since it compared the components of the 2000 DAMP to the requirements of the Tentative Order and, on the basis of that comparison, concluded that the 2000 DAMP was inadequate. It is not surprising, and perhaps expected, that the 2000 DAMP would not meet all of the new detailed and prescriptive requirements of an order which has yet to be adopted by the Regional Board

The Permittees are required to comply with the terms of their current permit though timely implementation of the approved DAMP and any required modifications, revisions, or amendments to the DAMP. See Order No. 96-03 § V.1. If the Executive Officer ("EO") determines that a discharge from an MS4 is causing or contributing to continuing or recurring impairment of beneficial uses or exceedances of water quality objectives, then the EO is required to evaluate the adequacy of the approved DAMP. If the EO finds the DAMP to be adequate, then the Permittees continue implementing the DAMP. If the EO finds the DAMP not adequate, then the EO may require the Permittees to revise the DAMP. Order No. 96-03 § IV.

The Regional Board never informed the Copermitees that the DAMP was inadequate as required by the second term permit Order 96-03. The original DAMP was approved by the Regional Board in 1996 and, since then, there has been no indication from Regional Board staff that the program was in any way inadequate until the July 2, 2001 Tentative Order was circulated for review and comment. On August 23 (one week before the deadline for submission of these comments), staff issued a Revised

Tentative Order, a Revised Technical Report and its analysis of the 2000 DAMP. While language referring to the SDRWQCB finding the DAMP to be inadequate was removed from the Tentative Order it was retained in the Fact Sheet/Technical Report. The Copermittees disagree that the 2000 DAMP is inadequate to satisfy the applicable MEP standard or that it lacks the specificity necessary to ensure that BMPs designed to achieve compliance with the MEP standard are properly implemented. Indeed, the Copermittees find this conclusion surprising given that the components of the 2000 DAMP are in many respects similar to those staff is mandating for inclusion in the JURMP.

The Regional Board should not base the Tentative Order on the area wide Storm Water Permit developed by and for San Diego County Copermittees and should not impose the Standard Urban Storm Water Mitigation Plan designed by and for the Los Angeles County Copermittees. Rather, the Regional Board should allow the Permittees to further develop the 2000 DAMP to serve the intents and purposes of the JURMP and WURMP requirements envisioned in the Tentative Order.

Ironically, the Regional Board staff previously recognized the inappropriateness of utilizing the San Diego Storm Water Permit as the template for the southern Orange County permit, noting that the 1996 Tentative Order should be modeled on the Santa Ana Regional Board's permit for Orange County (Order No. 96-31). The SUSMP requirements were not developed with regional considerations in mind. Rather, they were taken almost verbatim from the SUSMP developed for the Los Angeles County MS4 permit. Contrary to the guidance provided by Congress and EPA, the SUSMP requirements in the Tentative Order are not flexible nor are they site-specific. Furthermore, contrary to staff's apparent understanding, the State Board has not mandated SUSMPs in MS4 permits. Permittees should have the flexibility to develop programs for new development and significant redevelopment that are designed to meet the needs of their own jurisdictions. In fact, SUSMPs may be less effective in protecting overall water quality than the current approach reflected in the 2000 DAMP for reducing the discharge of pollutants from new development and significant redevelopment. The SUSMP approach would require the Permittees to focus solely on priority sites, to the exclusion of all other sites that may be contributing to water quality impairment.

The DAMP focuses on solving water quality problems in receiving waters, i.e. starts at the water being impacted and looks upstream at causes of such impacts. The Tentative Order does not prioritize water bodies for corrective action, but instead requires simultaneous action even for those without listed impairments. The Fact Sheet concludes the DAMP would no longer be an adequate basis of a storm water management program for Orange County, thus the Regional Board staff has effectively thrown out the DAMP, a program that has been in place and built upon for the past decade. The Permittees strongly believe that the DAMP forms a firm foundation for the Orange County storm water program and should not be disrupted or effectively thrown out by the Tentative Order. Therefore, the Permittees request that the DAMP continue to form the basis of future program development and ultimately the Tentative Order. The DAMP establishes a baseline program consisting of proven and cost-effective BMPs that are applicable to all areas countywide. The Tentative Order establishes an intensely prescriptive program for all types of land-use assessment and controls. The DAMP focuses on solving water quality problems in receiving waters, i.e. starts at the water being impacted and looks upstream at causes of such impacts. The Tentative Order focuses on addressing all urban land uses that may affect receiving waters i.e. starts at the land use and applies controls based on perceived threat to the receiving waters. The DAMP prioritizes waterbodies for corrective action with those listed as impaired having a higher priority. The Tentative Order does not prioritize waterbodies for corrective action, but instead requires simultaneous action even for those without listed impairments. The DAMP promotes watershed-level approach and regional BMPs that may also address non-urban sources. The Tentative Order is tightly focused on urban land-use controls and inter-municipal watershed plans, not recognizing watershed-scale restoration.

The existing Drainage Area Management Plan (DAMP) should be revised in place of developing a Jurisdictional Urban Runoff Management Program (URMP). Then, each Copermitee shall implement a DAMP Implementation Program that addresses the DAMP components shown below and described in Sections F. 1 through F.8. Since the Permittees feel strongly that the DAMP is an adequate stormwater program and embodies a holistic approach for dealing with countywide issues as well as specific receiving water impairments and pollutants of concern, a comparison of the updated 2000 Draft DAMP and Tentative Order was completed in order to better illustrate how many of the permit requirements the DAMP currently includes. In addition, the comparison also illustrates how many commitments and program elements the DAMP includes that go beyond the Tentative Order, illustrating the significant program commitment in Orange County. Attachment C compares the Draft 2000 DAMP to the Tentative Order and then provides an analysis as to whether the DAMP program element 1) is not included in the Tentative Order; 2) already partially meets the Tentative Order requirement; 3) already fully meets the Tentative Order requirement; or 4) the Tentative Order requirement is new and therefore, not currently a program element. Accordingly, the Permittees strongly believe that the DAMP forms a firm foundation for the Orange County stormwater program and should not be disrupted or effectively thrown out by the Tentative Order. Therefore, the Permittees request that the DAMP continue to form the basis of future program development and ultimately the Tentative Order. (*Laguna Niguel, San Juan Capistrano, Rancho Santa Margarita, Laguna Hills, County of Orange, San Clemente, Richard Watson and Associates, County of Orange Flood Control District, Dana Point*)

Response: Summary:

The Tentative Order represents the second renewal of a storm water permit in place for eleven years. Significant progress has been made since 1990, but even more significant progress must be made in order to protect receiving water quality and beneficial uses. This is the objective of the Tentative Order. The DAMP, as written, is not adequate, but may be revised to achieve the objectives of the Tentative Order. The following points summarize the more detailed response discussion provided below:

- The Tentative Order contains the framework for the minimum requirements considered necessary by the SDRWQCB to achieve the Maximum Extent Practicable (MEP) standard and to protect the beneficial uses of receiving waters.
- The plans and programs developed by the Copermitees, including the DAMP, are developed and implemented to ensure compliance with the requirements of the permits, not the other way around. The SDRWQCB does not have to wait upon the continued analysis and revision of the DAMP to adopt the Tentative Order.
- The Copermitees may revise and continue implementation of the Drainage Area Management Plan to meet all of the requirements and provisions of the Tentative Order. It is not necessary, however, that the Tentative Order direct them to do so.
- Each Copermitee is accountable for compliance with the Tentative Order and must have a jurisdictional level program tailored to the conditions, land use activities, receiving water quality, and urban runoff issues specific to its jurisdiction. These requirements are based upon the land use authority of each Copermitee.
- The DAMP, as written, does not currently satisfy these requirements, but certainly may serve as a starting point. The Copermitees were informed of this fact and of the opportunity to submit a revised DAMP in several communications.

- The Tentative Order is not a departure from the approach under previous permits and the DAMP, but rather it is more detailed and includes specific requirements, many of which are being implemented at some level under the DAMP. The Tentative Order builds upon and refines the approach taken heretofore under the previous permits and the DAMP.
- The Tentative Order supports a holistic, watershed approach in that it requires full assessment and consideration of all land use activities that contribute pollutants to urban runoff throughout the watershed rather than just in prioritized receiving waters. Sources of pollutants throughout the watershed must be addressed by the Copermittees. It is very important that in focusing on prioritizing water bodies that are already impacted for corrective action, that the Copermittees do not neglect to implement BMPs elsewhere in the watershed to protect other water bodies from becoming impacted and thus candidates for expensive corrective action.

Discussion:

The Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The requirements in the Tentative Order are based on the Federal NPDES regulations and USEPA and SWRCB guidance. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. USEPA supports the approach of increasingly detailed storm water permits, stating "The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards" (USEPA, 1996). The Federal NPDES regulations, CWC, USEPA and SWRCB guidance do not require that a particular program or approach be mandated. None of the aforementioned authorities preclude or prohibit the SDRWQCB from adopting a new approach that it determines is necessary to achieve the MEP standard and to protect the beneficial uses of receiving waters.

As discussed in Finding 17 and the Fact Sheet/Technical Report, the Tentative Order requires more detailed and specific BMP programs to address all three phases of urban development (Land use planning, construction, and existing development). Because the Tentative Order is issued to each Copermittee, each Copermittee must have a program to manage urban runoff within its jurisdiction. The program must be tailored to address the specific urban runoff management issues within its jurisdiction and it must be specific enough as structured in the Tentative Order to ensure fair, uniform implementation and enforcement throughout the region.

As discussed in the Fact Sheet/Technical Report, the DAMP programs require refinement and revision to provide sufficient specificity and to better address these areas and activities in order to achieve the MEP standard and to protect beneficial uses of receiving waters. The Tentative Order does not conflict with the unified countywide storm water program developed and implemented in the Drainage Area Management Plan (DAMP) during the previous two permits.

As discussed during the workshops, it was the intent of the SDRWQCB since 1995 to develop a template Tentative Order that would be revised as necessary and issued throughout the San Diego Region including Orange and Riverside counties. Furthermore, it is evident from the comments received from several Orange County Copermittees during the adoption process for Order 2001-01 that it was common knowledge in Orange County that this was the case. With the benefit of eleven years of storm water permitting, the SDRWQCB has defined the minimum program components and standards it considers necessary for the San Diego Region municipal storm water Copermittees to achieve compliance with the MEP standard, discharge prohibitions, and receiving water limitations. This is embodied in the Tentative Order for which the DAMP, as written, is not satisfactory as the principal tool for implementation of those requirements and provisions. Finally, the Tentative Order

was drafted to ensure regional consistency throughout the San Diego Region when these NPDES Permits and Waste Discharge Requirements are issued on a watershed basis in this region.

The mission of the RWQCBs and SWRCB is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. Unlike county boundaries, the RWQCB Regions were drawn to be inclusive of watersheds of a homogeneous nature. The "benefit" to which the mission statement refers is expressed in terms of the beneficial uses designated in regional Water Quality Control Plans (Basin Plans). Each RWQCB develops its Basin Plan for its own region, in keeping with California Water Code § 13240 et seq. Since the mission of the RWQCBs involves protecting beneficial uses that are designated by region or portion thereof, it is appropriate for the actions of a RWQCB to be specific to its region or portions thereof and consistent within that region. In other words, in carrying out its mission, it is more important that the SDRWQCB take actions as necessary and appropriate to consistently protect beneficial uses in the San Diego region than it is to achieve multi-regional or statewide permit consistency. Furthermore, NPDES permits and Waste Discharge Requirements are required to implement the Basin Plan requirements and provisions. It is argued that a "one size fits all approach" is not warranted. The Tentative Order provides a framework within which significant discretion and flexibility are provided. A common framework is not a "one size fits all approach" and is at least as justifiable as the strict adherence to a program structure established when comparatively little was known about urban runoff management. The Tentative Order is intended first and foremost to protect beneficial uses in the area to which it applies, not to be consistent with permits adopted in the past or that are applicable to other areas. It should be noted that the requirements of Tentative Order 2001-193 are not mutually exclusive of the requirements of Tentative Order 2001-20 proposed for adoption by the Santa Ana RWQCB. Furthermore, implementation of the requirements of Tentative Order 2001-193 would support compliance with the Santa Ana RWQCB Tentative Order and should not constitute substantial hardship to those Copermitees whose jurisdictions extend into both regions.

The Tentative Order does not render the water management plan developed by the County and cities with substantial stakeholder involvement (the DAMP) irrelevant. Nor did it dismiss the DAMP out of hand. In developing and implementing the DAMP under the first and second term permits, the Copermitees developed programs that may be revised and continued under the Tentative Order. However, the previous development and approval of any one or all of the programs, including the DAMP, does not preclude the SDRWQCB from requiring more detailed, more stringent, or differently structured program requirements under future permits. The Tentative Order does not require the Copermitees to discard the programs developed, but to improve upon and expand them as necessary. Moreover, many of the requirements of the Tentative Order are already being implemented at some level by the Copermitees. Nearly all of the performance commitments in the proposed DAMP would at least in part satisfy requirements of the Tentative Order simply because most of these were also required under Order No. 96-03 or are logical extensions of those programs. Nonetheless, the DAMP as written contains significant gaps, a lack of specificity, and should be accordingly updated to conform to the SDRWQCB's definition of the minimum programs and activities necessary to achieve MEP and protect beneficial uses of receiving waters.

The plans and programs developed by the Copermitees, including the DAMP, are developed and implemented to ensure compliance with the requirements of the permits, not the other way around. The Copermitees have the discretion to revise the DAMP and/or develop a model Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) to meet or exceed the requirements of the Tentative Order. The Tentative Order does not "recognize" the DAMP because it is not necessary that it do so.

Contrary to the assertion in the comment above, SWRCB Order WQ 98-01 does not require review and revision of the DAMP prior to the adoption of a new permit beyond the review and revision conducted by the Copermittees in the preparation of their proposed DAMP and Report of Waste Discharge (ROWD). In fact, Order WQ 98-01 ordered the Receiving Water Limitations language in Order No. 96-03 to be interpreted following precedential language contained in Order WQ 98-01. The precedential language in Order WQ 98-01 did not include the language cited in the comment to the effect that the Executive Officer must determine that exceedances are occurring, must evaluate the adequacy of the approved DAMP, and only upon determining that the DAMP was inadequate, may require the revision of the DAMP. SWRCB Order WQ 98-01 effectively removed these requirements in Order No. 96-03.

The SDRWQCB has reviewed the proposed DAMP and the ROWD and has determined the continued implementation of the DAMP would be inadequate to meet the MEP standard and protect receiving water beneficial uses. Thus the SDRWQCB need not wait for the Copermittees to conduct a revision of the DAMP before adopting the Tentative Order, but rather, following the adoption of the Tentative Order, the Copermittees should make the revisions to the DAMP that are necessary. The language of Finding 41 was revised not because the DAMP was determined to be any more adequate, but rather because the original language was unnecessary to the Tentative Order. The analysis of the DAMP with respect to the SDRWQCB's definition of MEP and the discussion of the inadequacy of the DAMP as written and currently implemented was retained in the Fact Sheet/Technical Report to provide additional relevant information.

With respect to the previous approval of the DAMP, that approval was based on limited information and was relevant only to the five-year term of the permit that approved the DAMP Order No. 96-03. Order No. 96-03 made the DAMP an enforceable component of the Order, but did not make the preclude the SDRWQCB from issuing a permit that did not make the DAMP an enforceable component of the Order. Moreover, as discussed above, SWRCB Order WQ 98-01 effectively removed language that placed the burden upon the Executive Officer of the SDRWQCB to determine that exceedances of receiving water quality objectives were occurring and that the DAMP was inadequate prior to requiring revision of the DAMP. No provision, including those cited by the commenters, precluded the SDRWQCB from issuing or adopting a more specific, more detailed, or differently structured permit. The approval of the DAMP in Order No. 96-03 was based on a cursory review of the DAMP that resulted from very limited SDRWQCB resources. Moreover, given that the DAMP had only been developed as recently (then) as three years, it was determined to be good policy that the DAMP be approved as the principal tool for the implementation of the requirements of Order 96-03 until more information that would better define the programs and activities necessary to achieve MEP and protect beneficial uses of receiving waters was available.

Since 1996, the SDRWQCB has better defined its framework for compliance with the MEP standard and protection of receiving water quality in the form of the template that was adopted for San Diego County as Order No. 2001-01. In addition, as reported in the Copermittees monitoring reports and since 1996, water quality in receiving waters like Aliso Creek and San Juan Creek has continued to be degraded; a result at least in part due to the discharge of urban runoff. With exceedances of receiving water quality objectives, the diversion of a major stream into the sanitary sewer, and subsequent enforcement actions, it is clear that the implementation of the DAMP in practice has not achieved the objectives of Order No. 96-03. The commenters have cited elsewhere in their comments their concern that implementation of the requirements of the Tentative Order would not result in improved water quality, but it has not been demonstrated that continued implementation of the DAMP as written would be any more effective in protecting water quality than it has heretofore. The water quality problems facing Orange County are very similar to those elsewhere in the San Diego Region and merit the same management approach adopted elsewhere in the region.

Furthermore, the revised DAMP does not represent a significant advance beyond what was required under Order No. 96-03. Approximately 78% of the “New Performance Commitments” are commitments to implement or evaluate programs that were required under Order No. 96-03 or are logical extensions of those programs. For example 22% of the new commitments are for the evaluation and revision, if necessary, of programs or BMPs implemented under Order No. 96-03. Findings 21, 22 and 24 identify these activities as being integral to the DAMP as a “dynamic document.” Section V.29 of the Order required the submittal of a Report of Waste Discharge that incorporated any revisions to the DAMP, including evaluation of BMPs. Also, another 18% of the new commitments are commitments for the Copermitees to attend meetings or trainings coordinated by the Principal Permittee, which is generally required under section II part 4 of Order No. 96-03 “Participate in committees or subcommittees formed by the principal permittee to address storm water related issues to comply with the Order.” Mere evaluation of existing programs and attendance at meetings, which were required under the previous permit, are not new commitments that will demonstrably achieve compliance with receiving water quality objectives or the MEP standard. Thus, because of the ongoing exceedances of receiving water quality objectives, the limited nature of the new commitments, a lack of specificity in the DAMP, and the fact that the DAMP overall does not adequately address the requirements and activities considered by the SDRWQCB to be necessary to meet MEP and protect receiving water beneficial uses, the proposed DAMP was not considered adequate to be the foundation for the new permit.

Contrary to the assertion by several commenters that the SDRWQCB never informed the Copermitees that the DAMP was inadequate, the Copermitees were informed on several occasions that the DAMP was inadequate to be the basis for the new permit and that the San Diego template would be the model for the Orange County municipal storm water permit renewal. During the November 3, 2000 Santa Ana Basin MS4 Permit Renewal Coordination Meeting in Riverside, SDRWQCB staff verbally informed the Principle Permittee representative, Mr. Christopher Crompton, that the DAMP, as written, was inadequate and would not be the basis for the Tentative Order. During this meeting, several points were clearly made and discussed: 1) The San Diego County MS4 permit would be the model for the renewal of the Orange County permit; 2) The permit would be tied to meeting receiving water quality objectives; 3) That consistency with permits in other regions was not a priority; and 4) The DAMP could be revised. Although revisions were made to the DAMP and submitted to the SDRWQCB in a letter dated February 9, 2001, the revisions were not considered significant and the DAMP was determined to be inadequate as the basis for the new permit. This assessment of the DAMP was confirmed and communicated to the Copermitees in a letter sent February 20, 2001 addressed to Mr. Crompton which stated “Please review these comments as the DAMP, in its current form, has been found as to be inadequate to serve as the foundation for a new permit by this Regional Board.” The Copermitees were invited to submit a revised DAMP and despite a meeting with Orange County staff on March 29, 2001, in which the DAMP was discussed, no revision was submitted. Furthermore, the Copermitees were again formally notified that the DAMP in its current form was inadequate in a 13225 Directive addressed to Mr. Crompton on March 2, 2001 that stated the “...RWQCB review of the Proposed DAMP finds that, in its current form, will be inadequate to serve as the foundation for a program to correct the impairment of Aliso Creek.” These communications alone were sufficient to inform the Copermitees that the DAMP as written was inadequate to serve as a foundation for the Tentative Order. This information was included in the draft Tentative Order and Fact Sheet/Technical Report released on July 2, 2001. While the preparation of a detailed document describing the inadequacies of the DAMP was delayed while preparing the Tentative Order for release and the performance of the workshops, it is important to note that the basic, necessary information regarding the DAMP had been communicated. Furthermore, opportunities to meet again with SDRWQCB staff to discuss the DAMP and to revise and resubmit an updated DAMP were not exercised by the Copermitees.

Nonetheless, it is important again to note that the Tentative Order does not prohibit or preclude the revision and implementation of the DAMP, or equivalent document, as the primary means for compliance with each of the requirements of the Tentative Order. It should be stressed that the requirement for a specific, tailored JURMP Document from each Copermittee is necessary in any revised DAMP and will be subject to review and comment by the SDRWQCB. The reporting requirements of the Tentative Order were included to better track the progress of the development, implementation, and assessment of effectiveness of the required programs and were consolidated as much as possible. These requirements must also be included in a revision of the DAMP.

The development of the Tentative Order has been conducted with substantial review and comment since 1995 and significant changes have been made during its development to improve the implementation and enforcement of the Order by the Copermittees. Including 1500 comments received on the version of the Tentative Order adopted in San Diego County and the 684 comments received in 2001 on the Tentative Order, over 2,184 comments have been addressed. Apart from consideration of the DAMP, most of the comments for the two Orders were duplicative and addressed common issues.

The issues of appropriateness, flexibility, and specifics of the Standard Urban Storm Water Mitigation Plans are addressed specifically elsewhere in this document. With respect to the estimated costs of the implementation of the Tentative Order vs. that of the DAMP, the specified programs included in the Tentative Order must be implemented by the Copermittees in order to carry out the CWA requirements. Optimization of costs associated with implementation of the requirements of the Tentative Order is the responsibility of the Copermittees. The Tentative Order provides significant latitude and flexibility to the Copermittees to determine the most cost effective means of compliance. The requirements of the Tentative Order are intended to build upon the programs already developed by the Copermittees under the previous permits. Wherever possible, the RWQCB has attempted to provide this discretion and flexibility to the Copermittees, especially with regard to already developed programs such as the program management system developed by the Copermittees. Any specified programs in the Tentative Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution. The issue of estimated costs to implement the requirements of the Tentative Order is addressed in more detail elsewhere in this document. It should be noted here that the San Diego County Copermittees are developing the same programs and required under the Tentative Order and have thus far found it possible to allocate the necessary resources and meet the deadlines. Given that the Orange County program is eleven years along and that the DAMP is a "living document," it is reasonable to conclude that the Orange County Copermittees will, if they choose, be able to successfully revise the DAMP and implement it to comply with the requirements of the Tentative Order.

Finally, the one of the comments above cites one of the more significant weaknesses of the DAMP approach: that of a flawed "watershed approach." The Copermittees frequently cite the statement that the DAMP focuses on problems in receiving waters and that it starts at the water being impacted and looks upstream. The commenters have frequently criticized the Tentative Order for focusing also on land uses and source identification and control. Yet watersheds are by definition the sum of the land, waters, and activities or processes within them. A holistic approach must include all of the processes in the watersheds, not just conditions in the receiving waters. The condition of the receiving waters cannot be considered or protected in isolation from land uses and without positive action with respect to the various land uses tributary to the receiving waters. This seems to be the practice, though clearly not the intent, in some of the programs implemented under the DAMP. Contrary to the comment that the Tentative Order does not prioritize water bodies for corrective action, the Tentative Order does in fact require the Copermittees to address and prioritize urban land use activities authorized within their jurisdictions that may cause or contribute to the degradation of those same

water bodies. This is especially true with respect to water bodies listed as impaired on the 303(d) list. The Tentative Order in no way precludes the Copermittees from prioritizing water bodies for “corrective action.” Furthermore, the Tentative Order does not require that Copermittees abandon their prioritization of water quality issues or their mechanisms to optimize the use of their resources, but rather to review and as necessary revise them. The prioritization and approaches to water quality issues related to the management of urban runoff, however, must address all of the receiving waters in the San Juan Creek Watershed Management Area in Orange County subject to the discharge of urban runoff under the Tentative Order. Furthermore, it is very necessary that the programs be broadly designed and implemented to ensure that water bodies that are not currently a high priority by virtue of impairment do not become impaired and then require “corrective action.” The emphasis on solving water quality problems in receiving waters and prioritizing water bodies for “corrective action” seems to overlook this aspect of urban runoff management. Finally, it should be noted here, that “corrective action” cannot simply consist of engineering the receiving water bodies to accommodate urban runoff without the adequate and required consideration of the sources of that urban runoff. It is not appropriate to convert receiving waters into BMPs. Rather, the Copermittees should implement programs and BMPs to protect the receiving waters and to the extent necessary and desirable, restore or rehabilitate receiving waters impacted by urban runoff discharges.

As discussed above and elsewhere in this document, the restoration or rehabilitation of damaged or lost habitat that resulted from the previous discharges of urban runoff is not a substitute for the implementation of BMPs that prevent or reduce the MEP pollutants in urban runoff. This is an important part of the DAMP approach that warrants additional discussion. With respect to the U.S. Army Corps of Engineers (Corps) Watershed Studies of San Juan Creek and Aliso Creek, the Copermittees may include findings and plans developed during the course of this work in the development and implementation of the Jurisdictional and Watershed Urban Runoff Management Programs. However, the structural management measures proposed in these studies are limited in scope by the Corps jurisdiction to instream projects. These studies have provided only cursory recommendations for source identification and control and other activities that should be expected from a watershed management approach and compliance with the storm water permit. This has been a major weakness in the implementation of these programs under the DAMP and a contributing factor in the determination of the inadequacy of the DAMP. Moreover, although the Aliso Creek Watershed Management Study was submitted in May 1999 and included at least two activities (Watershed Education Plan and Non-Point Source Awareness Plan) that were compatible with provisions of Order No. 96-03 and the Drainage Area Management Plan, it is not yet apparent that these recommended activities have been implemented by the Copermittees in the Aliso Creek watershed. Furthermore, it should be again stated that the improvements, however beneficial to water quality, are not substitutes for the implementation of the types of BMPs and programs included in the Tentative Order. While the stabilization, rehabilitation, or restoration of impaired aquatic and riparian habitat are important activities that may help protect the Copermittees from exceedances of receiving water quality objectives through the restoration of the assimilative capacity of the receiving waters, this approach cannot be conducted in lieu of source identification and elimination of illicit discharges or the implementation of BMPs to prevent or reduce pollutants in urban runoff to the MEP. It is not clear that this approach is adequately represented in the DAMP or the programs it includes that are implemented by the Copermittees. The Tentative Order is intended to build upon this work and fill the gaps to ensure achievement of the MEP standard and protection of beneficial uses of receiving waters.

One comment above refers to the JURMP approach as diametrically opposed to the “holistic approach that the Copermittees have been pursuing for over a decade.” In fact, the approach defined in the Tentative Order is fully supportive of a holistic approach since it emphasizes the importance of the whole program and interdependence of its parts (i.e. the jurisdictional level programs) rather than a simple summation or a focus on the parts. A holistic approach is not a generalized approach that

neglects key parts of the whole, but rather an approach that seeks to understand the importance of individual components and their relationship to one another. A major weakness that is apparent in the implementation of the DAMP is a lack of consistent understanding and implementation of some of programs at a municipal level. That is, although the parts are tied together holistically within the document, they do not appear to be implemented in an interdependent manner in practice. For example, it is apparent from reports received from the Copermittees that despite the enforcement consistency guidance implemented under the DAMP, there are very different approaches to enforcement from municipality to municipality. Furthermore, as demonstrated in some of the comments received on the prohibitions on non-storm water discharges, there is a widespread lack of understanding among the Copermittees regarding some of the most basic requirements of the two previous permits as implemented through the DAMP. Also, there is an apparent disconnection between land-use planning and urban runoff management as embodied in the DAMP. Although the DAMP is discussed as a drainage or watershed based approach, it has for eight years neglected important tools such as watershed level land-use planning that actually does incorporate a holistic understanding of watershed morphology and processes. This is a key provision of the watershed approach of the Tentative Order. Building on the work of the last eleven years and filling some important gaps, the Tentative Order is fully supportive of the holistic approach the Copermittees having been pursuing under the storm water program.

The Tentative Order is a third term permit that is intended to build upon, expand, and improve as necessary the programs developed and implemented under the previous permits. However, the fact that the Copermittees have been permitted twice before does not necessarily constitute the achievement attributed to it in several comments. As discussed above, the review the previous DAMP and the draft Order No. 96-03, written by staff at the Santa Ana RWQCB, prior to and following the adoption of the DAMP in Order No. 96-03 was cursory due to very limited SDRWQCB resources. Despite concerns regarding the DAMP and draft permit, those resources were directed instead at the development of the San Diego Region template municipal storm water permit, adopted in February 2001 by the SDRWQCB, from which the Tentative Order is derived. Furthermore, Order No. 96-03 did not represent a major improvement or advance from Order No. 90-38. It principally required the continuation of programs developed under Order No. 90-38 with the addition of requirements for municipal facilities and activities. Nonetheless, the Copermittees have made advances and refinements in their programs that this Tentative Order now properly seeks to improve and build upon. This process of increasing stringency and detail in NPDES permits is clearly the intent expressed by the USEPA in the Federal NPDES regulations and subsequent guidance. This is made all the more necessary due to the continued degradation of receiving water quality and the ongoing and anticipated urban growth in Orange County. If extensively revised to meet or exceed the requirements of the Tentative Order, the DAMP, subject to review and comment by the SDRWQCB, may continue to be utilized by the Copermittees as the guiding document to implement the requirements of the Tentative Order. This does not require the specific direction in the Tentative Order sought by the commenters. The SDRWQCB has the discretion to require the provisions and format of the Tentative Order under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Comment: What training, technical resource, and educational programs will the State or Regional Board be offering or developing to assist the Copermittees with implementation of the education, prioritization, and BMP designation requirements? What resources and technical assistance are available to identify potential significant pollutants normally associated with industrial activities? Has the Board prepared training materials for use at the staff and public levels for all of the topics listed Sections F.4.a, b and c? It seems that there should be a series of consistent materials and information available to provide for continuity in staff and public education efforts throughout the county rather

than relying on each Copermitee to come up with something different. Will the Regional Board act as a clearinghouse for transfer of technical information available from other agencies such as copies of studies, testing data and guidelines for compliance already completed or in progress?

The SDRWQCB Should Model the EPA and Provide Technical Information, Education Programs and Materials, and Compliance Assistance. While we are sensitive to your regulatory role and responsibilities, it is essential that the State and Regional Boards also partner with the Copermitees in working towards water quality protection and improvement. Water Code Section 13167 requires the State Board to implement a public information program on matters involving water quality, and to maintain an information file on water quality research and other pertinent matters. (*Laguna Niguel, Mission Viejo*)

Response: The Regional Boards and State Water Resources Control Board (SWRCB) have been and will continue to be partners with the local governments, businesses, organizations, and individuals in the effort to preserve and enhance the quality of California's water resources. The SWRCB maintains a web site at <http://www.swrcb.ca.gov/stormwtr/> with information pertaining to storm water. The Regional Board has information available regarding many of the water quality issues under section F.4 of the Tentative Order. Regional Board staff will continue to be available to participate in educational or training sessions with the copermitees. Where resources permit, the Regional Board and SWRCB may help fund particular training sessions. An example is the Stormwater Quality Task Force, which produces guidance on storm water quality issues. In addition, grants are periodically offered that can be used to develop regionwide or municipal educational or training programs regarding stormwater issues. The municipalities may wish to cooperatively develop educational and training materials.

Comment: Does the Board have a program with incentives for those industrial and commercial businesses that choose to implement BMPs? (*Laguna Niguel*)

Response: Businesses that do not use BMPs risk violating State and local laws to protect water quality and public health. Under the Industrial NPDES program, the no-exposure certification is one incentive to implementing BMPs. The Regional Board does not currently have a monetary incentive program to implement BMPs, and the Regional Board considers it the obligation of the industrial and commercial partners to implement BMPs to preserve and enhance our water resources. We are interested in discussing options with the municipalities. for the development of various types of incentives, and we encourage the municipalities to develop incentive-based approaches in conjunction with education and enforcement efforts to achieving water quality objectives.

Comment: Item F.3.a.(3).a identifies municipal roads, streets, highways and parking facilities as high priority municipal activities that threaten water quality. Please provide additional information (i.e. scientific, empirical, other) for each of the municipal areas and activities. Why is each area/activity a high threat to water quality? What are the specific pollutants of concern associated with each municipal area/activity?

Only for high priority water bodies should the Permittees be required to categorize industrial sites as posing either a high, medium, or low threat to water quality, based on the criteria set for in this section.

Item F.3.c.(2) and item F.3.d.(2) commercial and residential activities that are considered to be high priority threats to water quality. These specific commercial sites/sources are not found in the Clean Water Act, the applicable Federal Regulations, the Porter-Cologne Act, or EPA guidance documents.

The Draft Fact Sheet/Technical Report provides no specific rationale for the selection of these commercial sites/sources. Please provide additional information (i.e. scientific, empirical, other) for each of the priority project categories. Why is each project category a high threat to water quality? What specific pollutants of concern are normally associated with each project category? (*Laguna Niguel, County of Orange*)

Response: The Federal NPDES regulations clearly place an emphasis on the prioritization of sites of various land uses. The Tentative Order's requirements regarding site prioritization are more detailed than those in the Federal NPDES regulations, and the SDRWQCB has increased the detail of the site prioritization requirements under Clean Water Act section 402(p)(3)(b)(iii), which states that a storm water program "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." This increased detail is necessary due to the continued degradation of the region's receiving waters caused by urban runoff.

In some cases, the SDRWQCB has identified high priority areas and activities based on USEPA guidance and experience with enforcement. Threat to Water Quality Prioritization allows the Copermittee to rate which site (construction, municipal, industrial, residential) will receive more of their oversight resources due to the site's ability to cause a greater negative impact to the receiving water quality in the event of a discharge. This inventory will help the Copermittee determine which sites are high priority and it will also be an important tool in watershed planning and management.

Regarding Municipal priority sites: Municipal roads, streets, highways and parking facilities are considered to be high priority sources since they are specifically addressed in Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A). Regarding roads, highways, and parking facilities, the US EPA states "Road maintenance practices, especially... road repair, and traffic are significant sources of pollutants in storm water discharges."

Regarding industrial priority sites: The designation of high priority industrial sites is reasonable and justified. Industrial sites that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) are identified in the Federal NPDES regulations as sites for which the Copermittees must provide oversight. USEPA has also placed high priority on industrial sites subject to the General Industrial Permit by requiring them to receive coverage under the permit. Industries are also considered high priority due to their location in relation to CWA section 303(d) water bodies and environmentally sensitive areas. Pollutant loading of these water bodies must be avoided to aid in their recovery and ensure against their further degradation. The intent of this requirement was not to include all sites which were tributary to any 303(d) water body, but rather to include sites which had pollutants on-site which were tributary to 303(d) water bodies impaired for those same pollutants. In addition, the intent regarding environmentally sensitive areas was to provide these areas protection from industrial sites within or directly adjacent to the environmentally sensitive areas.

Regarding commercial priority sites: The assignment of high priority to the commercial sites and sources is based on several factors (as discussed in the draft Fact Sheet/ Technical Report). The primary factor considered was the presence of pollutants at the commercial sites/sources listed. All of the commercial sites/sources are associated with the use or generation of pollutants commonly found in urban runoff. These included oil, grease, and metals for categories a-h and u; Pesticides for categories i, o, p, q, r, and s; coliform for categories j and v; construction byproducts for categories l - n; detergents for category k; and chlorine for category t. In addition, the choice of categories was bolstered by years of professional experience receiving and reviewing complaints regarding illicit discharges. Other considerations included number of sites/sources and size of site/sources.

Regarding residential priority areas and activities: SDRWQCB believes it is well established that these residential activities generate pollutants which find their way to surface waterways. The residential areas and activities are identified as high priority threats to water quality due to their wide distribution, their association with pollutants of concern in urban runoff, and their historical mismanagement of associated urban runoff. By mere virtue of the materials and chemicals involved with these activities, the cumulative impact of hundreds of thousands of households are detrimental if done without water quality protection in mind.

Comment: Regarding commercial and residential land use, how is the Copermittee to implement or require implementation of BMPs on existing developed property if there is no development application or request for a building permit? (*Laguna Niguel*)

Response: The Tentative Order requires the Copermittees to designate and implement or require the implementation of minimum BMPs for high priority threats to water quality from municipal, commercial, and residential areas. Options for achieving these requirements may be assessed based on the natural and developed landscape, land use, type of activity, and capacity to retrofit. Site or activity-specific options may include, but are certainly not limited to, enforcement of current ordinances, development of new ordinances, negotiated agreements with property owners or users, and implementation by the municipalities.

Comment: What land use authority does City have to require BMP retrofits on existing residential development that is not being redeveloped? Does permit require structural BMP retrofits in this case? What authority do Copermittees have to impose BMPs on existing industrial and commercial projects? (*Laguna Niguel*)

Response: Each copermittee has adopted a storm water ordinance that prohibits pollutants from entering the storm drains. The Tentative Permit does not require BMP retrofits on existing residential development, but rather provides copermittees the flexibility to designate BMPs (Best Management Practices) appropriate to residential activities and areas that present high threats to receiving water quality.

The Copermittee is ultimately responsible for discharges to and from their MS4. Each Copermittee must therefore develop and enforce storm water ordinances in order reduce pollutant discharges to the MS4 to the maximum extent practicable and comply with its permit responsibilities. These ordinances must be applied at all industrial and high priority commercial sites to ensure that pollutant discharges to the MS4 are reduced to the maximum extent practicable and permit requirements are met. Due to their numerous potential pollutant sources, industrial sites are relatively high risk areas for pollutant discharges to storm water. In order to control the discharge of pollutants from industrial sites to the maximum extent practicable, implementation of BMPs is necessary. To this effect, the US EPA "recommends that municipal applicants incorporate a provision in the proposed management program that allows the municipality to require priority industrial facilities to implement the controls necessary for the municipality to meet its permit responsibilities" (1992). Regarding enforcement at industrial sites, the US EPA further states "The municipality, as a permittee, is responsible for compliance with its permit and must have authority to implement the conditions in its permit. To comply with its permit, a municipality must have the authority to hold dischargers accountable for their contributions to separate storm sewers" (1992).

Pursuant to the federal regulations implementing the stormwater program, municipalities are required to certify that they have ordinances that enable them to, among other things, prohibit discharges to

their ms 4 systems. Dischargers covered under the current permit, including the City of Laguna Niguel, have already made this assertion.

Comment: Municipal service and inspection levels are established at the discretion of city and county governing boards. What is the authority of the Copermittee to inspect existing properties without a search warrant if there is no visible sign of a violation? Please eliminate F.3.b.(6)(b) from the Tentative Order. What authority do Copermittees have to go onto high priority commercial sites and sources as needed and search for potential violations? Copermittees may have authority to either go onto a site or obtain a search warrant to go onto the site if they determine that a violation is taking place. What is the legal basis for reviewing municipalities to inspect commercial sites? (*Laguna Niguel, Richard Watson and Associates,*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires a program to detect and remove illicit discharges and improper disposal into the storm sewer. This program is required to include inspections to implement and enforce a municipal ordinance, order or other means to prevent illicit discharges to the MS4. Further, BMPs must be implemented for commercial sites and activities to reduce the discharge of pollutants from the sites and activities to the maximum extent practicable, and inspection of commercial sites is necessary to ensure that implemented BMPs are adequate. As discussed in Finding 24, inspections provide a necessary means by which Copermittees can evaluate compliance with their ordinances and requirements of Order No. 2001-193. Inspections are especially important for high risk commercial sites and activities, such as commercial sites and activities where urban runoff is not properly managed.

Comment: We ask the Board to acknowledge that tributary to” (as used in Sections F.1.c., F.2.f.(4), F.3.a.(3)(b), F.3.b.(3)(b) and F.3.c.(3)(c).) is defined as “directly adjacent to or discharging directly to” as detailed in Section F.1.b.(2).(vii)

In various sections of the Tentative Order, the Regional Board makes reference to sites as being “tributary” to water bodies. For example, Item F.2.e, requires the Permittees to prioritize construction sites based on the level of threat they pose to water quality and states that “high priority” construction sites include any sites that that are “tributary to a Clean Water Act section 303(d) water body impaired for sediment.” The use of the term “tributary” in this manner is incorrect. A “tributary” refers to a stream or other water course that enters or contributes flow to another water course or water body. Moreover, by using this term, the Regional Board staff is, in effect, extending the WQS applicable to the receiving waters for the Permittees’ MS4s all the way upstream to the actual runoff coming from the industrial, construction and other sites that drain into the MS4s. The Basin Plan specifically states that “[b]eneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.” Basin Plan, Table 2-2, p. 2-13. Whether the Regional Board staff intended this result is unclear. But in any event, it must be corrected. The Tentative Order therefore should be revised to delete the reference to “tributaries” throughout and indicate that storm water runoff from a site may enter into a water course or water body, either directly or via the Permittees’ MS4. (*Rancho Santa Margarita, County of Orange*)

Response: Tributary, as referred to in the Tentative Order, is purposely separate from the phrase “directly adjacent to or discharging directly to,” which is coupled with environmentally sensitive areas. Runoff that is not discharged directly to 303(d) listed water body may still be tributary to that water body as it commingles with other tributary streams. The term “tributary” refers to runoff from sites that may flow into a 303(d) listed water body, thus in the Tentative Order the phrase is placed within the context of 303(d) listed waterbodies.

The more stringent BMP requirements for discharges tributary to 303(d) listed water bodies refers specifically to activities that may be a source of those pollutants for which the water body is listed. Not all activities in the watershed tributary to a 303(d) listed water body generate pollutants impairing the waterbody. Activities that do not generate pollutants for which a 303(d) listed water body is listed would not be subject to the more stringent BMP requirements. CWA section 303(d) water bodies are impaired water bodies which are not achieving the water quality objectives necessary to protect their beneficial uses. As discussed in Finding 3, urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. Since discharges which cause or contribute to an exceedance of water quality standards are prohibited (see section C.1. of Order No. 2001-193), any discharges to CWA section 303(d) waterbodies of pollutants for which the waterbody is impaired are prohibited. Therefore, sites and activities tributary to these water bodies must implement additional controls to ensure that they are not discharging the pollutants which are causing or contributing to the impairment of these water bodies.

Furthermore, US EPA supports additional controls for construction sites tributary to impaired or sensitive water bodies, stating "The proximity and sensitivity of the receiving water to which the construction site discharges is an important consideration. For construction sites that discharge to receiving waters that do not support their designated use or other waters of special concern, additional construction site controls are probably warranted and should be strongly considered" (1992).

The Environmentally Sensitive Area (ESA) priority development project category is meant to apply to projects which have the potential to cause a direct impact to an ESA. In other words, the inclusion of the ESA category in the Tentative Order is designed to provide additional protection of ESAs. For this reason, the ESA category is limited to projects which are "within or directly adjacent or discharging directly to" an ESA, where "discharging directly to" means flows that are "not commingled."

Comment: The Tentative Order requires municipalities to develop and implement an extremely comprehensive program (through inspection and enforcement efforts) to address industrial, construction, commercial and residential storm water discharges into the MS4 system. This approach is too prescriptive and improperly limits the Copermittees flexibility and discretion. EPA guidance documents state that the operator of a MS4 has the flexibility to determine the BMPs for each storm water management program minimum control measure that are most appropriate for their system. While the content of the Tentative Order is helpful in understanding the Regional Board's thinking on possible components of a comprehensive storm water management program, such information should be offered as "guidance", not prescription or mandate.

The Tentative Order is overwhelming in its demands for reporting and paperwork and jeopardizes our ability to make timely gains in receiving water quality improvements. Also, this approach would not reflect the efforts by Orange County Copermittees to prioritize their water quality issues and optimize the use of their resources to address these issues to achieve the overall goals of its DAMP.

The Tentative Order prescribes a very detailed storm water program that goes beyond the provisions of the Clean Water Act, Porter-Cologne Act and the EPA measures and guidance outlined in section 122.26 for storm water management programs. In setting the NPDES municipal storm water regulations in 1990, EPA indicated that the permits would be flexible and coordinated with the discharger. This process seems to have been omitted in the development of this permit since numerous discussions with the San Diego region Board staff failed to achieve meaningful changes in the drafting of this permit from that issued to the county and cities of San Diego.

The Tentative Order establishes a prescriptive storm water management plan developed for San Diego County that abandons the approach of current and earlier permits, which require the County and cities to develop and implement a storm water management plan that meets certain general specifications. In previous hearings Board staff has indicated that a prescriptive permit was needed because the Permittees lacked a cohesive and implementable storm water management plan. However, this is not the case in Orange County and the same prescriptive permit is being issued even though a storm water management plan has been in existence since 1993. Under the Tentative Order, the storm water management plan developed by the County and cities with substantial stakeholder involvement (the DAMP) and approved by the Regional Board, essentially becomes irrelevant.

The incorporation into the NPDES permit of a prescriptive program means that any change in the program would require a formal amendment of the NPDES Permit. This is in contrast with the current permit, wherein the County and cities are authorized to deviate from the program set forth in the DAMP for good cause. Under the Tentative Order the County and cities would face enforcement action and/or citizen suits if they deviated in any respect from the detailed program specified in the permit. This will have two affects. First, even if there is agreement with Regional Board staff that a specified activity is no longer considered necessary, the County and/or cities must continue to perform that activity until such time that a permit amendment can be processed. Thus, local resources would be wasted on activities acknowledged to be nonproductive or unnecessary. Second, considerable Regional Board and local resources would be required to process permit amendments. If the Regional Board determines it has insufficient resources to process an amendment, then the County and cities would be stuck for the remainder of the permit term with implementing activities that all agree are unnecessary. For these reasons alone, a prescriptive approach is bad public policy.

The Clean Water Act regulations were designed to preserve flexibility and allow municipal permittees to fashion storm water management programs meeting their local needs and circumstances. When enacting the 1987 amendments to the CWA that added the municipal storm water permit requirements, Congress was aware of the difficulties in regulating discharges from MS4s solely through traditional end-of-pipe treatment. See 55 Fed. Reg. 47990, 48037-38 (Nov.16, 1990) (“Phase I Storm Water Rulemaking”). In earlier rulemakings, much of the criticism of the concept of subjecting discharges from MS4s to NPDES permits focused on the perception that “the rigid regulatory program applied to industrial process waters and effluents from [POTWs] was not appropriate for the site-specific nature and sources which are responsible for the discharge of pollutants from [MS4s].” Id. at 48038. The water quality impacts of discharges from MS4s depend on a wide range of factors, including: the magnitude and duration of rainfall events, the time period between events, soil conditions, the fraction of land that is impervious to rainfall, land use activities, the presence of illicit connections, and the ratio of the storm water discharge to receiving water flow. Id. In enacting the 1987 amendments, Congress recognized that: permit requirements for [MS4s] should be developed in a flexible manner to allow site-specific permit conditions to reflect the wide range of impacts that can be associated with these discharges. ...“All types of controls listed in subsection [402(p)(3)(C)] are not required to be incorporated into each permit.” Id. (quoting from 132 Cong.Rec. H10576 (daily ed. Oct. 15, 1986). Consistent with this Congressional intent, the Phase I Storm Water regulations “set[] out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions.” Id. While EPA believed that all municipalities should face essentially the same responsibilities and commitments for achieving the goals of the CWA, it “agree[d] that as much flexibility as possible should be incorporated into the [MS4] program.” Id. The prescriptive, cookie-cutter approach mandated by the Tentative Order clearly is at odds with both Congress’ intent in enacting the municipal storm water program and with EPA’s intent in implementing it. Rather than allowing the Permittees the flexibility to develop and implement their own storm water management programs within the broad parameters set forth by EPA, the Tentative

Order would dictate to the Permittees what to include in their programs and how and when to implement them. (*County of Orange, Laguna Niguel, Aliso Viejo*)

Response: The Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The requirements in the Tentative Order are based on the Federal NPDES regulations and USEPA and SWRCB guidance. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. USEPA supports the approach of increasingly detailed storm water permits, stating "The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards" (USEPA, 1996). The reporting requirements of the Tentative Order were included to better track the progress of the development and implementation of the required programs and were consolidated as much as possible. The Tentative Order does not require that Copermittees abandon the prioritization of water quality issues or their mechanisms to optimize the use of their resources, but rather to review and as necessary revise them. The prioritization and approaches to water quality issues related to the management of urban runoff, however, must address all of the receiving waters in the San Juan Creek Watershed Management Area in Orange County subject to the discharge of urban runoff. The development of the Tentative Order has been conducted with substantial review and comment and significant changes have been made to improve the implementation and enforcement of the Order by the Copermittees.

The Tentative Order does not go beyond the legal authorities cited in the comment and does provide the Copermittees with a wide range of flexibility and discretion. CWA section 402(p)(3)(B)(iii) provides that municipal storm water permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." To meet this requirement of the CWA, the Tentative Order requires the implementation of BMPs, as required under Federal NPDES regulation 40 CFR 122.44(k). While the Tentative Order includes requirements for widespread BMP implementation for specific categories of existing and planned land use, it does not require use of any particular BMPs. The Tentative Order actually encourages implementation of combinations of BMPs, and further does not preclude any particular BMPs or other means of compliance. A permit which allows for seemingly infinite means for achieving compliance does not 'specify the design or manner of compliance' in violation of California Water Code section 13360.

The specified programs included in the Tentative Order must be implemented by the Copermittees in order to carry out the CWA requirements. These are intended to build upon the programs already developed by the Copermittees under the previous permits. Any specified programs in the Tentative Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution.

With respect to the need for flexibility and coordination, the Tentative Order provides a framework within which the Copermittees may develop the programs, activities, and measures that will satisfy or exceed the requirements of the Tentative Order. Wherever possible, the RWQCB has attempted to provide discretion and flexibility to the Copermittees, especially with regard to already developed programs such as the program management system developed by the Copermittees.

The Tentative Order does not render the water management plan developed by the County and cities with substantial stakeholder involvement (the DAMP) irrelevant. As discussed during the workshops, it

was the intent of the SDRWQCB to develop a template Tentative Order that would be revised as necessary and issued throughout the San Diego Region. More importantly, the Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The Tentative Order was drafted to ensure regional consistency throughout the San Diego Region when these NPDES Permits and Waste Discharge Requirements are issued on a watershed basis in this region. In developing and implementing the DAMP under the first and second term permits, the Copermittees developed programs that may be revised and continued under the Tentative Order. However, the previous development of any one or all of the programs, including the DAMP, does not preclude the SDRWQCB from requiring more detailed or more stringent requirements under future permits. The Tentative Order does not require the Copermittees to discard the programs developed, but to improve upon them. Moreover, many of the requirements of the Tentative Order are already being implemented at some level by the Copermittees. Because the Tentative Order is issued to each Copermittee, each Copermittee must have a program to management urban runoff within its jurisdiction. The program must be tailored to address the specific urban runoff management issues within its jurisdiction and it must be specific enough to ensure fair, uniform implementation and enforcement throughout the region. The Copermittees have the discretion to revise the DAMP and/or develop a model Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) to meet or exceed the requirements of the Tentative Order.

Finally, the Tentative Order represents the definition of MEP adopted by the SDRWQCB. Within that framework, the Copermittees have significant opportunity and flexibility to develop and implement effective programs and to improve and modify these programs as necessary to achieve and maintain compliance with the Tentative Order and receiving water quality objectives. Moreover, the Copermittees are required to evaluate the effectiveness of JURMP programs and to revise the programs as necessary to comply with the Tentative Order and receiving water quality objectives. The contention that the Tentative Order would have to be amended to provide the Copermittees with the flexibility to modify activities is without merit. The requirements contained in the framework provided in the Tentative Order are sufficiently broad and inclusive to provide the Copermittees with largely the same degree of latitude in developing and implementing programs. Within this framework, the Copermittees will not be required to implement unnecessary or non-productive activities.

Comment: Although partially exempted from the Chapter 3 Environmental Impact Reporting (“EIR”) process pursuant to Water Code §13389, the remaining non-exempted parts of CEQA require all Regional Boards to consider the environmental consequences of their permitting actions, and to explore feasible alternatives and mitigation measures prior to the adoption of waste discharge requirements. See e.g., Pub. Res. Code §21002; 23 C.C.R. §3733. CEQA evidences an intent to have the RWQCB “identify, at the earliest possible time in the environmental review process, potential significant effects of the project, alternatives, and mitigation measures which would substantially reduce the effects.” Pub. Res. Code §21103.1. Once environmental consequences are identified, “a public agency may use discretionary powers provided by such other law for the purpose of mitigating or avoiding a significant effect on the environment.” Pub. Res. Code §21004. Public agencies, like the Regional Board, should not approve a project if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such a project. Pub. Res. Code §21002.

The Regional Board staff apparently has failed to consider the limitation that Section 13372 places on Section 13389. As noted in *Committee for a Progressive Gilroy v. State Water Resources Control Bd.*, 192 Cal. App. 3d 847, 862 (1987), Section 13372 “provides that the ‘provisions of this chapter [which includes section 13389] shall apply only to actions required under the Federal Water Pollution Control Act, as amended.’” (emphasis added). See also *San Francisco Civil Serv. Ass’n. v. Superior Court*, 16 Cal. 3d 46, 50 (1976). Therefore, Section 13389 only exempts compliance with CEQA if the CWA

requires the provisions of the permit. In this case, federal law does not require the contested provisions of the Tentative Order. Section 402(p)(3) of the CWA does give the Regional Board the discretion to include certain provisions in the Tentative Order that it deems appropriate. 33 U.S.C. § 1342(p)(3). However, to the extent the contested provisions are discretionary and not required under the CWA, Section 13389 does not exempt the Regional Board from complying with CEQA. The CEQA exemption only applies to actions required under the CWA. Because the Tentative Order contains numerous provisions beyond what is required by the CWA, the Regional Board must comply with CEQA before issuing the Tentative Order. Accordingly, Finding No. 39 should be deleted and the SDRWQCB must comply with CEQA requirements before adoption of the Tentative Order.

The Regional Board correctly cites the provision of the California Water Code exempting waste discharge requirements from Chapter 3 of the California Environmental Quality Act ("CEQA"); however, CEQA does apply to Regional Board permits to the extent that they contain provisions not required by the Clean Water Act.[12] The Clean Water Act does not require that municipal stormwater meet Water Quality Based Effluent Limits (WQBELs). Since the permit includes provisions not required by the Clean Water Act, the Regional Board cannot issue the permit without first conducting environmental review under CEQA. Where, as here, the action triggering CEQA compliance is a permit of countywide applicability with significant environmental implications, the Regional Board should prepare an Environmental Impact Report, including an alternatives analysis.

The Tentative Order May Not Be Adopted Without Review under the California Environmental Quality Act. It is the City's understanding that the Regional Board intends to adopt the Tentative Order without conducting any review pursuant to the California Environmental Quality Act ("CEQA"). Apparently, staff of the Regional Board is taking the position that CEQA review is not required because of the exemption contained in Water Code section 13389. Water Code section 13389 is, on its face, not applicable to Regional Board actions which impose "requirements for new sources as defined in the Federal Water Pollution Control Act." A "new source" is a source constructed after the standards applicable to the source are promulgated. The Tentative Order imposes requirements on new sources because it not only will apply to parts of the municipal separate storm sewer system ("MS4") constructed in the future, but also will apply to discharges into the MS4 from sources constructed in the future. Therefore, the Tentative Order imposes requirements for new sources and is not exempt from CEQA review.

Second, Water Code section 13389 only applies to actions which are required under the Clean Water Act. (See Water Code § 13372.) As Committee for a Progressive Gilroy v. State Water Resources Control Board (1987) 192 CalApp. 847, 862 makes clear, the exemption contained in Water Code section 13389 is a limited exemption and does not insulate discretionary acts of the Regional Board from the requirements of CEQA. The Tentative Order goes beyond the requirements of the Clean Water Act and imposes requirements which are discretionary, not mandatory. Therefore, adoption of the Tentative Order may only occur after the appropriate CEQA review has been performed. (*County of Orange, Laguna Niguel, Construction Industry Coalition on Water Quality, Aliso Viejo*)

Response: Discharges of urban runoff in municipal separate storm sewer systems (MS4s) involve discharges of pollutants from point sources to waters of the United States that are subject to regulation under federal Clean Water Act (CWA) and Chapter 5.5 of Porter Cologne Water Quality Control Act (PC). Chapter 5.5 of PC commencing with section 13370 provides additional water quality control authority specifically applicable to such discharges in order to ensure the consistency of California's state program for water quality with the federal NPDES programs as set forth in Water Code (WC) 13372.

Water Code 13389 relieves the RWQCB of its obligation to prepare environmental impact documentation under the California Environmental Quality Act (CEQA) prior to issuing waste

discharge requirements (WDRs) for discharges subject to regulation under Chapter 5.5, such as waste discharge requirements for MS4s. Issuance of requirements for discharges of urban runoff in MS4s is required by Section 402 (d) of the CWA. The fact that some of the specific requirements of a regional board order may exceed the nationwide minimum standards for MS4 regulation prescribed by the CWA and NPDES regulations in 40CFR 122.26 does not abrogate this exception. The "project" in this case is issuance of requirements for discharges in MS4s, an action required by the CWA and NPDES regulations. The comment contends that WC 13389 is not applicable to MS4s because the requirements will be applicable to sources that will be constructed in the future. This interpretation of the meaning of "new source" under the CWA misrepresents the definition of that term. The criterion for a "New Source" includes the promulgation of "national standards of performance" under CWA Section 307 (i.e. technology-based effluent limits for industrial source categories). MS4s are not within any of the promulgated industrial source categories and the USEPA has not promulgated national standards of performance for MS4s. Therefore, MS4s cannot be New Source at this time, regardless of when constructed. The comment contends that many provisions in Tentative Order are not required by the CWA or federal NPDES regulations; however, all provisions are intended to implement or clarify specific requirements in applicable federal regulations to protect water quality of waters of the United States within the San Diego Region. The comment also misrepresents the import of Progressive Gilroy by suggesting that reliance on the state statutory authority precludes reliance on the CEQA exemption in WC 13389.

In fact, all regulatory actions taken by the state to satisfy the requirements of the CWA rely on the state's independent authority to regulate activities affecting water quality. U.S. EPA authorization for California to implement the NPDES program depends upon the state's demonstration of independent authority to accomplish under state law what would be required under the federal CWA and NPDES regulations; Chapter 5.5 of PC ensures consistency between state and federal regulations for discharges subject to the CWA. Accordingly, WC 13389 provides exemption from environmental documentation under CEQA for any action that would be required for implementation of NPDES programs in California. Issuance of WDRs for MS4 is required for implementation of the CWA and NPDES program in California.

There are no alternatives to regulation of discharges in MS4 under WDRs implementing Basin Plan and NPDES regulations for storm water.

Finally, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has stated "As we have stated in several prior orders, the provisions of CEQA requiring adoption of environmental documents do not apply to NPDES permits. BIA contends that the exemption from CEQA contained in section 13389 applies only to the extent that the specific provisions of the permit are required by the federal Clean Water Act. This contention is easily rejected without addressing whether federal law mandated all of the permit provisions. The plain language of section 13389 broadly exempts the Regional Water Board from the requirements of CEQA to prepare environmental documents when adopting 'any waste discharge requirement' pursuant to Chapter 5.5 (13370 et seq, which applies to NPDES permits). BIA cites the decision in *Committee for a Progressive Gilroy v. State Water Resources Control Board* (1987) 192 Cal.App.3d847. That case upheld the State Board's view that section 13389 applies only to NPDES permits, and not to waste discharge requirements that are adopted pursuant only to state law. The case did not concern an NPDES permit, and does not support BIA's argument." This discussion in the draft SWRCB Order strongly supports the SDRWQCB response to this issue.

Comment: The Tentative Order is Prescriptive and Violates CWC 13360: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to

implement and would be an attempt to expand Regional Board control over City policies and procedures. In its current form, the Tentative Order, including its five separate attachments, is almost 80 pages in length, nearly three times as long as its predecessor. The principal reason for this length is that the Regional Board staff specifies in excruciating detail what the Permittees must do to comply with the substantive standards imposed under the Tentative Order. The Tentative Order, both generally and particularly with respect to the JURMP/SUSMP requirements, is unlawfully prescriptive under the Section 13360 of the Water Code and does not provide the flexibility envisioned by the CWA and its implementing regulations.

The Regional Board does not have the authority to dictate to municipalities the form or content of any ordinances, statutes, permits, contracts or similar means. The cities and counties have jurisdiction over these things. The Regional Board may not mandate or prescribe how compliance with discharge prohibitions shall be achieved. The Water Code prohibits this practice. Water Code section 13360(a) provides that: "No waste discharge requirement or other order of a regional board or the state board or decree of a court issued under this division shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree, and no person so ordered shall be permitted to comply with the order in any lawful manner." How does the Regional Board justify telling Copermittees the manner in which they will comply with the requirement to control the quality of discharges from their MS4s? Clearly, the method or methods of achieving compliance are up to the City-not the Regional Board.

As one court has stated, Section 13360 permits the Regional Board to identify the "disease and command that it be cured" but prohibits the Regional Board from "dictating the cure." (Tahoe Sierra Preservation Council v. State Water Resources Control Board (1989) 210 Cal.App.3d 1421, 1438.)

The Tentative Order violates Water Code section 13360 because it dictates how the Copermittees must comply with the requirements contained in the Tentative Order--i.e., it dictates the cure. As the City has pointed out in its separate letter to the Regional Board, there are over 87 major tasks the Copermittees must perform to comply with the Tentative Order. Such a prescriptive approach, particularly one which may prevent regional solutions and tie the hands of the Copermittees, is beyond the Regional Board's authority.

As can be seen, Section 13360 grants a Copermittee unlimited authority to determine how best to meet the substantive obligations imposed under its storm water permit. This flexibility enables a Copermittee to ensure that its resources are used in the most efficient manner possible and thus is an essential component of the storm water permit. Ironically, this issue already has been addressed by the Regional Board's own legal counsel. As noted in the County of San Diego's comments on Tentative Order No. 2001-01 ("San Diego Comments"), in December 1997, the Regional Board staff sought advice concerning the permissible level of detail for municipal storm water permits. See San Diego Comments, p. A-3. In response, the Regional Board's legal counsel stated that while storm water permits could set forth certain performance goals, they could not specify the manner of complying with such goals. Id. Similarly, legal counsel advised that storm water permits could not prescribe the particular pollution control strategies to be used by the Copermittees. The Regional Board cannot and should not ignore either its statutory obligations or the advice of its legal counsel. While the Regional Board may tell the Permittees what they must do, it cannot tell the Permittees how they must do it.

Standard Urban Storm Water Mitigation Plans Violate CWC 13360:

The anti-regional-solution aspects of the permit proscribe lawful compliance options. The Regional Board has further invaded the discretion of the Copermittees by making it extremely difficult, if not impossible, for them to comply with the Permit through regional BMPs, at in-stream collection points where such BMPs could capture and treat large volumes of storm water. The Permit requires strict

compliance with receiving water standards before storm water and dry weather flow enter receiving waters. Since regional solutions generally would be located downstream of where runoff enters receiving waters, the Permit does not facilitate or promote such solutions; rather, it prevents them, at least where the receiving waters are impaired-precisely the situation calling out for regional solutions.

This anti-regional-solution bias can also be seen in the Permit's Standard Urban Storm Water Mitigation Plan ("SUSMP"). The SUSMP requires the construction of BMPs, "prior to . . . discharge to any receiving water body supporting beneficial uses." This location requirement will make it difficult in most cases for shared BMPs since the location of shared BMPs presumably would be downstream at some common drainage point, most likely in the receiving waters themselves. Thus, although the Permit states that BMPs may be shared by "multiple new development projects," there may be very few instances where such sharing is feasible.

Regional BMPs were heralded by the SWRCB in the Los Angeles SUSMP decision." They certainly represent a "lawful manner" with which to reach MEP. The Permit's anti-regional BMP provisions therefore violate Section 13360 (as well as MEP).

The volume and flow-based design standards for structural BMPs clearly run afoul of Section 13360. Both standards specify that, "BMPs shall be designed," in accordance with prescribed criteria. Permit, section F.1.b.2.c. The design standards dictate that MEP for "all priority development projects" corresponds to infiltrating, treating or filtering the runoff from a design storm or design rainfall intensity (Permit, section F. 1 .b.2.c), further limiting the "lawful manner" with which Copermittees might satisfy MEP. The Tentative Order, at Part F.1.b.(2)(c), starting on page 17, would impose "Numeric Sizing Criteria" in order to reduce the flow of water, whether or not it carries any "pollutants," off of real estate. We believe that the Board's authority under the Clean Water Act does not extend to the regulation of the rate of discharge of water, rather than regulating the discharges which the Congress addressed in the Clean Water Act, i.e., the discharge of pollutants. We are also particularly concerned that the "Numerical Sizing Criteria" exceed the Board's authority to prescribe how the Clean Water Act's goals of reducing the discharge of pollutants to waters of the United States are to be achieved, and in so doing, violate the limitations of section 13360 of the California Water Code. In particular, we are concerned that contrary to § 13360(a) of the California Water Code, the permit specifies numeric design criteria for post-construction BMPs that are more stringent than the criteria in the San Diego permit (BMPs designed to mitigate [infiltrate, filter, or treat] the runoff produced by a 0.8-inch rain event rather than a 0.6-inch rain event in San Diego). (*Richard Watson & Associates, Laguna Niguel, Mission Viejo, Aliso Viejo, Dana Point, County of Orange, Construction Industry Coalition on Water Quality, Lake Forest, Laguna Woods*)

Response: The Tentative Order does not "dictate the cure" but does provide a framework and a standard that the Copermittees must meet. As discussed in more detail elsewhere in this document, this represents the SDRWQCB's definition of the minimum standards necessary to meet MEP and protect receiving water beneficial uses.

California Water Code (CWC) section 13360 generally prohibits the Regional Boards from specifying the manner of compliance with state waste discharge requirements. However, CWC section 13377 provides that the Regional Boards shall issue waste discharge requirements which apply and ensure compliance with all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), as amended, also known as the federal Clean Water Act (CWA). Since Tentative Order No. 2001-193 is written to implement CWA requirements, it does not violate section 13360 for the SDRWQCB to include specified programs of Best Management Practices (BMPs) to be implemented by the municipalities in order to carry out CWA requirements. Specificity is even more crucial in waste discharge requirements for storm water discharges given their lack of numerical effluent limits. In order to reduce storm water pollution to the maximum extent practicable (MEP), the Tentative Order

must require specific styles of BMPs (i.e., structural or source control), but that is not to say that the SDRWQCB is dictating one specific BMP to accomplish the task. The municipalities often have many BMPs available to get the job done.

Finally, with respect to the SUSMP requirements, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently addressed, the SWRCB stated "The San Diego permit incorporates numeric design standards for runoff from new construction and redevelopment similar to those considered in the LA SUSMP order. In addition, the permit addresses programmatic requirements in other areas. The LA SUSMP order was a recedential decision, and we will not reiterate our findings and conclusions from that decision."

Comment: We are also concerned that the Tentative Order, as currently written, will not be practicable to implement and could expose the Copermittees that are attempting in good faith to comply with permit requirements to legal actions that are not preventable. The prohibition against violation of water quality standards is effective immediately. However, the County believes it would take ten to twenty years to construct the collection and treatment facilities necessary to comply with the prohibition. Until the construction of these facilities is completed, the County and cities would be in daily violation of several water quality standards at multiple locations throughout the area. These violations would expose the County and cities to a number of potential legal actions including enforcement action, third-party lawsuits, fines, and criminal sanctions. The citizens and businesses in the affected area would ultimately be required to pay these fines. (*County of Orange, Lake Forest, San Clemente, Aliso Viejo*)

Response: The requirements of the Tentative Order are based on the federal regulations and USEPA and SWRCB guidance and are practicable for the Copermittees to implement. The Tentative Order is a third term permit rather than a first or second term permit and is intended to build upon the programs developed during the first two permits. If BMPs have been implemented to MEP and exceedances of water quality standards still exist, an iterative process of additional BMP implementation must be implemented, per SWRCB Order WQ 99-05.

The requirements of the Tentative Order are not designed to ensure that the Copermittees are in compliance in all circumstances, thereby protecting them from any liability. The requirements in the Tentative Order are designed to protect receiving water quality from discharges of urban runoff from MS4s. The iterative process defined in section C of the Tentative Order ensures, without precluding any enforcement actions the SDRWQCB considers necessary, that Copermittees that are working in good faith to implement the requirements of the Order are not subject to unnecessary enforcement or legal actions.

Furthermore, the prohibition against violation of receiving water quality objectives is itself not a new requirement. It has been in effect during the five years of the second term permit Order No. 96-03. Order No. 96-03 included the following receiving water limitations: "The discharge of urban storm water, or non-storm water, from a municipal storm water conveyance system for which the permittees are responsible under the terms of this Order shall not cause continuing or recurring impairment of beneficial uses or exceedances of water quality objectives." Moreover, SWRCB Orders WQ 91-03, WQ 98-01, and most recently WQ 99-05 have clearly defined over period of 10 years the Copermittees' responsibility to ensure that discharges from their MS4s do not cause or contribute to exceedances of receiving water quality objectives. On October 14, 1999, the SWRCB issued a legal opinion on the federal appellate decision and provided advice to the Regional Boards on how to proceed in the future. In the memorandum, the SWRCB concludes that the recent Ninth Circuit

opinion upholds the discretion of US EPA and the State to (continue to) issue permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that “[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions.” In summary, the SWRCB concludes that the Regional Boards should continue to include the Receiving Water Limitations language established in SWRCB Order WQ 99-05 in all future permits. Accordingly, the SDRWQCB has required in the Tentative Order that discharges from MS4s meet receiving water quality objectives.

Finally, the collection and treatment facilities referred to in the comment have not been demonstrated by the Copermittees to be the only means by which they can reduce pollutants in the discharge of urban runoff to the MEP and prevent the discharges from causing or contributing to the exceedance of the receiving water quality objectives. Implementation of the requirements of the Tentative Order in good faith by the Copermittees does not expose the Copermittees unnecessarily to enforcement or legal action.

Comment: The Tentative Order requires municipalities to develop and implement an extremely comprehensive program (through inspection and enforcement efforts) to address industrial, construction, commercial and residential storm water discharges into the MS4 system. This approach is too prescriptive and improperly limits the Copermittees flexibility and discretion. EPA guidance documents state that the operator of a MS4 has the flexibility to determine the BMPs for each storm water management program minimum control measure that are most appropriate for their system. While the content of the Tentative Order is helpful in understanding the Regional Board’s thinking on possible components of a comprehensive storm water management program, such information should be offered as “guidance”, not prescription or mandate.

The Tentative Order is overwhelming in its demands for reporting and paperwork and jeopardizes our ability to make timely gains in receiving water quality improvements. Also, this approach would not reflect the efforts by Orange County Copermittees to prioritize their water quality issues and optimize the use of their resources to address these issues to achieve the overall goals of its DAMP.

The Tentative Order prescribes a very detailed storm water program that goes beyond the provisions of the Clean Water Act, Porter-Cologne Act and the EPA measures and guidance outlined in section 122.26 for storm water management programs. In setting the NPDES municipal storm water regulations in 1990, EPA indicated that the permits would be flexible and coordinated with the discharger. This process seems to have been omitted in the development of this permit since numerous discussions with the San Diego region Board staff failed to achieve meaningful changes in the drafting of this permit from that issued to the county and cities of San Diego.

The Tentative Order establishes a prescriptive storm water management plan developed for San Diego County that abandons the approach of current and earlier permits, which require the County and cities to develop and implement a storm water management plan that meets certain general specifications. In previous hearings Board staff has indicated that a prescriptive permit was needed because the Permittees lacked a cohesive and implementable storm water management plan. However, this is not the case in Orange County and the same prescriptive permit is being issued even though a storm water management plan has been in existence since 1993. Under the Tentative Order, the storm water management plan developed by the County and cities with substantial stakeholder involvement (the DAMP) and approved by the Regional Board, essentially becomes irrelevant.

The incorporation into the NPDES permit of a prescriptive program means that any change in the program would require a formal amendment of the NPDES Permit. This is in contrast with the current permit, wherein the County and cities are authorized to deviate from the program set forth in the DAMP for good cause. Under the Tentative Order the County and cities would face enforcement action and/or citizen suits if they deviated in any respect from the detailed program specified in the permit. This will have two affects. First, even if there is agreement with Regional Board staff that a specified activity is no longer considered necessary, the County and/or cities must continue to perform that activity until such time that a permit amendment can be processed. Thus, local resources would be wasted on activities acknowledged to be nonproductive or unnecessary. Second, considerable Regional Board and local resources would be required to process permit amendments. If the Regional Board determines it has insufficient resources to process an amendment, then the County and cities would be stuck for the remainder of the permit term with implementing activities that all agree are unnecessary. For these reasons alone, a prescriptive approach is bad public policy.

The Clean Water Act regulations were designed to preserve flexibility and allow municipal permittees to fashion storm water management programs meeting their local needs and circumstances. When enacting the 1987 amendments to the CWA that added the municipal storm water permit requirements, Congress was aware of the difficulties in regulating discharges from MS4s solely through traditional end-of-pipe treatment. See 55 Fed. Reg. 47990, 48037-38 (Nov.16, 1990) ("Phase I Storm Water Rulemaking"). In earlier rulemakings, much of the criticism of the concept of subjecting discharges from MS4s to NPDES permits focused on the perception that "the rigid regulatory program applied to industrial process waters and effluents from [POTWs] was not appropriate for the site-specific nature and sources which are responsible for the discharge of pollutants from [MS4s]." Id. at 48038. The water quality impacts of discharges from MS4s depend on a wide range of factors, including: the magnitude and duration of rainfall events, the time period between events, soil conditions, the fraction of land that is impervious to rainfall, land use activities, the presence of illicit connections, and the ratio of the storm water discharge to receiving water flow. Id. In enacting the 1987 amendments, Congress recognized that: permit requirements for [MS4s] should be developed in a flexible manner to allow site-specific permit conditions to reflect the wide range of impacts that can be associated with these discharges. ... "All types of controls listed in subsection [402(p)(3)(C)] are not required to be incorporated into each permit." Id. (quoting from 132 Cong. Rec. H10576 (daily ed. Oct. 15, 1986)). Consistent with this Congressional intent, the Phase I Storm Water regulations "set[] out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions." Id. While EPA believed that all municipalities should face essentially the same responsibilities and commitments for achieving the goals of the CWA, it "agree[d] that as much flexibility as possible should be incorporated into the [MS4] program." Id. The prescriptive, cookie-cutter approach mandated by the Tentative Order clearly is at odds with both Congress' intent in enacting the municipal storm water program and with EPA's intent in implementing it. Rather than allowing the Permittees the flexibility to develop and implement their own storm water management programs within the broad parameters set forth by EPA, the Tentative Order would dictate to the Permittees what to include in their programs and how and when to implement them. (*County of Orange, Laguna Niguel, Aliso Viejo*)

Response: The Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The requirements in the Tentative Order are based on the Federal NPDES regulations and USEPA and SWRCB guidance. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. USEPA supports the approach of increasingly detailed storm water permits, stating "The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-

tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards" (USEPA, 1996). The reporting requirements of the Tentative Order were included to better track the progress of the development and implementation of the required programs and were consolidated as much as possible. The Tentative Order does not require that Copermittees abandon the prioritization of water quality issues or their mechanisms to optimize the use of their resources, but rather to review and as necessary revise them. The prioritization and approaches to water quality issues related to the management of urban runoff, however, must address all of the receiving waters in the San Juan Creek Watershed Management Area in Orange County subject to the discharge of urban runoff. The development of the Tentative Order has been conducted with substantial review and comment and significant changes have been made to improve the implementation and enforcement of the Order by the Copermittees.

The Tentative Order does not go beyond the legal authorities cited in the comment and does provide the Copermittees with a wide range of flexibility and discretion. CWA section 402(p)(3)(B)(iii) provides that municipal storm water permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." To meet this requirement of the CWA, the Tentative Order requires the implementation of BMPs, as required under Federal NPDES regulation 40 CFR 122.44(k). While the Tentative Order includes requirements for widespread BMP implementation for specific categories of existing and planned land use, it does not require use of any particular BMPs. The Tentative Order actually encourages implementation of combinations of BMPs, and further does not preclude any particular BMPs or other means of compliance. A permit which allows for seemingly infinite means for achieving compliance does not 'specify the design or manner of compliance' in violation of California Water Code section 13360.

The specified programs included in the Tentative Order must be implemented by the Copermittees in order to carry out the CWA requirements. These are intended to build upon the programs already developed by the Copermittees under the previous permits. Any specified programs in the Tentative Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution.

With respect to the need for flexibility and coordination, the Tentative Order provides a framework within which the Copermittees may develop the programs, activities, and measures that will satisfy or exceed the requirements of the Tentative Order. Wherever possible, the RWQCB has attempted to provide discretion and flexibility to the Copermittees, especially with regard to already developed programs such as the program management system developed by the Copermittees.

The Tentative Order does not render the water management plan developed by the County and cities with substantial stakeholder involvement (the DAMP) irrelevant.

As discussed during the workshops, it was the intent of the SDRWQCB to develop a template Tentative Order that would be revised as necessary and issued throughout the San Diego Region. More importantly, the Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The Tentative Order was drafted to ensure regional consistency throughout the San Diego Region when these NPDES Permits and Waste Discharge Requirements are issued on a watershed basis in this region. In developing and implementing the DAMP under the first and second term permits, the Copermittees developed programs that may be revised and continued under the Tentative Order. However, the previous development of any one or all of the programs, including the DAMP, does not preclude the SDRWQCB from requiring more detailed or more stringent requirements under future permits. The Tentative Order does not require the Copermittees to discard the programs developed, but to improve

upon them. Moreover, many of the requirements of the Tentative Order are already being implemented at some level by the Copermittees. Because the Tentative Order is issued to each Copermittee, each Copermittee must have a program to management urban runoff within its jurisdiction. The program must be tailored to address the specific urban runoff management issues within its jurisdiction and it must be specific enough to ensure fair, uniform implementation and enforcement throughout the region. The Copermittees have the discretion to revise the DAMP and/or develop a model Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) to meet or exceed the requirements of the Tentative Order.

Finally, the Tentative Order represents the definition of MEP adopted by the SDRWQCB. Within that framework, the Copermittees have significant opportunity and flexibility to develop and implement effective programs and to improve and modify these programs as necessary to achieve and maintain compliance with the Tentative Order and receiving water quality objectives. Moreover, the Copermittees are required to evaluate the effectiveness of JURMP programs and to revise the programs as necessary to comply with the Tentative Order and receiving water quality objectives. The contention that the Tentative Order would have to be amended to provide the Copermittees with the flexibility to modify activities is without merit. The requirements contained in the framework provided in the Tentative Order are sufficiently broad and inclusive to provide the Copermittees with largely the same degree of latitude in developing and implementing programs. Within this framework, the Copermittees will not be required to implement unnecessary or non-productive activities.

Comment: The Tentative Order will result in a divided regulatory system for Orange County. As noted above, The Tentative Order is copied also verbatim from the NPDES Permit the Regional Board issued for San Diego County. As the City has pointed out in its separate comment letter, this one-size-fits-all "San Diego Model" does not apply to the issues faced by Orange County cities and will derail progress toward water quality objectives. In addition, the "San Diego Model" is substantially different than the permit being considered by the Santa Ana Regional Board. Applying the "San Diego Model" to the southern portion of Orange County, while the Santa Ana Regional Board considers a more flexible model in northern Orange County, creates a divided regulatory system which threatens to undermine attempts to achieve the water quality objectives we all share.

As previously communicated to the Regional Board, Permittees believe the Santa Ana Regional Board in Order No. 01-20 (Interim Draft – June 15, 2001) establishes a better framework and a more reasonable approach to municipal storm water management than the Tentative Order. Similarly, Permittees submit that the Los Angeles Regional Board Order No. 01-XXX (Second Draft – June 29, 2001) is also better structured and more reasonable than the Tentative Order. Accordingly, Permittees strongly recommend that San Diego Regional Board consider these draft permits as models for revising the Tentative Order. (*Mission Viejo, San Juan Capistrano, Aliso Viejo, County of Orange,*)

Response: The model Permit, on which the Tentative Order 2001-193 is based, provides the additional detail for pollution prevention measures, source identification and elimination/control, inspection frequencies, education, enforcement, and structural and non structural BMPs that constitutes the definition of the SDRWQCB of what is necessary to achieve MEP.

The DAMP was reviewed with respect to the preparation of a template Tentative Order under development that was intended by the RWQCB to be revised as necessary and applied in each of the three counties in the San Diego Region. Part of the rationale for developing a template Tentative Order was to prepare San Diego Region Municipal Storm Water NPDES Copermittees in the three counties for the eventual issuance of these NPDES Permits and Waste Discharge Requirements on a watershed basis rather than a county basis while ensuring regional consistency within the San Diego Region. During workshops and public meetings conducted during adoption process for the first of

these permits (Order No. 2001-01), the RWQCB repeatedly affirmed this intention. Some of the preliminary results of that review were communicated to the Orange County Copermittees in February and March of 2001. A more detailed discussion of the Drainage Area Management Plan and the Copermittee's discretion to revise and implement it under the Tentative Order is provided elsewhere in this document.

Comment: The Draft Response to Workshop 1 (page 1) states that SDRWQCB has interpreted what MEP means. Isn't this the responsibility of the Copermittees under the process of JURMP development? If it is up to the Board to define MEP, then there must be some method of defining public policy for MEP, given the competing needs for public safety, air quality, education and other public issues. How can this public policy discussion not include city councils, County Boards of Supervisors, and other key elected officials?

With respect to managing fecal coliform bacteria loads to meet the REC-1 standards in receiving waters, it is quite possible that implementation of BMPs to the MEP still will not achieve these water quality objectives for existing developments. At that point permittees (cities) will be faced with diversion or end-of-pipe treatment as the only feasible way to achieve Receiving Water Limitations. The cost of diversion or end-of-pipe treatment for all storm drains in a watershed would surely be beyond the economic burden expected under MEP, yet this may be the only way of meeting REC- 1 standards. EPA's Phase I Storm Water regulations require municipalities to develop management programs to control discharges of pollutants (i.e., what is practicable) rather than requiring end-of-pipe treatment (i.e., what is not practicable). The Basin Plan calls for municipal storm water discharges to meet the MEP standard, but not any stricter end-of-pipe standards. To the extent that the Tentative Order attempts to hold the Permittees to a standard stricter than MEP, the Regional Board would not be implementing the Basin Plan and therefore would be in violation of Water Code section 13263(a).

The Tentative Order violates the MEP standard in several ways. The Tentative Order, on its face, is based upon a "receiving water quality objective" centered policy of "zero contribution" rather than MEP. Section A.2 flatly states that "[discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited." This is an impossible standard to achieve and violates MEP. The Tentative Order and supporting documents fail to consider the factors which must be considered in developing an order based upon the MEP standard. Both federal and state directives require that developing an MEP standard requires consideration of specific factors, including cost and alternative approaches to resolving the problem. The Tentative Order's "zero contribution" policy is inconsistent with MEP because it will lead to selective enforcement of this unattainable policy. To actually monitor whether discharges from the each of the copermittees' MS4s are contributing in any manner to exceedances of receiving water quality objectives is impossible. What is likely to happen is that enforcement of the Tentative Order will be inconsistent, and enforcement, when it occurs, will likely lead to remedies which far exceed the provable violation. Such a policy (which essential means that all of the copermittees are always out of compliance) violates MEP.

The [Defenders of Wildlife v. Browner] court opined that while compliance with WQS was not required, Section 402(p)(3)(B)(iii) did provide EPA with discretion to require such compliance where necessary to control pollutants. Id. at 166-67. Misreading the court's dicta, the Regional Board staff finds support for the statement in the Technical Report that municipal storm water discharges must meet the MEP standard and any stricter standard necessary to meet WQS.¹ However, as noted, the court in Defenders expressly rejected this, saying that the CWA does not require municipal discharges to meet WQS. The court did not expressly address whether the EPA had discretion to require strict compliance with WQS where to do so was beyond the limits of practicability. However, the legislative

history is clear that Congress intended for MEP to be the only standard applicable to MS4 discharges, not MEP and any stricter standard necessary to meet WQS.

In short, to the extent the CWA provides the Regional Board with any discretion to impose obligations on the Permittees, that discretion must be exercised consistent with and within the confines of the MEP standard. The Regional Board does not have unlimited authority to require the Permittees to reduce the discharge of pollutants to the maximum extent practicable and to do “whatever else is needed,” nor can either Section 402(p)(3) or the court’s decision in *Defenders* be read to provide such authority. Ultimately, the only real authority provided to regional boards under Section 402(p)(3) is the authority to require a program to reduce the discharge of pollutants to the maximum extent practicable by using certain best management practices (“BMPs”) and “such other provisions as . . . the State determines appropriate for the control of such pollutants. (*Laguna Niguel, Aliso Viejo, County of Orange*)

Response: First, MEP has been defined in the Tentative Order. See Attachment D Glossary, Page D-3. Second, see the final portion for clarification of the criteria for which the Regional Board will determine if MEP has been met. Third, this portion also clarifies that the Regional and State Boards have the final responsibility of assessing whether MEP has been met.

Water Code 13263 & 13377 give RWQCB authority to regulate discharges to preserve highest reasonable water quality and water quality needed to sustain beneficial uses, including aquatic habitat, etc. NPDES regulations mandate reduction of pollutants in storm water that cause or contribute to pollution to MEP by municipalities; evidence establishes risk of unreasonable degradation and pollution associated with urban runoff and support’s RWQCB imposition of requirements implementing “MEP” performance standards. While CWA does not require municipalities to satisfy receiving water standards; [*Defenders of Wildlife v Browner* (9th c, 1999), 191F3d 1159] WQ sections 13263 & 13377 requires WDRs functioning as NPDES permits to implement water quality objectives (i.e., water quality standards) in basin plans and provisions of the CWA and NPDES regulations needed to protect beneficial uses, and to prevent nuisance.

The impacts urban runoff causes to receiving waters within our region makes the necessity for the inclusion of water quality standards in the Tentative Order clear. Findings 3, 4, 5, 6, and 9, as well as their corresponding discussions in the draft Fact Sheet/Technical Report, all discuss the impacts of urban runoff to the region’s receiving waters. Urban runoff is a leading cause of water quality impairment in the San Diego Region. To prevent urban runoff from continuing to be a leading cause of receiving water impairment, water quality standards are necessary in the Tentative Order. Compliance with water quality standards provides the necessary tool to ensure that water quality standards are achieved when implementation of BMPs to MEP are unsuccessful. The Copermittees efforts to date to implement BMPs to the MEP have not been sufficient to adequately protect receiving waters. The inclusion of requirements for compliance with water quality standards in the Tentative Order corrects this deficiency.

The issue of whether storm water discharges from MS4s must meet water quality standards has been intensely debated for the past five years. The argument arises because Clean Water Act section 402(p) fails to clearly state that municipal dischargers of storm water must meet water quality standards. On the issue of industrial discharges of storm water, the statute clearly indicates that industrial dischargers must meet both (1) the technology-based standard of “best available technology economically achievable (BAT)” and (2) applicable water quality standards. On the issue of municipal discharges however, the statute states that municipal dischargers must meet (1) the technology-based standard of “maximum extent practicable (MEP)” and (2) “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants.” The statute fails, however, to specifically state that municipal dischargers must meet water quality standards. As a

result, the municipal storm water dischargers have argued that they do not have to meet water quality standards; and that they only are required to meet the MEP standard. Environmental interest groups maintain that not only do MS4 discharges have to meet water quality standards, but that MS4 permits must also comply with numeric effluent limitations for the purpose of meeting water quality standards. On the issue of water quality standards, the US EPA, the SWRCB, and the SDRWQCB have consistently maintained that MS4s must indeed comply with water quality standards.

SWRCB rationale: In addition to relying on US EPA's legal opinion concluding that MS4s must meet MEP and water quality standards, the SWRCB also relied on the Clean Water Act's explicit authority for States to require "such other provisions that the Administrator or the State determines appropriate for the control of such pollutants" in addition to the technology-based standard of MEP. To further support its conclusions that MS4 permit dischargers must meet water quality standards, the SWRCB relied on provisions of the California Water Code that specify that all waste discharge requirements must implement applicable Basin Plans and take into consideration the appropriate water quality objectives for the protection of beneficial uses.

The SWRCB first formally concluded that permits for MS4s must contain effluent limitations based on water quality standards in Order WQ 91-03. In that Order, the SWRCB also concluded that it was appropriate for Regional Boards to achieve this result by requiring best management practices, rather than by inserting numeric effluent limitations into MS4 permits. In Order WQ 98-01, the SWRCB prescribed specific precedent setting Receiving Water Limitations language to be included in all future MS4 permits. This language specifically requires that MS4 dischargers meet water quality standards and allows for the use of narrative BMPs (increasing in stringency and implemented in an iterative process) as the mechanism by which water quality standards can be met.

In Order WQ 99-05, the SWRCB modified its receiving water limitations language found in Order WQ 98-01 to meet specific objections by the US EPA (the modifications resulted in stricter compliance with water quality standards). SWRCB Order WQ 99-05 states "In Order WQ 98-01, the State Water Resources Control Board (State Water Board) ordered that certain receiving water limitation language be included in future municipal storm water permits. Following inclusion of that language in permits issued by the San Francisco Bay and San Diego Regional Water Quality Control Boards (Regional Water Boards) for Vallejo and Riverside respectively, the United States Environmental Protection Agency (EPA) objected to the permits. The EPA objection was based on the receiving water limitation language. The EPA has now issued those permits itself and has included receiving water limitation language it deems appropriate.

"In light of EPA's objection to the receiving water limitation language in Order WQ 98-01 and its adoption of alternative language, the State Water Board is revising its instructions regarding receiving water limitation language for municipal storm water permits. It is hereby ordered that Order WQ 98-01 will be amended to remove the receiving water limitation language contained therein and to substitute the EPA language. Based on the reasons stated here, and as a precedent decision, the following receiving water limitation language [which is found in Receiving Water Limitations item C. of Order No. 2001-01] shall be included in future municipal storm water permits." In a late 1999 case involving MS4 permits issued by US EPA to several Arizona cities (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035), the United States Court of Appeals for the Ninth Circuit upheld US EPA's requirement for MS4 dischargers to meet water quality standards, but it did so on the basis of US EPA's discretion rather than on the basis of strict compliance with the Clean Water Act. In other words, while holding that the Clean Water Act does not require all MS4 discharges to comply strictly with state water quality standards, the Court also held that US EPA has the authority to determine that ensuring strict compliance with state water quality standards is necessary to control pollutants. On the question of whether MS4 permits must contain numeric effluent limitations, the court upheld US EPA's use of iterative BMPs in place of numeric effluent limits.

SWRCB's final position: On October 14, 1999, the SWRCB issued a legal opinion on the federal appellate decision and provided advice to the Regional Boards on how to proceed in the future. In the memorandum, the SWRCB concludes that the recent Ninth Circuit opinion upholds the discretion of US EPA and the State to (continue to) issue permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that "[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions." In summary, the SWRCB concludes that the Regional Boards should continue to include the Receiving Water Limitations language established in SWRCB Order WQ 99-05 in all future permits.

Accordingly, the SDRWQCB has required in the Tentative Order that discharges from MS4s meet receiving water quality objectives.

With respect to coliform discharges, structural diversion and end-of-pipe treatment is currently used as a short-term method to protect REC 1 uses while source identification efforts are conducted and best management practice options are developed and evaluated. We agree that costly diversion and end-of-pipe treatment points is not practicable at all discharge points. They, however, have not been demonstrated to be the only methods to reduce fecal coliform discharges to meet the REC 1 objective.

Finally, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has stated "The Regional Water Board appropriately required compliance with water quality standards and included requirements to achieve reduction of pollutants to the maximum extent practicable." The specific recommendations for changes in the language identified in this draft resolution will be incorporated in the revised draft of the Tentative Order.

Comment: Weighing of Beneficial and Adverse Impacts In order to fulfill its responsibilities under the Water Code and CEQA and to the public, the Regional Board must consider the adverse impacts of the proposed requirement to achieve water quality standards in relation to the benefits. There is considerable evidence that, while the requirement to comply with water quality standards would provide a number of desirable benefits, inclusion of this requirement in the final NPDES permit would result in more harm than good. For this reason, the Regional Board should amend the Tentative Order prior to adoption and remove the prohibition requiring immediate compliance with water quality standards. In its place, the Regional Board should impose requirements that are based on a balancing of public interest factors and which provide more good than harm. The County believes the Receiving Water Limitations language in the current permit, with its iterative process of BMP implementation and assessment, does this.

Based on a comparison of costs, adverse impacts, and benefits, the prescriptive program incorporated into the Tentative Order is neither reasonable nor in the public interest. The costs to local residents and businesses would be significant. No public benefit would result from the program, which essentially mandates a stepping up of activities on low priority water quality issues. On the contrary, the requirement to expend equal effort on high and low priority issues would slow the pace at which water quality would otherwise be improved under the DAMP. The requirement to implement, enforce and expand coverage of the State General Permits for Industrial and Construction Activities would result in duplication of State activities and a waste of public funds. The prescriptive program would

reduce public resources available for higher priority, but discretionary community activities and therefore have an adverse impact on public health and welfare. Finally, the necessity of obtaining a formal permit amendment for any modification of any aspect of the prescriptive program before making such modification is wasteful of State and local resources and clearly not in the public interest. Thus, there is considerable evidence that inclusion of the prescriptive program in the final NPDES permit would result in more harm than good. For this reason, the Regional Board should amend the Tentative Order prior to adoption and remove the prescriptive program and, instead, require appropriate modifications to the DAMP. (*County of Orange*)

Response: Some of the major impacts in the region associated with the discharge of pollutants in urban runoff and unmitigated storm water include, beach closures, aquatic and riparian habitat stress, channel instability, flooding and toxicity. By reducing pollutants in storm water to the maximum extent practicable, enforcing prohibitions on illicit discharges, and mitigating flows from new development, the public will benefit from a reduction in the current impacts associated with storm water and urban runoff.

As discussed in response to other comments on receiving waters limitations, the SWRCB concludes that the Regional Boards should continue to include the Receiving Water Limitations language established in SWRCB Order WQ 99-05 in all future permits. An extensive discussion regarding the comments on the receiving water limitations is provided in response to comments elsewhere in this document. It should be noted that the discharge prohibitions and receiving waters limitations are in effect now irrespective of the adoption of the Tentative Order and that the Tentative Order carries forward these necessary and mandated requirements. Accordingly, the SDRWQCB has required in the Tentative Order that discharges from MS4s meet receiving water quality objectives.

Regarding prioritization, the SDRWQCB has the authority to assign site priorities for oversight by the Copermittees. The Federal NPDES regulations clearly place an emphasis on the prioritization of sites of various land uses. Per the Federal NPDES regulations, the Copermittees must control pollutants from construction, municipal, commercial, residential, and industrial land uses. BMPs must be implemented for all of these land uses. Since BMPs must be implemented for each land use, prioritization of sites falling under each land use category is an effective means for focusing efforts. The Tentative Order's requirements regarding site prioritization are more detailed than those in the Federal NPDES regulations. This increased detail is necessary due to the continued degradation of the region's receiving waters caused by urban runoff. Identification of high priority pollutant areas and activities allows for limited pollution reduction resources to be most effective. Prioritization will help the Copermittee determine which sites are high priority and it will also be an important tool in watershed planning and management. The same level of effort is not required for high and low priority sites. It is the Copermittees' discretion which BMPs are implemented for the various prioritized sites. Finally, the SWRCB upheld in Order WQ 2000-11 prioritization of sites by a Regional Board in the LARWQCB SUSMP. The LARWQCB SUSMP identified various priority development project categories which are high priority. The SWRCB found that identification of high priority sites was appropriate.

The requirements in the Tentative Order are based on the Federal NPDES regulations and USEPA and SWRCB guidance. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. The Tentative Order provides adequate flexibility to the Copermittees to implement their urban runoff management programs. The Copermittees are provided wide discretion in the implementation of BMPs. The Tentative Order does not prohibit each copermittee from modifying the proposed revised DAMP in order to develop a jurisdictional urban runoff management plan. Please see Attachment 5 of the Fact Sheet/Technical Report for a comparison of the proposed revised DAMP and the Tentative Order.

With respect to the comment that the SDRWQCB should amend the Tentative Order prior to adoption and remove the prescriptive program and, instead, require appropriate modifications to the DAMP, the question as to the prescriptive nature of the Tentative Order is addressed elsewhere in this document. Also, as discussed in the Fact Sheet/Technical Report and this document, while the DAMP as written is considered inadequate to achieve compliance with the MEP standard and receiving water quality objectives, the Copermittees have the discretion to revise the DAMP to meet the requirements of the Tentative Order.

Comment: The two workshops held by Regional Board staff have provided important feedback at a staff level, but only one Board member was in attendance to hear these comments. The SDRWQCB should hold a public workshop on Tentative Order 2001-193. Public workshops make for better public policy in that there are fewer restrictions, more time may be available, and the public and Copermittees may be more comfortable. The participants could be required to prepare topics in coordination to reduce repetitions, explain the ramifications of Tentative Order on the Copermittees, and that the participants provide productive, constructive alternatives if they are critical of a portion of Tentative Order.

There has been no detailed briefing on the Orange County municipal storm water permit in front of the Regional Board since 1996 and none of the Board members from that time are still in office. There is ample precedent for the Regional and State Boards to have multiple workshops on important issues, as is evidenced by the three workshops scheduled on the north Orange County permit by the Santa Ana Regional Board. A number of issues in the Tentative Order reflect major policy shifts from 1996 that need significant public consideration, which would be best accommodated by a workshop. (*MJF Consulting, Judy Johnson, County of Orange*)

Response: The SDRWQCB will conduct a public hearing to receive comments on the Tentative Order on November 14, 2001. The hearing has been scheduled to allow as much time as necessary to receive these comments. Moreover, the Tentative Order is based on Order No. 2001-01 and is intended to build upon the programs developed and implemented by the Copermittees under the first and second term permits. Extensive comments were received on Order 2001-01, including some from Copermittees in Orange County including the City of San Clemente, the City of San Juan Capistrano, and the County of Orange Public Facilities and Resources Department. Also, representatives of some Orange County Copermittees attended the three workshops held in San Diego in 2000. Based on the extensive review and comment period that has been available to the Copermittees, the SDRWQCB has determined that at this time the review and comment process for Tentative Order 2001-193 is sufficient to provide the SDRWQCB with information to consider the adoption of the Tentative Order. The SDRWQCB may consider requests during the public hearing for additional public hearings or workshops to gather and consider additional information on the Tentative Order.

Comment: The Tentative Order exceeds the limits imposed by the cwa by regulating the manner in which cities exercise land use authority. Contrary to the provisions of the Clean Water Act and California law, the Tentative Order, in numerous places, but especially Part F, would regulate land use, rather than simply requiring the Co-permittees to reduce the discharge of pollutants to the maximum extent practicable. Neither the Clean Water Act nor Porter Cologne gives the Regional Board authority to unduly influence this duty. Under California law, it is local governments, cities and counties, and not state executive agencies, which exercise land use authority. The authority of cities and counties to regulate land use comes from the California Constitution. Article XI, 57 confers on local governments the authority to regulate land use, through the exercise of the "police power." Case

law confirms the authority of cities and counties, recognizing that in their intrinsic character and by express declaration, state laws on county and city zoning are designed as standardizing limitations over local zoning practices, not as specific grants of authority to legislate. *Scrutton v. Sacramento County*. 275 Cal.App.2d 412 (1969).

The Tentative Order requires each municipality to revise its General Plan in order to meet the requirements being imposed by the Regional Board. The Tentative Order does not merely to recommend that the Permittees incorporate such plans and policies in their land use planning processes, but specifically requires the Permittees to incorporate them as part of their land use planning processes. These include requirements that the Permittees: (1) amend their General Plans; (2) modify their project approval processes to require new development and redevelopment projects adhere to the SUSMP (which in turn sets numerical design criteria for BMPs); (3) forbid the washing of driveways and patios, even in residential areas; (4) restrict the disposal of lawn clippings from the mowing of residential yards and public recreation areas; and (5) limit the ability of citizens to walk their pets outdoors. In doing so, the Regional Board would be impermissibly intruding on the local land use authority of the Permittees and violating the strictures of the CWA, the California Constitution and state law. See *supra* General Comments § VI. Accordingly, the County recommends that Finding No. 18 be deleted from the Tentative Order.

Part F.1 of the Tentative Order would require consideration of conditions for new development that take away local land use prerogatives from local government. Part F.1 .b.(l)(b), on page 14, for example, would require the City to subject development project land use approvals to the condition that the project proponent “. . . minimize impervious land coverage for all development approvals.” (Just where “minimize ” leaves off and “prohibit” begins is not spelled out in the Tentative Order.)

We suggest that the US EPA’s position on this issue is clear. In promulgating the Phase II storm water regulations, EPA said flatly “EPA recognizes that land use planning is within the authority of local governments.” 64 Fed.Reg. 68761, December 8, 1999. Furthermore, in the very first section of the Clean Water Act, CWA 9 101(b), 33 U.S.C. f, 1251(h), Congress made it clear that the CWA, including the NPDES program, is not meant to infringe on local land use authority: “It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use (including restoration, preservation, and enhancement) of land and water resources. . .”

This policy was relied on recently by the Supreme Court of the United States in a case in which the Court limited federal authority under the CWA over local land use matters. In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, 531 U.S. 159 (2001), the Court struck down a rule of the Army Corps of Engineers under which the Corps claimed jurisdiction over isolated intrastate wetlands. The Court found that the rule: “would result in a significant impingement of the States’ traditional and primary power over land and water use. See, e.g., *Hess v. Port Authority Trans-Hudson Corporation*, 513 U.S. 30, 44 (1994) (“[Regulation of land use [is] a function traditionally performed by local governments”). Rather than expressing a desire to readjust the federal-state balance in this manner, Congress [through the CWA] chose to ‘recognize, preserve, and protect the primary responsibilities and rights of States . . . to plan the development and use . . . of land and water resources’ 33 U.S.C. § 1251(b).

In summary, the Tentative Order’s encroachments upon local land uses and land use authority not only violate the CWA, and are contrary to EPA policy, they are contrary to California law, which places land use control firmly in the hands of local governments, not state agencies. The Tentative Order’s attempt to dictate land use decisions (e.g., “minimize impervious land coverage for all development projects” as required by F.1.b.(l)(b), page 14) to local governments is contrary to the separation of powers doctrine, as the California Constitution and the Legislature have placed Land use decisions in

the hands of local governments. Neither the California Constitution nor the Legislature assign any land use authority to Regional Water Quality Control Boards.

Recommendation: Convert the provisions Part F into an option to be considered by Co-permittees in the exercise of their discretion over land use matters, but do not make the adoption of the requirements now imposed by Part F mandatory. Focus the Permit on conditions which require the Co-permittees to reduce the discharge of pollutants to the maximum extent practicable. (*Rancho Santa Margarita, County of Orange, Lake Forest, Dana Point, Laguna Woods, Construction Industry Coalition on Water Quality*)

Response: The requirements of the Tentative Order implement the Federal NPDES regulations. These regulations require the Copermittees to enact ordinances to address particular situational discharges. The regulations also require General Plans to include urban runoff considerations (40 CFR 122.26(d)(2)(iv)(A)(2)). The Tentative Order has been written to provide the Copermittees discretion in how they include such considerations in their General Plans. Therefore, the Tentative Order does not supercede the authority local government.

California Water Code (CWC) section 13377 provides that the Regional Boards shall issue waste discharge requirements which apply and ensure compliance with all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), as amended, also known as the federal Clean Water Act (CWA). Section 402(p)(3)(B)(iii) of the CWA requires municipalities to implement “controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” The SDRWQCB’s responsibility is to translate this section of the CWA into the form of waste discharge requirements. Therefore the SDRWQCB has the authority to require specified programs to be implemented by the municipalities in order to carry out CWA requirements. Furthermore, a program involving land use is specifically addressed at 40 CFR 122.26(d)(2)(iv)(A)(2), “[a] description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment.” The Tentative Order solely requires Copermittees to exercise their planning power in a manner that takes into account potential water quality impacts and furthermore, for Copermittees to facilitate the smooth implementation of applicable provisions of the CWA.

Regarding specific activities that result in illicit discharges, the copermittees are not required to prohibit the activity (e.g., driveway washing, pet walking, etc.), only the discharge of waste to the MS4. There is no connection between the prohibition of these non-storm water discharges and land use. These non-storm water discharge prohibitions simply implement the Clean Water Act, which states that “permits for discharges from municipal storm sewers shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers” (CWA section 402(p)(3)(B)). Therefore, the Permit must include such prohibitions in order to be in compliance with the Clean Water Act.

The Tentative Order does not attempt to provide the SDRWQCB with land use authority. The Tentative Order does not restrict the location or type of development. This authority resides with the Copermittees. The Tentative Order merely requires that developments within the Copermittees' jurisdictions consider water quality, and implement measures as necessary to achieve receiving water quality standards.

Finally, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has thus far declined to respond to this issue.

Comment: Regional Board staff issued a revised Tentative Order and a revised Technical Report in the afternoon of August 24, barely four working days before the August 30 deadline. The County's comments have therefore necessarily been based on the original July 2 Tentative Order, and we have not been able to comprehensively assess the implications of the changes found in the revised Tentative Order and revised Technical Report, the latter of which includes over 50 new pages of analysis of the 2000 DAMP.

The County requested documents pertaining to Regional Board staff assessment of the 2000 DAMP in a Public Records Act request on August 7, 2001. On August 28, 2001, well beyond the ten-day period required by the Act, the County received some records and an invitation to copy additional documents at the Regional Board's offices. These documents therefore were not received in sufficient time to allow adequate analysis of key findings and conclusions concerning the 2000 DAMP, which underpin many of the conditions in the Tentative Order. (*County of Orange*)

Response: The second draft of the Tentative Order, released on August 23, 2001, contained primarily editorial changes and did not significantly alter the requirements of the Tentative Order. Changes in the Fact Sheet were made to provide greater clarification regarding issues raised during the public workshops. The Tentative Order is not based on the proposed DAMP and contains a framework for programs and BMPs that meet the SDRWQCB's interpretation of maximum extent practicable. Furthermore, the analysis of the DAMP was provided to describe in greater detail the earlier criticism by the SDRWQCB rather than as justification for the requirements of the Tentative Order. The adoption of the Tentative Order is neither dependent on the review of the DAMP nor is it based on specific commitments or plans contained within the DAMP. Thus, continued analysis and discussion of the DAMP is not necessary for the adoption of the Tentative Order. The hearing on the Tentative Order has been scheduled to provide the Copermitees and interested parties with sufficient time to review the Tentative Order and Fact Sheet prior to the hearing. Additional changes will be made based on a review of the comments submitted by August 30, 2001 as well as comments made in the hearing before the SDRWQCB.

Comment: The Tentative Order is an unfunded mandate that will burden the Copermitees with additional costs and take money away from other priorities. The provisions of the Tentative Order based on federal law giving discretion to the Regional Board or on state law pursuant to Water Code section 13377, cannot be considered federal mandate. Accordingly, the Regional Board must provide reimbursement to the Permittees for any and all requirements of the Tentative Order that exceed what is mandated by the CWA. (*Lake Forest, County of Orange, Rancho Santa Margarita, Laguna Hills*)

Response: As stated in the Draft Fact Sheet/Technical Report, the requirements of the Tentative Order are not within the definition of an "unfunded mandate" that would require reimbursement of costs under the California Constitution. The Tentative Order is not an unfunded mandate by the state since it is derived from the federal Clean Water Act and not state law. In addition, the Tentative Order is derived from federal USEPA regulations and guidance. The comment contends that many provisions in Tentative Order are not required by the CWA or federal NPDES regulations; however, all provisions are intended to implement or clarify specific requirements in applicable federal regulations to protect water quality of waters of the United States within the San Diego Region. As stated in

SWRCB Order No. 2000-11, the constitutional provisions regarding state mandates do not apply to NPDES permits like the Tentative Order.

Finally, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has thus far declined to respond to this issue.

Comment: The prohibition would not be expected to have any net benefit with respect to the aquatic life beneficial use in San Juan Creek, Aliso Creek, or other inland streams. That is because the only certain method of complying with standards would be to remove the discharges from local waterways and streams, and that more than likely would have a negative impact on aquatic life.

The contact recreational use and the aquatic life use are the uses that potentially stand to benefit from the requirement to achieve water quality standards. The degree to which these uses will benefit depends on the degree to which water quality standards are exceeded and/or the uses are currently impaired. Based on the 303(d) List, the most apparent benefit of achieving water quality standards would be protection of the water contact recreational use, and specifically the public health of those who come into contact with the listed waters. The County's water quality studies are in agreement with the Section 303(d) List that impairment of the water contact recreation use due to high coliform bacteria levels is a major water quality issue in the area. But the County studies also identify potential impairment of the aquatic habitat use due to toxic constituents as another significant water quality issue. The County studies identify the source of coliform bacteria as urban runoff, wildlife, and sewer overflows, and the source of toxics as urban runoff, agriculture, urban development, and recreational boating. From the County's studies, it would appear that requiring urban runoff discharges to achieve water quality standards would reduce, but not necessarily eliminate the impairment of local waters for water contact recreational and aquatic habitat uses.

Because the relative contributions of pollutants of concern from the various sources have not yet been quantified, it is not possible to conclude with any degree of certainty that bringing urban runoff discharges into compliance with water quality standards would result in attainment of the impaired beneficial uses identified in the Section 303(d) List or in the County's studies. Nor is it possible to quantify the improvement in use that would occur as a result of this requirement in the Tentative Order. A case in point is Huntington Beach, where recent studies have shown that wildlife in the Talbert Marsh, rather than urban runoff, is the likely source of bacterial contamination. In addition, there is a question of whether compliance with water quality standards for toxics would reduce the impairment of aquatic habitat uses, in that the only certain method of achieving these standards would be to remove the discharge from local receiving waters, thereby removing the primary source of water from these local waters through much of the year. (*County of Orange*)

Response: The Tentative Order does not require the elimination of all discharges through the MS4, but sets the conditions under which discharges are permitted. The use of best management practices (BMPs) will reduce the risk to both public health and aquatic species by reducing the amount of pollutants discharged to the receiving waters. The storm water permit is one tool in watershed management. Please refer to Attachment 4 of the Fact Sheet/Technical Report for a discussion of municipal storm water permitting and the watershed approach to preserving and enhancing the quality of water resources.

In the case of Talbert Marsh, it appears the marsh was not engineered to provide adequate residence time for the volume and characteristics of the water. Other wetlands, including ones located closer to

the sources of urban runoff, such as those being constructed to treat urban runoff in the city of Laguna Niguel, significantly reduce levels of fecal coliform.

Studies conducted by the County on Aliso Creek in 1998 and 1999 that were funded by a section 205(j) watershed study grant from the State Water Resources Control Board indicated significant mortality to test organisms during wet weather flows. Recreational boating is not a contributor to toxicity in Aliso Creek, and agricultural land use is not identified on a watershed land use map prepared during the 205(j) watershed study. The Tentative Order would reduce the amount of toxics discharged from urban development, which can significantly reduce the amount of toxicity in the stream because urban development is currently, and will remain, the dominant land use in the drainage area.

Comment: There is a need to revise the policy interaction in the Tentative Order between watershed planning and Jurisdictional URMP requirements. The Tentative Order implies that all of the requirements for Jurisdictional SUSMPs will be applied to future development even if a Watershed URMP provides for more effective treatment systems using a broader scale geomorphologic and hydrologic scope. For example, technical studies completed for the Baseline Conditions Report undertaken for the Southern Orange County SAMP demonstrate the need for a complete understanding of the geology and hydrology of specific terrains within both the San Juan Creek watershed and the San Mateo Creek watershed in order to be able to fashion water quality strategies that can address the physical attributes of each watershed. Moreover, as reviewed in the Baseline Conditions Report, it is particularly important to understand the unique or distinctive attributes of each subwatershed in order to devise combined water quality/hydrology measures that address and respect the geomorphologic characteristics of each subwatershed and as each subwatershed contributes to overall stream course flows and characteristics.

In many cases, it is likely that project-oriented BMPs such as the 14 BMP requirements for SUSMPs may not be effective or workable when applied at a watershed or sub watershed level. For instance, the requirement to “minimize directly connected impervious areas, where feasible” may be counter-productive when siting development from a sub watershed perspective. In sandy terrains, it may be more effective to concentrate development on ridgelines in order to minimize impervious surfaces in valley floor drainage areas.

Sub-watershed plans must have the flexibility to devise water quality strategies that, in some instances, may replace Jurisdictional SUSMP requirements. If the Board is committed to encouraging watershed scale water quality planning, then the Board needs to modify its policies to reflect the likelihood that watershed policies may in some instances replace the Jurisdictional SUSMP requirements. Otherwise, the current proposals will not carry out the State NPS Plan Management Measure and policies emphasizing watershed approaches to water quality planning. We request that the Board explicitly acknowledge the benefits of undertaking water quality planning at the sub watershed level in conjunction with large-scale new development proposals so that storm water treatment and infiltration systems can be devised which use natural systems that are feasible and that respect the geomorphologic conditions found to be unique or distinctive within each sub watershed.

There is a need to recognize that watershed planning may be carried out more effectively within portions of complex watersheds at different times rather than the entire watershed at one time. Due to the physical and jurisdictional diversity of southern Orange County watersheds, it is desirable to encourage water quality planning to proceed within distinct hydrologic units rather than waiting for planning to proceed on the basis of the entire watershed. In furtherance of the Board’s above Finding 18, we request that the Board explicitly indicate that general plan and zoning measures for

undeveloped lands may be addressed from a water quality perspective in portions of watersheds so long as the planning area is coherent from a hydrologic and geomorphologic perspective.

There is a need to specifically allow alternative sub-watershed water quality strategies to be adopted either before or after the submittal of the model SUSMP and/or the Jurisdictional local SUSMP and amended ordinances. Due to the complexities of integrating land use planning and water quality planning in undertakings such as the southern Orange County SAMP, we request that the Board explicitly acknowledge that alternative strategies using the sub-watershed approach can be adopted independently of the SUSMP schedule and, at the time of final approval (e.g. County land use, 401 programmatic certification), the watershed or sub-watershed plan will define the BMP water quality requirements for the area subject to the sub-watershed plan. (*Rancho Mission Viejo,*)

Response: Watershed principles are not in conflict with the Tentative Order's Land Use Planning for New Development component and its SUSMP process. As discussed in Attachment 4 to the Fact Sheet, municipal storm water requirements are a traditional regulatory measure. These are addressed in the form of NPDES permits and Waste Discharge Requirements issued to dischargers. In actual practice, the "watershed approach" is, at the moment, largely a non-regulatory measure. Nonetheless, compliance with applicable requirements is always an essential component of any watershed effort. The federal requirement for municipal stormwater permittees is to develop a program that will reduce pollutants being washed by storm water into the MS4 then discharged into local waterbodies to the maximum extent practicable (MEP). The Tentative Order represents the definition of MEP adopted by the SDRWQCB. Within that framework, the Copermittees have significant opportunity and flexibility to develop and implement effective programs and to improve and modify these programs as necessary to achieve and maintain compliance with the Tentative Order and receiving water quality objectives.

The Tentative Order directs copermittees to include watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures. USEPA supports addressing urban runoff problems in General Plans (or equivalent plans) when it states "Runoff problems can be addressed efficiently with sound planning procedures. Master Plans, Comprehensive Plans, and zoning ordinances can promote improved water quality by guiding the growth of a community away from sensitive areas and by restricting certain types of growth (industrial, for example) to areas that can support it without compromising water quality" (USEPA, 2000). While the SDRWQCB has the legal authority to require the Copermittees' General Plans to include considerations of the water quality impacts caused by urban runoff, the Tentative Order provides the Copermittees with more discretion regarding the General Plans' contents. The Tentative Order only includes examples of the types of principles and policies which should be in a General Plan, instead of specific requirements. In addition, the Copermittees will be allowed to develop their own work plan and time schedule for any changes to their General Plans they find necessary. The copermittees must also modify their development project approval processes to ensure that pollutants and runoff from the development will be reduced to MEP and will not cause or contribute to an exceedance of receiving water quality objectives. The SUSMPs (section F.1.b.(2)) must include requirements for implementation of minimum source control and structural treatment BMPs at certain priority project categories, including the activity of large-scale development which is a potential significant source of pollutants.

The Tentative Order encourages copermittees to recognize local land and water resource conditions in the development of appropriate planning, review and BMP requirements. The General Plan review guidance and SUSMP provision only requires the site design/landscape characteristics where it is feasible. If the Copermittees determine that such measures are not feasible, they need not require them. While the Tentative Order includes requirements for widespread BMP implementation for specific categories of existing and planned land use, it does not require use of any particular BMPs. The Tentative Order actually encourages implementation of combinations of BMPs, and further does

not preclude any particular BMPs or other means of compliance. Copermitees have discretion in the methods to be developed and implemented to control post-development peak flow rates and downstream erosion. Furthermore, the Copermitees can develop and implement different methods to be applied in different watersheds or different areas of a watershed, provided that the different methods are effective in adequately reducing post-development peak flow rates to control erosion. In addition, while onsite BMPs provide many benefits, there may be cases where offsite structural BMPs, implemented on a “neighborhood” or “sub-watershed” basis, may be more feasible. This is particularly the case for existing development, where opportunities for innovative site design do not exist. To allow more flexibility in BMP implementation, the Tentative Order SUSMP requirements regarding structural treatment BMPs allows BMPs to be shared by multiple new development projects on a “neighborhood” or “sub-watershed” level. The SWRCB supports this approach in Order WQ 2000-11, which states “We do note that there could be further cost savings for developers if the permittees develop a regional solution to the problem.” It should be noted, however, that shared BMPs will be required to be implemented upstream from any receiving water supporting beneficial uses.

The commenters also refer to the Special Area Management Plan (SAMP) process. The Los Angeles District Corps of Engineers - Regulatory Branch is developing a SAMP for the San Juan / San Mateo Creek Watersheds of Orange County, California. The Los Angeles District is conducting the SAMP in coordination with the existing and the proposed amendment to the Southern Subregion Natural Community Conservation Plan (NCCP). The goal of the SAMP is to develop and implement a watershed-wide aquatic resource management plan and implementation program, which will include preservation, enhancement, and restoration of aquatic resources, while allowing reasonable and responsible economic development and activities within the watershed-wide study area. To achieve this goal, the aquatic resources within the San Juan / San Mateo Creek Watersheds are being identified, characterized, delineated, and assessed at a planning level. To date, the USACE has completed a baseline assessment of riparian ecosystem integrity in the watersheds under current conditions. The next task will be to compare several alternative development scenarios for impacts to riparian ecosystem integrity in the watershed. Alternatives to be considered include the USACE’s preferred alternative, in which certain areas identified in the baseline conditions report are proposed as set-aside areas, restoration areas, critical corridor linkage areas, and areas that are deemed suitable for development. Presumably, the landowner would also propose a preferred alternative, and a negotiated process would then result in the final SAMP.

There are several issues relevant to the Tentative Order and Jurisdictional Urban Runoff Management Plans. First, the SDRWQCB does not plan to exempt any landowner from municipal jurisdiction or federal regulations. A landowner in the SAMP watershed has asked the SWRCB for an exemption from the requirements of Municipal NPDES Storm Water Permits, and the SDRWQCB has not seen a response.

In fact, both the Tentative Order and the SAMP recognize and address the inherent importance to manage land-use activities in order to protect aquatic beneficial uses. To assess riparian habitat condition, models in the SAMP process rely on a set of land-based indicators, including the potential to contribute pesticides, nutrients, hydrocarbons and sediments to the stream reach. This is used to identify riparian reaches in which high ecosystem integrity should be maintained in the SAMP. Since reaches are assessed in the context of the local drainage basin, the SAMP will require that any development in these local drainage areas would be subject to relatively strict management measures.

Next, while the Tentative Order provides flexibility to the copermitee to select appropriate BMPs, the SAMP will require specific management measures at development locations. The USACE will seek guidance to determine specific management measures in certain priority areas. While this is more stringent than the requirements of the Tentative Order, the SUSMP BMP requirements (Section

F.1.b.(2)(b)) can provide a foundation for local site-specific options in these drainage areas, while ensuring that development in all the sub-watersheds meets certain minimum BMP criteria to support the beneficial uses throughout the entire stream network. The Tentative Order and the SAMP are, thus, complementary in the watershed management process. The Tentative Order provides the regulatory minimum measures to meet MEP, and the SAMP represents a collaborative process to identify and preserve the most critical riparian reaches from the effects of urbanization.

Finally, it is unacceptable to rely solely on a programmatic 401 certification to address federal and state regulations for urban runoff and storm water. The SDRWQCB has not made a determination whether a programmatic 401 certification will be issued for any project in the SAMP area. In addition, a 401 programmatic certification would be limited to subject to USACE jurisdiction, and would, therefore, not have authority over all the surface water resources in the SAMP area. Furthermore, to ensure the protection of aquatic resources, 401 certifications require compliance with local storm water ordinances and programs, including SUSMPs.

The SDRWQCB appreciates all efforts at watershed-based planning, but that does not relieve the necessity for compliance with the Clean Water Act, the California Water Code, and local storm water programs.

Comment: The Regional Board staff does not appear to have considered and taken into account the limitations imposed by Section 13377. First, many, if not most, of the requirements set forth in the Tentative Order are not effluent standards or limitations or even discharge-related obligations. For example, the Discharge Prohibitions and Receiving Water Limitations (“RWLs”) set forth in the Tentative Order purport to apply to discharges into and from the Permittees’ MS4. See Tentative Order, Items A-C. Clearly, the application of these provisions to storm water flows into the MS4 cannot be construed as effluent limitations or standards. See also General Comments § VII. Likewise, few of the Jurisdictional Urban Runoff Management Program (“JURMP”) requirements imposed under the Tentative Order constitute effluent standards and limitations. See, e.g., Tentative Order, Item F.1 (focusing solely on land-use planning for new development and redevelopment and including obligations to assess General Plans and to modify and revise development approval and environmental review processes); *id.*, Items F.4 & F7 (setting forth obligations pertaining to public participation and education); *id.*, Item F.9 (requiring each Copermittee to “conduct fiscal analysis of its urban runoff management program in its entirety.”) Second, even if these requirements could somehow be construed as effluent standards and limitations, the Regional Board staff still has not shown that they are “necessary” to implement water quality control plans, protect beneficial uses, or prevent nuisance. As the court made clear in the Southern California Edison case, it is not sufficient for the Regional Board simply to assert that it has the authority under Water Code section 13377 to impose more stringent effluent limitations and standards on the Permittees. It also must “enunciate its reasoning” for imposing such limitations and standards on the Permittees and demonstrate that its reasoning is “supported by the evidence.” In the Tentative Order, staff repeatedly cites the Regional Board’s authority for imposing obligations on the Permittees, but rarely provides any reasoning or evidentiary support. Third, in order for any more stringent effluent standards and limitations to be imposed, they must be consistent with the CWA. Thus, any more stringent standards or limitations must be within the limits of practicability. (*County of Orange*)

Response: Water Code 13263 & 13377 give RWQCB authority to regulate discharges to preserve highest reasonable water quality and water quality needed to sustain beneficial uses, including aquatic habitat, etc. NPDES regulations mandate reduction of pollutants in storm water that cause or contribute to pollution to MEP by municipalities; evidence establishes risk of unreasonable degradation and pollution associated with urban runoff and support’s RWQCB imposition of requirements implementing “MEP” performance standards. While CWA does not require

municipalities to satisfy receiving water standards; [Defenders of Wildlife v Browner (9th c, 1999), 191F3d 1159] WQ sections 13263 & 13377 requires WDRs functioning as NPDES permits to implement water quality objectives (i.e., water quality standards) in basin plans and provisions of the CWA and NPDES regulations needed to protect beneficial uses, and to prevent nuisance.

Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has thus far declined to respond to this issue. Where the draft resolution has identified language that should be changed in Order No. 2001-01, the language has also been changed in the Tentative Order (e.g. Section C.1).

Comment: Recognizing the time and resources the San Diego Regional Board staff has invested in the structure and approach of the Tentative Order, Permittees have prepared the following strikeout version of the Tentative Order. The strikeout version shows revisions designed to address some of the more objectionable findings and significant shortcomings of the Tentative Order. It does not reflect all of the changes that Permittees believe should be made to the Tentative Order. Rather, it reflects a version of the Tentative Order that would be more acceptable to Permittees than the current draft. Although as noted above we ultimately believe the current efforts by the Santa Ana or Los Angeles Regional Boards are more appropriate models for permitting Orange County stormwater management program. Please note that the fact certain language or an entire provision has not been stricken or revised in the strikeout version should not be interpreted to mean that Permittees agree with the unrevised language or the provisions in the Tentative Order.

Attached for your review is a copy of the California Regional Water Quality Control Board (RWQCB) San Diego Region, Tentative Order No. 2001-193, NPDES No. CASO108740 draft permit for Orange County within the San Diego Region. This draft permit copy has been modified to include revising the existing Drainage Area Management Plan (DAMP) and implementing a Drainage Area Management Program in place of a Jurisdictional Urban Runoff Management Program (URMP). (*County of Orange, San Juan Capistrano*)

Response: The proposed changes in the Tentative Order are representative of the collective comments of the commenters that have been addressed in the SDRWQCB responses to comments. This includes comments concerning the Drainage Area Management Plan and receiving water quality limitations. The Tentative Order as drafted by the SDRWQCB represents the framework for MEP for the San Diego Region. Where appropriate, specific changes have been made to the Tentative Order and the Fact Sheet/Technical Report in response to the comments submitted.

Comment: The County is deeply concerned that the approach proposed in the Tentative Order, if implemented, will divert available funds away from important, ongoing watershed restoration initiatives in south Orange County towards a compliance program driven by land-use controls. If this occurs, much of the valuable watershed-level cooperation that has been achieved over the past few years will be replaced by municipal efforts to improve water quality in the gutters and catch basins on an individual jurisdiction basis. This will result in a loss of focus on the water problems that need to be solved in the true receiving waters, which are affected by more than just urban runoff. (*County of Orange*)

Response: The SDRWCB encourages a watershed-based approach to preserving and enhancing water quality, but using such an approach is not a substitution for compliance with NPDES permits or Waste Discharge Requirements. Rather, the municipal storm water requirements and the

SDRWQCB's watershed approach are fully consistent with each other. Both have the same overall objectives and both direct many of the same specific actions; for example identification and elimination sources of pollutants. The municipal storm water requirements is a traditional regulatory measure. These are addressed in the form of NPDES permits and Waste Discharge Requirements issued to dischargers. In actual practice, the "watershed approach" is, at the moment, largely a non-regulatory measure.

The SDRWQCB recognizes that receiving waters are affected by more than urban runoff. Please see Attachment 4 of the Fact Sheet/Technical Order for a more thorough discussion of the nexus between the Municipal Storm Water Permit and the watershed approach for preserving and enhancing water quality.

A watershed approach recognizes that sources of pollution from throughout the drainage area can affect downstream receiving waters and, therefore, all such sources should be identified and mitigated. By implementing jurisdictional-level management programs, pollution can be prevented at the source, which is ultimately more cost-effective than treating the effects of water pollution and restoring quality to the waters.

The watershed approach encouraged by the SDRWQCB is not one in which independent local governments voluntarily resign their individual responsibilities to prevent pollution throughout the watershed in order to cooperatively restore discrete units of a degraded stream. Rather, the Storm Water Permit requires those parties responsible for pollution to identify and eliminate the sources of pollution. and the SDRWQCB encourages responsible parties to restore water resources which they have degraded.

The physical stream channel network is a manifestation of hydrology and sediment supply from land surfaces. The Tentative Order recognizes that the three phases of urban land development each pose significant threats to water quality from storm water runoff, and therefore requires the copermittees to each create and implement a management program to control pollutants from these land-use activities.

Comment: The JURMP requirements are contrary to the watershed approach to water quality management embraced by the Regional Board. As acknowledged in its Draft Watershed Management Approach, such an approach "is based on the premise that many water quality problems are best solved at the watershed level rather than at the individual waterbody or discharger level." Indeed, the benefits of a watershed approach are recognized by the Regional Board staff in the proposed findings on both the Tentative Order and the Revised Tentative Order. Yet, by requiring each Copermittee to prepare and implement a separate JURMP, the Regional Board staff is encouraging a piecemeal approach that will hinder, rather than help, progress toward improving water quality. Although the Tentative Order also requires the Permittees to collectively develop and implement a WURMP, this obligation is almost certain to be overshadowed by the more onerous JURMP requirement. In addition, resources that the Permittees could devote to implementing a regional watershed management program, will now have to be directed to implementing their individual JURMPs. Perhaps the County's greatest concern with the Tentative Order is that it embodies an approach to water quality management that is diametrical to the holistic approach that the Permittees have been pursuing for over decade. The Regional Board staff have rejected this holistic approach in a favor of one that is disjointed, lacks focus and will ultimately be far more costly. The 2000 DAMP focuses on identifying and prioritizing water quality problems, understanding the source of those problems, and then developing and implementing solutions to address such problems. In contrast, the JURMP essentially requires the Permittees to create and maintain an elaborate, detailed inventory of all sources that could potentially impact receiving waters and mandates that the Permittees takes steps

to address all such “problems,” with little or no emphasis on prioritizing those areas requiring the most urgent attention. (*County of Orange*)

Response: The Tentative Order, and the JURMP requirements in particular, are not contrary to the watershed management approach. The relationship and subsidiarity of the Municipal Storm Water Permit to watershed management are described in Attachment 4 of the Fact Sheet, which states in part that the SDRWQCB’s watershed approach considers each geographic watershed (or subwatershed) as a whole and seeks to identify and mitigate all sources of pollutants (both point and non-point sources) throughout the watershed which contribute to the impairment of common downstream receiving waters. This definition emphasizes the important contribution (of pollutants and flow) from “inland sources” to “coastal problems”, such as those that have historically plagued San Diego and Orange County Beaches. Like the municipal storm water requirements, one of the most important steps in the SDRWQCB’s watershed effort is the identification and elimination of the sources causing such water quality impairments.

The watershed approach involves the recognition that sources of pollutants generated upstream can impact downstream water bodies. Thus, it is vital that each copermittee develop a management program to reduce pollutants to MEP within its individual jurisdiction. This involves place-based education, BMP implementation, monitoring, and illicit discharge identification and elimination. The JURMP allows each copermittee to identify sources of pollutants that may be contributing to downstream areas of concern. In fact, the prioritization criteria specifically allows for limited pollution reduction resources to be most effective by focusing on high priority areas, including those that may impact water bodies of regional concern. Prioritization, therefore, will help the Copermittee determine which sites are high priority and is an important tool in watershed planning and management. The W-URMP (watershed urban runoff management program) then facilitates the resolution of water quality problems that are contributed to by multiple copermittees.

Within the context of a watershed effort (e.g. the Watershed Urban Runoff Management Plan or Watershed URMP), the watershed-wide efforts undertaken by a set of Copermittees in a given drainage builds upon and enhances the jurisdictional efforts of each Copermittee. Under the First and Second Term Permits, significant elements of the DAMP were actually implemented on a countywide basis in two watershed areas within two different Regional Boards with little actual emphasis on specific watershed issues or programs. The implementation of solid jurisdictional level programs, the program management component of the proposed DAMP, and the Watershed URMP focused on the San Juan Creek Watershed Management Area within Orange County, will bring the implementation of the concepts expressed in the proposed DAMP to fruition.

Comment: The requirement to immediately comply with water quality standards would have significant adverse impacts on the environment. The mandate to immediately comply with quality standards would require the County and cities to divert public resources from discretionary activities aimed at addressing high priority water quality issues in the area to the construction of the urban runoff treatment system necessary to comply with the mandate. Thus, in the ten to twenty-year interim, prior to the completion of the urban runoff treatment system, the water quality in local streams would be improved at a slower pace than would otherwise occur. In order to comply with water quality standards, it would be necessary to intercept all runoff prior to its reaching waters of the State (including any stream or estuary or the ocean) and to transport it to one or more central locations for treatment prior to discharge to the ocean. Currently, urban drainage is the primary source of water in local streams throughout much of the year. As a result of water being present year round in these streams, they support aquatic life, riparian habitat, and wildlife. Removal of the urban runoff from local streams would cause them to be dry throughout most of the year, thereby destroying the aquatic life, riparian habitat, and wildlife that presently exist.

Construction of the urban runoff collection and treatment system that would be necessary to comply with water quality standards would likely take on the order of ten to twenty years. During that period, the construction would disrupt the activities of local citizens and businesses (by the closing or restricting of streets and sidewalks), increase noise levels, and increase traffic. These impacts would adversely impact businesses in the vicinity of the construction and inconvenience and delay local citizens as they try to conduct their personal activities. Considerable fuel and energy would be required to construct the necessary storm water collection and treatment system and, once constructed, to operate the system. The increased demands for fuel and energy would further stress the already limited supplies. Moreover, the additional demands for fuel and energy, would have secondary environmental and economic impacts on the State as a whole.

In mandating that the County and cities implement low priority activities at considerable cost, the Tentative Order could have the effect of diverting limited public resources from other, higher priority community needs, including, but not necessarily limited to law enforcement, fire protection, and health and welfare activities. Thus, the proposed requirement that the County and the cities implement a prescriptive program could have an adverse impact on the health and welfare of local citizens.

The requirement to implement a prescriptive program would have the effect of delaying the incremental improvement in water quality that would otherwise occur in the absence of this requirement. That is because, under the DAMP, the County and cities were focusing effort on critical aquatic resources and pollutants that, based on monitoring, appear to present the greatest threat to beneficial uses in these waters. The Tentative Order does not recognize this approach and, instead, requires, under penalty of enforcement action, that the County and cities undertake numerous specified activities which, in the County's opinion, are of lower priority. Faced with limited public resources and the threat of enforcement action for failure to perform specifically required functions, it is likely that more emphasis will be placed on those low priority activities and less on activities deemed to be of higher priority with respect to improvement of water quality and enhancement of beneficial uses. As a result, it is likely that this requirement would have an adverse impact on water quality. (It should be noted that although the Tentative Order requires that urban runoff discharges achieve strict compliance with water quality standards and compliance with that requirement would ultimately improve water quality, implementation of the facilities necessary to achieve strict compliance would take between 10 and 20 years. In the interim, there are considerable water quality improvements that could be achieved through the present iterative process of BMPs, were it not for specific requirements in the Tentative Order that would cause staff resources to be diverted from those iterative efforts.

Response: Certain inconveniences, such as infrastructure maintenance may be unavoidable. An urban runoff management program based on the elements in the Tentative Order will improve water quality by detecting and eliminating non-storm discharges to receiving waters, reducing pollutants in runoff from municipal, industrial, commercial, residential, and construction areas, and control storm water discharges from new development and redevelopment areas.

The Tentative Order does not require a collection and treatment system as speculated. That assumption is based on an analysis of one option considered by another county to meet the criteria in the California Toxics Rule. The copermitees to this Tentative Order may consider other options for achieving the objectives of the Tentative Order, including source identification and elimination, implementation of best management practices, and the approaches outlined for new development and redevelopment that would create an urban runoff management program tailored to the land use and geography of the region. The local geography, in fact, makes it highly unlikely that elimination of dry-weather urban runoff will cause catastrophic changes in aquatic and riparian ecosystems because certain stream systems in the region receive baseflows from subsurface groundwater discharges.

Additionally, the use of on-site best management practices for source reduction and pollution prevention would decrease the need for costly and energy intensive treatment alternatives.

With respect to prioritization, the Tentative Order requires the southern Orange County municipalities to prioritize water quality concerns in their jurisdictions, rather than countywide, as has been the previous approach. The current urban runoff management approach based on incremental steps to address water quality issues throughout the entire county has not resulted in satisfactory water quality in many of the jurisdictions of south Orange County. Additionally, the management programs developed pursuant to section F.3 of the Tentative Order will develop priorities for water quality based on more extensive and pertinent data than the current level of monitoring effort, and should, therefore, result in more efficient water quality improvements in the short and long-terms.

Comment: The Tentative Order is Prescriptive and Violates CWC 13360: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement and would be an attempt to expand Regional Board control over City policies and procedures. In its current form, the Tentative Order, including its five separate attachments, is almost 80 pages in length, nearly three times as long as its predecessor. The principal reason for this length is that the Regional Board staff specifies in excruciating detail what the Permittees must do to comply with the substantive standards imposed under the Tentative Order. The Tentative Order, both generally and particularly with respect to the JURMP/SUSMP requirements, is unlawfully prescriptive under the Section 13360 of the Water Code and does not provide the flexibility envisioned by the CWA and its implementing regulations.

The Regional Board does not have the authority to dictate to municipalities the form or content of any ordinances, statutes, permits, contracts or similar means. The cities and counties have jurisdiction over these things. The Regional Board may not mandate or prescribe how compliance with discharge prohibitions shall be achieved. The Water Code prohibits this practice. Water Code section 13360(a) provides that: "No waste discharge requirement or other order of a regional board or the state board or decree of a court issued under this division shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree, and no person so ordered shall be permitted to comply with the order in any lawful manner." How does the Regional Board justify telling Copermittees the manner in which they will comply with the requirement to control the quality of discharges from their MS4s? Clearly, the method or methods of achieving compliance are up to the City-not the Regional Board.

As one court has stated, Section 13360 permits the Regional Board to identify the "disease and command that it be cured" but prohibits the Regional Board from "dictating the cure." (Tahoe Sierra Preservation Council v. State Water Resources Control Board (1989) 210 Cal.App.3d 1421, 1438.)

The Tentative Order violates Water Code section 13360 because it dictates how the Copermittees must comply with the requirements contained in the Tentative Order--i.e., it dictates the cure. As the City has pointed out in its separate letter to the Regional Board, there are over 87 major tasks the Copermittees must perform to comply with the Tentative Order. Such a prescriptive approach, particularly one which may prevent regional solutions and tie the hands of the Copermittees, is beyond the Regional Board's authority.

As can be seen, Section 13360 grants a Copermittee unlimited authority to determine how best to meet the substantive obligations imposed under its storm water permit. This flexibility enables a Copermittee to ensure that its resources are used in the most efficient manner possible and thus is an essential component of the storm water permit. Ironically, this issue already has been addressed by the Regional Board's own legal counsel. As noted in the County of San Diego's comments on

Tentative Order No. 2001-01 (“San Diego Comments”), in December 1997, the Regional Board staff sought advice concerning the permissible level of detail for municipal storm water permits. See San Diego Comments, p. A-3. In response, the Regional Board’s legal counsel stated that while storm water permits could set forth certain performance goals, they could not specify the manner of complying with such goals. Id. Similarly, legal counsel advised that storm water permits could not prescribe the particular pollution control strategies to be used by the Copermitees. The Regional Board cannot and should not ignore either its statutory obligations or the advice of its legal counsel. While the Regional Board may tell the Permittees what they must do, it cannot tell the Permittees how they must do it.

Standard Urban Storm Water Mitigation Plans Violate CWC 13360:

The anti-regional-solution aspects of the permit proscribe lawful compliance options. The Regional Board has further invaded the discretion of the Copermitees by making it extremely difficult, if not impossible, for them to comply with the Permit through regional BMPs, at in-stream collection points where such BMPs could capture and treat large volumes of storm water. The Permit requires strict compliance with receiving water standards before storm water and dry weather flow enter receiving waters. Since regional solutions generally would be located downstream of where runoff enters receiving waters, the Permit does not facilitate or promote such solutions; rather, it prevents them, at least where the receiving waters are impaired—precisely the situation calling out for regional solutions.

This anti-regional-solution bias can also be seen in the Permit’s Standard Urban Storm Water Mitigation Plan (“SUSMP”). The SUSMP requires the construction of BMPs, “prior to . . . discharge to any receiving water body supporting beneficial uses.” This location requirement will make it difficult in most cases for shared BMPs since the location of shared BMPs presumably would be downstream at some common drainage point, most likely in the receiving waters themselves. Thus, although the Permit states that BMPs may be shared by “multiple new development projects,” there may be very few instances where such sharing is feasible.

Regional BMPs were heralded by the SWRCB in the Los Angeles SUSMP decision.” They certainly represent a “lawful manner” with which to reach MEP. The Permit’s anti-regional BMP provisions therefore violate Section 13360 (as well as MEP).

The volume and flow-based design standards for structural BMPs clearly run afoul of Section 13360. Both standards specify that, “BMPs shall be designed,” in accordance with prescribed criteria. Permit, section F.1.b.2.c. The design standards dictate that MEP for “all priority development projects” corresponds to infiltrating, treating or filtering the runoff from a design storm or design rainfall intensity (Permit, section F. 1 .b.2.c), further limiting the “lawful manner” with which Copermitees might satisfy MEP. The Tentative Order, at Part F.1.b.(2)(c), starting on page 17, would impose “Numeric Sizing Criteria” in order to reduce the flow of water, whether or not it carries any “pollutants,” off of real estate. We believe that the Board’s authority under the Clean Water Act does not extend to the regulation of the rate of discharge of water, rather than regulating the discharges which the Congress addressed in the Clean Water Act, i.e., the discharge of pollutants. We are also particularly concerned that the “Numerical Sizing Criteria” exceed the Board’s authority to prescribe how the Clean Water Act’s goals of reducing the discharge of pollutants to waters of the United States are to be achieved, and in so doing, violate the limitations of section 13360 of the California Water Code. In particular, we are concerned that contrary to § 13360(a) of the California Water Code, the permit specifies numeric design criteria for post-construction BMPs that are more stringent than the criteria in the San Diego permit (BMPs designed to mitigate [infiltrate, filter, or treat] the runoff produced by a 0.8-inch rain event rather than a 0.6-inch rain event in San Diego).

(Richard Watson & Associates, Laguna Niguel, Mission Viejo, Aliso Viejo, Dana Point, County of Orange, Construction Industry Coalition on Water Quality, Lake Forest, Laguna Woods)

Response: The Tentative Order does not "dictate the cure" but does provide a framework and a standard that the Copermittees must meet. As discussed in more detail elsewhere in this document, this represents the SDRWQCB's definition of the minimum standards necessary to meet MEP and protect receiving water beneficial uses.

California Water Code (CWC) section 13360 generally prohibits the Regional Boards from specifying the manner of compliance with state waste discharge requirements. However, CWC section 13377 provides that the Regional Boards shall issue waste discharge requirements which apply and ensure compliance with all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), as amended, also known as the federal Clean Water Act (CWA). Since Tentative Order No. 2001-193 is written to implement CWA requirements, it does not violate section 13360 for the SDRWQCB to include specified programs of Best Management Practices (BMPs) to be implemented by the municipalities in order to carry out CWA requirements. Specificity is even more crucial in waste discharge requirements for storm water discharges given their lack of numerical effluent limits. In order to reduce storm water pollution to the maximum extent practicable (MEP), the Tentative Order must require specific styles of BMPs (i.e., structural or source control), but that is not to say that the SDRWQCB is dictating one specific BMP to accomplish the task. The municipalities often have many BMPs available to get the job done.

Finally, with respect to the SUSMP requirements, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issued was prominently addressed, the SWRCB stated "The San Diego permit incorporates numeric design standards for runoff from new construction and redevelopment similar to those considered in the LA SUSMP order. In addition, the permit addresses programmatic requirements in other areas. The LA SUSMP order was a precedential decision, and we will not reiterate our findings and conclusions from that decision."

Comment: The SDRWQCB may be expanding control over local government in a manner not prescribed by the Clean Water Act. The Findings in the draft permit, the discussion of Underlying Broad Legal Authority for Order No. 2001-193 in the Fact Sheet/Technical Report, and the discussions of the broad and specific legal authority for the various draft permit provisions appear to be designed to justify expanded authority. It appears that certain aspects of the Tentative Order may exceed the limits imposed by the Congress when it enacted the Clean Water Act, by the EPA when it issued regulations implementing the Clean Water Act, and even more fundamentally, the limits imposed by the U.S. Constitution and by state law on the authority of cities with respect to the development and use of private property. The proposed permit seems to have blended actual authorities with "expanded" authorities to justify this expanded control. For example, we are troubled by the phrase "and Whatever Else is Needed" in the headings for three sections of the Directives Discussion (see pages 71-72 of the Fact Sheet/Technical Report).

The Regional Board Cannot Impose Any More Stringent Standards Except Within The Limited Authorization Of California Water Code Section 13377. As discussed, Section 402(p)(3) provides the Regional Board with limited discretion to include in MS4 permits "such other provisions as . . . the State determines appropriate for the control of such pollutants," as long as such provisions are consistent with the MEP standard. See 33 U.S.C. § 1342(p)(3). However, it is important to note that the discretion provided under this section is not, in and of itself, a grant of any specific powers to the state agencies responsible for issuing MS4 permits. The Regional Board's authority to issue MS4 permits pursuant to the CWA must have a basis in state law. In this regard, the Regional Board staff cites to Water Code section 13377 as the source of its authority to require the Permittees to meet the MEP standard and to do "whatever else is needed." See Technical Report, pp. 74-75. But once again, staff has overstated the scope of the Regional Board's powers.

California Water Code Section 13377 states: Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act . . . together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance. Cal. Water Code § 13377 (emphasis added). As can be seen, the first part of Section 13377 merely authorizes the Regional Board to carry out the provisions of the CWA. It does not give the Regional Board the power to go beyond the requirements of federal law.

Likewise, the second part of Section 13377 also is limited in scope, authorizing the Regional Board to impose more stringent effluent standards or limitations in certain limited circumstances. Specifically, the Regional Board must demonstrate that such standards or limitations are necessary to implement water quality control plans, protect beneficial uses, or prevent nuisance. In addition, the Regional Board's authority is limited by the requirements of Water Code section 13372, which allows the application of state law provisions only to the extent that such provisions are consistent with the federal act. Finally, in order to impose any limitations more stringent than the CWA, the Regional Board must "first enunciate its reasoning, which must in turn be supported by the evidence." See *Southern California Edison Co. v. State Water Resources Control Board*, 116 Cal. App. 3d 751, 759 (1981).

As discussed in the General Comments, the Permittees disagree with staff's expansive reading of its authority under state and federal law, as well as its conclusion regarding the scope of the MEP standard.

It is clear from even a cursory reading of the Tentative Order that it includes numerous requirements that go well beyond those mandated by the CWA. As noted, the Tentative Order applies water quality objectives to storm water discharges into the Permittees' MS4s, despite the fact that the CWA only speaks in terms of controlling such discharges from MS4s. See 33 U.S.C. § 1342(p)(3)(B); see also General Comments § VII. The Tentative Order also obligates the Permittees to individually develop and implement comprehensive JURMPs and to collectively develop and implement a Watershed Urban Runoff Management Program ("WURMP"). Indeed, nearly 50% of the Tentative Order is devoted to detailing the specifications for the JURMPs and WURMP. Yet, neither of these two programs is a specific requirement of the CWA. Rather, the CWA mandates only that the Permittees prepare and implement a management program that includes "a comprehensive planning process . . . to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate." 40 C.F.R. § 122.26(d)(2)(iv). Many of the programmatic elements required for the JURMP also are more extensive than those mandated by the CWA for inclusion in MS4 permits. For example, the CWA and its implementing regulations contain no requirements pertaining to land use planning for new developments and redevelopment. Compare Tentative Order, Item F.1, with 40 C.F.R. § 122.26(d)(2).

Likewise, the CWA does not specify the specific legal mechanism that the Permittees must use to ensure that discharges to their MS4s comply with applicable requirements. Compare Tentative Order, Items F.1.a – F.1.c (requiring Permittees to review and make specific revisions to their General Plans, as well as to their development approval and environmental review processes, in order to "reduce pollutants and runoff flow from new development and redevelopment to the maximum extent practicable"), with 40 C.F.R. § 122.26(d)(2)(i) (requiring only "a demonstration that the [permittee] can operate pursuant to legal authority established by statute, ordinance or series of contracts . . .") As yet another example, the Tentative Order imposes extensive obligations on the Permittees to "reduce

pollutants in runoff from all industrial sites.” Tentative Order, Item F.3.b. (emphasis added). However, under the CWA, the Permittees are only required to monitor and control pollutants in storm water discharges from those industrial facilities that: (1) are subject to Section 313 of the Superfund Amendments and Reauthorization Act of 1986 (“SARA”) or (2) the Permittees “determine[] are contributing a substantial pollutant loading to the municipal storm sewer system.” 40 C.F.R. § 122.26(d)(2)(iv)(C) (emphasis added).

As discussed in the prior comment and in the comments that follow, the County believes that in many instances the Regional Board would exceed its authority if it were to impose all of the requirements set forth in the Tentative Order. Moreover, to the extent the Regional Board were to exercise discretion, as authorized under state and federal law, it would be acting outside the scope of the mandates imposed by the CWA. Thus, the Regional Board cannot issue the Tentative Order unless and until it: (1) takes into consideration the economic impacts associated with adoption of the permit, as required by the CWA and the Porter Cologne Act; (2) subjects the permit to environmental review under the California Environmental Quality Act (“CEQA”); and (3) complies with the prohibition against unfunded mandates set forth in the California Constitution. (*Dana Point, County of Orange, San Juan Capistrano*)

Response: Water Code 13263 & 13377 give RWQCB authority to regulate discharges to preserve highest reasonable water quality and water quality needed to sustain beneficial uses, including aquatic habitat, etc. This does not constitute expanding control over local government in a manner nor prescribed by the Clean Water Act (CWA). NPDES regulations mandate reduction of pollutants in storm water that cause or contribute to pollution to MEP by municipalities; evidence establishes risk of unreasonable degradation and pollution associated with urban runoff and support’s RWQCB imposition of requirements implementing “MEP” performance standards.

While CWA does not require municipalities to satisfy receiving water standards; [Defenders of Wildlife v Browner (9th c, 1999), 191F3d 1159] WQ sections 13263 & 13377 requires WDRs functioning as NPDES permits to implement water quality objectives (i.e., water quality standards) in basin plans and provisions of the CWA and NPDES regulations needed to protect beneficial uses, and to prevent nuisance.

In fact, such regulation is not only allowed by the CWC, it is required. CWC section 13377 provides that the SDRWQCB issue waste discharge requirements as required by the Clean Water Act, “together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.” Where the requirements of the Tentative Order may be more stringent than the CWA, the SDRWQCB has enunciated its reasoning in the Fact Sheet/Technical Report.

Since the Permit is a set of waste discharge requirements issued under the California Water Code (which happens to implement the NPDES program), the NPDES program is only a set of minimum standards for the Permit. The NPDES program requirements are not a limitation on the contents of the Permit, as it is a set of waste discharge requirements under the California Water Code. Nor do the NPDES storm water regulations set a maximum limit on States’ individual implementation of the NPDES program. As such, the State of California can include specific requirements in an NPDES permit that need not be specifically addressed in the NPDES storm water regulations. However, to the extent that inclusion of such requirements is meant to implement and clarify the NPDES storm water program to protect the region’s receiving waters, such requirements do not exceed the NPDES program.

Contrary to the commenters assertions, the provisions of the Permit are required by the CWA and CWC. The CWA requires the discharge of pollutants from MS4s to be reduced to the maximum extent

practicable. The SDRWQCB has defined the requirements of the Tentative Order constitute the minimum requirements necessary to meet MEP. This determination has been made by the SDRWQCB in light of the continued degradation of the region's receiving waters due to the Copermittees' urban runoff discharges. The SDRWQCB's determination of MEP is consistent with SWRCB guidance, which states "the final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger." Requirements in the Permit which are more detailed than those in the federal NPDES regulations are also consistent with USEPA's Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, which states "the interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards."

Furthermore, the Permit's requirement that urban runoff discharges do not cause or contribute to an exceedance of water quality standards is required under both the federal NPDES regulations and CWC. Federal NPDES regulation 40 CFR 122.44(d)(1) requires NPDES permits to include any requirements necessary to "achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

Section 13377 of Porter-Cologne also states:

the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, **together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.** (emphasis added)

Therefore, the Permit's requirements are necessary to be in compliance with the CWA, the federal NPDES regulations, and CWC.

Contrary to the commenters assertions that the requirements for urban runoff management programs are not specific requirements of the CWA or Federal NPDES storm water regulations, the legal authorities cited throughout the Fact Sheet/Technical Report provide the SDRWQCB with ample underlying authority to require each of the directives. The SDRWQCB will not exceed its authority through the adoption of the Tentative Order and the implementation of its requirements and provisions by the Copermittees. The SDRWQCB, in exercising its discretion as authorized under State and Federal law, is not acting outside the scope of the mandates imposed by the CWA, but rather more fully implementing those mandates than it has heretofore. With respect to the consideration of economic impacts the requirement for environmental review under the California Environmental Quality Act, and the prohibition against unfunded mandates, these issues are addressed specifically elsewhere in this document.

Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which these issues were prominently raised, the SWRCB has thus far declined to respond to these issues.

Comment: Some of these comments also focus on concerns regarding strict legal interpretation of the Tentative Order as written versus the Board Staffs stated intent as expressed at the two workshops on the Tentative Order and in their responses to questions submitted at these workshops. In some cases the Board staff's responses to concerns about these issues have indicated that they would offer the permittees some flexibility in interpretation during implementation, however, such flexibility if not structured in the permit itself does not provide adequate legal protection for the permittees in the event of third-party law suits or a change in Board staff (*Aliso Viejo*)

Response: The Tentative Order contains the framework of minimum requirements for the Copermittees to develop and implement urban runoff management programs. Within that framework, the Copermittees have significant discretion and flexibility with regard to the programs and specific BMPs that are developed and implemented. The specific provisions of these programs and BMPs will be included in the Jurisdictional and Watershed Urban Runoff Management Program Documents, which are subject to SDRWQCB review and comment. Finally, the requirements of the Tentative Order are not designed to ensure that the Copermittees are in compliance in all circumstances, thereby protecting them from any liability. The requirements in the Tentative Order are designed to protect receiving water quality from discharges of urban runoff from MS4s. The iterative process defined in section C of the Tentative Order ensures, without precluding any enforcement actions the SDRWQCB considers necessary, that Copermittees that are working in good faith to implement the requirements of the Order are not subject to unnecessary enforcement or legal actions. To this extent, the Tentative Order provides adequate protection from differing interpretations of the Tentative Order that could result in third-party law suits or a changes in SDRWQCB staff.

Comment: The Tentative Order is invalid because the Regional Board has not complied with the Administrative Procedures Act. In developing regulations, orders or standards of general application, the Regional Board must comply with the express rule-making requirements of the Administrative Procedures Act ("APA"). (Gov. Code § 11342(g).) Although styled as a permit, the Tentative Order sets forth a set of regulations and establishes standards of general application which require compliance with the APA. Regulations promulgated without complying with the requirements of the APA are without legal effect. (*Grier v. Kizer* (1990) 219 Cal.App.3d 422,431.) In developing the Tentative Order, the Regional Board has not followed the public review and related requirements of the APA. Therefore, adoption of the Tentative Order is invalid. (*Aliso Viejo*)

Response: The development and adoption of the Tentative Order is exempt from the APA. The APA explicitly excludes the "issuance of [WDRs] and permits pursuant to section 13263" from its ambit (California Government Code section 11352(b)). The SWRCB has found this to be true stating in Order No. 2000-11: "the Administrative Procedure Act exempts the adoption of permits from its requirements." The provisions of the Tentative Order are required by the CWA and CWC. The CWA requires the discharge of pollutants from MS4s to be reduced to the maximum extent practicable.

The SDRWQCB has found that the requirements of the Tentative Order constitute MEP. This determination has been made by the SDRWQCB in light of the continued degradation of the region's receiving waters due to the Copermittees' urban runoff discharges. The SDRWQCB's determination of MEP is consistent with SWRCB guidance (February 11, 1993 Memorandum: Definition of Maximum Extent Practicable), which states "the final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger." SWRCB, 1993. Requirements in the Tentative Order which are more detailed than those in the federal NPDES regulations are also consistent with USEPA's Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water

Permits, which states “the interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards.” Furthermore, the Tentative Order’s requirement that urban runoff discharges do not cause or contribute to an exceedance of water quality standards is required under both the federal NPDES regulations and CWC. Federal NPDES regulation 40 CFR 122.44(d)(1) requires NPDES permits to include any requirements necessary to “achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.” Section 13377 of Porter-Cologne also states: “the regional boards shall, as required or authorized by the Federal Water Pollution Control Act, as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.” Therefore, the Tentative Order’s requirements are necessary to be in compliance with the CWA, the federal NPDES regulations, and CWC. For this reason, the Tentative Order is exempt from the APA under California Government Code section 11352(b).

Comment: The Board in its concern for receiving water quality has brought two conflicting remedies to bear on the problem simultaneously-this is the source of our concern. On the one hand, the Board is pressing for water quality-focused, receiving water-driven remedies through its Aliso Creek Directive and its stated long-term strategy of moving toward watershed-based permits in the next permit cycle. On the other hand the Board through the URMP/JURMP process laid out in this order is seeking to impose at the front end a highly prescriptive set of standards which are to apply to all jurisdictions. This places the Aliso Creek cities between the proverbial “rock and a hard place.” We want to press forward with water quality/watershed action to improve receiving water quality, yet we will be forced to divert our energy toward immediate development of a written plan for all the elements of the URMP regardless of their relative potential to improve the water quality problems in Aliso Creek. The one-size-fits-all “San Diego Model NPDES Permit” threatens to derail progress toward water quality objectives, especially for the Aliso Creek cities which comprise seven of the eleven incorporated cities identified as municipal co-permittees in the order. The Aliso Creek co-permittees are being driven more quickly than are other areas under the Board’s jurisdiction toward a watershed-based solution to water quality problems via the Board’s Aliso Creek Directive. Yet we are still being ordered to comply with all the programmatic elements of the URMP/JURMP program along the same schedule as other permittees not yet in this position. Aliso Viejo environmental staff have begun work planning efforts to address the requirements of this draft order as well as respond to emerging results of dry weather monitoring stemming from the Aliso Creek Directive. There are an additional 51 major tasks beyond the 36 identified by Board staff that will be required in order to implement the full provisions of this draft order. The combined list of 87 major tasks is attached to assist the Board staff in understanding our concerns. *(Aliso Viejo)*

Response: The Aliso Creek Directive was issued under Order No. 96-03 as a result of persistent exceedances of receiving water quality objectives that have necessitated the diversion of Aliso Creek and the JO3PO2 conveyance into the sanitary sewer. The planning efforts of the Copermitees to address the requirements of this draft order and the response to the results of the dry weather monitoring should be not mutually exclusive. The programmatic requirements of Tentative Order 2001-193 require the Copermitees in this watershed to address the sources of the bacteria causing or contributing to these exceedances, eliminate illicit discharges, and to implement BMPs to the MEP. It is anticipated that the implementation of the Jurisdictional and Watershed Urban Runoff Management Programs in this watershed will mitigate the present condition of Aliso Creek. To the extent that the exceedances continue despite the implementation of BMPs to the MEP, the directives of section C of the Tentative Order provide the Copermitees with an iterative process to address

these exceedances. It should be noted that pollutant discharges which have the potential to cause or contribute to an exceedance of water quality objectives (such as discharges to Clean Water Act section 303(d) water bodies) may require implementation of BMPs beyond the “maximum extent practicable” standard (40 CFR 122.44(d)(1)(i)).

Comment: Public health and environmental quality are of great concern to the City of Aliso Viejo. In the area of water quality, the City would like very much to focus its resources on identifying the sources of receiving water quality problems and developing solutions to these problems so that we can be responsive to the Board’s Aliso Creek Directive, provide beneficial recreational opportunities for our citizens and, most fundamentally, be good stewards of the environment. *(Aliso Viejo)*

Response: Comment noted.

Comment: Please correct the pagination on the Table of Contents. *(Anonymous)*

Response: Comment noted.

Comment: BIA/SC asks that you consider the following items that set forth many, but not all, of the concerns that the building industry has with the proposed Permit (please reference the Construction Industry Coalition on Water Quality’s letter for a more detailed analysis of our concerns).

BIA/SC asks that you consider the following items that set forth many, but not all, of the concerns that the building industry has with the proposed Permit (please reference the Construction Industry Coalition on Water Quality’s letter for a more detailed analysis of our concerns). We are very interested in working with you to address these concerns and ensure that the Permit is modified in such a way as to protect jobs, housing and good water quality for all residents in the region.

1. The definition of all urban runoff as “waste”.
- 2 . The inclusion of strict receiving water limitation compliance language that would most likely create a situation where all dischargers would be in non-compliance of the Permit from day one of implementation.
- 3 . The unjustified selection of priority development categories and thresholds requiring SUSMP compliance that are not likely to provide environmental benefit in relation to the high construction and maintenance costs involved.
- 4 . The Permit does not distinguish between land use and project location with regard to the appropriate level of regulation. It promotes a one-size-fits-all approach to regulation, most likely due to the lack of scientific foundation needed to set more appropriate regulations for different project types and locations.
- 5 . The attempt of the Regional Board to regulate stormwater flows in this Permit, regardless of what constituents are in the stormwater.
- 6 . The Permit’s non-compliance with the Maximum Extent Practicable (MEP) implementation standard.
- 7 . The attempt of the Regional Board to control local land use decisions even when they do not have authority to do so.
- 8 . The expansion of the SUSMP to include Environmentally Sensitive Areas (ESA’s), where the definition of ESA will prompt almost all new development to mitigate storm water runoff, even though the State Water Resources Control Board stated that ESA’s are already heavily regulated and removed them as a priority SUSMP development category.

9. The Permit's attempt to override all operative provisions of the General Construction Activity Storm Water Permit.

10. The requirement to limit grading during the wet season.

11. The requirement for all construction projects to prepare a local S WPPP. (*Building Industry Association of Southern Californ*)

Response: These subjects are each addressed individually throughout the SDRWQCB response to comments.

In addition, many of these subjects have been previously addressed by the SDRWQCB in the Fact Sheet/Technical Report for Tentative Order 2001-193, during the process for adoption of Order No. 2001-01, and the SDRWQCB response to the petitions for Review of the Regional Water Quality Control Board - San Diego Region's February 21, 2001 Approval of the San Diego Municipal Storm Water Permit Order No. 2001-01 filed by the Building Industry Association and the Western States Petroleum Association.

Comment: How do you propose to enforce requirements based on words such as minimize, maximize, etc? (*Building Industry Association of Southern Californ*)

Response: The RWQCB will enforce the requirements of the Tentative Order based in part on the submitted Jurisdictional Urban Runoff Management Program Documents submitted by the Copermittees within 365 days of the adoption of the Tentative Order. In these documents, which are subject to review and comment by the SDRWQCB, the Copermittees will propose BMPs and activities that constitute "minimum" or "maximum" BMPs or activities that satisfy the requirements of the Tentative Order.

Comment: While CICWQ appreciates the Board's well-intentioned regulatory efforts to improve water quality, the proposed Permit could have significant detrimental effects on every CICWQ member employee - and more specifically - California's shrinking middle- and working-class. According to an August 6, 2001 Los Angeles Times article entitled, "Middle-Class Families Put in Economic Bind," a shrinking middle class and high housing costs represent key challenges to the state's economy and quality of life.

This Permit will most likely yield a number of unintended consequences that could further exacerbate the shrinking middle-class and increasing housing costs. These regulations will result in fewer, but more expensive residential projects being completed in the future, due to additional costs and restrictions involved in complying with these regulations. This will, in turn, compromise job growth, housing production and the ability of residents to own their own home. These factors can have a significant negative effect on the regional economy. (*Construction Industry Coalition on Water Quality*)

Response: A number of factors, most significantly supply and demand, affect the cost of housing in Southern California. The fact that homes in many areas of Riverside County have a median price in the low \$100,000's while homes in Orange County have a median price in the \$300,000's, while both are subject to the same environmental regulations, demonstrates the small impact such environmental regulations have on the price of housing relative to the other factors.

Comment: We are very concerned about the cost effectiveness of the Permit in relation to specifically, what the anticipated efficacy is of this Permit in terms of improving overall water quality? The Permit should provide actual improvement of water quality, not simply attempts at incremental

decreases in future contributions. As to the maximum extent practicable consideration, both the Regional and State Boards have not properly addressed key elements of the “practicality” component - i.e., technical and cost feasibility. While cleaning up a problem decades in the making certainly must be a priority, it will not be accomplished on the back of other critical social needs in California, such as housing. Even with the marginal cost estimates relied upon by Regional Board staff (figures we vigorously dispute), there is no consideration as to the effect of those marginal costs on driving the availability of housing further out of the reach of those residents of our state most in need.

We urge you to thoroughly review the comments provided by CICWQ and ask yourselves at what point water quality improvement efforts should be allowed to compromise the economic livelihoods of our working families, diminish new home production, increase housing costs, and jeopardize our regional economic strength. (*Construction Industry Coalition on Water Quality*)

Response: It is implementation of actions required by the permit, not the permit itself, that will meet MEP and improve water quality. That implementation is the responsibility of the Permittees. Regarding housing costs and water quality, briefly, there is no basis to the implied claim that the Tentative Order will compromise the economic livelihood of working families. The Tentative Order will protect beneficial uses of water resources, including uses that promote economic activity. The Tentative Order will also help to preserve the opportunity for economic gain through beneficial uses of water resources in the future. The cost of housing in Southern California is primarily driven by location and proximity to desirable features. Regarding the cost of implementing structural treatment BMPs at SUSMP priority development projects, the SDRWQCB and LARWQCB have demonstrated in past SUSMP documents that the cost of construction of structural treatment BMPs generally constitutes less than 1% of total project cost. Regarding costs of structural treatment BMPs, the SWRCB states in Order WQ 2000-11 “The Regional Board found that the cost to include BMPs that will meet the mitigation criteria will be one to two percent of the total development cost. This amount appears reasonable, especially in light of the amount of impervious surface already in Los Angeles County and the impacts on impaired water bodies.”

Comment: The JURMP Requirements Would Unravel The Permittees’ Existing Storm Water Management Programs. The tenor of the Tentative Order suggests that, in the Regional Board staff’s view, the JURMP requirements can easily be incorporated into the Permittees’ existing program for water quality management. As such, the Permittees are given only one year following adoption of the Tentative Order to “have completed full implementation of all requirements of the Jurisdictional URMP.” Tentative Order, Item G. However, as discussed above, the 2000 DAMP and its predecessor are based on a holistic approach that emphasizes managing water quality on a county-wide, watershed basis. All of the Permittees’ storm water management programs have been structured around this approach. To that end, the Permittees prepared a model storm water ordinance which was approved by the Regional Board in 1996 and then individually adopted by the Permittees. These ordinances form both the procedural and substantive framework for the Permittees’ jurisdictional storm water management programs.

The JURMP requirements would now require each Copermitttee to completely re-write, re-adopt and re-implement its storm water ordinances. Indeed, this administrative burden is one of the greatest costs associated with the proposed JURMP requirements. Moreover, it is unlikely that the Permittees could complete this effort within one year, especially since these revised storm water ordinances would require CEQA review. Finally, this effort would necessarily require the Permittees to redirect scarce resources away from their other components of their storm water management programs, including those that focus on managing water quality on a jurisdictional, rather than watershed, basis. In short, it is fallacious for the Regional Board staff to believe that the proposed JURMP requirements will simply augment the Permittees’ existing programs for managing storm water. Likewise, it is

ludicrous for staff to expect and demand that the major re-structuring of these programs which the JURMP requirements would necessitate could be accomplished in only one year (*County of Orange*)

Response: Rather than addressing urban runoff concerns on a countywide basis, the Tentative Order is designed to ensure that each municipality in the region covered by the SDRWQCB has a storm water management program sufficient to address the areas, land-use activities and concerns within its jurisdiction. This approach reflects a prioritization of pollution prevention over treatment of pollution, and can be efficiently incorporated into a watershed approach to managing urban runoff. Please see Attachment 4 of the Fact Sheet for a discussion of municipal storm water permitting and the watershed approach.

The JURMPs are based on requirements largely derived from Order 90-38, Order 96-03 and the NPDES regulations which have been in place for many years. The Tentative Order requires the Copermittees to modify the building and development codes and ordinances as necessary to comply with the Tentative Order. The Tentative Order states "Within 180 days of approval of the model SUSMP in the public process by the SDRWQCB, each Copermittee shall adopt its own local SUSMP, and amended ordinances consistent with the approved model SUSMP, and shall submit both (local SUSMP and amended ordinances) to the SDRWQCB." The Copermittees are provided 365 days to develop the model SUSMP and an additional 180 days for the local SUSMP. One and a half years should be sufficient to develop the necessary ordinances. Schedules for the implementation of the requirements of the Tentative Order should be adequate for CEQA review.

Comment: However, the County recently received a revised version of the Tentative Order ("Revised Tentative Order") and a revised Fact Sheet/Technical Report ("Revised Technical Report") both dated August 23, 2001. The latter document includes the Regional Board staff's analysis of the Permittees' Drainage Area Management Plan, as revised and submitted with their permit application ("2000 DAMP"). The County believes that these comments on the Tentative Order are also relevant and applicable to the Revised Tentative Order. Nonetheless, the County has not had an adequate opportunity to review the Revised Tentative Order in detail and has not yet had sufficient time to evaluate the recently received staff analysis of the 2000 DAMP. Accordingly, the County reserves the right to submit additional comments relating to Tentative Order No. 2001-193 and the supporting Fact Sheet/Technical Report to the Regional Board in the future. (*County of Orange*)

Response: The second draft of the Tentative Order, released on August 23, 2001, contained primarily editorial changes and did not significantly alter the requirements of the Tentative Order. Changes in the Fact Sheet were made to provide greater clarification regarding issues raised during the public workshops. The hearing has been scheduled to provide the Copermittees and interested parties with sufficient time to review the Tentative Order and Fact Sheet prior to the hearing. Additional changes will be made based on a review of the comments submitted by August 30, 2001 as well as comments made in the hearing before the SDRWQCB.

Comment: We believe the period for written comments should be extended by 30 days in order to allow a full airing of issues on both sides concerning this important Order, and to address two specific procedural concerns... (*County of Orange*)

Response: The second draft of the Tentative Order, released on August 23, 2001, contained primarily editorial changes and did not significantly alter the requirements of the Tentative Order. Changes in the Fact Sheet were made to provide greater clarification regarding issues raised during the public workshops. The Tentative Order is not based on the proposed DAMP and contains a framework for programs and BMPs that meet the SDRWQCB's interpretation of maximum extent

practicable. Furthermore, the analysis of the DAMP was provided to describe in greater detail the earlier criticism by the SDRWQCB rather than as justification for the requirements of the Tentative Order. The adoption of the Tentative Order is neither dependent on the review of the DAMP nor is it based on specific commitments or plans contained within the DAMP. Thus continued analysis and discussion of the DAMP is not necessary for the adoption of the Tentative Order. The hearing on the Tentative Order has been scheduled to provide the Copermittees and interested parties with sufficient time to review the Tentative Order and Fact Sheet prior to the hearing. Additional changes will be made based on a review of the comments submitted by August 30, 2001 as well as comments made in the hearing before the SDRWQCB.

Comment: Irrespective of any legal requirements, the Regional Board has a moral duty to conduct its activities in a manner consistent with the public interest. This, in turn, requires that the Regional Board consider and weigh all potential impacts, both beneficial and detrimental, prior to acting. (*County of Orange*)

Response: The public adoption process for the Tentative Order enables to the SDRWQCB to consider all potential impacts, both beneficial and detrimental, consistent with the public interest.

Comment: While the requirement to comply with water quality standards would benefit public health by reducing the risk of gastrointestinal and other water borne illnesses, there is evidence that the increased costs to residents to achieve the requirement would increase the risk of illnesses and even death. In analyzing US EPA's proposed drinking water standard for arsenic, the AEI-Brookings Joint Center for Regulatory Studies concluded that while the arsenic standard would likely save eleven lives per year due to reduced arsenic levels in drinking water, it would likely result in a net loss of ten lives per year. See Appendix B-3. As stated in the AEI-Brookings report: "The reason is that the costs of complying with the rule reduce the amount of private resources that people have to spend on a wide range of activities, including health care, children's education, and automobile safety. When people have fewer resources, they spend less to reduce risks." (*Ibid*, page 8.) The arsenic rule was estimated to cause about 10 million people nationally to incur increased costs of about \$21 per year, which is less than 1/10 th the \$296 per capita per year increase which the 500,000 people affected by the Tentative Order would face if the Order were adopted with a requirement for strict compliance with water quality standards. As in the case of adverse economic impacts, the Regional Board needs to independently evaluate the potential for adverse public health impacts before acting on the Tentative Order. (*County of Orange*)

Response: A comparison of the costs between implementation of the US EPA's Arsenic Rule and the RWQCB Tentative Order is not entirely appropriate. The arsenic rule is a drinking water standard mandated by the Safe Drinking Water Act while the Tentative Order is a NPDES permit and Waste Discharge Requirement. The two are directed toward different regulatory contexts - the drinking water standard is a numeric treatment standard based on a contaminant's threat to human health, whereas the Tentative Order is a BMP-based permit to discharge wastes that protects the beneficial uses of receiving waters and does not contain numeric effluent standards.

The use of the AEI-Brookings study to support the assertion that increased costs to comply with the requirements of the Tentative Order could lead to adverse health or economic effects is questionable. First, the study was restricted to short term costs and benefits. Second, the results of the study are incorrect - the cost-benefit analyses in the study were based on health risk estimates that have since been determined to be significantly underestimated. The National Academy of Sciences recently reported that USEPA significantly underestimated health risks associated with low level exposure to arsenic, such that even the new, lower standard proposed for drinking water may not be low enough

to protect the public health. This new information provides strong support for more stringent regulation in the case of arsenic; a fact that was recognized by the USEPA when it reinstated the proposed arsenic standard criticized by the study.

Furthermore, even if one could disregard the new information, the results of the AEI-Brookings study cannot be convincingly applied to the Tentative Order. The study was concerned with a drinking water standard so, by design, did not include some information in its analyses that would be pertinent. For instance, it did not include the benefit of individual health care savings that would result from less contaminant exposure or increased individual health care costs that could result from increased contaminant exposure. Moreover, the study could not consider the benefit of increased personal savings that would result from continued employment and/or tourism due to uncontaminated beaches or low incidence of water borne illness, which is the context of the comment that cited this study. In addition, it did not consider the potential loss of program supporting revenue to municipalities resulting from a reduction in the tax base due to a loss of business taxes or lower property taxes that could result from increased contaminant levels, continuing beach closures, and the loss of other beneficial uses. As a waste discharge requirement and NPDES permit, the Tentative Order presents economic opportunities concomitant with the increased costs. Consequently, although the implementation and enforcement of the Tentative Order may entail increased costs for the Copermitees, the critical use of the study in the context of the Tentative Order is neither useful nor appropriate.

Comment: In order to use our limited resources wisely and better effect water quality improvements, the Copermitees, with stakeholder approval, have developed priorities that address significant water quality problems first. The Tentative Permit would not allow us to do that. Is it the staff's intention that we address all of our stormwater problems at once, and if so, is this practicable? *(County of Orange)*

Response: The Tentative Order requires the copermitees to identify, address and mitigate the highest priority water quality issues/pollutants in the six watersheds as part of the watershed urban runoff management program. The copermitees shall develop an implementation time schedule of short and long-term recommended activities to address these priorities. Staff considers this approach reasonable and that the actions taken by the copermitees to comply with all requirements specified in the Tentative Order will provide an effective water quality improvement program.

Comment: Based upon the comments that you receive in the first and second workshops, when will the second version of the draft permit be released? *(County of Orange)*

Response: The second draft of the Tentative Order was released on August 23, 2001. The changes in the second draft were primarily editorial corrections and did not significantly alter the requirements of the Tentative Order. Additional changes will be made based on a review of the comments submitted by August 30, 2001 as well as comments made in the hearing before the SDRWQCB.

Comment: The City request that following revision of the Tentative Order after the comment period closes on August 30th, public comment be again solicited on the Revised Tentative Order. The City asks that this letter be included in the administrative record of this matter. *(Dana Point)*

Response: The SDRWQCB has the discretion to reopen the comment period based on its review of the Tentative Order and the comments received.

Comment: The City of Dana Point is very pleased to see that the Regional Board has taken such a proactive stance with respect to cleaning up the receiving waters in this area. Over the past several years the issue of water quality impairment has had a profound effect on coastal cities like Dana Point, both, with respect to citizens' quality of life, as well as from an economic standpoint. (*Dana Point*)

Response: Comment noted.

Comment: The beaches in Dana Point have regularly experienced postings and closures due to high bacteria levels emanating, principally, from the two creeks that enter the city and discharge into the ocean. And, while the waters from these creeks have a very direct impact on this community, very little of that water originates in Dana Point. This city has, thus, become the recipient of many communities' urban runoff that contributes to the degradation of our coastal waters. Dana Point's beaches and harbor are a principal attraction to our residents and visitors. For our citizens and visitors the beauty of these features would be worth little if they could no longer be enjoyed, but only viewed from afar. The irony in this is what so many of our residents (present, as well as future) and visitors come from those upstream, contributing communities. This situation has become a particular frustration for the City of Dana Point over the past few years in light of the efforts that we, as a community, have expended toward helping to clean up the creeks, beaches and the ocean. Despite our investment in public education programs, the installation of filters in our storm drain inlets, the diversion of nuisance waters to the sanitary sewer, weekly street sweeping, and the testing and monitoring included in those programs, we continue to see an increase in beach postings and closures as well as in the amounts of trash and debris washing up on our shores. We do realize, however, that it will take some time to restore these elements of our environment, just as it has taken many years to create the conditions with which we now live, and it will require the commitment and cooperation of all communities who have, in one way or another, contributed to the degradation of our waters.

It is for these reasons that we applaud the Regional Board for its intentions in drafting the proposed new Municipal Storm Water Permit for Orange County and Cities. (*Dana Point*)

Response: Comment noted.

Comment: There are numerous solutions available that can and will be implemented around and throughout an MS4, in conjunction with an ongoing education program, that will constitute a total Urban Runoff Management Program specifically designed to clean up the discharges from the MS4. This URMP will necessarily be unique to each community that it serves. However, by mandating the focus of resources and efforts on specific prohibitions and controls of discharges into an MS4, the Tentative Order unnecessarily limits the flexibility needed by the Copermittees to use the iterative process referenced in Finding 14 to tailor their individual programs to their specific circumstances. Furthermore, it limits their creativity to use the developing technologies to their best advantage, which has been the key to our City's successes thus far, and it would be our desire to continue on that path. In addition, it appears that failing to prevent some pollutants from entering our MS4 could, and would, subject the City to fines, regardless of what may be accomplished in cleaning up what is discharged from the system. We very strongly, therefore, recommend that the permit be crafted to at least distribute the focus uniformly from source to receiving water. (*Dana Point*)

Response: The Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The requirements in the Tentative Order are

based on the Federal NPDES regulations and USEPA and SWRCB guidance, including the requirements to effectively prohibit non-storm water discharges to the MS4 and to develop a program to identify and eliminate sources and implement BMPs. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. USEPA supports the approach of increasingly detailed storm water permits, stating "The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards" (USEPA, 1996). The Copermittees must implement the specified programs included in the Tentative Order in order to carry out the CWA requirements. These are intended to build upon the programs already developed by the Copermittees under the previous permits. Any specified programs in the Tentative Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution. The Tentative Order has been drafted to provide additional uniformity in balancing the management of urban runoff by addressing both its sources as well as its impacts on receiving waters.

With respect to the need for flexibility and coordination, the Tentative Order provides a framework within which the Copermittees have the opportunity to utilize creativity and other resources to develop or improve upon the programs, activities, and measures that will satisfy or exceed the requirements of the Tentative Order. Wherever possible, the SDRWQCB has attempted to provide discretion and flexibility to the Copermittees, especially with regard to programs that the Copermittees have already developed and implemented. The Tentative Order has been structured to accommodate the iterative process referred to in Finding 15 and section C for the development and implementation of BMP programs while ensuring that the requirements can be implemented and enforced uniformly throughout the San Diego Region.

The Tentative Order was drafted to ensure regional consistency with the MEP approach adopted by the SDRWQCB throughout the San Diego Region when these NPDES Permits and Waste Discharge Requirements are issued on a watershed basis in this region. Nonetheless, as the commenter discussed above, because the Tentative Order is issued to each Copermittee, each Copermittee must have a program to management urban runoff within its jurisdiction. The program must be tailored to address the specific urban runoff management issues within its jurisdiction and it must be specific enough to ensure fair, uniform implementation and enforcement throughout the region.

Enforcement action related to the discharge of some pollutants to the MS4 will be appropriately tailored to the specific conditions related to the discharge and will take into consideration the implementation of the URMP, particularly in regards to the pollution prevention, source identification, BMP implementation and enforcement activities conducted by the discharger in accordance with the Tentative Order.

Comment: Failure to comment on other points in the Tentative Order or the Draft Fact Sheet/Technical Report should not be construed to give rise to any inference that the City waive objections to such other items. The City reserves the right to offer further comments. (*Dana Point*)

Response: Comment noted.

Comment: The City congratulates the Board Staff for a thorough and very detailed draft, one which attempts to clarify arcane points as well as spell out fundamental requirements in coming to

grips with the most important issue of protection of the quality of the waters into which storm water and urban runoff flow. By any standard, the Staffs efforts are most impressive. (*Dana Point*)

Response: Comment noted.

Comment: The City of Laguna Niguel is committed to working with the Regional Board and the Copermittees to develop and implement an expanded storm water management program that includes reasonable and practical approaches to improving the water quality of receiving waters in the South Orange County area. (*Laguna Niguel*)

Response: Comment Noted.

Comment: A table of contents would be very helpful in dealing with this document. Can you prepare one and attach it to the draft permit and its exhibits? (*Laguna Niguel*)

Response: A table of contents has been prepared and was distributed at the second workshop, public hearing, and on the SDRWQCB web site.

Comment: We request that both the Revised Order and Revised Fact Sheet documents be made available for public review prior to the closure of the public comment period. In recognition of the amount of work involved and recognizing that the Board meeting has been rescheduled to October, we also request that the comment period be extended by 15 to 30 days after distribution to allow affected parties sufficient opportunity to comment on the revised language. (*Laguna Niguel*)

Response: The second draft of the Tentative Order was released on August 23, 2001. The changes in the second draft were primarily editorial corrections and did not significantly alter the requirements of the Tentative Order. Additional changes will be made based on a review of the comments submitted by August 30, 2001 and presented in the hearing before the SDRWQCB. The hearing has been scheduled to provide the Copermittees and interested parties with sufficient time to review the Tentative Order and Fact Sheet.

Comment: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement and would be an attempt to expand Regional Board control over City policies and procedures. We are concerned in particular that the permit requires a heavy workload by the City and several submittals within the first 365 days after adoption of the order. The City of Lake Forest is considering seeking federal funds to assist with the implementation of some of the components of the proposed permit. However, the timeline for application and potential receipt of federal grants is much longer than the Board's timeline for completion. As such, the Regional Board's implementation schedule may effectively lock out the City from the ability to obtain grant funds to offset the cost of these required programs. (*Lake Forest*)

Response: The requirements of the Tentative Order are based on the federal regulations and USEPA and SWRCB guidance and are practicable for the Copermittees to implement. The Tentative Order is a third term permit rather than a first or second term permit and is intended to build upon the programs developed during the first two permits. The Copermittees have the discretion to seek various funding sources to support their programs, but the requirement to implement the programs is not dependent on the successful application for Federal or other funding sources. Rather, the Copermittees are required to secure the resources necessary to meet the requirements of the

Tentative Order. As part of its individual Jurisdictional Urban Runoff Management Program, each Copermittee is required to develop a strategy to conduct a fiscal analysis of its urban runoff management program in its entirety. A fiscal analysis can be an important planning tool. The USEPA finds that "examining the levels of proposed spending and funding allows the permitting authority to gauge the ability of applicant to implement the program and predict its effectiveness." Conducting this analysis will better enable the Copermittees to project costs and secure the necessary funding.

The Regional Board has considered the costs associated with implementation of requirements for discharges to MS4 as well as the costs incurred as a result of pollution associated with discharges from MS4; while there will be, undoubtedly, incremental costs to municipalities to implement requirements for MS4, the increased burden associated with the tentative requirements is not unreasonable in view of the following factors: municipalities can pass costs for planning and permitting on to permit applicants; municipalities can impose fees on persons who use MS4 infrastructure or require services from the municipality; municipalities can incorporate pollution prevention and control planning into existing planning activities; and municipalities can incorporate pollution and control implementation into existing regulatory functions.

Comment: Will the Regional Board assist the copermittees in the form of grants or loans to cover the expenses associated with preparing the Urban Runoff Management Plan which must be prepared within 365 days of the date of the order, and the preparation and implementation of the Watershed Urban Runoff Management Program by April 2003? (*Mission Viejo*)

Response: Limited funding is available to the Copermittees through the State Revolving Fund loan program, Proposition 13 grant program and Clean Beaches Initiative program. Funds are also available for planning through the 205(j) program. The Copermittees have successfully applied to these programs for funding of specific projects (e.g. Aliso Creek Water Quality Enhancement 205(j) grant, the City of Laguna Niguel WETCAT Proposition 13 grant, City of Dana Point Clean Beach Initiative grant funding project) related to urban runoff management. However, this funding is limited to specific projects. The Copermittees are required to develop sufficient funding to develop and implement the programs necessary to comply with the Tentative Order.

Comment: The timeline for application and potential receipt of federal grants is much longer than the Board's timeline for completion. As such, the Regional Board's implementation schedule will effectively lock out the City from the ability to obtain grant funds to offset the cost of these required programs. (*Mission Viejo*)

Response: The Tentative Order sets the requirements under which discharges are permitted during the 5-year term of the renewed Permit. As such, there will be several years in which the copermittees may solicit and obtain Federal funds to implement various provisions.

Comment: The City of Rancho Santa Margarita has reviewed the Tentative Order 2001- 193 and discussed it with our Principal Permittee, the County of Orange. Like our fellow Permittees, we are committed to improving water quality in our region and we are open to programs which lead us together in that direction. As a Co-permittee with the County, we are also in general agreement with the County's concerns regarding Tentative Order 2000-193 and are submitting this letter to provide our review comments. (*Rancho Santa Margarita*)

Response: Comment Noted.

Comment: The Tentative Order may be an inappropriate model for the third permit. (*Rancho Santa Margarita*)

Response: Comment noted. Specific concerns are addressed elsewhere.

Comment: The Tentative Order expands RWQCB control over local government. For example, we are troubled by the phrase “and Whatever Else is Needed” in several of the headings in the fact sheet. (*Rancho Santa Margarita*)

Response: As described elsewhere, the Regional Board does have the legal authority to require municipalities to regulate urban runoff flow to protect beneficial uses of receiving waters.

The Clean Water Act requires in section 402(p)(3)(B)(iii) that permits for discharges from municipal storm sewers “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows: “To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive.”

California Water Code section 13377 provides that “Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act (Clean Water Act), as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with anymore stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

The Tentative Order describes the minimum components necessary to develop a program to reduce pollutants to the maximum extent practicable

Comment: Assuming many issues in some watersheds are unacceptable (quality, habitat, erosion, etc.), the existing condition is the result of the current governance (sewer districts, cities, county, etc.). Shouldn't the governance be changed to make these improvements? (*Richard Gardner*)

Response: Comment noted. The Tentative Order does not attempt to address the structure of local governance, but does require the municipalities, as the governing land-use body, to exercise authority and control over the discharge of pollutants to the MS4 system.

Comment: San Diego copermitees have indicated that there is a potential problem with the Regional Board staff's interpretation of the term "Tributary to" in relation to 303(d) listed water bodies;

where does that term appear in draft order 2001-193, and how do you interpret it? (*Richard Watson and Associates*)

Response: The term "tributary to" in relation to 303(d) water bodies appears in the "prioritization" steps of section F.3 under each of the existing land use components. The term also appears in F.1.C.1 as an example of an issue to consider during a project's environmental review. The intent, whether during prioritization of existing development sites or environmental review, is to determine if the expected runoff patterns from the activity would likely contribute pollutants to the 303(d) listed water body.

Comment: How would the results of the appeal of the San Diego Permit relate to the content of the new Orange County permit? (*Richard Watson and Associates*)

Response: If the appeal results in an order to change portions of the San Diego Permit (Order 2001-01) that are applicable to the proposed Orange County Permit (Tentative Order 2001-193), then appropriate changes would be made.

Comment: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement and would be an attempt to expand Regional Board control over City policies and procedures. We are concerned in particular that the permit requires a heavy workload by the City and several submittals within the first 365 days after adoption of the order. The City of Lake Forest is considering seeking federal funds to assist with the implementation of some of the components of the proposed permit. However, the timeline for application and potential receipt of federal grants is much longer than the Board's timeline for completion. As such, the Regional Board's implementation schedule may effectively lock out the City from the ability to obtain grant funds to offset the cost of these required programs. (*Lake Forest*)

Response: The requirements of the Tentative Order are based on the federal regulations and USEPA and SWRCB guidance and are practicable for the Copermittees to implement. The Tentative Order is a third term permit rather than a first or second term permit and is intended to build upon the programs developed during the first two permits. The Copermittees have the discretion to seek various funding sources to support their programs, but the requirement to implement the programs is not dependent on the successful application for Federal or other funding sources. Rather, the Copermittees are required to secure the resources necessary to meet the requirements of the Tentative Order. As part of its individual Jurisdictional Urban Runoff Management Program, each Copermittee is required to develop a strategy to conduct a fiscal analysis of its urban runoff management program in its entirety. A fiscal analysis can be an important planning tool. The USEPA finds that "examining the levels of proposed spending and funding allows the permitting authority to gauge the ability of applicant to implement the program and predict its effectiveness." Conducting this analysis will better enable the Copermittees to project costs and secure the necessary funding.

The Regional Board has considered the costs associated with implementation of requirements for discharges to MS4 as well as the costs incurred as a result of pollution associated with discharges from MS4; while there will be, undoubtedly, incremental costs to municipalities to implement requirements for MS4, the increased burden associated with the tentative requirements is not unreasonable in view of the following factors: municipalities can pass costs for planning and permitting on to permit applicants; municipalities can impose fees on persons who use MS4 infrastructure or require services from the municipality; municipalities can incorporate pollution prevention and control planning into existing planning activities; and municipalities can incorporate pollution and control implementation into existing regulatory functions.

COMMENTS ON SPECIFIC SECTIONS

Section: Findings

Comment: The findings in the Order do not provide a legally adequate basis for the Tentative Order.

The Regional Board's regulations must be adequately supported by the Findings in the Tentative Order, and the Findings must be supported by the evidence in the Technical Report. (See, e.g., *Southern California Edison Co. v. State Water Resources Control Board*(1981) 116 Cal.App.3d 75 1, 759 (holding that a regional board must "annunciate its reasoning" and support that reasoning by evidence.) As explained in this letter, in the City's separate letter to the Regional Board and in the comment letters from the other copermitees, the Findings are inadequate and unsupported by appropriate evidence. This is especially true because the Tentative Order is taken almost verbatim from the San Diego NPDES Permit, and because the Regional Board has refused to recognize the value of the existing Drainage Area Management Plan ("DAMP") designed specifically for Orange County. The issues facing Orange County are significantly different than those faced in San Diego, and the Regional Board cannot merely copy (and rely upon) the Findings from the San Diego Permit without making specific findings as to the issues in Orange County and supporting those findings with appropriate evidence. (*Aliso Viejo*)

Response: Comments related to specific Findings are addressed elsewhere. Each Finding is supported in the Fact Sheet/Technical Report, and where necessary, references are made to conditions in southern Orange County. Conditions of impaired water quality and impacts of urban runoff in the region are documented in the Fact Sheet. The Findings that are similar to those in the San Diego Municipal NPDES Permit (Order 2001-01) were reviewed for applicability to the region of southern Orange County and were modified where appropriate. For instance, Finding 40 (Common Interest Areas and Homeowners Associations) was added because of the prevalence of common interest developments in the region. The DAMP is also recognized where suitable, such as Finding 23 (Education). For an assessment of the proposed revised DAMP in relation to the Tentative Order, please see Attachment 5 of the Fact Sheet. Although the DAMP was designed for conditions throughout Orange County, the Tentative Order requires the copermitees to develop urban runoff management plans tailored to the drainage areas in which the copermitees are located.

Section: Finding 1

Comment: What is the beneficial use of MS4s and how does that use compare with the beneficial use of the receiving waters? (*Lake Forest*)

Response: Municipal Separate Storm Sewer Systems (MS4) do not themselves have designated beneficial uses except in situations in which a stream segment that does have beneficial uses is a part of the MS4 (refer to Finding 8). In these cases, the stream segment can be both a MS4 and a receiving water with applicable beneficial uses.

Section: Finding 1

Comment: Finding 1 presupposes that each agency within the jurisdiction of the Board contributes to a violation of water quality standards. That statement has not been established and the term “may” should be inserted within sentence numbered (3) and (4). (*Laguna Hills*)

Response: Finding 1 identifies the copermitttees subject to the Tentative Order. The justification of inclusion for the copermitttees comes from the federal Phase 1 NPDES regulations (40 CFR 122.26). The MS4s for each copermitttee falls into one or more, but not necessarily all, of the criteria listed by the numbered sentences in Finding 1. The justification for each copermitttee is provided in Attachment 1 of the Fact Sheet/Technical Report. The majority of the copermitttees cannot be classified as operators or owners of large or medium MS4s, but do operate MS4s that are interrelated to the large MS4 of the County, contribute to a violation of water quality standards, and/or are significant contributors of pollutants to waters of the United States. Several surface waters, including much of the Pacific Ocean Shoreline, in the region are listed as impaired under section 303(d) for coliform. The MS4s from each copermitttee discharge into surface waters that are tributary to impaired surface waters.

Section: Finding 2

Comment: What is the legal justification or precedent for determining that the storm water component of urban runoff is a waste in and of itself? While much (far too much) urban runoff does contain pollutants, neither the SWRCB nor any court interpreting the California Water Code has ever held that storm water or urban runoff are “wastes,” in and of themselves. The definition of urban runoff as a waste is an oversimplified conclusionary statement that does not take into consideration the source of urban runoff and its pollutant, if any. These broad generalizations are made regardless of whether the pollutants are present at concentrations above or below water quality objectives. The definition of urban runoff as a waste would include storm water whether it reaches the storm drain by flowing over undeveloped land, or a parking lot, whether or not it intercepts waste materials on its way to the storm drain, and whether it contains any pollutants or is clean. The same is true for dry weather flow, regardless of its source or concentration. Urban runoff that is “clean” is clearly not a waste. This gross extension of the term “waste” turns rainfall into wastewater without any specific consideration of the actual contents of the runoff produced. Storm water and other forms of urban runoff become “wastes” or “pollutants” if they carry “sewage and any and all other waste substances..” or a pollutant. This is significant, as Section 402(p)(3)(B)(iii) of the CWA, 33 U.S.C. §1342(p)(3)(B)(iii) requires MS4 Copermitttees to reduce the discharge of “pollutants” to the “maximum extent practicable.” If all urban runoff is found to contain pollutants, it could be argued that MS4 Copermitttees are obligated to reduce the discharge of urban runoff to the maximum extent practicable. This finding condemns all public agencies as polluters when many sources of pollutants are not within the jurisdictional control of a municipality. This over broad construction of the law in which the permit attempts to expand SDRWQCB control over City policies and procedures is invalid and would be administratively and operationally overwhelming to implement.

Legislative History

The legislative history of the term “waste” confirms that it does not encompass urban runoff and storm water. The current definition of the term “waste” was enacted in 1969, in legislation streamlining the Water Code by combining two prior definitions, neither of which included urban runoff or storm water within their ambit. Further evidence of legislative intent is the fact that the legislation pre-dated by many years modern storm water regulation, coming at a time when application of the concept of “waste” to rainfall and urban runoff was simply unthinkable.

The 1969 changes to the Water Code arose out of a study by the SWRCB, commissioned by the Legislature.[3] The definition of “waste” recommended by the SWRCB represented a combination of the former definitions of “sewage” and “other waste,” neither of which included either urban runoff or storm water. Prior to the 1969 legislation, “sewage” and “other waste” were defined as follows: “Sewage” means any and all waste substance, liquid, or solid, associated with human habitation, or which contains or may be contaminated with human or animal excreta or excrement, offal, or any feculent matter.

“Other waste” means any and all liquid or solid waste substance, not sewage, from any producing, manufacturing, or processing operation of whatever nature. (Cal. Water Code §j 13005 (1967) (repealed 1969)) [Footnote 3: See Study Panel, California State Water Resources Control Board, Recommended Changes in Water Quality Control: Final Report of the Study Panel to the California State Water Resources Control Board (March 1969) (recommended legislative changes in Appendix A of the Final Report were adopted by the SWRCB on March 20, 1969).

Storm water is not sewage. Nor is it the kind of industrial waste encompassed by the prior definition of “other wastes.” Absent from these definitions are the terms “urban runoff,” “storm water,” or “dry weather flows.”

Importantly, the SWRCB said that, in combining these definitions: The proposed new definition of waste is intended to be as all-inclusive as the present definition of ‘sewage’ and ‘other waste.’

Thus, the combined definition was intended to simply merge the two prior definitions, with one exception. The SWRCB specifically identified that it was proposing to add gaseous and radioactive substances to the definition. The SWRCB identified no other ways in which the new definitions departed from the two it replaced.

In enacting the new definition of waste, the Legislature had before it interpretations of the prior definitions made by the California Attorney General, as well as the SWRCB’s report. The Attorney General had not interpreted the prior definitions as covering storm water or urban runoff. According to the Attorney General, the old definitions covered: leachate from mines, debris and sediment from logging operations, solid waste from dumps, irrigation return flow from agricultural operations, wastes produced from water or oil wells, and discharges from hydroelectric plants.[5] Storm water and urban runoff containing or consisting of such substances could be subject to discharge requirements. However, in the absence of a finding that statutorily covered “waste” is contained in storm water and urban runoff, they are not “waste” themselves. The Regional Board skips this essential link and simply declares runoff to be “waste.” Pointing to the presence of pollutants in the runoff does not relieve the Regional Board of its burden to determine whether these pollutants are present because the runoff has mixed with a category of “waste” within the ambit of the statute. “Pollutants” is a term defined in the federal CWA and does not occur in the Porter-Cologne definition of “waste.”

Legal Definition – CWC: The definition of waste in Section 13050(d) of Porter-Cologne does not specify urban runoff and seems to preclude the inclusion of storm water. This definition does not expressly include the term “urban runoff,” nor does it refer to “storm water” or “dry weather flows.” Rather, the definition refers to wastes generated by process, by products of human action, whether industrial or sanitary. In contrast, storm water itself is a natural occurrence, resulting from the forces of Nature, regardless of “human habitation” or “waste substances . . . of human or animal origin.” To the extent that storm water contains pollutants, generally their presence is related to the natural passage of rainfall runoff across the ground—not the active introduction by man of such pollutants. Thus, the plain language of the statute indicates that urban runoff, and most clearly storm water, is not “waste” for purposes of the Water Code.’ Runoff may pick up wastes, but it is not a waste in and of itself.

Legal Definition – CWA: The CWA defines the analogous term “pollutant” as follows: The term “pollutant” means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. CWA § 502(6), 33 U.S.C. § 1362(6). This definition clearly does not encompass “urban runoff.” Rather, a “pollutant” as defined may, for the most part, be contained in urban runoff. To interpret the term “waste” to include urban runoff would be inconsistent with the CWA and therefore such an interpretation is impermissible under Water Code section 13372.

Although urban runoff may contain and/or transport “wastes” or “pollutants” as defined under state and federal law, urban runoff is not, in and of itself, a “waste” as defined in the Porter Cologne Act. This point is made clearly (albeit inadvertently) by the Regional Board itself in its Response in Opposition to Petitions of Review of the Regional Board’s Tentative Order No. 2001-01 (“Opposition”). In that brief, in response to the same point the County is raising here, the Regional Board states: [T]he California Water Code . . . equates the discharge of pollutants (as required under the NPDES program) with the discharge of waste. Since the California Code provides that discharges of pollutants are analogous to discharges of waste, and since discharges of urban runoff have been found to contain pollutants, the California Water Code finds discharges of urban runoff to be discharges of waste. Opposition, p. 15 (emphasis added). With the exception of the last clause, the County agrees entirely with this statement. We submit, however, that the conclusion to be drawn from this statement is not that urban runoff is a waste, but rather, more logically, that since urban runoff has been found to contain pollutants, urban runoff may also contain waste. This point is essentially conceded in numerous places in the Technical Report. This conclusion that urban runoff may contain “waste” or “pollutants” (but is not, in and of itself, a waste or pollutant) is supported by the definitions of “waste” and “pollutant” in the Water Code and the CWA. The Water Code definition of “waste” is as follows: “Waste” includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal. Water Code § 13050(d). This definition is very broad but it certainly does not appear to include “urban runoff” within its scope.

Legal Definition – 40CFR 122.26(b)(13): 40 CFR 122.26(b)(13) states that “Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.” Therefore, urban runoff that is surface runoff and drainage by definition is storm water and not wastewater. Additionally, the County notes that by defining urban runoff as a waste, the Tentative Order also effectively defines “storm water” as a waste. This is because the Tentative Order defines “urban runoff” as “all flows in a storm water conveyance system” consisting of storm water and dry weather flows. Tentative Order, Appendix D, p. D-7. However, defining “storm water” as a waste would be inconsistent with the federal definition of “storm water” as “storm water runoff, snow melt runoff, and surface runoff and drainage.” 40 C.F.R. § 122.26(b)(13). Under this definition, “urban runoff” (surface runoff and drainage) is “storm water,” not a “waste.”

Agency and Judicial Interpretations of the waste: Where industrial or municipal activity resulted in the introduction of “waste” into storm water, that specific storm water could be subject to discharge requirements. (Aluminum Co. of Am., SWRCB Order No. WQ 93-9 (1993); Lake Madrone Water Dist. v. State Water Res. Control Bd., 209 Cal.App. 3d 163, 166 (1989). These cases are distinguishable from the broad sweep of the Regional Board’s finding which proposes to classify every drop of rain water in San Diego County reaching a public storm drain as “waste.”

Recommendations: We recommend that Finding 2 be deleted from the permit.

Finding 2 should be revised as provided in the Los Angeles Regional Board's current draft permit. See, e.g., Finding B, Nature of Discharges and Sources of Pollutants ("The quality of [storm water] discharges varies considerably and is affected by the hydrology, geology, land use, season, and sequence and duration of hydrologic events." Finding B.1. "These compounds [in storm water] can have damaging effects . . ." Finding B.3.); Part 5, Definitions ("The term 'pollutant' shall not include uncontaminated storm water. The term 'pollutant' also shall not include any substance identified in this definition, if through compliance with the [BMPs] available, the discharge of such substance has been eliminated to the maximum extent practicable.")

Revise Finding 2 to read, in pertinent part: "Storm water and other forms of urban runoff become "wastes" or "pollutants" if they carry "sewage and any and all other waste substances.. ." or a pollutant."

The sentence in Finding 2, "The discharge of urban runoff from an MS4..." would read better as "The discharge of untreated urban runoff from an MS4..." because, as with nuisance water diversions to a sewage treatment plant, the subsequent discharge of the treated waste water to the receiving waters is permitted under the treatment authority's discharge permit. (*Richard Watson and Associates, Laguna Niguel, San Juan Capistrano, Mission Viejo, Laguna Hills, Rancho Santa Margarita, County of Orange, Construction Industry Coalition on Water Quality, Lake Forest, Dana Point, Laguna Woods*)

Response: The commenters assert that the California Water Code definition of "waste" does not apply to urban runoff. This assertion is incorrect. The California Water Code defines "waste" as "sewage and **any and all other waste substances**, liquid, solid, gaseous, or radioactive, **associated with human habitation** [...]" (emphasis added). The language of this definition clearly indicates the broad nature of its application. The inclusion of the terms "any and all" into the definition exhibits that the definition is not to be used to exclude certain substances from being defined as a waste, as the commenters attempt to do with urban runoff. Rather, these terms provide for the definition to be all-encompassing. In addition, the use of the words "associated with human habitation" in the definition indicates that the waste need not be generated by human activity, but merely be related with human habitation.

Contrary to the commenters assertions, urban runoff certainly meets this broad definition. Urbanization (human habitation) unequivocally alters the characteristics of runoff that would otherwise leave undeveloped land in a natural condition. As discussed in the Tentative Order's Findings and Fact Sheet/Technical Report, urban development increases the pollutant loads, volume, and velocity of runoff. These changes to runoff indicate that the physical and chemical attributes of urban runoff are caused by urbanization, thereby exhibiting that urban runoff is "associated" with human habitation. In fact, the increase in volume of urban runoff caused by urbanization's impervious surfaces not only changes the characteristics of the runoff, but actually generates the urban runoff as well by increasing its volume.

Furthermore, the very fact that MS4s have been constructed with the sole purpose of disposing of urban runoff exhibits that urban runoff is a waste. The MS4s are designed to dispose of the increased volumes of runoff generated by urbanization's impervious surfaces. The act of generating increased runoff, designing a system to collect the urban runoff, and discharging the urban runoff exhibits that urban runoff is a waste. MS4s would be unnecessary if urban runoff was not a waste and was not treated as such.

Nor does the extensive historical discussion provided by one commenter of the development of the definition of "waste" refute the categorization of urban runoff as a "waste." The commenter asserts that since the development of the definition of "waste" did not include a discussion of urban runoff, the definition cannot be applied to urban runoff. However, no such restriction exists. The same

argument was raised in the petition to the SWRCB for review of Order No. 2001-01. In fact, this petition exhibited SWRCB's intention that waste be defined broadly when they cite the SWRCB as stating: "The proposed new definition of waste is intended to be as **all-inclusive** as the present definition of 'sewage' and 'other waste'" (emphasis added). Rather than be a restriction on the types of discharges that can be identified as waste, such commentary indicates that the definition of waste was instead intended to be wide-ranging. The lack of information or knowledge on urban runoff and its impacts at the time the definition was developed in the late 1960s cannot be construed as intent on the part of the SWRCB to exclude any and all such discharges. Such an approach could severely limit any new types of discharges from being regulated under waste discharge requirements. For example, definition of waste has been applied in the form of Waste Discharge Requirements for such discharges as potable water discharges, utility vault discharges, etc that were not specifically described in the CWA or CWC. While the CWA and CWC did not specifically define urban runoff as a waste, neither did these authorities preclude this definition. The concept that the definition of waste can only include things precisely specified in the CWA and CWC is incorrect and goes against the intent of the CWA and CWC.

Moreover, the California Water Code (CWC) provides that discharges permitted under the federal NPDES program (such as discharges from MS4s) are analogous with discharges of waste. Chapter 5.5 of the California Water Code consolidates the federal NPDES program with the State of California's waste discharge requirement program. Since the State of California is authorized by USEPA to issue NPDES permits, which implement and enforce the requirements of the Clean Water Act (CWA), in California, NPDES permits within California are also Waste Discharge Requirements. Section 13376 requires "any person discharging **pollutants**" (emphasis added) (such as under an NPDES MS4 permit) to file a report of the discharge in compliance with the procedures set forth in section 13260. Section 13260 then proceeds to apply waste discharge requirements on "any person discharging waste" (emphasis added). As can be seen, despite the contradictory opinion of one commenter, the California Water Code in these two sections clearly equates the discharge of pollutants (as regulated under the NPDES program) with the discharge of **waste** (i.e. a discharger of pollutants is in fact a discharger of waste). In regards to the statement that "Storm water and other forms of urban runoff become 'wastes' or 'pollutants' if they carry 'sewage and any and all other waste substances...' or a pollutant," this is a clear misreading of the CWC. The CWC does not support the statement and makes no mention of the statement that a discharge must "carry" waste. Since the California Water Code provides that discharges of pollutants are analogous to discharges of waste, and since discharges of urban runoff have been found to contain pollutants, the California Water Code finds discharges of urban runoff to be discharges of waste. Thus, the legal requirements and definitions of the Clean Water Act and Federal Regulations, as implemented by the State of California through NPDES permits and Waste Discharge Requirements, support the definition of urban runoff as a "waste" and a "point source discharge of pollutants."

The legal definition of "waste" can be found in California Water Code (CWC) section 13050(d), which states "'Waste' includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal." Numerous studies, including those conducted within the jurisdictions of the Copermittees have demonstrated that the storm water, or wet-weather, component of urban runoff carries pollutants derived from human habitation through the MS4 into receiving waters.

The definition of urban runoff as a waste is not an oversimplified or "conclusionary" statement. The assertion that it does not take into consideration the sources of urban runoff and pollutants is also incorrect. The Finding supports the Tentative Order that throughout requires the Copermittees, as dischargers of urban runoff, to comprehensively take into consideration the sources of urban runoff

and pollutants within their jurisdictions and to implement programs to manage the discharges of urban runoff through the timely implementation of BMPs to the MEP. Furthermore, the finding that urban runoff is a “waste” and a “point source discharge of pollutants” does not condemn all public agencies as polluters. The Finding supports the Tentative Order, which is a Waste Discharge Requirement and NPDES permit for the discharge of urban runoff, and does not condemn the Copermittees or public agencies as dischargers. Rather it sets the framework for compliance by the Copermittees with the MEP standard and the protection of the beneficial uses of receiving waters.

In response to the comment that defining the discharge of urban runoff as a discharge of waste is “an attempt to expand the SDRWQCB control over City policies and procedures,” it is unclear how this definition accomplishes this feat. The statement is not supported by evidence that the definition of the discharge of urban runoff as a discharge of “waste” and a “point source discharge of pollutants” results in any more infringement upon City policies and procedures than similar definitions applied to other NPDES discharges that may be under the administrative authority of a municipality (e.g. sewage discharges).

With respect to the comment that many sources of pollutants are not within the jurisdictional control of a municipality, it would seem that, in fact, the great majority of pollutants do originate within the jurisdictions of the Copermittees from land use activities authorized by the Copermittees. To the extent that sources of pollutants are not within the jurisdictional control of a municipality, the Tentative Order again sets the framework within which the Copermittees shall address these discharges. In response to the statement by one commenter that “Urban runoff that is ‘clean’ is clearly not a waste,” it should be noted that clean discharges from industrial processes are still considered to be a discharge of waste. Clearly then, the discharge of clean urban runoff should still be considered a discharge of waste.

Furthermore, the statement by commenter that the Copermittees are obligated to reduce the discharge of urban runoff to the maximum extent practicable may be correct when the sources of the urban runoff includes non-storm water, non-prohibited discharges that are found to be significant sources of pollutants. For example, the Tentative Order includes water conservation as an important public education topic to be included when appropriate. These provisions have been required in both previous permits in Orange County and are solidly based on the broad and specific legal authorities cited above and in the Fact Sheet/Technical Report.

Finally, there is specific precedent at the SWRCB for the definition of urban runoff as a waste. In a memo dated May 14, 1991, Sheila K. Vasey, Senior Staff Counsel of the State Water Resources Control Board, in referring to the discharge of urban runoff to San Diego Bay, described the Copermittees as “...point source dischargers of waste...” In addition, there is precedent within the Orange County storm water permitting history for the definition of urban runoff as waste. The first permit for southern Orange County, Order No. 90-38 included a finding that urban runoff constituted a discharge of waste. Finding 5 was revised in response to comments to include the statement “since stormwater and urban runoff contains “waste”, as defined in California Water Code (CWC Section 13050, stormwater and urban runoff discharges constitute a discharges of waste.” This language was also included in the San Diego Municipal Storm Water Permit Order No. 90-42, San Diego Municipal Storm Water Permit Order No. 2001-01, and the Riverside Municipal Storm Water Permit Order No. 90-46. Under these permits, the Copermittees of the San Diego Region have been required to manage urban runoff, including both wet weather and dry weather discharges, since 1990. Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has stated "Using state terminology, it is appropriate that the Regional Water Board made a finding that urban runoff constitutes "waste."

For these reasons, the language in Finding 2 is correct and appropriate and pending a decision regarding the petition for review of Order No. 2001-01 by the SWRCB, the language of Finding 2 will remain unrevised in this Tentative Order.

Section: Findings 2, 6, 8

Comment: The Permit attempts to expand Regional Board control over City policies and procedures by asserting in the Findings that: Urban Runoff is a waste (Finding 2), urban runoff is a human health threat (Finding 6), urban streams that receive urban runoff are part of the municipal separate storm sewer system (Finding No. 8). (*Mission Viejo*)

Response: These concerns are addressed in other responses to comments.

Section: Finding 3

Comment: The premise that urban development is ordinarily insignificant in its impact on the environment is without foundation. It is in the very nature of human activity to modify the environment- it is well documented in historical literature that even Native Americans had a significant impact on their environment. We suggest that the Board strike this sentence to improve the clarity of the finding. (*Aliso Viejo*)

Response: The statement in Finding 3 that "...urban development that is ordinarily insignificant in its impact on the environment may, in a particularly sensitive environment, be significant" refers to the potential impact of discharges on sensitive water bodies, which may have lower capacity to assimilate pollutants.

The requirement for additional controls for these areas is a necessary layer of protection for these valuable resources. Each 303(d) water body or environmentally sensitive area (ESA) is either a valuable receiving water resource that should be protected from the impacts of urban runoff, or a degraded receiving water resource that should be protected from additional impacts. A sensitive habitat has a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance, and so deserves attention. In essence, a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant (LARWQCB, 2000). USEPA, in discussing storm water controls, notes: "Sensitive area protection is an important element of conservation design [...] These areas are particularly susceptible to degradation by storm water runoff" (USEPA, 1999a). Finally, the Office of Chief Counsel for State Water Resources Control Board noted in its October 14, 1999 discussion of the Defenders v. Browner decision that "...because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies."

This condition is additionally recognized in the San Diego Region in Areas of Special Biological Significance (ASBS) in which it was recognized that there are some "biological communities of such extraordinary...value that no acceptable risk of change in their environment as a result of man's activities, can be entertained." Heisler Park Ecological Reserve in the coastal waters off Laguna beach is an ASBS.

Section: Finding 3

Comment: We are concerned that the Permit does not distinguish between land uses or project location, with regard to the appropriate level of regulation. It is apparent that the goal of the Permit should be to establish BMPs that can be implemented to the maximum extent practicable (MEP), and also that promote further progress toward meeting water quality standards. To reach this goal, the Permit should focus on establishing pollutants of concern for the various receiving waters (not just one size fits all), causes of these pollutants of concern and then the implementation of BMPs that actually address these pollutants of concern. We feel that the Permit should recognize distinctions in the various land uses and regulate accordingly. (*Construction Industry Coalition on Water Quality*)

Response: The Tentative Order recognizes differences between land uses by requiring different components in the management programs (see F.1 through F.3). Project location is also considered as each copermittee develops a specific management program tailored to the municipality by considering factors unique to the location, such as proximity to sensitive areas. Pollutants of concern may vary between water bodies based on a variety of factors including decisions made by the copermittee, such as the types of projects approved in the area, and designated beneficial uses of the receiving waters. The SDRWQCB establishes beneficial uses, which can be considered by the copermittees in the evaluation of appropriate BMPs. The prioritization process outlined in the Tentative Order specifically calls for BMPs to be designated based on the threat posed by a particular activity and its location. The Tentative Order gives the copermittees the flexibility of designing and selecting appropriate BMPs. Finally, the monitoring requirements of the Tentative Order should help to define location-specific pollutants of concern.

Section: Finding 3

Comment: Under Finding 3, the word “untreated” again should be added before “Urban runoff” in the first sentence. The third sentence confirms this by stating that “These pollutants...are conveyed and discharged to receiving waters...without treatment.” (*Dana Point*)

Response: The language of Finding 3 of the Tentative Order is appropriate. Even when treated, urban runoff remains a waste and can still contain pollutants. Moreover, even when some treatment BMPs are implemented in a watershed, the greater volume of urban runoff discharged from MS4s remains untreated and contains pollutants.

Section: Finding 4

Comment: Finding 4 - This paragraph fails to recognize the circumstance of saturated soil conditions that result from repetitive patterns of rainfall. Under these circumstances, even natural ground becomes impervious to additional water and runoff is increased. Urbanization is not the sole cause of an increase of quantity and/or velocity of runoff. This paragraph also fails to recognize natural sources of pollutants such as wild animals that are prevalent in this region and whose wastes runoff into the streams causing pollutant loading. The last paragraph of this finding is overbroad, vague, and ambiguous and it is not suitable as a finding. (*Laguna Hills*)

Response: The increases in quantity and/or velocity of runoff following urbanization are well documented. The decrease in impervious surfaces resulting from urbanization decreases the capacity of the soil to retain stormwater, thereby increasing the rate at which runoff occurs relative to a given rain event. The last paragraph of the Finding describes the relationship between size of a development and the potential for impact to receiving waters based on relative changes to the

physical environment. The last paragraph of the finding also states that the types of pollutants that cause threats to receiving waters and the potential for pollutants to be transported off-site are a function of land-use activities. The paragraph then gives examples of land uses that typically contain significant amounts of pollutants or have an increased potential for pollutants to be transported off-site. These statements are consistent with fact and will remain in the findings.

Section: Finding 4

Comment: Under Finding 4, the fourth (last) paragraph states that larger projects generally have greater potential than smaller projects to significantly impact receiving waters. However, that is not necessarily true when one looks at the cumulative impacts of a number of smaller projects, as have been the rule rather than the exception, in the more built-out areas of the San Diego Region, including South Orange County. The potential for significant impact is more relevant to the density of development than to overall size. Perhaps amending the statement to read “. . . *larger, more densely developed projects...” would lend more credibility to it. Finding 5 bears this out. (*Dana Point*)

Response: The Finding recognizes that there are other factors besides size of project for determining the significance of the impacts of urban development. Incremental development for various land use activities as described above may create the same post-construction condition relative to the density of development and the percentage of impervious surfaces as a single large development. However, when comparing projects that are identical except for size, large develop sites would present a greater source of pollutants.

Section: Finding 5

Comment: While we recognize the superficial conclusion that more imperviousness may mean more deposit of contaminants (such as car exhaust) and less natural absorption of runoff, to brand imperviousness as categorically negative ignores some significant planning and environmental objectives. There cannot be increased density development without some increase in imperviousness. However, it is specifically higher density that is the key to concepts such as “smart growth” and more concentrated urban centers. This is not density for density’s sake, but density for the sake of concentrating development and increasing the potential for conservation. To inhibit imperviousness across the board, without sufficient acknowledgment and consideration of density’s potential to result in increased open space and conservation elsewhere is, at best, short sighted and counter-productive. The Permit must allow for and encourage a more comprehensive consideration as to whether density and imperviousness are in reality an exchange for greater undisturbed preservation elsewhere. (*Construction Industry Coalition on Water Quality*)

Response: An abundance of scientific literature documents impacts to the flow regime and aquatic habitat of streams as urbanization converts open space to imperviousness surfaces. Such changes are discussed for the Aliso Creek watershed in a recent watershed Reconnaissance Report by the U.S. Army Corps of Engineers. Minimizing the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment where feasible is a valid principle for water quality protection. While the SDRWQCB supports minimization of impervious surfaces to foster natural infiltration, it is not required. If site restrictions exist, the development, or redevelopment, can forgo infiltration and use filtration BMPs instead. Infiltration BMPs can frequently be constructed underground to conserve space. In addition, F.1.b.(2).(g) of the Tentative Order describes a waiver condition under which structural BMPs can be waived if site conditions render them infeasible. Therefore, the Tentative Order does not require reductions in development densities.

Section: Finding 6

Comment: There is inadequate research and studies to draw the conclusion that urban runoff is a threat to human health. The Santa Monica Bay study referenced in the Draft Fact Sheet Technical has had some scientific criticism and a recent Huntington Beach Study question the validity of the widely reported linkage between beach closures and urban runoff. The wording in the finding should be changed to be less conclusionary and indicate urban runoff may be a threat to human health. The bioaccumulation/biomanification wording in the finding does not take into account the potential for other sources. While bioaccumulation may occur, what types of fate and transport studies have been done with regard to these types of pollutants in urban runoff to support this finding? (*County of Orange, South Orange County Watersheds Conservancy, City of Laguna Niguel, Mission Viejo, Laguna Hills, Construction Industry Coalition on Water Quality, Dana Point, Lake Forest*)

Response: There is sufficient evidence to support that urban runoff is a threat to human health. The USEPA (Phase II Rules and Regulations) not only cites the Santa Monica Bay study, but also and cites other studies that document a relationship between gastrointestinal illness and swimmers and water quality. Furthermore, to the extent that the Santa Monica study has had "some scientific criticism," the results of that study have not been invalidated. In addition, a preliminary report from another epidemiology study currently under peer review has estimated that out of the 5.5 million people of visit Orange County beaches possibly as many as 100,000 people may develop gastrointestinal infections after swimming at those beaches. Nonetheless, additional studies and characterization of the discharges of urban runoff into receiving waters are needed. To that extent the SDRWQCB is in the process of funding an epidemiological study for Mission Bay in San Diego through a Supplemental Environmental Project. Moreover, this Tentative Order, through its requirements for Dry Weather Monitoring and Receiving Waters Monitoring, addresses the need for more specific information regarding the health threat resulting from the discharge of urban runoff into receiving waters. The finding simply points out that human illnesses have resulted that were clearly linked to recreational activity around discharging storm drains and that bioaccumulation/biomanification of pollutants in urban runoff can occur. Both of these statements are supported by USEPA Phase II Guidance. The SDRWQCB has not performed fate and transport studies to support this finding, but the Copermittees have the discretion to propose that type of monitoring in their Receiving Waters Monitoring Program.

Furthermore, MS4 discharges attributable to illicit discharges and connections can be a significant source of pollutant or contaminant loading to receiving waters. The NURP study concluded that the quality of urban runoff can be adversely impacted by illicit discharges and connections (US EPA, 1983). Furthermore, US EPA states that illicit discharges and connections result in "untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic wildlife and human health" (2000). One of the most significant problems in Orange County, as evidenced by numerous recent reports in the media, is the incidence of sewage spills and the delivery of sewage through the MS4 system to receiving waters. There certainly is no question that the pathogens contained in untreated sewage discharged from broken or leaking sewerage collection systems are a significant threat to public health. The County of Orange Health Care Agency automatically imposes a swimming closure at potentially affected coastal beaches if a sewage spill reaches the ocean in the vicinity.

For these reasons, CWA section 402(p)(3)(B)(ii) requires each Copermittee to prohibit non-storm water discharges into its MS4. The detection and elimination of illicit discharges and connections, including sewage spills, is also clearly identified in the federal regulations as a high priority (40 CFR

122.26(d)(2)(iv)(B) and 122.26(d)(2)(iv)(B)(1)). As guidance for detecting and eliminating illicit discharges and connections, the US EPA suggests "The proposed management program must include a description of inspection procedures, orders, ordinances, and other legal authorities necessary to prevent illicit discharges to the MS4" (1992). These are a central components of the Tentative Order that has been commented on extensively.

It should also be noted that the public clearly associates urban runoff with increased public health risks in the recreational use of receiving waters. This perception is evident in an article published in the Orange County Register on August 20, 2001 "Sewers: Health Is On The Line- Environment: Businesses, beaches, and bodies are at risk from epidemic failures in the county's underground network." As noted in the article "Microbes are the main disease-causing components in the mass of contaminants that washes into the ocean from cities every day." This public perception has been translated into public support for more stringent recreational waters monitoring by public health agencies and strong support (and increased resources) for more stringent regulatory action to reduce pollutants and contaminants in discharges like urban runoff.

Section: Finding 8

Comment: Provide a clear definition for waters of the U.S., waters of the state, MS4, and how they relate to receiving waters. Urban streams, as defined by the Tentative Order, should not be considered part of the MS4 system. Defining urban streams which convey urban runoff as both an MS4 and a receiving water removes them as for use as a structural treatment BMP (e.g., regional measure). (*Laguna Niguel, Laguna Hills, Lake Forest, San Juan Capistrano, Rancho Santa Margarita, Mission Viejo, San Clemente, Dana Point, County of Orange*)

Response: Waters of the state, waters of the U.S., MS4 are defined in Attachment D of the Tentative Order. Receiving waters are surface waters (including tributaries) that have beneficial uses designated by the Water Quality Control Plan for the San Diego Region. Natural drainages and urban streams are included in this definition, but can also be part of the MS4 when they are used to convey urban runoff regardless if they have been altered by the municipality or not. The system of conveyance (including roads, curbs, catch basins, and underground storm drain pipes) are considered part of the MS4, but are not considered receiving waters. The Tentative Order does not allow the use receiving waters to convey untreated urban runoff or to be used as a BMP.

Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has stated "We also agree with the Regional Board's concern, stated in its response, that there may be instances where MS4s use 'waters of the United States' as part of their sewer system, and that the Board is charged with protecting all such waters. In reality, it is often difficult to define what is a water of the United States, especially in Southern California, where 'streams' may consist solely of urban runoff, especially in the dry season."

Section: Finding 9

Comment: What is the beneficial use of the receiving waters? Aliso Creek, especially. (*Lake Forest*)

Response: The beneficial uses of receiving waters subject to this Order can be found in Chapter 2 of the Water Quality Control Plan for the San Diego Basin (Basin Plan), available from the Regional Board office and on-line at <http://www.swrcb.ca.gov/rwqcb9/>. The beneficial uses of waterbodies in

the San Diego Region are designated by the SDRWQCB and are consistent with USEPA beneficial use categories. The designated beneficial uses for the inland waters of Aliso Creek are agriculture (AGR), non-contact recreation (REC 2), warm freshwater habitat (WARM), and wildlife habitat (WILD), with contact recreation (REC 1) as a potential beneficial use. In addition, designated beneficial uses for the Aliso Creek mouth are REC 1, REC 2, WILD, RARE (rare, threatened, or endangered species), and MAR (marine habitat). Finally, designated beneficial uses for the ground waters in the Aliso Creek watershed include AGR, and MUN (municipal and domestic supply).

Section: Finding 9

Comment: Finding No. 9 states that urban runoff causes beneficial use impairment. This broad conclusion is unsupported. At most, it can be said that urban runoff may cause (or contribute to) beneficial use impairment. Accordingly, the County recommends that Finding No. 9 be revised to reflect that urban runoff may (or may not) cause beneficial use impairment depending on site-specific factors. (*County of Orange*)

Response: The finding is supported. As noted in the Fact Sheet/Technical Report, the association between urban runoff and water quality impairment is acknowledged in EPA literature and the Basin Plan. It is also suggested in monitoring reports submitted by the copermittees under the NPDES program. Furthermore, habitat degradation depicted in the Aliso Creek 205(j) watershed study and reports by the U.S. Army Corps of Engineers implicate urban runoff as sources of the degradation.

Section: Finding 10

Comment: Reference Finding 10 Copermittees Implement Urban Runoff Management Programs: Where, that is, in what specific instances or watersheds, has it been shown that Urban Runoff Management Programs (URMPs) designed to reduce discharges of pollutants and flow into and from MS4s to the maximum extent practicable (MEP) can protect receiving water quality by promoting attainment of water quality objectives necessary to support designated beneficial uses. It is quite possible that URMPs implemented to MEP will not result in attainment of water quality objectives. The Board staff in their draft fact sheet acknowledges this in the last sentence of the discussion which accompanies this finding (p. 52 of fact sheet). The finding would be more accurate if the phrase to the maximum extent practicable were deleted. (*Aliso Viejo*)

Response: Maximum Extent Practicable (MEP) is the statutory standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve. The requirements of the Jurisdictional and Watershed Urban Runoff Management Programs targets the same land uses and categories (new development and significant redevelopment, construction, municipal, commercial, residential, and industrial) which have been identified by USEPA as major sources of pollutants in the Federal NPDES storm water regulations.

As discussed in the Fact Sheet/Technical Report, US EPA finds that a "satisfactory proposed management program will address: management practices; control techniques and systems; design and engineering methods; and other measures to ensure the reduction of pollutants to the maximum extent practicable (MEP)." The US EPA further states that "at a minimum, the proposed management program must include: [...] Identification of structural control measures to be included in these proposed programs." These statements indicate that it is expected that URMPs be developed by the Copermittees that contain both structural and non-structural BMPs for the purpose of reducing pollutants in MS4 discharges to the maximum extent practicable. When pollutants in MS4 discharges

are treated to the maximum extent practicable, receiving water quality and beneficial uses are typically protected through the attainment of water quality objectives. However, it should be noted that pollutant discharges which have the potential to cause or contribute to an exceedance of water quality objectives (such as discharges to Clean Water Act section 303(d) water bodies) may require implementation of BMPs beyond the "maximum extent practicable" standard (40 CFR 122.44(d)(1)(i)).

To the extent that BMPs implemented to the MEP have not been effective in preventing the discharge from causing or contributing to exceedances of receiving water quality objectives, section C of the Tentative Order provides precedential SWRCB direction to the Copermittees.

Section: Finding 11

Comment: Finding 11: This finding is inconsistent with other findings within the Order with regards to the discussion of (end of pipe) treatment control BMPs to remove pollutants from urban runoff. The Order is clear that general treatment control beyond the source is not acceptable to the Board. Therefore, either treatment control downstream of the MS4 must be embraced or this BMP should be removed. As a practical matter, however, in an urbanized area, end of pipe treatment control BMPs may be the only practical method to address pollutant loading and should be highly supported by the Board. Land area availability for development of grassy swales and constructed wetlands should also be acknowledged as unavailable in most urbanized areas, which necessarily leads to end of pipe treatment technologies as likely the most appropriate method of pollutant control prior to receiving waters. (*Laguna Hills*)

Response: In order to provide the Copermittees with flexibility and discretion, under Tentative Order the Copermittees will specify which BMPs they will implement or require to be implemented to reduce pollutants in urban runoff discharges to the MEP. End-of-pipe treatment control, such as diversions to the sanitary sewer or through on-site filtration devices, are typically only effective for dry-weather flows, and wet-weather flows must be treated to the maximum extent practicable.

Section: Finding 11

Comment: Paragraph 11 "Best Management Practices" recognizes constructed wetlands as a BMP. In a developed city, stormwater will have to be transported to scarce lands where wetlands are developed. Will you allow "polluted" urban runoff into a storm drain in order to treat it at a wetland before it goes to a regional receiving water? (*Laguna Hills*)

Response: The Tentative Order allows structural treatment BMPs (constructed wetlands) to be shared by multiple developments. The Tentative Order also requires, however, that the Copermittees prohibit the discharge of pollutants into and from the MS4 that cause or threaten to cause a condition of pollution, contamination, or nuisance. The Tentative Order does not permit the use of receiving waters for the conveyance of polluted runoff. Provided receiving waters are not used to convey untreated stormwater and sufficient source control BMPs are used, the proposed structural BMP would likely meet MEP.

Section: Finding 11

Comment: Is diversion of storm water (or dry weather urban runoff) to a sewer system considered by the Reg. Brd. as an acceptable structural BMP to meet the reqts. of the permit? If considered an "interim" measure only then how long will such diversions be permitted under the permit? (*SOCWA*)

Response: Which types of BMP are to be implemented is left largely to the Copermitees. The only type of BMP required by the Tentative Order for existing land uses is pollution prevention BMPs. The Tentative Order requires their use at sites as determined by the Copermitees. Relying solely on diversions of urban runoff, however, may not be sufficient to meet the requirements to reduce discharges to the maximum extent practicable. End-of-pipe diversions to the sanitary sewer or through on-site filtration devices are only effective for dry-weather flows, and wet-weather flows must be treated to the maximum extent practicable.

Section: Finding 13

Comment: The contention that CWA 402(p)(3)(B)9iii) statement, that a stormwater program "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants," can be equivalently translated to mean "Reduce to MEP and whatever else is needed" is not a reasonable or proper interpretation of the meaning of the CWA sentence. Clearly, the intent is to give the Administrator or State ability to determine where or if other provisions beyond those listed are appropriate to reduce discharges to MEP. This "and whatever else is needed" phrase should be deleted from the Fact Sheet, because it is clearly not a "Fact". This same CWA clause is quoted in support of Finding #13 as justification for stating that MS4 discharges must necessarily numerical water quality objectives of receiving waters. The 9th Circuit (or at least, the pieces of it paraphrased in various places in the Fact Sheet) also supports the interpretation that "the Clean Water Act does not require all MS4 discharges to comply strictly with state water quality standards", but determinations might be made by the EPA (or RWQCB) in specific cases and locations, given specific evidence, that strict compliance with numerical water quality standards might be necessary. A blanket requirement is inappropriate. (*Laguna Niguel*)

Response: In response to the comment regarding the phrase "and whatever else is needed" cited in the Fact Sheet/Technical Report, the phrase is a plain language paraphrase used in the descriptive titles of three broad legal authorities supporting the directives of Section F of the Tentative Order. The phrase is not inappropriate. It should be noted that the phrase itself is an accurate, plain language interpretation of precisely the assertion made in the comment that "the intent is to give the Administrator or State ability to determine where or if other provisions beyond those listed are appropriate to reduce discharges to MEP." This is clearly the intent in the respective contexts of the three legal authorities cited: the State has the ability and the discretion to require additional controls, provisions, standards, or limitations necessary to achieve compliance with MEP or receiving water quality objectives. This is necessary because the Tentative Order is, in fact, a water quality based permit that requires the implementation of BMPs. The Copermitees, as dischargers of urban runoff permitted under the Federal NPDES storm water regulations and CWC Waste Discharge Requirements, are required to implement BMPs to prevent or reduce pollutants to the MEP and assure compliance with discharge prohibitions and receiving water quality objectives.

Water Code 13263 & 13377 give RWQCB authority to regulate discharges to preserve highest reasonable water quality and water quality needed to sustain beneficial uses, including aquatic habitat, etc. NPDES regulations mandate reduction of pollutants in storm water that cause or contribute to pollution to MEP by municipalities; evidence establishes risk of unreasonable degradation and pollution associated with urban runoff and support's RWQCB imposition of requirements implementing "MEP" performance standards. While CWA does not require municipalities to satisfy receiving water standards; [Defenders of Wildlife v Browner (9th c, 1999), 191F3d 1159] WQ sections 13263 & 13377 requires WDRs functioning as NPDES permits to

implement water quality objectives (i.e., water quality standards) in basin plans and provisions of the CWA and NPDES regulations needed to protect beneficial uses, and to prevent nuisance.

For the reasons cited above, the use of the paraphrase, plain language titles in the Fact Sheet/Technical Report is considered appropriate and will not be deleted.

Section: Finding 13

Comment: Finding 13: This finding should acknowledge that priority for pollution control should be given to locations of known recreational contact with water sources. A multi-year time frame should be offered for attainment of receiving water limitations at all other locations of receiving waters. (*Laguna Hills*)

Response: Recreation (REC-1 and REC-2) are not the only beneficial uses that the Tentative Order seeks to protect through the management of urban runoff. The Tentative Order requires the Copermittees to prioritize activities. Section C of the Tentative Order provides sufficient flexibility to the Copermittees to implement an iterative BMP program to address discharges that are found to cause or contribute to exceedances of receiving water quality objectives through the implementation of their Jurisdictional Urban Runoff Management Programs.

Section: Finding 14

Comment: Finding 14: This finding reasonably acknowledges the importance of an iterative process of BMP development, implementation, monitoring and assessment. Therefore, a multi-year strategy for permit compliance should be incorporated into the issuance of the Order. Expecting, for example, that an experimental BMP can be implemented and evaluated in a scientific manner in less than one-year is not realistic. And, should such a BMP found not to be effective, a jurisdiction may then be found in violation of the Order despite great efforts to comply. Such a violation is counter-productive to the iterative process and a collaborative approach to implementing receiving water limitation compliance strategies.

This Finding should embrace the co-permittees status as stakeholders in the U.S. Army Corps of Engineers Watershed Studies of San Juan Creek and of Aliso Creek and that funding of improvements identified in these studies are the priority for water quality improvements leading to protection of existing beneficial uses. Otherwise, financial resources will have to be shifted away from these improvements if this Order is implemented as written. (*Laguna Hills*)

Response: As discussed in the Fact Sheet/Technical Report discussion for Finding 13 and Finding 14, the US EPA and SWRCB have discretion to issue municipal storm water permits that require compliance with water quality standards. To ensure that MS4 discharges comply with water quality standards, the SWRCB has adopted US EPA language in SWRCB Order WQ 99-05 that dictates implementation of an iterative BMP process when water quality standards are not met. This language is included in Order No. 2001-193 in Receiving Water Limitations item C. The iterative BMP process requires the implementation of increasingly stringent BMPs until receiving water standards are achieved. This is necessary because implementation of BMPs alone cannot ensure attainment of receiving water quality objectives. For example, a BMP that is effective in one situation may not be applicable in another. An iterative process of BMP development, implementation, and assessment is needed to promote consistent compliance with receiving water quality objectives. If assessment of a given BMP confirms that the BMP is ineffective, the iterative process should be restarted, with redevelopment of a new BMP which is anticipated to result in compliance with receiving water quality

objectives. However, this process as described does not authorize the Copermitees to defer implementation of the requirements of the Tentative Order until some later date. It should be noted that while implementation of the iterative BMP process is a means to achieve compliance with water quality objectives, it does not shield the discharger from enforcement actions for continued non-compliance with water quality objectives.

With respect to the U.S. Army Corps of Engineers Watershed Studies of San Juan Creek and Aliso Creek, the Copermitees may include findings and plans developed during the course of this work in the development and implementation of the Jurisdictional and Watershed Urban Runoff Management Programs. However, the structural management measures proposed in these studies are limited in scope by the Corps jurisdiction to instream projects. These studies have provided only cursory recommendations for source identification and control and other activities that should be expected from a watershed management approach. Moreover, although the Aliso Creek Watershed Management Study was submitted in May 1999 and included at least two activities (Watershed Education Plan and Non-Point Source Awareness Plan) that were compatible with provisions of Order No. 96-03 and the Drainage Area Management Plan, it is not apparent that these recommended activities have been implemented by the Copermitees in the Aliso Creek watershed. Furthermore, it should be understood that the improvements, however beneficial to water quality, are not substitutes for the implementation of the types of BMPs and programs included in the Tentative Order. While the stabilization, rehabilitation, or restoration of impaired aquatic and riparian habitat are important activities that may help protect the Copermitees from exceedances of receiving water quality objectives through the restoration of the assimilative capacity of the receiving waters, this approach cannot be conducted in lieu of source identification and elimination of illicit discharges or the implementation of BMPs to prevent or reduce pollutants in urban runoff to the MEP.

Finally, it should be noted that compliance with the Tentative Order is not an iterative process. Compliance with the Tentative Order requires the achievement of MEP with respect to the removal or reduction of pollutants from discharges and the implementation of the Jurisdictional Urban Runoff Management Program to achieve compliance with Section C.1 of the Tentative Order. The iterative process phrase refers specifically to the Copermitees' process of BMP development, implementation, monitoring, and assessment in response to the implementation of BMPs that do not prove as effective as anticipated, with the result that a discharge is causing or contributing to an exceedance of receiving water quality objectives. This process is necessary to assure that an Urban Runoff Management Program is sufficiently comprehensive and effective to achieve compliance with receiving water quality objectives and the Tentative Order. Furthermore, the Tentative Order is a third term permit that builds upon programs developed and implemented under the previous permits.

Section: Finding 14

Comment: Finding 14 indicates that implementation of BMPs cannot ensure attainment of receiving water quality objectives under all circumstances. Does the Board intend to require implementation of BMPs beyond the maximum extent practicable standard if necessary to meet designated beneficial uses? (*Aliso Viejo*)

Response: Under Section 402(p) of the Clean Water Act, municipalities are required to reduce the discharge of pollutants from their storm water conveyance systems to the maximum extent practicable (MEP). MEP is the critical technology-based performance standard which municipalities must attain in order to comply with their municipal storm water permits. The MEP standard establishes the level of pollutant reductions the municipality must achieve. MEP generally emphasizes pollution prevention and source control BMPs (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense).

To achieve the MEP standard, municipalities must employ whatever BMPs are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive.

If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive BMPs, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost is prohibitive, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.

It is the SDRWQCB's responsibility to evaluate the proposed programs and specific BMPs to determine what constitutes MEP, using the above guidance and the court's decision in NRDC v. California Department of Transportation, Federal District Court, Central District of California (1994). The court stated that a permittee must evaluate and implement BMPs except where (1) other effective BMPs will achieve greater or substantially similar pollution control benefits; (2) the BMP is not technically feasible; or (3) the cost of BMP implementation greatly outweighs the pollution control benefits. In the absence of a proposal acceptable to the SDRWQCB, the SDRWQCB will define MEP by requiring implementation of additional measures by the Copermitees.

As discussed in the Fact Sheet/Technical Report discussion for Finding 13 and Finding 14, the US EPA and SWRCB have discretion to issue municipal storm water permits that require compliance with water quality standards. To ensure that MS4 discharges comply with water quality standards, the SWRCB has adopted US EPA language in SWRCB Order WQ 99-05 that dictates implementation of an iterative BMP process when water quality standards are not met. This language is included in Order No. 2001-193 in Receiving Water Limitations item C. The iterative BMP process requires the implementation of increasingly stringent BMPs until receiving water standards are achieved. This is necessary because implementation of BMPs alone cannot ensure attainment of receiving water quality objectives. For example, a BMP that is effective in one situation may not be applicable in another. An iterative process of BMP development, implementation, and assessment is needed to promote consistent compliance with receiving water quality objectives. If assessment of a given BMP confirms that the BMP is ineffective, the iterative process should be restarted, with redevelopment of a new BMP which is anticipated to result in compliance with receiving water quality objectives. Regarding BMP assessment, the SWRCB Urban Runoff Technical Advisory Committee states "The [Storm Water Pollution Prevention Plan] SWPPP must be revised if an inspection indicates a need to alter the BMPs: drop ineffective BMPs, add new BMPs, or modify a BMP that is to remain in the SWPPP." It should be noted that while implementation of the iterative BMP process is a means to achieve compliance with water quality objectives, it does not shield the discharger from enforcement actions for continued non-compliance with water quality objectives. Thus, the SDRWQCB does not require implementation of BMPs beyond the maximum extent practicable standard, but rather it determines whether the MEP standard has been attained and requires that the Copermitee address exceedances of receiving water quality objectives through the iterative process described in section C of the Tentative Order. However, it should be noted that pollutant discharges which have the potential to cause or contribute to an exceedance of water quality objectives (such as discharges to Clean

Water Act section 303(d) water bodies) may require implementation of BMPs beyond the “maximum extent practicable” standard (40 CFR 122.44(d)(1)(i)).

Finally, it should be noted that compliance with the Tentative Order is not an iterative process. Compliance with the Tentative Order requires the achievement of MEP with respect to the removal or reduction of pollutants from discharges and the implementation of the Jurisdictional Urban Runoff Management Program to achieve compliance with Section C.1 of the Tentative Order. The iterative process phrase refers specifically to the Copermitees’ process of BMP development, implementation, monitoring, and assessment in response to the implementation of BMPs that do not prove as effective as anticipated, with the result that a discharge is causing or contributing to an exceedance of receiving water quality objectives. This process is necessary to assure that an Urban Runoff Management Program is sufficiently comprehensive and effective to achieve compliance with receiving water quality objectives and the Tentative Order.

Section: Finding 14

Comment: Finding 14 is self-contradictory. Modify second sentence of Finding 14, page 4 to read: “An iterative process of BMP development, implementation, monitoring, and assessment may be necessary to assure that an Urban Runoff Management Program is sufficiently comprehensive and effective to achieve compliance with receiving water quality objectives to the maximum extent practicable.” In reality, every line of the Order is going to be quoted someday as a specific legal requirement, so “to MEP” should be added wherever that is what is really meant and most definitely in the Findings, which form the basic standard. Otherwise, there will be conflicts over interpretation, because there is certainly a perceived difference, and potentially a legally enforceable one, between the phrases “remove pollutants” and “remove pollutants of concern to MEP.” (*Laguna Niguel*)

Response: Finding 14 is not self-contradictory. The receiving water limitations requirements for BMPs to be implemented to achieve water quality standards is not guided by the MEP standard. Achievement of water quality standards is a separate and distinct goal for the NPDES municipal storm water program. It is not a subset of the MEP requirement to be overridden by the MEP standard. This is exhibited when USEPA states: “Today’s rule specifies that the “compliance target” for the design and implementation of municipal storm water control programs is “to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA.” (64 FR 68753) Where necessary, the Tentative Order does identify where the MEP standard applies.

Section: Finding 15

Comment: The regional board is without authority to regulate third parties’ private property under the municipal permit. At issue herein is a municipal permit regulated under the NPDES provisions of the Clean Water Act. (See 33 U.S.C. § 1342(p)(3)(B).) The subject of the regulation is the MS4 itself and discharges there from. The permittee/copermittee (i.e., regulated entity) is the operator of the MS4. The permittee/copermittee (i.e., regulated entity) is the operator of the MS4. Notwithstanding this relatively straightforward regulatory concept, the proposed Permit far exceeds the bounds of permissible regulation thereunder. Specifically, under the guise of this municipal NPDES permit, the Regional Board asserts jurisdiction over third parties’ private property. (*Construction Industry Coalition on Water Quality*)

Response: The Tentative Order holds the copermitees responsible for illicit discharges from third parties, and the Copermitees are responsible for discharges both into and from their MS4.

Copermittees cannot passively receive and discharge pollutants from third parties. As US EPA states, “The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts ‘title’ for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties” (USEPA, 1999b). Discharges of pollutants to the MS4 must therefore be controlled, and an important means for a municipality to achieve this is through the development and enforcement of municipal legal authority.

Order No. 2001-193 holds the local government accountable for the direct link between its land use decisions and water quality degradation. The permit recognizes that each of the three major stages in the urbanization process (development planning, construction, and the use or operational stage) is controlled by and must be authorized by the local government. Accordingly, this permit requires the local government to implement, or require others to implement, appropriate best management practices to reduce pollutant discharges and increased flow during each of the three stages of urbanization.

Section: Finding 15

Comment: For water utilities that already report directly to RWQCB staff with information and data for dewatering and construction activities, will they now report to affected copermittees and/or both? (*Irvine Ranch Water District*)

Response: The Tentative Order neither requires nor prohibits Copermittees to collect such information. However, agencies or organizations conducting such dewatering activities that discharge into MS4s may be required by the Copermittees to implement BMPs to reduce pollutants in the discharges to the MEP.

Section: Finding 15

Comment: Finding No. 15 is incorrect. It is based on a statement in the Final Rule for the Phase II regulations designed to encourage the Phase II communities to be more proactive than the regulations require. As the staff recognizes on page 54 of the Fact Sheet/Technical Report, if a municipality does not prohibit non-storm water discharges, it must accept responsibility for the water quality consequences of its decision. In other words, the municipality is responsible for the quality of discharges from its MS4. The staff goes on to say that, “For these reasons, each Co-permittee must prohibit and/or control discharges from third parties to its MS4.” This is an extrapolation of existing law. A municipality is responsible for the quality of the discharges from its storm drain system, with the methods of achieving compliance up to the municipality. The proposed approach may lead to appeals and possibly litigation. (*San Juan Capistrano*)

Response: Finding 15 is correct and appropriate. USEPA supports the concept that Copermittees cannot passively receive and discharge pollutants from third parties. As US EPA states, “The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts ‘title’ for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties” (USEPA 1999b). Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff from commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) also require municipalities to

have legal authority to control various discharges to their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states “The operators of regulated small MS4s cannot passively receive and discharge pollutants from third parties” (USEPA, 1999b). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Again, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall “effectively prohibit non-stormwater discharges into the storm sewers.”

As discussed in the Fact Sheet/Technical Report, Clean Water Act section 402(p) requires operators of MS4s to prohibit non-storm water into their MS4s. This is necessary because pollutants that enter the MS4 generally are conveyed through the MS4 to be eventually discharged into receiving waters. If a municipality does not prohibit non-storm water discharges, it is providing the pathway (its MS4) which enables pollutants to reach receiving waters. Since the municipality’s storm water management service can result in pollutant discharges to receiving waters, the municipality must accept responsibility for the water quality consequences resulting from this service. Furthermore, third party discharges can cause a municipality to be out of compliance with its permit, exposing it to enforcement action and litigation. Since pollutants from third parties that enter the MS4 will eventually be discharged from the MS4 to receiving waters, the third party discharges can result in a situation of municipality non-compliance if the discharges lead to an exceedance of water quality standards. For these reasons, each Copermittee must prohibit and/or control discharges from third parties to its MS4.

It is important to note the SWRCB also supports control of discharges into MS4s. The SWRCB recently upheld the LARWQCB SUSMP requirements in Order WQ 2000-11. These requirements place significant restrictions on discharges from third parties into MS4s. In fact, the SUSMP provisions included in the Tentative Order, as upheld by the SWRCB, represent the most stringent and specific requirements in the Tentative Order regarding the control of discharges into the MS4. Finally, the requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

Section: Finding 15

Comment: Finding 8 of the existing permit, Order No. 96-03, has been dropped from this order. We respectfully request that this finding be reinstated, and we suggest some revised wording that may satisfy the Board: "The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges and it is imperative that these Federal and State agencies work cooperatively with the permittees to solve water quality problems on a watershed-wide basis." For instance, Caltrans is not a party to this permit yet they discharge their water from their property into the Copermittee MS4s. Do they take ultimate responsibility and liability all the way to the ocean? What recourse do the Copermittees have against other State and Federal owned lands, or other exempt agencies such as Native American Tribes?

The Tentative Order improperly imposes responsibility on Copermittees for the acts of private parties. Simply because a municipality has an obligation to establish and enforce prohibitions against illicit discharges does not mean they are “responsible for” such discharges. Nor does anything in the Porter Cologne Act or the CWA support such a contention. The imposition of “vicariously liability” on the copermittees for acts of third parties is inconsistent with state and federal law. The NPDES permit program is designed to control the discharge of pollutants from the MS4 “to the maximum extent practicable.” It cannot legally be used to hold copermittees “responsible” for the failure of private

parties to follow storm water runoff regulations. Rather, the Permittees only have the power to establish and enforce prohibitions against illicit discharges and to pursue violations of such prohibitions when they are identified. Accordingly, the County recommends that Finding No. 15 be deleted from the Tentative Order. (*Aliso Viejo, County of Orange, Laguna Niguel*)

Response: Finding 31 (Intergovernmental Coordination) notes that copermittee coordination regarding water quality protection and land use planning activities with other watershed stakeholders, especially Caltrans and the Department of Defense, is critical to achieve the greatest protection of receiving water bodies.

Municipalities cannot arrogate to themselves the authority to regulate discharges from facilities or activities beyond their jurisdiction, e.g., discharges from state and federal facilities including highways and Indian reservations directly to waters of the state that are not part or tributary to the municipality's MS4. Municipalities are required, however, to have or develop legal authority to regulate storm water discharges and urban runoff within their jurisdictions, including discharges that may be subject to concurrent regulation by the state and federal governments. In addition, where municipalities control access to MS4 infrastructure for the accommodation of discharges from entities within their jurisdiction (including school districts, state and federal facilities, construction sites and industrial facilities) municipalities must exercise such control in a manner consistent with their obligation under the Regional Board's requirements to reduce pollutants in their MS4 to the maximum extent practicable.

Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. Municipalities required in 40 CFR 122.26(d)(2)(iv)(A - D) to implement controls to reduce pollutants in urban runoff from commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) also require municipalities to have legal authority to control various discharges to their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states "The operators of regulated small MS4s cannot passively receive and discharge pollutants from third parties." Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall "effectively prohibit non-stormwater discharges into the storm sewers"

The municipal Copermittees under Order No. 2001-193 are responsible for discharges into and out of their storm water conveyance systems because (1) they own and operate the MS4; and (2) they have the legal authority that authorizes the very development and land uses which generate the pollutants and increased flows in the first place. Order No. 2001-193 holds the local government accountable for this direct link between its land use decisions and water quality degradation. The permit recognizes that each of the three major stages in the urbanization process (development planning, construction, and the use or operational stage) is controlled by and must be authorized by the local government. Accordingly, this permit requires the local government to implement, or require others to implement, appropriate best management practices to reduce pollutant discharges and increased flow during each of the three stages of urbanization.

Section: Finding 16

Comment: Can you be more specific about what land use authority that cities have over existing properties?

While municipalities do regulate development occurring within their jurisdiction, there are constitutional limits on such regulation. The conditions imposed by a municipality must have a nexus with, and be reasonably proportional to, the impacts caused by a proposed development. Moreover, a municipality cannot impose restrictions on development that preclude the landowner from having an economically viable use of its land. As the recent Supreme Court decision in *Palazollo v. Rhode Island* makes clear, this prohibition applies even where the municipality imposes the restrictions before the landowner purchases the land. See *Palazollo v. Rhode Island*, 121 S.Ct. 2448 (2001). Thus, it is inaccurate for the Regional Board staff to assert that the Permittees have carte blanche control of all aspects of urban development within their boundaries. The County recommends that Finding No. 16 be deleted from the Tentative Order. (*County of Orange, Laguna Niguel*)

Response: Each copermittee has adopted a storm water ordinance that prohibits pollutants from entering the storm drains. The nexus between construction and post-construction land uses identified in the Tentative Order and impacts to water quality from runoff are well documented. The SUSMP requirements on new development and redevelopment will not preclude a landowner from having an economically viable use of land. Finding 16 will remain.

Section: Finding 17

Comment: Finding 17 should be deleted or revised to strike the word “profit” from the Copermittees authorization of urban development. Although the Copermittees may receive tax revenues from residential, commercial and industrial development that occurs within their boundaries, they do not necessarily “realize benefits” in the common sense of that phrase. The tax revenues collected by most municipalities are rarely sufficient to cover the demand for municipal services.

Finding 17 of the Tentative Order reflects a failure to appreciate the role and duties of local governments to exercise authority over land use, and the limitations imposed on the exercise of that authority. The authority of cities and counties to regulate land use comes from the California Constitution. Article XI, 97, confers on local governments the authority and the duty to regulate land use, through the exercise of the “police power.” Cities exercise land use authority not for the purpose of “profiting” from the exercise of their constitutional duty, but because the exercise of control over land use is their duty.

For the Tentative Order to attempt to impose a duty to protect water quality, without reference to any Constitutional provision or specific enactment of the legislature, based on this misunderstanding of the duty of cities is inappropriate and without legal basis. The Cities are aware of no legislation in which the California Legislature imposed a duty to protect water quality based on local governments’ exercise of their Constitutional duty to regulate land use. (*Laguna Hills, County of Orange, Dana Point, Rancho Santa Margarita, Lake Forest, Laguna Woods*)

Response: The word "profit" should have read "realize benefits." It was inadvertently left in Finding 17 of the draft Tentative Order during editing. Since the Copermittees permit, authorize, and realize benefits from urban development within their jurisdictions, Tentative Order No. 2001-193 holds the Copermittees responsible for the short and long-term water quality consequences of their land use decisions. "Profit" in this case refers to benefitting, financial or otherwise, from land use decisions. Municipalities retain land use authority for the purpose of realizing benefits, financial or otherwise, from decisions to urbanize. Furthermore because water quality degradation is the direct result of the urbanization process, Copermittees must implement (or require others to implement) controls to reduce the flow and pollutants generated from each of the three major phases of urbanization that they authorize; namely the (1) land use planning, (2) construction; and (3) use or existing development phase.

While the Copermittees may not “profit” from land development according to the common definition and use of the word, the Copermittees do realize, or intend to realize, net benefits that are not exclusively financial from the residential, commercial, industrial, and other activities proposed by private parties that they authorize within their jurisdiction. Because Copermittees have the land use authority to regulate these activities, which can be a source of pollutants and runoff that impair receiving waters, so the Copermittees must also exercise their legal authority to ensure that the resulting increased pollutant loads and flows do not further degrade receiving waters. Nonetheless, Finding 17 will be revised to use the words “realize benefits” in place of “profit.”

Section: Finding 19

Comment: Finding No. 19 states that construction activities are a significant cause of receiving water impairment. While siltation and sediment runoff may be a significant problem in the nation as a whole, there are no water bodies in the County within the jurisdiction of the Regional Board that are impaired by sediment. See Finding No. 28 (listing Section 303(d) impaired water bodies and noting that the only pollutant of concern for such water bodies is coliform bacteria); see also Attachment D (discussing impaired water bodies within jurisdiction of Regional Board).

Accordingly, the County recommends that Finding No. 19 be revised to reflect that construction activities may (or may not) cause receiving water impairment and that at present they are not a significant source of impairment in that portion of the County covered by the Tentative Order. (*County of Orange*)

Response: The finding is correct and justified because construction activities are a significant cause of receiving water impairment. Although at this point there are no water bodies in the County within the jurisdiction of the Regional Board that are listed as impaired by sediment, there are water bodies listed for sediment that are within the areas served by the DAMP. This suggests that the DAMP may not be sufficient to protect water bodies from the impacts of sediment. In addition, the listing process is not finite, and more reaches may become listed as additional data becomes available.

Section: Finding 19

Comment: Finding 19 fails to recognize the Drainage Area Management Plan currently in place in this region that includes construction activity controls. No new actions on the part of the co-permittees should be required, rather, previous control efforts that have successfully addressed these issues should be acknowledged. (*Laguna Hills*)

Response: The DAMP is recognized elsewhere in the Tentative Order and Fact Sheet. New actions by the copermittees are required in order to meet the technology-based MEP standard that is required in the federal regulations. Please see Attachment 5 of the Fact Sheet for an analysis of the proposed revised DAMP. There are a number of deficiencies with respect to construction activities. For instance, the DAMP does not set minimum BMP requirements based on threat to water quality prioritization, and minimum BMP requirements are only set for public works construction projects and not private construction sites. In addition, the DAMP does address inspection frequencies of construction sites by construction and grading inspectors and these frequencies are not based on the threat to water quality prioritization. The Tentative Order does not prohibit each copermittee from using information in the DAMP in the development of a jurisdictional urban runoff management plan.

Section: Finding 20

Comment: Finding 20 is incorrect based upon data generated by the County of Orange. Further, there is no evidence that the URMPs will, in fact, reduce pollutant loadings over the long term in any better form than the Drainage Area Management Plan. (*Laguna Hills*)

Response: Finding 20 states that monitoring data shows substantial pollutants loads are delivered to receiving waters in runoff from existing development. This is confirmed by the data submitted to the Regional Board by the copermittees pertaining to the municipal storm water permit, the Aliso Creek 205(j) study, Cleanup and Abatement Order 99-211, and the Aliso Creek 13225 Directive. In particular, elevated levels of fecal coliform at the outfalls are consistently reported. Additionally, in the latest NPDES Annual Progress Report (2000) data shows that 2 of 3 channels monitored for dissolved metals exceed California Toxics Rule Criteria for multiple constituents. Furthermore, wet-weather monitoring during the Aliso Creek 205(j) watershed study showed significant toxicity to aquatic test organisms.

Section: Finding 22

Comment: Does the Tentative Order require the Copermittees to have the legal authority to enforce the Industrial and Construction General Permits? Requiring the Copermittees to duplicate and/or expand the State programs regulating storm water discharges from industrial and construction sites is contrary to the Clean Water Act. Requiring the Copermittees enforce the MEP standard at construction and industrial sites would subeject the sites to different standards (BAT/BCT for General Statewide Permits). (*Aliso Viejo, Mission Viejo, Laguna Hills, County of Orange, MJF Consulting*)

Response: The Copermittees are not responsible for enforcing or overseeing the General Statewide Industrial or Construction Permits. The SDRWQCB will oversee and enforce the General Statewide Industrial and Construction Permits. The Copermittees are however, responsible for enforcing their ordinances(e.g. the Water Quality Ordinance) that implement the Tentative Order, including the prohibitions against illicit discharges. The Copermittees are responsible for ensuring that, at a minimum, discharges from industrial and construction sites meet the MEP standard of the Tentative Order. The Copermittees do have the discretion to require BMPs at construction sites that exceed MEP where appropriate. In some cases, the Copermittees may be required to implement or require the implementation of BMPs at construction or industrial sites that exceed the minimum requirements of the General Statewide Industrial or Construction Permits in order to achieve compliance with the requirements of the Tentative Order. USEPA supports this approach, clearly placing responsibility for the control of discharges from construction and industrial sites with municipalities. The USEPA notes in the preamble to the Storm Water Regulations that municipalities are in the best place to enforce compliance with storm water discharge requirements:

“Because storm water from industrial facilities may be a major contributor of pollutants to MS4s, municipalities are obligated to develop controls for storm water discharges associated with industrial activity through their system in their storm water management program...The CWA provides that permits for municipal separate storm sewers shall require municipalities to reduce pollutants to the maximum extent practicable. Permits issued to municipalities for discharges from municipal separate storm sewers will reflect terms, specified controls, and programs that achieve that goal.”

As noted in the Fact Sheet/Technical Report, the USEPA felt it so important to control the discharge of pollutants from construction and industry that it established a double system of regulation over construction and industrial sites. Two parallel regulatory systems were established with the same

common objective of keeping pollutants from construction and industrial sites out of the MS4. A structure was created where local governments must enforce their local ordinances and permits as required under their municipal storm water permits, while the SDRWQCB (state) must enforce its statewide general construction and industrial storm water permits. The two regulatory systems were designed to complement and support each other in the shared goal of minimizing pollutant discharges in runoff from construction and industrial sites.

Local governments have regulatory authority over the majority of construction and industrial sites since they issue the development and land use permits for the sites. In other words, the Copermittees are responsible for the water quality consequences of their planning, construction, and land use decisions.

Regarding construction sites, USEPA also places enforcement responsibility on municipalities, requiring small municipalities to develop and implement “[a]n ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance [...]” (40 CFR 122.34(b)(4)(ii)(A)). In its guidance for the Phase II regulations, US EPA goes on to support increased municipality responsibility, stating “Even though all construction sites that disturb more than one acre are covered nationally by an NPDES storm water permit, the construction site runoff control minimum measure for the small MS4 program is needed to induce more localized site regulation and enforcement efforts, and to enable operators of regulated small MS4s to more effectively control construction site discharges into their MS4s.” While these above citations refer to small municipalities under Phase II of the NPDES program, USEPA recommendations to small municipalities are applicable to larger municipalities such as the Copermittees, due to the typically more serious water quality concerns attributed to such larger municipalities.

The language of the Tentative Order has been drafted to carefully describe the requirements of the Tentative Order with regard to the dual regulation of construction and industrial sites as discussed above. With the recent addition of resources and staff from budget augmentations in several programs, including storm water, the SDRWQCB is vigorously administering and enforcing the General Statewide Industrial and Construction permits. The SDRWQCB will enforce the General Statewide Construction and Industrial Permits; the Copermittees are required to enforce their own storm water ordinances.

Section: Finding 22

Comment: A portion of Finding 22 does not read as a “Finding”. Rather, it is worded as an “Order”, and, as such, should be placed in the Order section. As written, the latter portion of the first paragraph, beginning with “Pursuant to this Order...”, purports to be based on the Tentative Order. Yet, until the Tentative Order is adopted by the Board, there is no Order on which to base this portion of the finding. A finding must be based on existing facts. Therefore, that sentence, to include sub-parts (a) and (b), should be deleted from the finding. (*Dana Point*)

Response: The language of Finding 22 is that of a tentative Finding that refers to the directives contained within the Tentative Order. The language of a finding does not preclude reference to requirements contained within the Order. For example, Finding 19 of Order No. 96-03 contains references of tasks to be performed under Order 96-03. Moreover, the statements in Finding 22 that local permits, plans, and ordinances must prohibit the discharge of pollutants and non-storm water into the MS4 and require the routine use of BMPs to reduce pollutants in site runoff are based on the Federal Phase I storm water regulations and on language in the current municipal storm water permit

Order No. 96-03 (Finding 27, Finding 31, sections 3.1 and 3.2,). Consequently, the language of the Finding is appropriate and further revision is not necessary.

Section: Finding 24

Comment: What is the Board's definition of the frequency of "routine inspections"? (*Laguna Hills*)

Response: The frequency of routine inspections that are necessary to determine compliance with local permits and ordinances is determined by each copermitee. However, the Tentative Order does specify minimum inspection frequencies for the following categories of activities:

1. Construction - Section F.2.g;
2. High priority municipal existing development - Section F.3.a(7); and
3. High priority industrial sites - Section F.3.b(6).

Copermittees are given discretion in establishing frequency of inspections for all medium and low priority municipal and industrial sites, as well as all commercial sites.

Section: Finding 26

Comment: Finding 26 references the Basin Plan and quotes from it as follows: All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant animal, or aquatic life The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge... The finding then goes on to say that: Urban runoff discharges from MS4s are considered toxic when (1) the toxic effect observed in an acute toxicity test exceeds zero Toxic Units Acute (TUA=O) or (2) the toxic effect observed in a chronic toxicity test exceeds one Toxic Unit Chronic (TUC=I).

In responding to our question about this finding at the first Board workshop, the Board staff wrote: "Bioassessment not only identifies that an impact has occurred, but also measures the effect of the impact and tracks recovery when control or restoration measures have been taken, Bioassessment does not, however identify the sources of the impact. The toxicity testing requirement is necessary to identify the sources of impact to the benthic macroinvertebrate community to enable the Copermittees to adequately address these sources in their programs."

We are in concurrence with this statement by the Board staff that an appropriate use of toxicity testing is to identify the sources of toxicity once bioassessment monitoring has identified an impact. However, that is not the substance of Finding 26 that establishes the toxicity testing itself as the means for identifying impact.

The final sentence in the finding needs to clarify that where bioassessment data have indicated a significant impairment, toxicity testing is to be performed on a sample of the receiving water and must be compared against a control consisting of a similar receiving water unaffected by any other discharge in order to identify the presence of toxicity.

Finally, the case for establishing toxicity based on a TUA=O or TUC=I has not been adequately supported by Board staff in the Draft Fact Sheet/Technical Report for the Tentative Order. On page 64 of the Fact Sheet/Technical Report under finding 26 the staff makes the key assumption that the Basin Plan narrative objective of 'no toxics in toxic amounts' corresponds to 100% survival of test organisms in an acute toxicity study (Tua=O) and for a critical life stage toxicity test the absence of

observable effects in undiluted test water (should read receiving water) or a $TU_c=1$. This is the only basis given for establishing the $TU_a=0$ and $TU_c=1$ as the measure of toxicity. This is an extremely stringent requirement. Scientific assessment may lead to 85%, 90%, 95% or some other statistically significant outcome as the standard when considering MEP. We ask that the Board remove the last sentence of Finding 26 for there has been no significant analysis of what the potential outcome and implications of this finding could be. (*Aliso Viejo*)

Response: The requirements for the Copermittees to conduct toxicity monitoring are appropriate and necessary to determine the biological impact resulting from the discharge of urban runoff. As discussed in the comment, the Monitoring and Reporting Requirements of the Tentative Order include a requirement for the Copermittees to develop a program for standardized toxicity and Toxicity Identification Evaluation analyses to be performed at urban stream bioassessment stations where the bioassessment data indicates significant impairment. In this context, toxicity testing and TIE analysis are follow-up tools to identify potential causative factors for an observed impact on the benthic community. However, toxicity testing and TIE analysis is also an appropriate means for identifying the impact of the discharge of urban runoff in and of itself, which is the focus of Finding 26. The Tentative Order properly includes toxicity and TIE analysis as a primary assessment procedure as well as a follow-up procedure for stations in which benthic bioassessment data that indicate an impact has occurred.

The presence of toxicity in urban runoff discharged from MS4s that causes or contributes to an exceedance of receiving water quality objectives or constitutes a threat to human or environmental health is a violation of Order 90-42 and the Tentative Order. The Toxicity requirement is derived from the Ocean Plan and is properly supported. The Copermittees have the responsibility to ensure that the discharge from their MS4s does not cause or contribute to exceedances of receiving water quality objectives nor constitutes a threat to human or environmental health. Toxicity is a measurement of the impact of MS4 discharges to human and environmental health.

Section: Finding 26

Comment: Finding No. 26 states that urban runoff discharges from MS4s “often” contain pollutants that cause toxicity and implies that effluent toxicity limits apply to discharges of urban runoff from MS4s. The County disagrees. First, although discharges from MS4s “often” contain pollutants that can cause toxicity, the question is whether such pollutants are present in concentrations that in fact do cause toxicity. Second, as stated elsewhere in these comments, MS4s are not required to meet WQS. They are instead required to reduce the discharge of pollutants to the maximum extent practicable. Third, the numeric toxicity limits identified in this Finding are only applicable to certain discharges to ocean waters of the state, not to all waters of the state, and the limits are applicable to the receiving waters, not urban runoff discharges from MS4s. (*County of Orange*)

Response: Significant toxicity was found during storm events during the Aliso Creek 205(j) watershed study in 1998 and 1999. A majority of the cases resulted in zero percent survival during the acute 48-hour Ceriodaphnia test. Thus it is reasonable to conclude that pollutants conveyed by the MS4 to receiving waters are present in concentrations that in fact do cause toxicity.

The Copermittees have the responsibility to ensure that the discharge from their MS4s does not cause or contribute to exceedances of receiving water quality objectives nor constitutes a threat to human or environmental health. Toxicity is a measurement of the impact of MS4 discharges to human and environmental health

Section: Finding 27

Comment: Finding indicates that the Order is not meant to control background or naturally occurring pollutants and flows. Has the Board established that non-anthropogenic sources of fecal coliform do not naturally cause violations of designated uses (REC1 and REC 2)? *(Aliso Viejo)*

Response: The Regional Board has not established that naturally occurring pollutants and flows (containing fecal coliform) cause violations of REC 1 and REC 2 beneficial uses. In some cases DNA analysis has shown this to be true, but in most cases it is assumed that indicator coliform bacteria may be of human origin.

Section: Finding 27

Comment: The Tentative Order ostensibly applies to storm water flows both into and from the Permittees' MS4. The resulting effect is that the Permittees will be required to address runoff from many other non-urban sources. Indeed, under the Tentative Order, the Permittees will be forced to address non-point sources of runoff that would otherwise be exempt from regulation under the CWA, such as runoff from silviculture and agriculture. Thus, notwithstanding the "focus" of the Tentative Order as stated in Finding No. 27, the Permittees are being asked to mitigate more than simply those "urban runoff pollutants and flows" that are "generated or accelerated by human activities." It is both impermissible and impracticable for the Regional Board to saddle the Permittees with this obligation. *(County of Orange)*

Response: The copermitees are not held responsible for impacts from flows resulting from activities exempted from the Federal Clean Water Act regulations, but are held accountable for flows allowed to be conveyed through their MS4.

Section: Finding 27

Comment: Finding 27 should be expanded to acknowledge that urban runoff pollutants include those deposited upon roadways by motor vehicles over which the co-permittees have no jurisdictional authority. Should this Order continue to establish that no pollutants may enter into the storm drains that are being defined as receiving waters, then the co-permittees will automatically not be in compliance with this Order and will also have no ability to control the source of the pollutants. The maximum extent practical standard for Best Management Practices and control of pollutants should acknowledge that there are certain generators of pollutants over which the co-permittees have absolutely no authority or control. *(Laguna Hills)*

Response: As described elsewhere, the copermitees are responsible for discharges into and out of their MS4s, and they must treat storm water flows to the maximum extent practicable. BMPs are required to reduce the pollutant loads of storm water, including storm water that picks up pollutants deposited by motor vehicles. In order to provide the Copermitees with flexibility and discretion, under Tentative Order the Copermitees will specify which BMPs they will implement or require to be implemented to reduce pollutants in urban runoff discharges to the MEP.

Section: Finding 28

Comment: Finding No. 28, page 6: Table 2 under this Finding is misleading. Although it is true that the waterbodies identified in Table 2 have been listed for Coliform bacteria, the 303(d) list maintained

by the SWRCB indicates that most of these waterbodies are considered only a low priority, some a medium priority, and none a high priority. Table 2 in this Finding should reflect this prioritization. (*San Clemente*)

Response: The prioritizations given the 303(d) listed impaired water bodies are based on a number of factors including the severity of the impact, utilization of the beneficial uses impaired, available resources, and planned or anticipated actions by the Copermitees to reduce pollutants in the discharge of urban runoff to the MEP and to prevent discharges from causing or contributing to exceedances of receiving water quality objectives. Furthermore, the prioritization of 303(d) listed water bodies may be subject to revision as additional information and resources are made available. The prioritization of these water bodies was not included in the table for these reasons.

Section: Finding 29

Comment: There is no scientific basis for Finding 29 suggesting that each and every co-permittee are contributors to the cumulative pollutant loading of downstream receiving waters. The County disagrees with this unsupported and simplistic generalization. Simply because a watershed drains into a common coastal water body and the drainage contributes to water quality degradation of that water body, it does not follow that each inland MS4 in the watershed necessarily contributes to the impairment of the water body. Those MS4 discharges that have relatively good water quality may in fact help to reduce the impairment that may be caused by other sources. There are many sound technical reasons why a watershed management approach is needed in the Tentative Order to improve the quality of watershed receiving water bodies. The County strongly supports the watershed approach. However, simplistic generalizations have no place in the watershed rationale. Accordingly, Finding No. 29 should be revised and clarified.

Some MS4s may discharge into receiving waters miles upstream from an area of coastal impairment; however, at the point of discharge, the receiving water may consistently meet water quality objectives for its beneficial uses. How does an inland Copermitees determine whether a MS4 contributes to coastal impairments? By what criteria? Please clarify and provide a practical example(s). The Board should support regional studies to evaluate this circumstance prior to establishing a finding.

Furthermore, SDRWQCB staff Responses to Other Comments have acknowledged that receiving waters have assimilative capacity for many pollutants, so that total pollutant load going into the system is not necessarily (probably normally is not) equal by weight-or by concentration!-- to the total pollutants going out the downstream end. The pollutants are not cumulative with respect to the concentrations that define impairment or degradation. Therefore, this Finding should be eliminated or rephrased. (*Laguna Hills, County of Orange, Laguna Niguel*)

Response: As noted in the Fact Sheet discussion of Finding 29, a watershed is the drainage basin, outlined by topographic divides, which drain to a common outlet, such as a stream, lake, estuary, enclosed bay, or ocean. Therefore, when various MS4s discharge into the same watershed, the discharges eventually flow into a common receiving water body. In this manner, individual MS4s that share the same watershed contribute to cumulative pollutant loading in the watershed's receiving water body.

Attachment 2 of the Fact Sheet lists the 1998 Clean Water Act Section 303(d) Impaired Waterbody List. This list includes, and is not limited to, the Pacific Ocean shoreline at the major creek/river mouths, including Laguna Canyon, Aliso Creek, San Juan Creek, and those in San Clemente. The MS4 from each copermitee, therefore, is hydrologically connected to one or more impaired waterbodies. While some pollutants may be assimilated, or cause impairment in upstream areas,

Finding 29 recognizes the pollutant load in a waterbody augments by addition, and that downstream receiving waters are affected by the delivery of pollutants upstream.

Monitoring data collected to date in Aliso Creek, for which the lower mile, the mouth, and adjacent shoreline are listed as 303(d) impaired for fecal coliform, shows elevated levels of fecal coliform from outfalls from every municipality in the watershed and throughout the stream. Monitoring programs conducted under the Tentative Order should be designed to identify and evaluate contributing sources of this and other potential pollutants from the copermitees.

Section: Finding 30

Comment: Finding 30 fails to recognize the authority of local jurisdictions to establish their communities consistent with the will of the people without regard to other jurisdictions in the same watershed. It is inappropriate to make a finding that political boundaries should not be recognized in land use planning. (*Laguna Hills*)

Response: The Tentative Order recognizes the authority of local jurisdictions to establish and govern their communities consistent with the will of its citizens. The Tentative Order recognizes that water quality issues transcend political boundaries and can be best addressed through joint efforts. The Tentative Order does not require watershed level planning that ignores local jurisdictional issues, but does strongly recommend that the Copermitees address watershed level planning by identifying a mechanism to facilitate this activity. Developing a mechanism to facilitate watershed level planning is not inappropriate and does not require that political boundaries not be recognized in land use planning.

Section: Finding 31

Comment: Finding 31 should support and recognize the co-permittee structure established by the County of Orange approximately 10 years ago. Through the NPDES Technical Advisory Committee within the County of Orange, intergovernmental coordination has been achieved and is an on-going basis of dialogue and cooperation among agencies. (*Laguna Hills*)

Response: Finding 31 will be revised to recognize the Copermitee Program Management structure implemented under the previous permits.

Section: Finding 33

Comment: Finding 33 fails to recognize the fully built out condition of many of the jurisdictions in south Orange County. In this case, the storm water management approach and infrastructure planned and implemented over the last 30 years cannot possibly be changed until there is area-wide wholesale redevelopment that will likely not occur in the next 100 years. Furthermore, it should be recognized that the existing infrastructure was implemented to protect life and property from the hazards of storm flows and slope failures of unstable geologic formations prevalent in south Orange County. The suggested approach that, as a finding is actually a directive, may be unsafe and cause soil movement and land slides. (*Laguna Hills*)

Response: Finding 33 supports the encouragement of a storm water management approach from the disposal of rainfall to the protection of beneficial uses of receiving water. This approach is consistent with the objectives of the federal NPDES regulations that have been in effect since 1990

and the California Water Code, which stresses the prevention of pollution. The Tentative Order does not require wholesale dismantling of existing infrastructure in developed areas, and Finding 33 recognizes that the greatest opportunities for changing the approach to storm water management occur during the land use planning phase. Accordingly, the Tentative Order requires different components in the municipal programs for addressing storm water in new development and areas of existing development.

Section: Finding 33

Comment: Paragraphs 33 and 34 call for onsite water retention and infiltration. The addition of water to hillside development in south Orange County overlying the Capistrano Formation fractured bedrock may promote landslides. How do you propose we balance the public safety public threat? (*Laguna Hills*)

Response: Both retention and infiltration structural BMPs can be used to mitigate urban runoff, but are not required by the Tentative Order. The Tentative Order has infiltration restrictions to protect groundwater quality based on EPA guidance. However, the Copermitees may develop alternative infiltration restictions they consider appropriate.

Section: Finding 41

Comment: The Revised Technical Report still contains the staff's conclusions that implementation of the 2000 DAMP would be inadequate to reduce pollutants in the discharge from MS4s to the maximum extent practicable and to protect the beneficial uses of receiving waters, and the Revised Tentative Order is still based on that conclusion. Finding No. 41 (and the entire Tentative Order) should be revised to reflect that the Permittees will be provided with an opportunity to revise the 2000 DAMP to address any perceived deficiencies and that implementation of the 2000 DAMP must meet the MEP standard. (*County of Orange*)

Response: The Tentative Order does not prohibit the copermitees from revising elements of the DAMP in the development of jurisdictional urban runoff management programs. Please see Attachment 5 of the Fact Sheet/Technical Report for an a discussion of the proposed DAMP relative to the Tentative Order. This analysis outlines the deficiencies of the DAMP and can be used during the development of jurisdictional programs.

Section A

Comment: The Tentative Permit does not contain the mandatory BMP language of State Board Order 99-05. Does the staff intend to enforce the Discharge Prohibitions without regard to the iterative BMP process required by State Board Order 99-05? (*County of Orange*)

Response: The Tentative Permit does contain the mandatory language contained in State Board Order 99-05. State Board Order 99-05 required mandatory receiving water limitation language to be included in future municipal storm water permits. This mandatory language can be found in Tentative Order 2001-193 Section C. Staff intends to enforce all discharge prohibitions. However, the iterative BMP process required by State Board Order 99-05 is applicable to only those prohibitions regarding receiving water quality.

Section: A

Comment: The Permit's prohibitions in Section A that MS4 discharges do not cause or contribute to a violation of water quality standards are preempted by recent controlling authority and agency guidance, including State Board Order 99-05, which expressly struck the "cause or contribute" phrase. In addition, the receiving water limitations language in Section C is preempted by the Ninth Circuit Court of Appeals *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1164-66 (9th Cir. 1999) decision.

Numerical limits on stormwater have been deemed infeasible by U.S. EPA and the SWRCB. The Tentative Order must include the iterative BMP provisions mandated by State Board Order 99-05. Unfortunately, despite a claim to the contrary, the Tentative Order does not contain the State Board's mandatory language. Instead, the Tentative Order provides language similar to the required language, which significantly limits its application and effect. First, the iterative BMP process applies only to compliance with the Receiving Water Limitations (Section C), not to compliance with the Discharge Prohibitions (Section A). Second, while the language in Item C.2 purports to allow the Permittees to comply with the Receiving Water Limitations by developing and implementing appropriate BMPs (as mandated by the State Board), this safe harbor is really a mirage. This is because the Tentative Order prohibits any discharges that cause or contribute to exceedances of receiving water quality objectives under both Item A.2 (Discharge Prohibitions) and Item C.1 (RWLs). Thus, although the Permittees can comply with the Item C RWLs through the iterative BMP process, the Permittees are strictly prohibited from exceeding receiving water quality objectives in Item A of the Tentative Order.

Further, our legal analysis indicates that requirement that discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives for surface or groundwater are prohibited is beyond the Maximum Extent Practicable Standard which governs MS4s and, as such, would be a discretionary action by the Regional Board.

There is no consideration of whether prohibition A.2 "could reasonably be achieved" through coordinated control of the factors that affect water quality in the area. This failure to consider what is reasonably achievable violates Sections 13263(a) and 13241(c) of the Water Code. (*Construction Industry Coalition on Water Quality, Dana Point, County of Orange, Laguna Niguel, Lake Forest, Laguna Woods, San Juan Capistrano, Mission Viejo*)

Response: The Permit's requirements regarding exceedances of water quality standards are directly based on State and Federal NPDES regulations and SWRCB and EPA guidance.

The comment that SWRCB Order WQ 99-05 "struck the 'cause or contribute to' phrase" is false. SWRCB Order WQ 99-05 affirmed the "cause or contribute to" phrase as precedential language to be included in all future municipal storm water permits and removed language objected to by the USEPA. Since the Order specifically states "...**the following receiving water limitation language shall be included in future municipal storm water permits** [...] a. Upon a determination by either the permittees or the Regional Water Board that **discharges are causing or contributing to an exceedance of an applicable WQS...**" (emphasis added), it is unclear how the SWRCB position on the "cause or contribute" language could be interpreted any differently than stated above. Moreover, the "cause or contribute to" phrase is central to the Receiving Waters Limitations language of the SWRCB Statewide General Storm Water Permits for the Construction Program, the Industrial Program, the CALTRANS Program, the Aquatic Pesticide General Permit, and the Updated Statewide NPDES Utility Vault Permit.

A number of commenters have confused Prohibition A.1 and A.2 (Prohibitions - Discharges). Prohibition A.1 refers to the prohibition against discharges into and from MS4s in a manner causing or threatening to cause a condition of pollution, contamination, or nuisance. Prohibition A.2 refers to the

prohibition against discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater. Furthermore, most of the commenters expressed concern that the Copermittees " ...would essentially be out of compliance (with the Tentative Order) on the first day the Tentative Order goes into effect."

It should be noted that with respect to both prohibitions A.1 and A.2 the Copermittees may, in fact, be out of compliance at this time without regard to the adoption of the Tentative Order. With respect to Prohibition A.1, this prohibition exhibits a major component of the SDRWQCB's mission, and is specifically included in its Basin Plan. The Basin Plan Waste Discharge Prohibition No. 1 found on p. 4-17 states: "The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, is prohibited." This prohibition is a standard Waste Discharge Prohibition that can also be found in each of the SWRCB General Permits listed above as well all SDRWQCB Waste Discharge Requirements. In fact, although this prohibition appears to be lacking in Order No. 96-03, it was included in Order No. 90-38 in section XV part A. This prohibition is in effect under the Basin Plan and applies to discharges permitted under Order No. 96-03. Thus, to the extent that discharges from the Copermittees' MS4s are causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in California Water Code Section 13050, these discharges are in violation of the Basin Plan and subject to enforcement action. The adoption of the Tentative Order is irrelevant to the condition of vulnerability of the Copermittees to enforcement action or third party litigation with respect to Prohibition A.1.

With respect to Prohibition A.2, this prohibition is currently embodied in Order No. 96-03 through section IV of that Order and the SWRCB Order WQ 99-05 and Order WQ 98-01. Furthermore, it can also be stated that this prohibition generally implements the Basin Plan Waste Discharge Prohibition No. 5 found on p. 4-17 and 4-18 that states: "The discharge of waste to inland surface waters, **except in cases where the quality of the discharge complies with applicable receiving water quality objectives**, is prohibited" (emphasis added). More importantly, the language contained in Section IV of Order No. 96-03, although not specifically amended, was directed by the SWRCB to be interpreted as discussed in Order WQ 98-01. SWRCB Order WQ 98-01 states in Section IV "1. The federal regulations implementing CWA section 401(p) requires NPDES permits to prohibit discharges of pollutants that 'cause or contribute' to exceedances of water quality standards and the permit (Order No. 96-03) will be so interpreted." Moreover, SWRCB Order WQ 99-05 did not amend or strike this language (i.e. the "cause or contribute" phrase), but affirmed that it be included in future municipal storm water permits. Thus, the precedential phrase "causing or contributing to an exceedance of an applicable water quality standard..." applies to the Orange County Copermittees under Order No. 96-03.

Consequently, to the extent that the Copermittees have determined (or the SDRWQCB has found) that discharges from their MS4s are causing or contributing to an exceedance of an applicable water quality standard, they may be in violation of Order No. 96-03 and may be subject to enforcement action depending on the circumstances. Despite the comments to the contrary, the adoption of the Tentative Order in no way alters this fact. The adoption of the Tentative Order is irrelevant to the condition of vulnerability of the Copermittees to enforcement action or third party litigation with respect to Prohibition A.2 or the provisions of Section C of the Tentative Order. These prohibitions and provisions are already in effect.

Furthermore, several commenters have asserted that the Prohibitions in Section A of the Tentative Order preempt the precedential provisions of Section C and that the "safe harbor" language of Section C is a "mirage." These comments are incorrect. First of all, the Prohibitions in Section A and the provisions of Section C of the Tentative Order are both equally applicable and enforceable. As discussed above, the Prohibitions in Section A implement the Basin Plan and are consistent with

Section C of the Tentative Order, without having to reiterate the precedential language contained in Section C. The iterative BMP implementation process applies to both. Section C will be revised to clarify this intent and conform to the draft SWRCB Order regarding the petition to review Order No. 2001-01. Secondly, the provisions of Section C are not a “safe harbor” to pollute receiving waters, but rather a module for the iterative implementation of more stringent BMPs to return the Copermittees to compliance with both the Discharge Prohibitions and Receiving Water Limitations. As noted by the SWRCB Chief Counsel in the letter of October 14, 1999, the SWRCB “...prescribed specific language that should be in receiving water limitations in order to protect water quality objectives.” No mention was made either in SWRCB Order WQ 99-05 or the subsequent guidance of the need to provide the Copermittees with a “safe harbor.” More to the point, the provisions of Section C do not provide authorization for the discharge of urban runoff that causes or contributes to the exceedances of receiving water quality objectives, but rather, it provides the Copermittees with a process to ensure their return to compliance with the requirements of the Tentative Order, including discharge prohibitions and receiving water quality objectives. This should not, however, be interpreted as it has by several commenters, that compliance with receiving water limitations and discharge prohibitions is iterative. The implementation of more stringent BMPs by the Copermittees is iterative; compliance with the discharge prohibitions and receiving waters limitations is not iterative.

This is clearly the intent of the SWRCB as evidenced in its statement in the precedential language “If exceedances of water quality objectives or water quality standards persist notwithstanding implementation of the SWMP and other requirements of this permit, the **permittees shall assure compliance with Discharge Prohibitions [] and Receiving Water Limitations...**” (Emphasis added). This language is consistent with the language in the Tentative Order found at Section C.2.

Furthermore, it is evident that the USEPA does not agree with the incorporation “safe harbor” clauses in the receiving water limitations language of municipal storm water permits. In its letter of January 21, 1998 to the Walt Petit, Executive Director of the SWRCB, the USEPA objected to language in Order No. 96-03 that stated “permittees will not be in violation of this provision...(if certain steps are taken to evaluate and improve the effectiveness of the Drainage Area Management Plan (DAMP)).” In objecting to this language USEPA stated this language was “of the greatest concern to EPA...we feel that it is necessary to state our disagreement with Conclusion 2 of the proposed Order (WQ 98-01), which would find that the quoted phrase, as used in the Orange County permit, complies with the CWA. **The Orange County permit includes the requirement that the discharges meet WQS in the receiving water.** That requirement was included in the Orange County permit in order to satisfy Section 301(b)(1)(C) of the CWA. **Excusing the discharger from violations of that requirement effectively negates the requirement, a result which is inconsistent with CWA Section 301(b)(1)(C)**”(Emphasis added). The USEPA went on to state that “This requirement clearly applies to all excursions above the WQS.”(Emphasis original). Following the adoption of SWRCB Order WQ 98-01, the USEPA again stated its disagreement with Conclusion 2 of the Order regarding the consistency of the existing RWLs (receiving water limitations) language in the Orange County permit with the CWA stating “The CWA does not provide for such an exception to compliance with standards.”

The absence of a “safe harbor” is confirmed in Section C.3 of the Tentative Order. At no time is a discharger whose discharge causes or contributes to an exceedance of receiving water quality objectives or that constitutes a threat to human or environmental health “immunized” from future enforcement actions by virtue of complying with standard NPDES Permitting BMP implementation and reporting requirements. Continuing the argument raised above, several commenters have asserted that the inclusion of Section C.3 of the Tentative Order violates the spirit and intent of SWRCB Order WQ 99-05. This interpretation is incorrect and is based on the erroneous interpretation of SWRCB Order WQ 99-05 as providing a “safe harbor.” SWRCB Order WQ 99-05 amended Order WQ 98-01 and did not carry over discussion previously included in Order WQ 98-01 that provided that

“Permittees will not be in violation of this provision so long as they are in compliance with the requirements’ specifying the process for evaluating and improving the effectiveness of the DAMP.”

It was in response to the objections cited above by the USEPA that the SWRCB did not include this language in Order WQ 98-01. However, other language that the USEPA determined “would unacceptably increase the burden of proof in establishing permit violations” was retained in the precedential language of Order WQ 98-01. It was in response to this language, incorporated in municipal storm water permits issued by the San Diego RWQCB for Riverside County and the San Francisco Bay RWQCB for the City of Vallejo, that the USEPA, following and citing the correspondence discussed above, chose to veto these NPDES permits and issue its own NPDES permits for these areas. Following the USEPA's objection to the receiving water limitation language in Order WQ 98-01 and its adoption of alternative language in its own permits, the SWRCB revised its instructions regarding receiving water limitation language in favor of the USEPA language and mandated its use in all future municipal storm water permits (Order WQ 99-05). It was in this context that the SWRCB issued Order WQ 99-05 without the “safe harbor” discussion and burden of proof language previously included in Order No. 96-03 and SWRCB Order WQ 98-01.

The SWRCB Order WQ 99-05, which instituted the use of language acceptable to USEPA, clearly does not preclude the SDRWQCB from enforcing any provision of the Tentative Order it considers necessary while the Copermittee prepares and implements the referenced report in Section C.2.a. This is confirmed in two Statewide General Permits (CALTRANS – Section C-2.3.c, Construction – Section B.3.c) issued by the SWRCB in which the exact language contained in Tentative Order section C.3 is included with the Receiving Waters Limitations language. Nonetheless, cooperative, responsible actions on the part of the discharger in attempt to comply with the Tentative Order are recognized as critical to resolving violations and protecting the beneficial uses of receiving waters and will be favorably considered prior to taking such enforcement action(s).

In addition, as discussed in part above, the Receiving Water Limitations language in Section C of the Tentative Order is taken directly from SWRCB Order WQ 99-05. Contrary to comments that the SDRWQCB has changed the SWRCB's mandatory language, the differences in language is insignificant. In its draft Order regarding the petition for review of Order No. 2001-01, which includes the same receiving waters limitations language included in the Tentative Order, the SWRCB stated “The language in the permit in Receiving Water Limitation C.1 and C.2 is consistent with the language in Board Order WQ 99-05, our most recent direction on this issue.”

The language in Section C.1 and C.2 is fully supportive of the intent and language of the SWRCB Order WQ 99-05. This language requires that MS4 discharges do not violate water quality standards, and that an iterative BMP process must be implemented to correct any violations of water quality standards. It should again be noted that the language allows for an iterative BMP implementation approach to return to compliance with water quality standards and discharge prohibitions. It is worth repeating that the precedential language of SWRCB Order WQ 99-05 states “the permittees shall **assure compliance with Discharge Prohibitions {} and Receiving Water Limitations...**” (Emphasis added). In response to the draft SWRCB Order on the petition to review Order No. 2001-01 and to better clarify the relationship between the Discharge Prohibitions and Receiving Water Limitations, Prohibition A.2 will be cited in section C.2. by adding “and Part A.2” following every instance of “Part C.1.”

The comment that the receiving waters limitations language is Section C of the Tentative Order is preempted by the Ninth Circuit Court of Appeals *Defenders of Wildlife v. Browner* is incorrect. The *Defenders of Wildlife* case addressed the question of whether CWA section 402(p) requires the establishment of water quality-based numeric effluent limits for municipal storm water discharges. The Court upheld USEPA's requirement for MS4 dischargers to meet water quality standards, but it did so

on the basis of USEPA's discretion rather than on the basis of strict compliance with the Clean Water Act. In other words, while holding that the Clean Water Act does not require all MS4 discharges to comply strictly with state water quality standards, the Court also held that USEPA has the authority to determine that ensuring strict compliance with state water quality standards is necessary to control pollutants. On the question of whether MS4 permits must contain numeric effluent limitations, the court upheld USEPA's use of iterative BMPs in place of numeric effluent limits.

On October 14, 1999, the SWRCB issued a legal opinion on the federal appellate decision in the Defenders of Wildlife case and provided advice to the Regional Boards on how to proceed in the future. In the memorandum, the SWRCB concludes that the recent Ninth Circuit opinion upholds the discretion of USEPA and the State to (continue to) issue permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that "[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions."

Contrary to the comment above, the receiving water limitations requirements for BMPs to be implemented to achieve water quality standards is not guided by the MEP standard. Achievement of water quality standards is a separate and distinct goal for the NPDES municipal storm water program. It is not a subset of the MEP requirement to be overridden by the MEP standard. This is exhibited when USEPA states: "Today's rule specifies that the "compliance target" for the design and implementation of municipal storm water control programs is "to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA." (64 FR 68753) In summary, the Permit's requirements that MS4 discharges do not cause or contribute to a violation of water quality standards are not subject to the MEP standard, and therefore do not exceed MEP.

Finally, California Water Code section 13241 states that in establishing water quality objectives, regional boards must consider "(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area". The language "coordinated control of all factors" indicates the stringent standards to which water quality objectives are subject. Note that the language does not state "control of factors to the maximum extent practicable." It should also be noted that the water quality monitoring reports submitted by the Copermittees demonstrates that while significant exceedances of receiving water quality objectives are common, compliance with receiving water quality is sometimes achieved. That the Copermittees have sometimes achieved compliance with the receiving water quality objectives with the current urban runoff management program exhibits that receiving water limitations in the Tentative Order can be reasonable achieved. Furthermore, USEPA exhibits its belief that compliance with water quality standards for wet weather discharges is achievable when it states "EPA anticipates that a permit for a regulated small MS4 operator implementing BMPs to satisfy the six minimum control measures will be sufficiently stringent to protect water quality, including water quality standards [...]" (64 FR 68753).

Section A (Prohibitions - Discharges) and Section C (Receiving Waters Limitations) of the Tentative Order, therefore, together provide the clear objective of Tentative Order 2001-193 and clear guidance regarding the procedure to be followed by the Copermittee in order to return to compliance. The Copermittees return to compliance with receiving water quality objectives and discharge prohibitions through a process of the development and implementation of more stringent BMPs. The objectives, guidance, and procedures to be followed by the Copermittees are entirely consistent with the SWRCB Order WQ 99-05, the Clean Water Act, and California Water Code.

In summary, both the SWRCB and the USEPA conclude that the Regional Boards should continue to include the Receiving Water Limitations language that is now established in SWRCB Order WQ 99-05 in all future permits. Accordingly, the SDRWQCB has the discretion to include the Discharge Prohibitions items A.1, A.2, and A.3 in Prohibitions Discharges Section A and has included the precedential SWRCB Order WQ 99-05 Receiving Water Limitations language in Receiving Water Limitations Section C of Tentative Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section A Subsection A.2

Comment: Regional Board staff agreed at the first Workshop on this Tentative Order that REC-1 and REC-2 standards do not distinguish between human and animal sources of bacteria. Therefore Prohibition A.2, which prohibits discharges from MS4s containing pollutants that cause or contribute to exceedances of receiving water quality objectives for surface water does indeed control naturally occurring pollutants that are not Man-Made. The City of Aliso Viejo is proud of our open spaces. Could these areas be contributing to bacterial counts in runoff and if so is it reasonable to regulate open space? (*Aliso Viejo*)

Response: While sources of bacteria, including those that are naturally occurring, are variable, it is the anthropogenic sources of bacteria that cause or contribute to exceedances of receiving water quality objectives that the Copermittees are responsible for preventing. While open spaces that support habitat and associated wildlife may be sources of background bacteria, these sources in their naturally occurring condition are far less likely to cause or contribute to exceedances of receiving water quality objectives than are anthropogenic sources. The derivation of the receiving water quality standards and the beneficial uses they are intended to protect include consideration of background levels of the constituents. Moreover, the certain bacterial indicators utilized (i.e. *Enterococcus* sp.) are generally more indicative of anthropogenic sources. Finally, maintenance of open spaces in most contexts maintains the assimilative capacity of the aquatic, riparian, and upland habitats that provide a buffer against exceedances of receiving water quality objectives.

Sections A, B

Comment: While the permit contains specific reporting and monitoring requirements, we believe that numerical parameters for any pollutants should be set. This would allow the RWQCB to more easily enforce and supervise Copermittees, as well as provide supporting data on the effectiveness of BMP's. (*Surfrider Foundation*)

Response: Although NPDES permits must contain conditions to ensure that water quality standards are met, this does not require the use of numeric effluent limitations. Under the Clean Water Act and federal NPDES regulations, permitting authorities may employ a variety of conditions and limitations in storm water permits, including best management practices, performance objectives, narrative conditions, monitoring triggers, actions levels (e.g., monitoring benchmarks, toxicity reduction evaluation action levels), etc., as the necessary effluent limitations, where numeric effluent limitations are determined to be unnecessary or infeasible.

Neither the Clean Water Act nor the federal NPDES regulations require numeric effluent limitations for municipal storm water discharges. Section 301 of the Clean Water Act requires that discharger permits include effluent limitations necessary to meet water quality standards. Section 502 defines "effluent limitations" to mean any restriction on quantities, rates, and concentrations of constituents

discharged from point sources. The Clean Water Act does not say that effluent limitations need be numeric. As a result, US EPA and States have flexibility in terms of how to express effluent limitations.

US EPA has, through the federal NPDES regulations, interpreted the Clean Water Act statute to allow for non-numeric effluent limitations (e.g., best management practices) to replace numeric effluent limitations where numeric effluent limitations are infeasible (40 CFR 122.44(k)). US EPA has found numeric effluent limitations infeasible because storm water discharges are highly variable both in terms of flow and pollutant concentrations, and the relationships between discharges and water quality can be complex. The current use of system-wide permits and a variety of jurisdiction-wide BMPs, including educational and programmatic BMPs, does not easily lend itself to the existing methodologies for deriving numeric effluent limitations.

It should be noted that while the Tentative Order does not specify numeric effluent limitations for municipal urban runoff discharges, it does not preclude numeric effluent limitations from applying to municipal urban runoff discharges into impaired water bodies. Where impaired water bodies are not meeting their water quality standards, numeric effluent limitations may be placed on municipal urban runoff discharges through the implementation of total maximum daily loads (TMDLs) or other means. Furthermore, methods utilized to calculate waste load allocations for TMDLs may eventually be used to develop numeric effluent limitations for urban runoff in municipal storm water permits.

Section B

Comment: B.2 & B.3. Section B.2. lists certain non-storm water discharges that are considered Page 9 by federal regulation to be “de minimis” discharges. Section B.3. seems to suggest that the Copermittees must initially evaluate all of the categories of non-storm water discharges in B.2. and determine which ones are and are not significant sources of pollutants. It appears that the discharges identified in this section only are prohibited if the Copermittee determines it to be a “significant source of pollutants”. How will the Copermittee make this determination? What process will be followed, support data needed, and detailed studies required for each discharge before each discharge is deemed acceptable? Can other discharges be allowed if determined to not be a “significant source of pollutants”?

At the August 8th public workshop in Laguna Niguel, Regional Board staff indicated that this evaluation was to be done in conjunction with normal, dry weather, screening and monitoring activities. Task #1 in Section Q (Page 49) requires that the Copermittees must identify all of the discharges in B.2 that will not be prohibited within 365 days following adoption of the Order. Task #2 requires examination of field screening results to identify water quality problems result from non-prohibited non-storm water discharges by January 3 1,2003. Task #33 does not require the Dry Weather Monitoring Program to be conducted until May 2003. Please clarify what is being required and when. (*Laguna Niguel,*)

Response: As described in 40 CFR 122.26(d)(2)(iv)(B)(1), the categories of non-storm water discharges listed in section B.2 (B.2 discharges) need only be prohibited from entering the MS4 if such discharges are identified by the Copermittees as a significant source of pollutants. This is not a change from the 1st or 2nd term Permits. The dry weather, screening and monitoring activities are tools for identifying “de minimis” non-prohibited discharge category(ies) (de minimis discharges) that may cause or contribute to an exceedance of water quality objectives when discharged to receiving waters. Copermittees should use any means reasonably available during the first 365 days to identify B.2 discharges that are a significant source of pollutants (i.e., Task 1) . One available tool is existing

monitoring data, including, but not limited to, data collected from prior and current dry-weather monitoring activities. An evaluation of de minimis discharges as potential sources of pollutants using available water quality information is required within 365 days. Rather than proving that the de minimis discharge category(ies) are not a significant source of pollutants, the Copermittees are required to review their data to identify any de minimis discharge categories that are significant sources of pollutants. To the extent that water quality problems may be tied to a non-prohibited discharge category, the Copermittee is directed to address the discharge through prohibition or the implementation of BMPs to MEP as described in section B.3. The Tentative Order requires that the Copermittees identify any de minimis non-prohibited discharge categories that may be a significant source of pollutants and the activities that will be initiated to address these discharges in their Jurisdictional Urban Runoff Management Program (JURMP) Document (Task 1). As with the identification and elimination of illicit discharges, this is an ongoing assessment rather than a single event (Task 2). Task 2 indicates that this information is submitted as part of the JURMP Annual Report. The Copermittees may address any future identifications of de minimis non-prohibited discharge category(ies) as significant source of pollutants following the procedure detailed in section B.3 of the Tentative Order in its JURMP Annual Report. Task 33 describes the implementation of the Dry Weather Monitoring Program as required in section F.5 and Attachment E of the Tentative Order. Dry Weather Monitoring is conducted between May 1st and September 30th of each year beginning in May 1, 2003. Between the time of adoption of the Tentative Order and the implementation of this requirement, the Copermittees are directed to continue the implementation of the Orange County Water Quality Monitoring Program (99-04 Plan) that includes dry weather monitoring at selected sites. Task 33 has been revised in Table 5 to more clearly define this requirement. The SDRWQCB has the discretion to require Prohibition item B.5 and the Dry Weather Monitoring Program requirements in Section F.5 of the Tentative Order under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section B

Comment: Multiple municipalities may contract with a single Fire Authority for service. Would it not be more appropriate to require copermittees to require that their Fire Authority develop and implement a program for reducing pollutants training and maintenance activities?

Fire Fighting Flows: We suggest that the wording in this section be changed so that instead of each co-permittee being required to develop and implement a program for reducing pollutants from non-emergency tire fighting flows, each co-permittee should require that the Fire Authority in their jurisdiction do so. This will allow Fire Authorities that serve multiple municipalities and jurisdiction to prepare a single program.

Item B.4 Fire Fighting Flows

Page 9 Reference is made that Emergency Fire Fighting Flows need not be prohibited. Non-Emergency Fire Fighting Flows should be also be listed separately in Item B.2 and subject to the same process to determine if it is a significant source of pollutants as provided for in Item B.3.

In section B.4 Fire Fighting Flows, the Tentative Order requires the development and implementation of a program to reduce pollutants from non-emergency fire fighting flows. The Tentative Order requires the involvement and cooperation of one or more agencies that are not Copermittees and are not under the jurisdiction of a Copermittee. The Tentative Order does not have a provision or a mechanism to either waive or extend to time for compliance with the requirement in these instances. In our specific case, the water system and fire hydrants are owned and maintained by South Coast Water District while the Orange County Fire Authority provides fire protection services to the City. The City has authority over neither and would, under the permit, be responsible for a required program

with no administrative authority over the principal participants. In such cases, it may be impossible to comply with this portion of the Order. We request that this situation be addressed in the permit. (*Aliso Viejo, Laguna Niguel, Dana Point*)

Response: The Tentative Order does not discourage such an approach. The Copermittees are required to develop or require the development of a program (e.g. by a Fire Authority) to reduce the discharge of pollutants resulting from training and maintenance activities to the MEP.

The Tentative Order adequately addresses these issues. The requirement that the Copermittees shall develop and implement a program as part of the Jurisdictional Urban Runoff Management Programs to reduce pollutants from non-emergency fire fighting activities identified by the Copermittees to be significant sources of pollution may not be waived. The Tentative Order provides the Copermittees a year in which to address discharges from these activities through a program that implements or requires the implementation of BMPs. One mechanism available to the Copermittees in the Tentative Order is the encouragement of third party agreements to implement the requirements of the Tentative Order. Such agreements can specify that BMPs that meet the MEP standard are employed by the Fire Fighting agencies during non-emergency fire fighting activities. Furthermore, under their land-use authority, the Copermittees have the authority to prohibit illicit discharges and to regulate activities that may result in discharges to their MS4s. In the above example, the Copermittee has the authority to require the Water District and Fire Authority to implement BMPs for non-emergency activities.

Section B

Comment: Section B.5 requires that each Copermittee “examine all dry weather analytical monitoring results collected in accordance with section F.5 and Attachment E of this Order to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in Non-Storm Water Discharges to MS4s ProhibitionB.2.” The Regional Board does not have the authority to require this monitoring. Please identify the statute or other legal authority which you believe allows the Regional Board to require dry weather analytical monitoring by Copermittees.

For those categories of non-storm water discharges that are not prohibited from entering an MS4, Item B.5 of the Tentative Order requires the Permittees to conduct certain follow-up investigations where such allowed non-storm water discharges are determined to be causing “water quality problems.” However, the County already completed its dry weather monitoring during the first permit term. As such, Item B.5 is superfluous and should be deleted from the Tentative Order.

Do Copermittees have to prove that B-2 discharges are not significant sources of pollution or only investigate if field screening identifies a potential problem? (*Laguna Niguel, County of Orange*)

Response: The requirement to assess the dry weather monitoring data to identify water quality problems that may be the result of any non-prohibited discharge is an ongoing requirement based on the 1990 Federal NPDES storm water regulations (40 CFR 122.26(d)(2)(iv)(B)(1-4) and is not superfluous. The quality of urban runoff can be adversely impacted by illicit discharges and connections (US EPA, 1983). Land use activities in a watershed may change over time and new sources of non-prohibited discharges or illicit prohibited discharges may develop. Elimination of these sources of pollutants can therefore result in a dramatic improvement in the quality of urban runoff discharges from MS4s, which in turn can result in improved receiving water quality. Thus, the requirement for municipal storm water Copermittees to conduct dry weather monitoring to detect and eliminate illicit discharges is an “ongoing” requirement rather a single event restricted to a first or second term permit (40 CFR 122.26(d)(2)(iv)(B)(2). Dry weather monitoring is also necessary to

identify these sources and evaluate the pollutant source potential of “de minimis” non-prohibited discharge categories (de minimis discharges) listed in section B.2 of the Tentative Order. Non-prohibited discharges can be significant sources of pollutants. These discharges can reach receiving waters causing negative impacts to receiving water quality. Follow-up investigations shall be conducted as necessary to identify and eliminate illicit discharges and control any de minimis discharge category(ies) that are found to be a significant source of pollutants. Rather than “proving” that the de minimis discharge category(ies) are not a significant source of pollutants, the Copermittees are required to review their data to identify any de minimis discharge categories that are significant sources of pollutants. To the extent that water quality problems may be tied to a non-prohibited discharge category, the Copermittee is directed to address the discharge through prohibition or the implementation of BMPs to MEP as described in section B.3. The Tentative Order requires that the Copermittees identify any de minimis non-prohibited discharge categories that may be a significant source of pollutants and the activities that will be initiated to address these discharges in their Jurisdictional Urban Runoff Management Program (JURMP) Document. As with the identification and elimination of illicit discharges, this is an ongoing assessment rather than a single event. The Copermittees may address any future identifications of de minimis non-prohibited discharge category(ies) as significant source of pollutants following the procedure detailed in section B.3 of the Tentative Order in its JURMP Annual Report. The SDRWQCB has the discretion to require Prohibition item B.5 and the Dry Weather Monitoring Program requirements in Section F.5 of the Tentative Order under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section B

Comment: Section B.1, page 9, should be re-phrased to read, “Each Copermittee shall effectively prohibit all types of non-stormwater discharges into its Municipal Separate Storm Sewer System (MS4) unless such discharges are either authorized by a separate NPDES permit; not prohibited in accordance with B.2 and B.3 below, and/or have been treated to the Maximum Extent Practicable to remove pollutants.” For consistency, the SDRWQCB staff clarification described above for Section D. 1 .b would also apply to B. 1.

B.1. Prohibits all types of non-stormwater discharges unless authorized by separate NPDES permit or not prohibited in B.2. and B.3 - this does not allow for treatment BMPs of discharges not listed in B.2 unless have separate NPDES permit. Are car washes by youth or non profit groups where the wash water enters a street or a parking lot a prohibited activity? (*Laguna Niguel, Aliso Viejo, County of Orange*)

Response: Illicit discharges to the MS4 must be prohibited per federal regulations (40 CFR122.26(d)(2)(i)(B)). An illicit discharge is defined in the federal regulations as “any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.” Discharges from activities listed in section B.2 of the Tentative Order are later specifically exempted with the conditions described therein. As a result of the federal regulations, all other non-storm water discharges must be prohibited from entering the municipal separate storm sewer system.

Because non-storm water discharges other than those described in Section B.2 are prohibited, treatment BMPs, as discussed in the Tentative Order, are to be used to remove pollutants from storm water discharges to the maximum extent practicable. As a result, wash water from car washes other than individual residential car washing activities must be prohibited from entering the MS4.

Section B

Comment: Section B.4, page 9: a program to reduce pollution from non-emergency fire fighting flows is required only when identified as significant. Therefore, a completion date for this program should not be linked to the Order adoption date, but rather to the point at which such a determination is made. (*San Clemente*)

Response: Emergency fire fighting discharges do not require BMPs and are not prohibited. However, non-emergency fire fighting activities may be a significant source of pollutants and should be evaluated in the JURMP Document. To the extent that these discharges are identified by the Copermittee(s) as a significant source of pollutants, the Copermittee shall develop and implement a program within 365 days to reduce pollutants from non-emergency fire fighting activities. Section 122.26(d)(2)(iv)(B)(1) allows for permit conditions that either require municipal to prohibit or to otherwise control any of these types of discharges where appropriate. There may be instances where specified management practices are appropriate where these discharges do occur (e.e controlled blazes). Because the Tentative Order is a third term permit, it is appropriate that the Copermittees be directed to make a evaluation and determination on non-emergency fire fighting activities as a source of pollutants and require a program to reduce pollutants in these discharges should they be determined to be a significant source of pollutants.

Section B

Comment: Section B.3.c, page 9: The completion date specified in this section is inconsistent with the stated intent of this section. Section B.3 requires specific actions only when a discharge category listed in Section B.2 "is identified as a significant source of pollutants to waters of the United States." RWQCB staff reiterated in the August 8, 2001 public workshop that Section B.3 is intended only to trigger a response in the event that a Section B.2 discharge was determined to be a problem. Therefore, a completion date that is tied to the date of adoption of the Order is inappropriate as a discharge may be identified as a problem well after the specified completion date. Instead, the following text change is recommended:

"For each discharge category not prohibited, the Copermittee shall submit the following information to the SDRWQCB within 60 days of determining that the discharge category is a significant source of pollutants to waters of the United States:" (*San Clemente*)

Response: The completion date requirement in section B.3.c is appropriate. The requirement refers to non-prohibited, non-storm water discharge categories that a Copermittee has determined to be a significant source of pollutants. Since the Tentative Order is a third term permit, the Copermittees may have individually or collectively determined that one or more of these discharge categories may be a significant source(s) of pollutants. In that event, the Copermittees may prohibit the discharge category or not prohibit the discharge category and implement or require the implementation of BMP(s) to prevent or reduce pollutants to the MEP.

Section B Subsection B.2

Comment: Add a new item "r" to Section B.2, page 10: "B.2.r: Water being purposefully conveyed through MS4 facilities to a structural treatment site." (*Laguna Niguel*)

Response: Section B.2 includes only categories of non-storm water discharges listed in 40 CFR 122.26(d)(2)(iv)(B)(1) that do not have to be prohibited unless identified by the Copermitttee as a significant source of pollutants. The Copermitttees do not have the discretion to allow illicit discharges into the MS4 even if a structural BMP is implemented at some site removed from the discharge point. Storm water conveyed through MS4 facilities to a structural treatment site is not prohibited under the Tentative Order.

Section B Subsection B.2

Comment: Is reclaimed water included in the category of irrigation water and so therefore is it a non-prohibited discharge under B.2 unless it is determined to be a significant source of pollution?
(Aliso Viejo)

Response: Yes, reclaimed water being used for irrigation is included in the category of irrigation water. The use of recycled water within the jurisdiction of the South Orange County Wastewater Authority is regulated by this Regional Board under Order No. 97-052. Pollutants in discharges to recycled water use sites are reduced to meet body contact recreation criteria. In addition, facilities to be operated in accordance with best management practices (BMP's) to prevent direct human consumption of recycled water and to minimize misting, ponding, and runoff.

Section B Subsection B.2

Comment: If the Board staff think that the current water quality monitoring program needs to be revised, why not simply have the Permittees revise their existing 99-04 plan to include some additional comments? (The Permittees are already going to revise the program in 2002-2003 which would provide an opportune time to review the elements of the program). *(County of Orange)*

Response: The Copermitttees are directed in Attachment B to collaborate to review and revise as necessary the 99-04 Plan and to include additional specific monitoring components for Orange County within the San Diego Region. The Fact Sheet /Technical Report recognizes the advanced monitoring work and commitment of the Orange County Copermitttees. It is necessary, however, that the Receiving Waters Monitoring Program implemented under the Tentative Order address each of the hydrologic units in the San Juan Watershed Management Area within Orange County and assess the compliance of the Copermitttees with the Tentative Order as well as the impact of the discharge of urban runoff on the physical, chemical and biological integrity of these receiving waters.

Section B Subsection B.2.b.8.a

Comment: In section B.2.b.8.a item d states that a professional environmental laboratory shall perform all sampling.....Why is this section this specific? Why are the Permittees not allowed to use trained staff to do the sampling if they so chose? *(County of Orange)*

Response: The definition of a professional environmental laboratory is inclusive of trained Copermitttee staff that utilize standard methods and have any necessary certifications. Section B.2.b.8.a is specific with respect to the performance of sampling and analysis of bioassessment samples to clearly require that the work be performed at a professional level by trained staff. Aquatic bioassessment is a developing field with substantial analyst dependent variables in which citizen

volunteers currently play a significant role. Citizen volunteers, while an important resource, should not be relied upon by the Copermittees to perform this work.

Section B Subsection B.2.p

Comment: Please reword B.2.p. (individual residential car washing) with D.1.b.5 (washing or hosing of impervious surfaces). (*Laguna Niguel*)

Response: Individual residential car washing is identified as a non-storm water, non-prohibited discharge in 40 CFR 122.26(d)(2)(iv)(B)(1). This discharge does not have to be prohibited unless the Copermittee(s) determine it to be a significant source of pollutants. Washing or hosing of impervious surfaces as identified in section D.1.b.5 of the Tentative Order are illicit discharges and must be prohibited by the Copermittees as required in 40 CFR 122.26(b)(2). Consequently, the language of sections B.2.p and D.1.b.5 will not be revised. The SDRWQCB has discretion to require Prohibition item B.2. and the Legal Authority item D.1.b in Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section B Subsection B.3

Comment: If a BMP prevents pollution of a B.2 discharge from entering the waterway, are there any further restrictions or prohibitions on the B.2 discharge? (*Clear Creek Systems*)

Response: The Tentative Order does not prohibit the discharge categories listed in Section B.2. The discharges listed in section B.2 were identified in 40 CFR 122.26(d)(2)(iv)(B)(1) as "de minimis" discharges that are considered to be acceptable discharges to the MS4 only when found by the Copermittees to not be a significant source of pollutants. Regarding these discharges, USEPA states "While EPA does not consider these flows to be innocuous, they are only to be regulated by the storm water program to the extent that they may be identified as significant sources of pollutants to waters of the United States under certain circumstances" (USEPA 1992). Thus, the Tentative Order only requires that these discharge categories be directly addressed by the Copermittees, individually or collectively, when they find that they are a significant source of pollutants. In such instances, the Copermittees may prohibit the discharge category or not prohibit the discharge category and implement or require the implementation of BMPs to reduce pollutants to the MEP and submit a report to the SDRWQCB regarding the discharge category. Nonetheless, for some of these discharge categories (e.g. landscape irrigation and lawn watering), general BMP programs like public education may provide opportunities for the Copermittees to address these discharges and prevent them from becoming significant sources of pollutants. For example, the public education requirements of section F.4.a of the Tentative Order includes water conservation as a topic to be included where appropriate. To the extent that the Copermittees determine that these discharge categories are not a significant source of pollutants, additional restrictions or prohibitions may be implemented by the Copermittees at their discretion, but are not required for these discharge categories.

Section D Subsection D.1

Comment: All requirements to control the quality of storm water discharges into the MS4 should be deleted from the permit. Federal regulations require permittees to effectively prohibit non storm

water discharges into the storm drain system and to have legal authority to take action to control the quality of storm water discharges into the storm drain system. The regulations do not mandate that the quality of all storm water discharges into the MS4 be controlled. A municipality is responsible for the quality of the discharges from its storm drain system, and methods of compliance are also the City's responsibility.

Finding No. 15 is incorrect. It is based on a statement in the Final Rule for the Phase II regulations designed to encourage the Phase II communities to be more proactive than the regulations require. As the staff recognizes on page 54 of the Fact Sheet/Technical Report, if a municipality does not prohibit non-storm water discharges, it must accept responsibility for the water quality consequences of its decision. In other words, the municipality is responsible for the quality of discharges from its MS4. The staff goes on to say that, "For these reasons, each Co-permittee must prohibit and/or control discharges from third parties to its MS4." This is an extrapolation of existing law. A municipality is responsible for the quality of the discharges from its storm drain system, with the methods of achieving compliance up to the municipality. The proposed approach may lead to appeals and possibly litigation.

It appears that the Regional Board may be attempting to expand authority over local government in a manner not prescribed by the Clean Water Act. 40 CFR 122.26(d)(2)(i) only requires that permittees demonstrate that they operate pursuant to legal authority to take certain actions. The draft permit dictates that municipalities control the quality of storm water entering their storm drains. These requirements are clearly contrary to both state and federal law and should be deleted from the permit.

The permit, by regulating flow both into and out of the MS4, exceeds the jurisdiction of the NPDES program. Neither federal nor state law provides the Regional Board with the authority to regulate discharges into the MS4. Clean Water Act Section 402(p)(3)(B)(iii) is limited to "discharges from municipal storm sewers". The statute does not authorize the regulation of discharges into MS4s. Congress likely refrained from regulating discharges into MS4s because any such regulation would impinge upon the authority of local officials to regulate land use and development.

The first prohibition eliminating discharges into and from MS4s is an inconsistent requirement with the Clean Water Act. The Order should strike the term "into" and rely upon Best Management Practices to minimize pollutants from Urban runoff, if any, into an MS4 recognizing many pollutant sources are not under the control of the co-permittee. Urbanization will necessarily result in some pollutants entering into the MS4 but, efforts can be made to reduce the pollutants prior to the drainage entering the receiving waters. The prohibition into the MS4 is inconsistent with the definition of receiving water and should be revised. (*Mission Viejo, Laguna Hills, Richard Watson and Associates, Dana Point, County of Orange, Lagna Niguel, Construction Industry Coalition on Water Quality*)

Response: The Clean Water Act is clear that Copermitees must prohibit non-storm water discharges into its MS4. It states at section 403(p)(3)(B)(iii) that Copermitees shall "prohibit non-storm water discharges into the storm sewers." The requirement for control of discharges into the MS4 is also currently clearly required of the Copermitees in Order No. 96-03. Section III.3 of Order No. 96-03 states "The permittees shall prohibit illicit/illegal discharges from entering into the municipal separate storm sewer systems... and require controls to reduce the discharge of pollutants to the maximum extent practicable." Moreover, the same language was included in Order No. 90-38 in Section III.A. Section III.6 is more direct when it states: "The permittees shall reduce the discharge of pollutants to the storm water conveyance systems to the maximum extent practicable." This requirement was also generally addressed in Order No. 90-38 in section III.C. Because of the risk to receiving waters resulting from the discharge of urban runoff and given that the Tentative Order is a third term permit and the requirement has been included during both previous permits it not warranted to eliminate this requirement.

USEPA supports the concept that Copermittees cannot passively receive and discharge pollutants from third parties. As US EPA states, “The operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts ‘title’ for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties” (USEPA, 1999b).

Discharges of pollutants to the MS4 must therefore be controlled, and an important means for a municipality to achieve this is through the development and enforcement of municipal legal authority. USEPA states “A crucial requirement of the NPDES storm water regulation is that a municipality must demonstrate that it has adequate legal authority to control the contribution of pollutants in storm water discharged to its MS4. [...] In order to have an effective municipal storm water management program, a municipality must have adequate legal authority to control the contribution of pollutants to the MS4. [...] ‘Control,’ in this context, means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4” (USEPA, 1992).

Since discharges which enter the MS4 are generally discharged unimpeded directly into receiving waters, the Copermittee’s legal authority is to apply to both discharges into and from MS4s. Federal NPDES regulations clearly provide the SDRWQCB with the legal authority to require municipalities to control discharges from third parties into their MS4. 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in urban runoff from commercial, residential, industrial, and construction land uses or activities. Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) also require municipalities to have legal authority to control various discharges to their MS4. This concept is further supported in the Preamble to the Phase II Final Rule NPDES storm water regulations, which states “The operators of regulated small MS4s cannot passively receive and discharge pollutants from third parties” (USEPA, 1999b). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule findings for small municipalities are also applicable to larger municipalities such as the Copermittees. Finally, underlying the Federal NPDES storm water regulations is the Clean Water Act, which states in section 402(p)(3)(B)(ii) that municipalities shall “effectively prohibit non-stormwater discharges into the storm sewers.”

It is important to note the SWRCB also supports control of discharges into MS4s. The SWRCB recently upheld the LARWQCB SUSMP requirements in Order WQ 2000-11. These requirements place significant restrictions on discharges from third parties into MS4s. In fact, the SUSMP provisions included in the Tentative Order, as upheld by the SWRCB, represent the most stringent and specific requirements in the Tentative Order regarding the control of discharges into the MS4.

Finally, the requirement for municipal storm water dischargers to have, and exercise, local governmental authority in order to comply with water quality control obligations is analogous to the requirement for Publicly Owned Treatment Works to have and exercise legal authority to require pretreatment of industrial wastes being discharged to their sewage collections systems (CWA 402(b)(8)).

Section: C

Comment: Does the discharge from a MS4 have to meet the water quality objectives for the beneficial uses of the receiving water if the receiving water is already in compliance? (I.e., Receiving water meets REC 1 or REC 2 objective for fecal coliform, but MS4 discharge does not).

Under the Tentative Order, does the discharge from an MS4 have to meet the water quality objectives for all beneficial uses of the receiving water? What about potential beneficial uses? (*Laguna Niguel*)

Response: The discharges from the MS4 cannot cause or contribute to an exceedance of water quality objectives. It is understood that receiving waters may assimilate some pollutants and the Basin Plan prohibitions implemented under this Tentative Order allow for dilution of contaminants in receiving waters. The Tentative Order is intended to protect both existing and potential beneficial uses of waterbodies as identified in the Basin Plan. The issue of the receiving water quality limitations language in the Tentative Order is extensively discussed elsewhere in this document.

Section: D

Comment: The legal authority provision should follow the requirements of the Phase 1 regulations (40 CFR 122.26(d)(2)(i)(A-F)), which provide the coverage as well as the flexibility in implementing a BMP program. Thus we suggest that Provision D.1.b be deleted and in its place the Phase 1 requirements be included. Alternatively, we would recommend that the provision be modified to allow non stormwater discharges if BMPs are implemented.

The lead sentence in D.1.b, page 12, should be adjusted to read, "Prohibit all identified illicit discharges not otherwise allowed pursuant to section B.2 from which pollutants have not been removed to the Maximum Extent Practicable, including but not limited to: " At the second workshop SDRWQCB staff clarified that the Prohibitions in Section D.1.b, page 12, relating to "illicit discharges" refer to discharges from which pollutants have not been removed to the maximum extent practicable. This is an extremely important clarification with respect to the practical feasibility of creating ordinances and achieving compliance with this Order. (*Laguna Niguel,*)

Response: The federal Phase 1 regulations (40 CFR 122.26(d)(2)(i)(B)) state that legal authority must authorize or enable the copermittees to "prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer." Accordingly, section D.1.b of the Tentative Order requires the copermittees to "prohibit all illicit discharges, including but not limited to..." Several illicit discharges are subsequently listed. California Water Code The federal regulations in 40 CFR 122.26(b) define illicit discharge as "any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities." Thus, non-stormwater discharges are prohibited. In order to provide the Copermittees with flexibility and discretion, under Tentative Order the Copermittees will specify which BMPs they will implement or require to be implemented to reduce pollutants in urban runoff discharges to the MEP.

Section: D

Comment: Is the washing down of individual driveways a prohibited activity? The prohibition of residential hosing of impervious surfaces (Section D.1.b(5)) should be eliminated from the Order and replaced with educational efforts to encourage residential property owners to sweep their property in lieu of hosing with water. It is entirely impractical to enforce such a prohibition, another directive. A prohibition that cannot be enforced is not appropriate. With over 10,000 homes in our small community, it is infeasible to establish a policing force to eliminate this occurrence.

The permit contains conflicting provisions that will make compliance difficult, such as initially permitting individual car washing in Section B.2.p. while prohibiting discharges of wash water from

residential driveways in Section D.1.b(5). How does the Regional Board envision the municipalities enforcing the no hosing down of residential driveways? Section D.1.b(5) prohibits hosing of impervious areas from residential areas. Realistically, how do you expect that cities can prevent residents from hosing off driveways and sidewalks, etc.? Would the city or the resident be liable (assume City is conducting appropriate public education)? (*County of Orange, City of San Clemente, Laguna Hills, Mission Viejo, Lake Forest, Laguna Niguel*)

Response: Washing down of individual driveways is a prohibited activity for eleven years under both the first and second term permits. Federal NPDES regulation 40 CFR 122.26 (b)(2) defines an illicit discharge as "any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities." Individual residential car washing, however, is specifically exempted from prohibition under the Federal regulations and is included in the list of non-prohibited non-storm water discharges in section B.2 of the Tentative Order.

In southern Orange County, hosing of impervious surfaces in residential areas has been identified as an activity that can contribute a significant amount of pollutants to the MS4. Many municipalities in the region are currently citing property owners and contractors who wash down impervious surfaces containing materials such as oil and grease, sand, masonry materials, and others for violations of local storm water ordinances. To date, educational letters have comprised the majority of enforcement actions, and violators are warned that fines will result from repeat occurrences. As violations of this nature are reported, we refer the case to the local municipality for enforcement under local ordinances. If a municipality does not adequately take actions, we would consider both the municipality and the landowner to be responsible.

Section D Subsection D.1

Comment: This paragraph requires "Each Copermitee shall establish, maintain and enforce adequate legal authority..." The discussion on Page 47, third paragraph, of the Draft Technical Report/Fact Sheet clarifies that this section requires the Copermitees to have legal authority, but "does not require the discharges to be prohibited in all instances, but rather requires the Copermitees to have the legal authority to prohibit such discharges in the event that prohibition is determined to be necessary." This clarification is useful, but the Permit language itself needs to be modified to assure that this interpretation is clear. The first sentence of paragraph D.1 should be revised to delete the words "and enforcement." Enforcement requirements are addressed elsewhere in the document, and to leave the words here is confusing. (*Laguna Niguel*)

Response: The discussion cited inadvertently confused non-storm water discharges that are not required to be prohibited (section B.2) with prohibited illicit discharges specifically identified in section D.1.b. The discharges listed in section D.1.b are illicit discharges that must be prohibited. The discussion concerned the broader issue of dry weather flows, some of which originate from the non-storm water, non-prohibited discharge categories cited in section B.2 of the Tentative Order. It is in reference to these non-prohibited, non-storm water discharge categories that comment cited refers when it states that the Tentative Order "does not require the discharges to be prohibited in all instances..." The non-storm, non-prohibited discharge categories listed in section B.2 do not need to be prohibited unless they are found to be significant sources of pollutants. In that even, the Copermitees have the discretion to not prohibit the discharge and implement or require the implementation of BMPs to prevent or reduce the pollutants to the MEP. The Fact Sheet/Technical Report for Tentative Order 2001-193 has been revised to clarify the intent of the discussion.

Section D Subsection D.1

Comment: Item D.1 of the Tentative Order should be accordingly revised to comport with the relevant CWA regulations at 40 C.F.R. § 122.26(d)(2)(i)(A-F). (*County of Orange*)

Response: The requirements of section D.1 of the Tentative Order fully support the federal regulations cited at 40 CFR 122.26(d)(2)(i)(A-F).

Section D Subsection D.1

Comment: Add a Citation to Authority to Prohibit Illicit Discharges. Parts D.1.b and h, on page 11, implement the requirement of 40 CFR § 122.26(d)(2)(i)(B) and (F) that Co-permittees are to possess the legal authority to prohibit “Illicit Discharges” and to conduct inspections, but fails to cite or refer to 40 CFR § 122.26(d)(2)(i)(B) or (F).

Recommendation: To improve the Order, change the “P” in “Prohibit” to lower case and add the following: “In accordance with the requirements of 40 CFR § 122.26(d)(2)(i)(B) and 40 CFR § 122.26(d)(2)(i)(F), prohibit...” (*Lake Forest & Laguna Woods*)

Response: The Fact Sheet/Technical Report provides sufficient citation of the broad and specific legal authority for the Leagl Authority items D.1.b and D.1.h cited in the comment.

Section D Subsection D.1.B

Comment: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement and would be an attempt to expand Regional Board control over City policies and procedures. We are concerned in particular that the permit contains conflicting provisions that will make compliance difficult, such as initially permitting individual car washing in Section B.2.p. while prohibiting discharges of wash water from residential driveways in Section D.1.b(5).

The new permit is proposing to impose a number of unanticipated unfunded mandates on local government. Inspection costs would be extremely burdensome. The requirement to prohibit “Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.” is administratively overwhelming. Taken to the extreme, this provision will require the deployment of a storm water police force. (*Mission Viejo, Lake Forest, San Juan Capistrano*)

Response: Individual residential car washing is specifically exempted from prohibition under the Federal regulations, and municipal inspectors should be able to differentiate between a car-washing activity and wash down of a residential driveway.

In southern Orange County, hosing of impervious surfaces in residential and commercial areas has been identified as an activity that contributes a significant amount of pollutants to the MS4. Many municipalities in the region are currently citing property owners and contractors who wash down

impervious surfaces containing materials such as oil and grease, sand, masonry materials, and others for violations of local storm water ordinances. To date, educational letters have comprised the majority of enforcement actions, and violators are warned that fines will result from repeat occurrences.

Section D Subsection D.1.B

Comment: Legal Authority 1.b. (2), (4), (5), (6) These are all prohibited discharges which result from washing down exterior areas. The Board does not distinguish between existing development and new development in this section. This provision will effectively force the cities to require that all existing commercial or industrial developments that need to perform these types of activities for the proper function of their business obtain an NPDES permit from the Board for their discharges. A more workable provision would be to require the permittees to prohibit these discharges from new development so that new facilities can be designed to avoid such discharges. However, for existing development the discharges should be prohibited by the permittees unless appropriate BMPs are implemented in accordance with B.3. (*Aliso Viejo*)

Response: The discharges cited by the commenter in section D.1.b are illicit discharges that were prohibited under the Phase I storm water regulations promulgated in 1990 (40 CFR 122.26(b)(2) and apply irrespective of new or existing development. The Copermitees are required to effectively prohibit these illicit discharges; the option to implement BMPs for non-storm water discharges apply only to the non-storm water, non-prohibited discharges identified in section B.2 of the Tentative Order. Both the first term permit Order No. 90-38 (section III) and the second term permit Order No. 96-03 (section III) required the Copermitees to effectively prohibit these discharges. The Tentative Order will not effectively require that all existing commercial or industrial developments that need to perform these types of activities for the proper function of their business obtain an NPDES permit from the SDRWQCB for their discharges.

Section D Subsection D.1.B

Comment: PART D.1.h Should be Revised to Conform to EPA Regulations as to "Reasonable Times." Part D.1.b, on inspection and copying of records, on page 11, fails to mention the limitation imposed by 40 CFR § 122.41(i), which provides that that access to all documents as may be required by law shall be conducted at "reasonable times."

Recommendation: PART D.1.b, on page 11, would be improved if it were revised to read as follows: "review, at reasonable times, and copy any records required by this Order, in accordance with 40 CFR § 122.41(i)." (*Lake Forest & Laguna Woods*)

Response: Section D.1.h requires that the Copermitees submit a certified statement of adequate legal authority to carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. It is assume that the legal document authorizing the Copermitees to perform these tasks will specify "reasonable times".

Section D Subsection D.1.b

Comment: Legal Authority Item D.1.b should be revised to delete the “examples” of illicit discharges. The legal authority requirements relating to illicit discharges should comport with the requirements of the CWA regulations at 40 C.F.R. § 122.26(d)(2)(i)(B). This will allow for greater flexibility in Permittee programs by allowing them to permit certain non-storm water discharges through the development and implementation of source control/treatment control BMPs for such discharges. (*County of Orange*)

Response: The Copermitees do not have the discretion to permit illicit discharges. The requirements of section D.1 of the Tentative Order fully support the federal regulations cited at 40 CFR 122.26(d)(2)(i)(A-F). The Copermitees are required under 40 C.F.R. § 122.26(d)(2)(i)(B) to "prohibit through ordinance, order, or similar mean, illiict discharges to the municipal separate storm sewer." The list of illicit discharges in section D.1.b include illicit discharges found to be significant problems in the San Diego Region. For example, sewage (D.1.b.1) discharges into MS4s is a major problem in Orange County and has been identified as contributing to impairment of receiving water quality. The SDRWQCB has the discretion to require the Legal Authority item D.1.b in the Tentative Order under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section D Subsection D.1.B

Comment: In response to a question, Dave clarified that the "illicit discharges" that are prohibited refers to "discharges not treated to MEP." This verbage should be included in the sentence for clarity. (*Laguna Niguel*)

Response: Comment noted. All non-storm discharges, except those allowed pursuant to section B.2 of the Tentative Order, are prohibited. Pollutants in all permitted discharges to a MS4 must be reduced to MEP.

Section D Subsection D.1.b

Comment: Section D.1.b.2,4,5, and 6: These are all prohibited discharges which result from washing down exterior areas. Does the Board intend for commercial or industrial entities that need to perform these types of activities to obtain an NPDES permit from the Board? (*Aliso Viejo*)

Response: No, it is not likely that such discharges would comply with receiving water standards. Commercial and industrial entities must clean exterior areas without allowing discharges of washwater to a MS4.

Section D Subsection D.1.g

Comment: Shouldn't control of contribution of pollutants occur as part of the TMDL process? Why not simply include the requirement that the copermitees will comply with the TMDLs as they are promulgated? (*Aliso Viejo*)

Response: As total maximum daily loads (TMDLs) are developed, it is likely that MS4s will have to participate in pollutant load reductions. Currently there are no TMDLs for the receiving waters that are

targeted in this Tentative Order. In the interim, the use of iterative BMPs in place of numeric effluent limits has been approved by the Ninth Circuit Court of Appeals (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035).

Section D Subsection D.1.h

Comment: This section requires the Copermittees to carry out inspections, surveillance, and monitoring necessary to determine compliance and non-compliance with local ordinances and permits and, this Order. The section requires the Copermittees to have the authority to enter, sample, inspect, review, and copy records from industrial facilities and construction sites. This section may conflict with Constitutional prohibitions against unlawful search and seizure. How can the Copermittee have the power and authority to enter property and search records of existing industrial sites without a search warrant? Please cite the specific legal authority which the Board believes the Copermittees possess to implement this provision. (*Laguna Hills*)

Response: Local governments, like state and federal governments, are precluded from unreasonable searches for and seizure of evidence, and, absent extraordinarily exigent circumstances, must obtain warrants before inspecting private property to enforce local ordinances. Nevertheless, it is common governmental practice to require persons who must obtain governmental authorization for their activities, or whose activities are subject to governmental regulation, to consent to reasonable inspection by the regulatory officials of the government. Thus, persons who discharge waste that could affect the quality of the waters of the state are required as a condition of their waste discharge requirements to allow inspection and sampling by the Regional Board. Similarly, local governments regulate development, construction, and industrial and commercial uses of property within their jurisdiction. Commercial food service establishments are subject to inspection by local health officials as a routine matter and construction sites are visited by building inspectors. Municipalities are required by federal NPDES regulations to have or develop legal authority to implement regulatory programs needed to reduce the discharge of pollutants to MS4, including the authority to inspect sources of pollutants that are discharged to MS4. Given the routine nature of local governmental inspections to enforce local health and building ordinances, it is not unreasonable to expect municipalities to provide authority for such inspections as may be necessary to reduce pollutants in MS4 by the consent of persons subject to the municipalities' regulatory authority. The SDRWQCB has the broad legal authority to require Legal Authority D.1.h cited in the fact Sheet/Technical Report: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Section D Subsection D.2

Comment: Section D.2 requires the Chief Legal Counsel of each Copermittee to certify that the Copermittee "has adequate legal authority to implement and enforce" each of the requirements of the Order. This certification must cite the "urban runoff related ordinances" adopted by the Copermittee and explain why they are enforceable. The Copermittee's enforcement procedures must be described. The Regional Board has no authority to require such a certification. The Regional Board has no authority to require that specific ordinances or statutes be adopted. The municipalities have the jurisdiction to determine what ordinances to adopt to ensure compliance with discharge requirements, (*Laguna Niguel*)

Response: The SDRWQCB is justified in requiring the Copermitees to submit a certified statement of adequate legal authority. California Water Code section 13377 provides that the Regional Boards shall issue waste discharge requirements which apply and ensure compliance with all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), as amended, also known as the federal Clean Water Act (CWA). Tentative Order No. 2001-01 is written to implement CWA requirements, therefore the SDRWQCB can require the municipalities to demonstrate that they have adequate legal authority to implement the Tentative Order's requirements. The legal authority requirements can be found at 40 CFR (Code of Federal Regulations) 122.26(d)(2)(i). This section states that Copermitees must demonstrate that they "can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to: (A) Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity; (B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal storm sewer; (C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water; (D) Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system; (E) Require compliance with conditions in ordinances, permits, contracts or orders; and (F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer." The SDRWQCB has discretion to require Legal Authority item D.2 in Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section D Subsection D.2

Comment: Legal Authority Item D.2 calls for each Permittee's chief legal counsel to certify a statement that the Permittee has adequate legal authority to implement and enforce the requirements of 40 C.F.R. § 122.26(d)(2)(i)(A-F) and the Tentative Order. The County's County Counsel has no objection to certifying such a statement. However, to the extent that the required statement includes items on which the County Counsel is not qualified to provide a legal opinion, or on which the County Counsel has no expertise, the County objects to the required items. For example, Item D.2.a calls for facts that are not within the knowledge or expertise of the County Counsel. Similarly, Items D.2.b and d call for the County Counsel to certify as to the reasons certain ordinances are enforceable and how they are implemented. Generally, the County and other Permittees have discretion as to how to enforce and implement a particular ordinance. Accordingly, these requirements would require the County Counsel to speculate as to how a particular department would implement and enforce an ordinance. Legal Authority Item D.2 should be revised accordingly to reflect these concerns. (*County of Orange*)

Response: Section D.2 of the revised Tentative Order is consistent with 40 CFR 122.26(d)(2)(1). Section D.2 requires each Copermitees' chief legal counsel certify and submit to the SDRWQCB a statement that the Copermitee has adequate legal authority to implement and enforce each of the requirements of the 40 CFR 122.26 (d)(2)(I)(A-F) and the Tentative Order. This is not a certification of the Jurisdictional Urban Runoff Management Program itself and does not require the Copermitees to speculate as to reasons certain ordinances are implementable or enforceable. The Copermitees have 365 days in which to compile and consolidate the information necessary for the requirements of section D.2 of the Tentative Order.

Section E

Comment: "Maximum extent practicable" is a vague term to me. What are the extent of an MEP?
(*Michael Hazzard*)

Response: MEP is described in the Glossary (Attachment D) of the Tentative Order. It is a technology-based standard without a strict definition because it is dynamic. The Regional Board follows an opinion of MEP articulated by the Senior Staff Council of the SWRCB. It describes factors that may be useful to consider when selecting BMPs to achieve MEP, and states in part that to achieve MEP municipalities must employ whatever BMPs are technically feasible and are not cost prohibitive. The Copermittees will propose their definition of MEP via the BMPs selected in Urban Runoff Management Plans. The final determination regarding whether a municipality has reduced pollutants to the MEP can only be made by the Reigonal or State Boards.

Section E

Comment: Why are industrial and construction activities owned by the Copermittee subject to the BAT/BCT performance standards while all other industrial and construction activities are only subject to the MEP standard? (*Laguna Niguel*)

Response: Industrial and construction activities subject to statewide NPDES permits are subject by Federal regulations to meet BAT/BCT as a technology-based performance standard. The municipalities must control pollutants in storm water to and from the MS4 for all other urban land use activities, including construction and industrial activities not subject to the statewide general NPDES permits, to the maximum extent practicable in order to meet the Federal requirements of the Municipal NPDES storm water permit.

Section E.4 Subsection E.4.d.1.e

Comment: In Section E.4.d.1.e of Attachment E of the Dry Weather Monitoring list Enterococcus bacteria twice within the analytical monitoring parameters. What did you actually want? Fecal coliform, acute or chronic toxicity, or (dare I say) virus? (*Irvine Ranch Water District*)

Response: The second Enterococcus should read Fecal Coliform. The Tentative Order has been revised to correct this error.

Section F

Comment: We believe that the Board and co-permittees have similar goals for this permit-to obtain as much water quality improvement as possible as quickly and efficiently as possible. To spend a year writing the specified plans that will sit on the shelf is counterproductive. The City of Aliso Viejo prefers to spend less time and effort on program writing and documentation and more effort on program development and implementation while still providing for accountability to the Board. The City of Aliso Viejo would like the flexibility to prioritize the required elements of the urban runoff management

plan and begin immediate development and implementation of those elements and the corresponding tasks that are likely to address most directly the specific water quality problems of the watershed. Staggered implementation of other elements will allow us to be most responsive to the Board's Directive for Aliso Creek

One way for the Board to oversee this process while still allowing the co-permittees the flexibility to deal with watershed-specific priorities is to group the URMP requirements into cohesive elements. Allow 24 months to fully develop and implement all elements of the JURMP, and require that a minimum number of elements be developed and implemented within the first year. Let the permittees prioritize implementation of the elements based on water quality priorities. Permittees would be required to develop and implement the remaining elements of the URMP during the second year. At the end of the second year the JURMP will be complete and furthermore, because it has been field tested, it will be a functional program from an implementation standpoint. For example, in jurisdictions where excess sediment is a high water quality concern the Construction elements of the JURMP may be among the prioritized elements, while in jurisdictions where bacterial pollutants are of highest concern the permittees may focus on existing land use-based elements in areas of greatest concern such as commercial/industrial elements or residential elements, depending on what land use areas are causing the greatest exceedances. As the prioritized elements are developed they can be shared with other co-permittees who may have prioritized other elements of the URMP. Furthermore, experience gained in implementing prioritized plan elements can be parlayed into streamlining implementation of other plan elements. (*Aliso Viejo*)

Response: The SDRWQCB appreciates the efforts of the recently incorporated (July 2001) City of Aliso Viejo to respond to the water quality concerns in Aliso Creek and to submit thoughtful comments on the Tentative Order. Based on the longevity of storm water management in Orange County and the progress made to date by the copermittees to the San Diego Municipal Storm Water Permit (Order 2001-01), the development and implementation of the Tentative Order's requirements are realistic and achievable. The SDRWQCB also appreciates that the City recognizes that an adaptive management approach is critical for addressing water quality concerns. However, allowing an additional year to develop components of the Jurisdictional Urban Runoff Management Program (JURMP) would not ensure that those elements would be "field tested," but rather would allow each copermittee to delay consideration of potentially significant sources of pollutants.

The SDRWQCB and the City of Aliso Viejo (and the federal EPA) do share an interest in the use of prioritization to efficiently use limited resources for preserving and enhancing water quality. Rather than a land-use based prioritization process, however, the federal NPDES regulations and the Tentative Order call for a pollutant and waterbody-based prioritization process. For instance, sites and activities are to be prioritized based on the threat to water quality so that resources expended accordingly. For existing development, therefore, the Tentative Order requires activities within each of the land uses (municipal, industrial, commercial, residential) to be assessed within one year so that priorities can be set and implementation can begin. The City does not need to postpone implementation of the JURMP or any of its components until 365 days after adoption of the Tentative Order, and is encouraged to implement components as they are developed.

In addition, the SDRWQCB encourages the sharing of information between copermittees during the development of the JURMP and other tasks of the Tentative Order. The copermittees to the San Diego Municipal Storm Water Permit (Order 2001-01) have been cooperatively developing model components, and SDRWQCB staff have been providing support. As the model components are developed, they are being posted on-line by the County of San Diego, and they can be viewed at http://www.co.san-diego.ca.us/cnty/cntydepts/landuse/env_health/pcw/.

Section F

Comment: Requirements for a proposed management plan to reduce the discharge of pollutants to the maximum extent practicable are described in 40 CFR 122.26(d)(2)(iv). Management programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. The programs “shall describe priorities for implementing controls.” These programs are to be based on a number of factors with the mix of controls and the priorities established by the permittees. It appears that the proposed permit interprets the meaning of this section of the regulations to enable the Board staff to prescribe how local governments are to use their authorities to comply with the provisions of the Clean Water Act. It is the responsibility of the permittee to determine the most appropriate mix of source controls and treatment controls to control discharges from its storm drain system to the maximum extent practicable. (*San Juan Capistrano*)

Response: The SDRWQCB has the authority to assign site priorities for oversight by the Copermittees. The Federal NPDES regulations clearly place an emphasis on the prioritization of sites of various land uses. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.” Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(5) provides that the proposed management program include “A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.” Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(1) provides that the Copermittee must “identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.”

The Tentative Order’s requirements regarding site prioritization are more detailed than those in the Federal NPDES regulations. The SDRWQCB has increased the detail of the site prioritization requirements under Clean Water Act section 402(p)(3)(b)(iii), which states that a storm water program “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

Furthermore, the SWRCB upheld in Order WQ 2000-11 prioritization of sites by a Regional Board in the LARWQCB SUSMP. The LARWQCB SUSMP identified various priority development project categories which are high priority. The SWRCB found that identification of high priority sites was appropriate.

With respect to the comment concerning the SDRWQCB authority to prescribe how local governments are to use their authorities to comply with the provisions of the Clean Water Act, the Tentative Order contains the framework for the minimum requirements considered by the SDRWQCB to be necessary to achieve MEP. The requirements in the Tentative Order are based on the Federal NPDES regulations and USEPA and SWRCB guidance. Where the Tentative Order is more specific than the Federal NPDES regulations, it is based on USEPA and SWRCB guidance. The SDRWQCB has authority to include more specific requirements than the Federal regulations under CWA section 402(p)(3)(B)(iii) and CWC section 13377. USEPA supports the approach of increasingly detailed storm water permits, stating “The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards” (USEPA, 1996). The Tentative Order does not require that Copermittees abandon the prioritization of water quality

issues or their mechanisms to optimize the use of their resources, but rather to review and as necessary revise or expand them. The prioritization and approaches to water quality issues related to the management of urban runoff, however, must address all of the receiving waters in the San Juan Creek Watershed Management Area in Orange County subject to the discharge of urban runoff. The development of the Tentative Order has been conducted with substantial review and comment and significant changes have been made to improve the implementation and enforcement of the Order by the Copermittees.

The specified programs included in the Tentative Order must be implemented by the Copermittees in order to carry out the CWA requirements. While the Tentative Order includes requirements for widespread BMP implementation for specific categories of existing and planned land use, it does not require use of any particular BMPs. The Tentative Order actually encourages implementation of combinations of BMPs, and further does not preclude any particular BMPs or other means of compliance. These are intended to build upon the programs already developed by the Copermittees under the previous permits. Any specified programs in the Tentative Order are made all the more necessary by the exclusion of numerical effluent limits from the permit. Reliance on BMPs as opposed to numerical effluent limits requires specification of those programs that are relied upon to reduce pollution

Finally, the Tentative Order represents the definition of MEP adopted by the SDRWQCB. Within that framework, the Copermittees have significant opportunity and flexibility to prioritize water quality problems, develop and implement effective programs, and to improve and modify these programs as necessary to achieve and maintain compliance with the Tentative Order and receiving water quality objectives. Moreover, the Copermittees are required to evaluate the effectiveness of JURMP programs and to revise the programs as necessary to comply with the Tentative Order and receiving water quality objectives.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program items in section F in Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section: F.1

Comment: The Regional Board and Tentative Order lack the authority to regulate increased urban runoff peak flow rates and velocities since they do not constitute a discharge of pollutants as defined in the CWA or waste as defined by the CWC. While it is true that urbanization affects hydrology, such effects on the flow regime occur regardless of what pollutants are present in stormwater or, indeed, regardless of whether or not any pollutants are added to stormwater as it traverses the land. While such effects may constitute "pollution" as that term is defined in the Clean Water Act, they do not constitute the "discharge of pollutants," as that phrase is defined in the Clean Water Act. "EPA does not consider flow to be a pollutant." The public storm drain program is limited to controls on pollutant discharges. Other Clean Water Act programs not administered by the Regional Board are designed to address general pollution problems, such as might result from bank erosion and widening of channels. Water per se, regardless of what constituents are in it, is not a "pollutant" regulated under the NPDES program, within the statutory definition. Thus, the regulation of stormwater flows in this Permit is void under the Clean Water Act to the extent it is regulating flow velocities, flow volumes and flow durations.

Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation, 65 Fed. Reg. 43586,43619 (July 13,2000). Case law

interpreting the Clean Water Act uniformly has found the definition of “pollutant” to not include downstream erosion. See e.g., *National Wildlife Fed’n. v. Gorsuch*, 693 F.2d 156, 171-172 (D.C. Cir. 1982) (holding that discharges from dams were not discharges of pollutants, but rather were discharges that altered water quality conditions - namely scouring the downstream channel - and as such, did not fall under the definition of “pollutant” and did not require an NPDES permit); *Missouri, ex rel. Ashcroft v. Department of the Army*, 672 F.2d 1297, 1303 (8th Cir. 1982) (finding that fluctuations in flow rates of water that created downstream erosion did not result in the “discharge of a pollutant” under the CWA and the relevant permit was void to the extent it regulated downstream erosion (*Lake Forest, Laguna Woods, Construction Industry Coalition on Water Quality*))

Response: MS4 discharges with increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment are regulable under the NPDES program and California Water Code. This is supported in the response to the petition to the SWRCB of the San Diego Municipal Permit Order No. 2001-01:

1. MS4 Discharges with Increased Urban Runoff Peak Flow Rates and Velocities Resulting from New Development and Significant Redevelopment are Regulable Under the NPDES Program

Petitioners assert that the Permit cannot regulate increased urban runoff flow volumes, rates, velocities, and durations as they are caused by new development and redevelopment. The basis for their argument is that urban runoff flow is not regulable under the NPDES program. In this argument, they are incorrect. As discussed in the Draft Fact Sheet/Technical Report, NPDES permits must protect receiving water quality standards. Federal NPDES regulation 40 CFR 122.44(d)(1) requires municipal storm water permits to include any requirements necessary to “achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.” The administrative record includes ample evidence that altered flow regimes resulting from new development and significant redevelopment can negatively impact water quality standards. As such, the Permit includes requirements for the management of flow in order to protect receiving water beneficial uses and water quality objectives, as it is required under the federal NPDES storm water regulations.

Indeed, the Permit’s approach in this respect follows SWRCB guidance. The SWRCB states in Order WQ 98-01 “to comply with CWA section 301, municipal storm water permits must include effluent limitations where necessary to meet [...] water quality standards” (at pg. 4). In fact, the municipal storm water receiving water limitations language, as drafted by the SWRCB, requires MS4 discharges to be in compliance with water quality standards. This requirement stands irregardless of whether the MS4 discharge is causing or contributing to violations of water quality standards through altered flow regimes or pollutant discharges.

Furthermore, the Permit’s language regarding regulation of urban runoff discharge peak flow rates and velocities is virtually identical to that of the LARWQCB’s SUSMP. This SUSMP was predominantly upheld by the SWRCB in Order WQ 2000-11. The SWRCB has found that the LARWQCB SUSMP requirements collectively constitute MEP for urban runoff from new development and significant redevelopment. Therefore, the SWRCB has found that requirements to control increases in peak flow rates and velocities resulting from new development and significant redevelopment are an appropriate provision of MEP for MS4 discharges. Moreover, the SWRCB has instructed that subsequent municipal storm water permits “must be consistent with the principles set forth [in Order WQ 2000-11].” In order to be consistent with this SWRCB guidance, the SDRWQCB has included in the Permit regulation of urban runoff peak flow rates and velocities resulting from new development and significant redevelopment.

Petitioners specifically argue that increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment are not regulable under an NPDES permit because urban runoff flow does not meet the CWA definition of pollutant (CWA section 502(a)). In fact, the opposite is true. The CWA definition of pollutant includes “municipal waste.” As discussed above in section E, the increased volumes and flows of urban runoff resulting from new development and significant redevelopment meet the definition of a municipal waste. New development and redevelopment, as approved by municipalities, generate increased urban runoff peak flow rates and velocities through the construction of impervious surfaces. Municipalities then collect this increased urban runoff and discharge it to receiving waters by use of their MS4s. This generation, collection, and disposal of urban runoff by municipalities reflects urban runoff’s condition as a municipal waste.

Nor is the CWA definition of pollutant as limiting as Petitioners assert. The list of substances included in the CWA definition of pollutant cannot be construed to be exclusive. For example, the definition lists rock and sand as pollutants, but makes no mention of clay or silt (e.g., suspended solids). Surely suspended solids such as clay or silt can be found to be pollutants, even though they are not specifically designated as such in the CWA definition of pollutant. Indeed, they commonly are found to be pollutants. In a similar manner, simply because urban runoff increased flow rates and velocities are not specifically listed in the CWA definition of pollutant, they are not limited from being regulated as such in an NPDES permit.

Furthermore, the Permit’s regulation of increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment is a direct attempt to control the discharge of conventional pollutants in urban runoff to the MEP. Typical BMPs which control urban runoff peak flow rates and velocities (such as detention basins and grass swales) can greatly reduce the amount of pollutants (suspended solids, nutrients, and metals) in urban runoff. Control of these pollutants in such a manner is certainly within the purview of the NPDES program. USEPA supports this approach, stating “in many cases, consideration of the increased flow rate, velocity and energy of storm water discharges following development unavoidably must be taken into consideration in order to reduce the discharge of pollutants.”

In addition, the downstream erosion caused by increased urban runoff peak flow rates and velocities constitutes a discharge of pollutants to receiving waters which needs to be reduced to the MEP. The increased volume, flow rate, velocity, and duration of runoff resulting from new development and redevelopment can increase sediment transport, stream bed scouring, shoreline erosion, stream bank widening, and changes in stream morphology. All of these impacts can negatively impact water quality through their discharge of sediment into receiving waters. Unnaturally elevated levels of sediment suspension and transport can cause extended violations of water quality objectives for turbidity, total suspended solids, color, and floating material. Moreover, since sediment is often a transport mechanism for other pollutants, discharge of such sediment can lead to introduction of pollutants into the water column, further impacting receiving water quality. Due to the increased discharge of pollutants to receiving waters resulting from the increased peak flow rate and velocity of MS4 urban runoff discharges, regulation of urban runoff peak flow rate and velocity is applicable for an NPDES permit. It constitutes reduction to the MEP of pollutant discharges to receiving waters.

It is also worth noting that Petitioners’ exclusion of the NPDES program from the regulation of peak flow rates and velocities defeats the intent of the Clean Water Act. The NPDES storm water program for MS4 discharges is designed to implement the Clean Water Act, which has the primary purpose to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” (33 U.S.C. section 1251(a)). As exhibited in the administrative record, increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment can greatly impact receiving water quality. As such, in order for the NPDES storm water program to adequately protect the chemical, physical, and biological integrity of receiving waters, as it was intended, it must address

increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment.

Finally, control of runoff to prevent downstream erosion has previously been included in many NPDES storm water permits, both within the State of California and nationwide. For example, the SWRCB's Statewide General Construction Storm Water Permit (Order No. 99-08-DWQ) directly requires control of runoff velocity to prevent downstream erosion when it states "the outflow of a sediment basin that discharges into a natural drainage **shall be provided with outlet protection to prevent erosion and scour of the embankment and channel**" (emphasis added) (section A.8, pg. 15). The LARWQCB has also included requirements to control flow for erosion prevention in its SUSMP for the cities of Los Angeles County, as well as in its municipal storm water permit for Ventura County (Order No. 00-108). Moreover, states such as Washington and Maryland have similar NPDES storm water permit requirements.

2. MS4 Discharges with Increased Urban Runoff Peak Flow Rates and Velocities Resulting from New Development and Significant Redevelopment are Regulable Under the California Water Code

While the Clean Water Act is not explicit regarding the regulation of peak flow rates and velocities, the CWC clearly provides the SDRWQCB discretion to regulate flow in order to protect beneficial uses. In fact, such regulation is not only allowed by the CWC, it is required. CWC section 13377 provides that the SDRWQCB issue waste discharge requirements as required by the Clean Water Act, "together with any more stringent effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance."

Findings 4 and 9 discuss the impacts of MS4 discharges on beneficial uses resulting from altered flow regimes caused by new development and significant redevelopment. As discussed in section L.1 above, increased urban runoff peak flow rates and velocities resulting from new development and significant redevelopment can cause elevated levels of sediment in receiving waters through downstream erosion. This sediment can also introduce other pollutants into receiving waters as a transport mechanism. In order to protect beneficial uses against these water quality impacts resulting from downstream erosion caused by altered flow regimes, the Permit regulates urban runoff peak flow rates and velocities from new development and significant redevelopment, as required by CWC section 13377.

Since the Permit is a set of waste discharge requirements issued under the California Water Code (which happens to implement the NPDES program), the NPDES program is only a set of minimum standards for the Permit. The NPDES program requirements are not a limitation on the contents of the Permit, as it is a set of waste discharge requirements under the California Water Code. Nor do the NPDES storm water regulations set a maximum limit on States' individual implementation of the NPDES program. As such, the State of California can include specific requirements in an NPDES permit which need not be specifically addressed in the NPDES storm water regulations. However, to the extent that inclusion of such requirements is meant to implement and clarify the NPDES storm water program to protect the region's receiving waters, such requirements do not exceed the NPDES program.

If the appeal results in an order to change portions of the San Diego Permit (Order 2001-01) that are applicable to the proposed Orange County Permit (Tentative Order 2001-193), then appropriate changes would be made.

Finally, it should be noted that in its draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which the issue was prominently raised, the SWRCB has upheld the SDRWQCB's position stating "While this

argument was not specifically addressed in our prior Order (Order 2000-11), it is obvious that the most serious concern with runoff from construction is the potential for increased erosion. It is absurd to contend that the permit should have ignored this impact from urban runoff." Furthermore, in its discussion of urban runoff as a waste in the draft resolution, the SWRCB referred to "Other early Attorney General Opinions determined that 'waste' includes drainage and erosion from logging operations and drainage water from construction sites." The direct SWRCB response to the issue of regulating flow as well as its silence on other aspects of the issue can be interpreted as support for the SDRWQCB position that it has the authority to regulate increased urban runoff peak flow rates and velocities as written in the Order No. 2001-01 and the Tentative Order.

Section F Subsection F.1.b.2

Comment: The current new development/significant redevelopment program, which has been in place for 4 years, focuses in on all development regardless of size, and includes an inspection/verification component which is actually more comprehensive than what is suggested in the permit. Why would the staff not want to look at revising the current program to see if there might be an alternative solution? (*County of Orange*)

Response: The new development and redevelopment section of the proposed DAMP does not include many of the important provisions of the Tentative Order as indicated in Appendix 5 of the Draft Fact Sheet/Technical Report. Examples include the lack of a comprehensive list of structural BMPs and numeric design criteria for these BMPs to meet. The Tentative Order provides minimum requirements for new development and significant redevelopment (including SUSMPs) that must be met and a framework for the Copermittees to work within. However, the Tentative Order does not preclude the Copermittees from using their DAMP to develop programs that meet or exceed these requirements.

Section F Subsection F.1.b.2

Comment: The Tentative Order would require the municipalities to develop a model SUSMP. In the proposed DAMP the Permittees committed to overhauling their new development program based upon a variety of approaches including SUSMPs, Start at the Source Planning, etc. and have already started that process. Since the Permittees would have this new model program by the end of next year, why would the Board staff not consider an approach that may be more comprehensive than the one suggested in the Tentative Order? (*County of Orange*)

Response: The new development and redevelopment section of the proposed DAMP does not include many of the important provisions of the Tentative Order as indicated in Appendix 5 of the Draft Fact Sheet/Technical Report. The Tentative Order provides minimum requirements for new development and significant redevelopment (including SUSMPs) that must be met and a framework for the Copermittees to work within. However, the Tentative Order does not preclude the Copermittees from using their DAMP to develop a program that meets or exceed these requirements.

Section: F.1

Comment: The definition of infeasibility for which a waiver of a structural BMPs could be granted is unclear. The provisions in the Tentative Order make it almost impossible to obtain a waiver. (*County of Orange, Laguna Hills, Construction Industry Coalition on Water Quality*)

Response: What constitutes infeasibility and whether to include the waiver provision in their SUSMPs is at the discretion of the Copermittees. However, since the structural BMP implementation has been shown to less than 1% of the total project costs, infeasibility cannot be based on costs. It is anticipated that the list of structural BMPs that the Copermittees will develop will be complete and wide ranging. The list is not designed to exclude the use of any applicable BMPs, it should be adequate to assess the feasibility of BMP implementation at a site. Requiring projects proponents to show infeasibility of all BMPs in existence may be impractical. Examples of situations for infeasibility could include extreme limitations of space and unfavorable/unstable soil conditions. It up to the discretion of Copermittees to set up and administer a storm water mitigation fund to transfer costs savings generated by the waivers.

Section: F.1

Comment: The Regional Board has no authority to direct municipalities on matters of land use authority and cannot dictate the contents of the Copermittees General Plan. The Tentative Order requires each municipality to revise its General Plan in order to meet the requirements being imposed by the Regional Board. This requirement hamstrings the Copermittees' ability to control land use decisions on a day-to-day basis and represents an unlawful infringement of the local land use authority that is reserved for municipalities under the CWA, the California Constitution and state law. (*Laguna Niguel, County of Orange, Laguna Hills, Dana Point, Lake Forest, Laguna Woods, Construction Industry Coalition on Water Quality*)

Response: The SDRWQCB has the legal authority to require the Copermittees General Plans to include considerations of the water quality impacts caused by urban runoff. Under Federal NRDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) provides that Copermittees develop and implement a proposed management program which is to include "a description of planning procedures including a comprehensive master plan to develop, implement, and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction in completed." USEPA finds that the Copermittees "must thoroughly describe how the municipality's comprehensive plan is compatible with the storm water regulations". To achieve this, the Copermittee shall incorporate water quality and watershed protection principles and policies into its General Plan (or equivalent plan). USEPA also supports addressing urban runoff problems in General Plans (or equivalent) when it states "Runoff problems can be addressed efficiently with sound planning procedures. Master Plans, Comprehensive Plans, and zoning ordinances can promote improved water quality by guiding the growth of a community away from sensitive areas and by restricting certain types of growth (industrial, for example) to areas that can support it without compromising water quality". While the SDRWQCB has the legal authority to require the Copermittees' General Plans to include considerations of the water quality impacts caused by urban runoff, the Tentative Order gives the Copermittees discretion in determining the contents of their General Plans. The Tentative Order includes only examples of principles and policies to be considered and not specific requirements. The Copermittees will be allowed to develop their own work plan and time schedule for any changes to their General Plans they find necessary.

Finally, it should be noted that in it's draft Order on the petition by the Building Industry Association and Western States Petroleum Association for the review of Order No. 2001-01, in which this issue was prominently raised, the SWRCB has thus far declined to respond to this issue.

Section F.1

Comment: Application of the SUSMPs to Non-Discretionary Approvals Could Create Practical Problems. The Board Staff may not appreciate the practical difficulties presented by what appears to be a well intentioned attempt to apply the development approval process not only to projects subject to local discretionary approvals (“discretionary projects”), but also apparently to projects that have been processed to the point that they have already obtained all locally-required discretionary approvals (“non-discretionary projects”). Ordinarily, the authority of an official such as a Building Official, who issues building permits, would not extend to land use design decisions already approved by a planning commission or a city council. Therefore, it would appear that matters such as imposing a requirement to “minimize impervious cover” would not be within the authority of a building official at the building permit stage. Generally, developers pull building permits only after all other approvals have been received, and only for the lots they are going to build upon immediately. If the Regional Board intends the SUSMPs to apply to the issuance of building permits, after all other approvals have been received, this would put the local jurisdiction in the position of having to alter its development standards after development has been approved, for projects that had already achieved all required discretionary approvals when the SUSMPs were adopted, by requiring an official such as a building official to refer an application for building permits back to a planning commission or city council. The Cities suggest that it is entirely possible that a court might regard this last minute referral back to the start, or at least the middle, of the approval process as a compensable temporary taking based on needless bureaucratic re-referrals.

The Cities submit that the takings issues presented by the SUSMP have not been examined in prior SUSMP proceedings, and respectfully request that the Board carefully reconsider the SUSMPs, and that the matter be referred to Board Counsel.

Recommendation: Convert the SUSMP provisions into an option to be considered by Copermitees in the exercise of their discretion over land use matters, but do not make the adoption of SUSMPs mandatory. Focus the Permit on conditions which require the Co-permittees to reduce the discharge of pollutants to the maximum extent practicable. (*Lake Forest & Laguna Woods*)

Response: The SUSMP requirements apply only to discretionary and non-discretionary projects falling under the priority project categories after the adoption of the Tentative Order. A project's designation as a non-discretionary project does not ensure that it will not be a significant source of pollutants in urban runoff. The Copermitees are required to use the 18-month SUSMP implementation period to ensure that projects undergoing approval processes include application of the SUSMP requirements. However, if the Copermitees determine that lawful prior approval of a project exists, whereby the SUSMP requirements are not feasible, then the requirements need not apply.

In addition, the requirements to minimize impervious surfaces for all development projects (including SUSMPs) are where feasible as determined by the Copermitees.

Section: F.1

Comment: The proof of mechanism requirement to ensure long term structural BMP maintenance should be removed and is a unreasonable burden on project proponents since they have no control over the property once it is sold. (*Laguna Niguel, Construction Industry Coalition on Water Quality*)

Response: Proof of a mechanism for ongoing long term BMP maintenance can provided by either the project proponent or the Copermittee. If a Copermittee finds that it shall have difficulty ensuring maintenance, it can require proof of a mechanism of BMP maintenance from the project proponent. This does not mean that the project proponent must be responsible for the BMP maintenance in perpetuity, but rather will be responsible for providing a mechanism which will ensure BMP mainatance in perpetuity. Example from the LARWQCB SUSMP states in part:

"The Permittee shall require that the applicant provide verification of mainatance provisions through such means as may be appropriate, including, but not limited to legal agreements, covenents, CEQA mitigation requirements and/or Conditional Use Permits....."

Section F.1

Comment: Watershed Planning Appears to be Subordinate to the Project-Oriented SUSMP Requirements. The subordinate role ascribed to watershed planning seems to be inconsistent with the emphasis in the State NPS Plan on community-based watershed planning within the framework of the three-tiered approach to water quality defined in the State NPS. If watershed planning is not recognized as a co-equal alternative to SUSMP BMP principles, it will not be possible to further the goal of changing the stormwater approach from the conventional conveyance approach to a more natural approach that is articulated in Finding 33 of the Regional Board's Tentative Order. (*Rancho Mission Viejo*)

Response: The Tentative Order is not inconsistent with the Plan for California's Nonpoint Source Pollution Control Program. Watershed planning is supported in section J.2.g of the Tentative Order. The SUSMP requirements are applicable to new development and significant redevelopment, both of which present opportunities for new approaches such as watershed based planning. Watershed based planning and the SUSMP requirements of the Tentative Order are not mutually exclusive. Moreover, the SUSMP requirements are consistent with Finding 33 and watershed planning in that the intent of these requirements is to preserve and restore the natural hydrologic cycle. This is a departure from the conventional conveyance approach and can be fully supported by watershed level planning. It should be noted that because the development of the Model SUSMP and Watershed Urban Runoff Management Program proceed within approximately the same time frame, the Copermittees have the opportunity and flexibility to coordinate the two activities and maximize the watershed level effectiveness of both.

Section F.1

Comment: Consistent with your requirements to assess and amend, as necessary, General Plans to include water quality provisions, we suggest requiring permittees to revise, if applicable, their Local Coastal Programs to include such water quality language, provisions, and watershed protection principles. (*California Coastal Commission*)

Response: The requirements in the Tentative Order to assess their General Plan, also gives the Copermittees the discretion and flexibility to assess their Local Coastal Programs as needed to include water quality protection principles.

Section F.1

Comment: Will the issue of water damage to downstream resources be addressed? I.e., erosion damage to non-renewable resources such as archaeology sites and endangered species habitats? (*County of Orange*)

Response: The Tentative Order requires that Copermitees ensure that discharges from priortiy devloepment and significant redevelopment catagories maintain or reduce pre-development downstream erosion and protect stream habitat.

Section F.1

Comment: Item F.1 of the Tentative Order requires the Permittees to take appropriate action “to reduce discharges of pollutants and runoff flows” from all phases of urban development to the maximum extent practicable. First, the Tentative Order should not apply standards and limitations applicable to discharges from MS4s to runoff from urban development that flows into the MS4s. See supra General Comments § VII; Comments on Finding No. 10. Second, it is not clear on what basis staff is purporting to have the Regional Board regulate “flows.” There does not appear to be any authority for application of the MEP standard to the reduction of “runoff flows.”

None of the authorities cited in the Technical Report appear to support such regulation. Further in this regard, the Regional Board staff has not provided any discussion of or support for its implicit contention that reducing such flows effectively reduces pollutants. Nor does it address the potential adverse impacts of reducing flows on the aquatic habitats supported by urban runoff and other storm water flows. Item F.1 therefore should be revised to delete the words “and runoff flows” from its text. (*County of Orange*)

Response: The appropriateness for regulating discharges into the MS4 is discussed elsewhere in this document.

Based on analyses conducted in the region by the copermitees as part of the Aliso Creek Watershed 205(j) study and the U.S. Army Corps of Engineers in Reconnaissance Reports for the Aliso and San Juan Creek Watersheds, a change in flow regime resulting from urban development has contributed to the degradation of aquatic and riparian habitat.

The SDRWQCB has the legal authority to regulate flows from new development. The SWRCB has upheld this legal authority in adopting its Order WQ 2000-11. The Final LARWQCB SUSMP, upheld by SWRCB Order WQ 2000-11, states “Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion.”

The legal authority to regulate flows from new development is further explained in Issue 3 of Section V (Common Municipal Storm Water Permit Issues) of the Draft Fact Sheet/Technical Report for the Tentative Order, which states:

Federal NPDES regulation 40 CFR 122.44(d)(1) requires municipal storm water permits to include any requirements necessary to “[a]cheive water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.” The term “water quality standards” in this context refers to a water body’s beneficial uses and the water quality objectives necessary to protect those beneficial uses. The negative impact of urban runoff flow on the beneficial uses of receiving waters has been widely documented. Increases in flows from impervious surfaces associated with

urbanization can result in (1) increases in the number of bankfull events and increased peak flow rates; (2) sedimentation and increased sediment transport; (3) frequent flooding; (4) stream bed scouring and habitat degradation; (5) shoreline erosion and stream bank widening; (6) decreased baseflow; (7) loss of fish populations and loss of sensitive aquatic species; (8) aesthetic degradation; and (9) changes in stream morphology (USEPA, 1999a). USEPA finds that the level of imperviousness resulting from urbanization is strongly correlated with the water quality impairment of nearby receiving waters (USEPA, 1999b). USEPA further attributes much of this water quality impairment to changes in flow conditions from urbanization, stating “[I]n many cases, the impacts on receiving streams due to high storm water flow rates or volumes can be more significant than those attributable to the contaminants found in storm water discharges” (USEPA, 1999a). Therefore, in order to protect the beneficial uses and water quality objectives of waters receiving urban runoff flows (as required by 40 CFR 122.44(d)(1)), the SDRWQCB has under certain circumstances placed limits on urban runoff flows in the tentative permit.

In addition, the authority of states to regulate flow in order to protect water quality standards has been addressed by the U.S. Supreme Court in *PUD No. 1 v. Washington Department of Ecology*, 511 U.S. 700 (1994). In this case the U.S. Supreme Court found that the Clean Water Act applies to water quantity as well as water quality, stating “[p]etitioners also assert more generally that the Clean Water Act is only concerned with water ‘quality’ and does not allow the regulation of water ‘quantity.’ This is an artificial distinction. In many cases, water quantity is closely related to water quality.” The U.S. Supreme court goes on to refer to the Clean Water Act’s definition of pollution (“the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water” 33 U.S.C. 1362(19)) and states “[t]his broad conception of pollution – one which expressly evinces Congress’ concern with the physical and biological integrity of water – refutes petitioners’ assertion that the Act draws a sharp distinction between the regulation of water ‘quantity’ and water ‘quality.’” In this context, the U.S. Supreme Court held that the state’s regulation of flow was “a limitation necessary to enforce the designated use of the River as a fish habitat.” Finally, it was held that the state’s regulation of flow was “a proper application of the state and federal antidegradation regulations, as it ensures that an ‘existing instream water use’ will be ‘maintained and protected.’ 40 CFR 131.12(a)(1) (1992).

Section: F.1

Comment: What if the groundwater protection policies in the Tentative Order are not appropriate for some developments and situations? Infiltration and groundwater protection is beyond the authority and control of the co-permittees and is an inappropriate Order requirement. The use of infiltration structural treatment BMPs to meet the requirements of the SUSMP are made in a good faith effort to remove contaminants from surface runoff and prevent ground water contamination, however there can be no guarantees that the use of these infiltration BMPs will not lead to an exceedance of groundwater water quality objectives. (*San Juan Capistrano, County of Orange, Laguna Hills, Rancho Mission Viejo, Construction Industry Coalition on Water*)

Response: Focusing large amounts of water into a small area has the potential to impact groundwater and the restrictions for structural BMPs used to infiltrate runoff were based on USEPA guidance. The Tentative Order allows the Copermittees the discretion to develop alternatives to these restrictions as the Copermittees find appropriate. However, if the Copermittees find that use of a infiltration structural BMP will cause an exceedance of groundwater quality objectives, then the BMP should not be used.

Section F.1 Subsection F.1.A

Comment: F.1.a. Assess General Plan: Requirements #5 and 8 are duplicative, as one would have to calculate pollutant loading in order to determine whether a water quality objective is exceeded. Delete requirement #5. (*Rancho Mission Viejo*)

Response: Items 1-8 in Provision F.1.a are examples of water quality and watershed protection principles and policies to be considered by each copermitttee when reviewing and updating its General Plan. Each copermitttee has discretion on using the specified examples.

Section F.1 Subsection F.1.A

Comment: Item 8 is an example of a water quality based effluent limit (WQBEL) requirement and is without legal standing and merit (see General Issues section (page 31) for detailed analysis). (*Construction Industry Coalition on Water Quality*)

Response: The copermitttees have discretion on determining the contents of their General Plans. The noted item is an example of something that the Copermitttees should consider when reviewing and updating General Plans.

Section F.1 Subsection F.1.A

Comment: Item 7 attempts to regulate traffic resulting from development. This is another example of the regional board's attempt to supercede local land use control. Traffic considerations, as well as water quality and environmental concerns are already addressed through the CEQA process and are unnecessary, and in fact illegal, in this Permit. (*Construction Industry Coalition on Water Quality*)

Response: The Copermitttees have discretion on determining the contents of their General Plans. This sections contains examples which the Copermitttees may implement at their discretion. In reviewing and updating a General Plan, each copermitttee could consider the potential water quality impacts caused by vehicle pollutants by new development or redevelopment and amend the plan if reasonable considering all factors that go into a General Plan. Proximity of residences to job sites or availability of rapid transit are examples of how General Plan decisions could reduce pollutants caused by increased traffic resulting from new development.

Section F.1 Subsection F.1.A

Comment: F.1.a. Assess General Plan: The logic behind requirement #7 appears to be "less vehicles on the road equals less pollution." Please explain how a copermitttee would implement requirement #7 and document its effect on pollutant loads. (*Rancho Mission Viejo*)

Response: Items 1-8 in Provision F.1.a are examples of water quality and watershed protection principles and policies to be considered by each copermitttee when reviewing and updating its General Plan. Each copermitttee has discretion on using the specified examples.

In reviewing and updating a General Plan, it is suggested that each copermitttee consider the potential water quality impacts caused by vehicle pollutants by new development or redevelopment and amend the plan if reasonable considering all factors that go into a General Plan. Proximity of residences to

job sites or availability of rapid transit are examples of how General Plan decisions could reduce pollutants caused by increased traffic resulting from new development.

Section F.1 Subsection F.1.a.1

Comment: What is the actual amount of impervious surface that would be acceptable under the suggested general plan language to minimize impervious surfaces and direct connections? These General Plan polices would need to be implemented through the water quality ordinance or other specific zoning development standards. There is no threshold for maximum impervious surface in the Permit. The amount of impervious surface is typically related to the amount of open space or landscaping and varies between zoning districts and type of development. (*Laguna Niguel*)

Response: This item is an example of a watershed protection principle and policy to be considered for inclusion in the Copermittees General Plan. It is the left to the discretion of the Copermittee on whether to include the item and define the appropriate level of impervious.

Section F.1 Subsection F.1.a.6

Comment: What is meant by “Avoid development of areas that are particularly susceptible to erosion or sediment loss...”? As a General Plan policy, it seems that one would want to reduce the amount of area susceptible to erosion or sediment loss by making improvements, landscaping or developing consistent with BMPs. Otherwise the erosion and sediment continues to go unchecked. (*Laguna Niguel*)

Response: This item is an example of a watershed protection principle and policy to be considered for inclusion in the Copermittees General Plan. It is the left to the discretion of the Copermittee on whether to include the item and define what areas are susceptible to erosion or sediment loss.

Section F.1 Subsection F.1.a.7

Comment: How does the Copermittee have authority through its General Plan to reduce pollutants associated with vehicles? This seems to be within the jurisdiction of other state and federal agencies. In addition, the Congestion Management Plan does not focus on traffic reduction and is not an appropriate reference. The CMP focuses on mitigating traffic impact of new development by requiring detailed traffic studies and street and roadway improvements to accommodate existing and proposed traffic. (*Laguna Niguel*)

Response: This item is an example of a watershed protection principle and policy to be considered for inclusion in the Copermittees General Plan. While this problem can be partially addressed at the state level, through inspections and vehicle registration requirements, the Copermittees have the discretion to address this source of pollutants in the JURMP.

Section F.1 Subsection F.1.b

Comment: Item F.1.b requires the Permittees to ensure that all development will be in compliance with “all other applicable ordinances and requirements.” An NPDES permit cannot and should not be used as a vehicle to enforce legal obligations that are unrelated to the Copermittee’s storm water management program. Presumably, this is not what the Regional Board staff intended. Item F.1.b

should be revised to delete the reference to “all other applicable ordinances and requirements.”
(County of Orange)

Response: As discussed in Finding 18, incorporating post-construction BMPs into new development and redevelopment during project planning and approval is an effective means for controlling pollutants in urban runoff. US EPA finds review of development plans during the project approval process necessary, stating: “Proposed storm water management programs should include planning procedures for both during and after construction to implement control measures to ensure that pollution is reduced to the maximum extent practicable in areas of new development and redevelopment. Design criteria and performance standards may be used to assist in meeting this objective. Further, storm water management program goals should be reviewed during planning processes that guide development to appropriate locations and steer intensive land uses away from sensitive environmental areas. [...] A municipality should describe how it plans to implement the proposed standards (e.g., through an ordinance requiring approval of storm water management programs, a review and approval process, and adequate enforcement.

Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to “Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects [...]” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

Section F.1 Subsection F.1.b

Comment: Pages 14 - 17 Modify Development Project Approval Processes It appears that the provisions of this Permit apply to all development projects. This includes the issuance of everything including simple building permits for room additions and accessory structures, such as swimming pools and patios. What type (criteria - size, land use, etc..) of project approval and issuance of local permits is included under this requirement to add conditions of approval for BMP? Cities issue all types of project approvals and issuance of permits. Example - would these requirements be applicable to the project approval of a Variance/Coastal Development Permit for a custom single-family home on a flat pre-graded lot. If so, does the simple fact that a project requires a discretionary permit (variance request) verses ministerial permit (building permit for a custom single-family home) justify applying a different level of review and standard? Does a Copermittee have a discretion under the permit to decide which projects to apply these requirements? (*Laguna Niguel*)

Response: The requirements of this section are basic requirements which should be met by all development projects. However, these requirements are broad and flexible to give discretion to the Copermittees. An example is that source control BMPs are required for all "applicable" projects as determined by the Copermittees.

Section F.1 Subsection F.1.b

Comment: Worse, they might require developers to create places that would serve as breeding grounds for vectors, including mosquitoes carrying the West Nile and other viruses. I am sure that you would agree, it is important in working to solve one environmental problem that we not create new ones. (*Lake Forest*)

Response: The implementation of certain structural BMPs or other urban runoff treatment systems can result in significant vector problems in the form of increased breeding or harborage habitat for mosquitoes, rodents or other potentially disease transmitting organisms. The implementation of BMPs that retain water may provide breeding habitat for a variety of mosquito species, some of which have the potential to transmit diseases such as Western Equine Encephalitis, St. Louis Encephalomyelitis, and malaria. Recent BMP implementation studies by CALTRANS in District 7 and District 11 have demonstrated mosquito breeding associated with some types of BMPs. The CALTRANS BMP Retrofit Pilot study cited lack of maintenance and improper design as factors contributing to mosquito production. However, a Watershed Protection Techniques article describes management techniques to select, design and maintain structural treatment BMPs for urban runoff to minimize mosquito production. State and local urban runoff management programs that include structural BMPs with the potential to retain water have been implemented in Florida and the Chesapeake Bay region without resulting in significant public health threats from mosquitoes or other vectors. The finding identifies the potential vector issues related to BMP implementation and the role of collaborative program development between municipalities and vector control agencies in addressing and minimizing vector production in the implementation of the Jurisdictional Urban Runoff Management Program.

Section F.1 Subsection F.1.b

Comment: May we modify the priority development project categories to match our priorities? (*Mission Viejo*)

Response: The Tentative Order allows Copermittees to add project categories to meet their priorities. The 10 priority project categories listed in the Tentative Order could not be removed.

Section F.1 Subsection F.1.b

Comment: Eric Becker said permit partially based on State Board WQ 2000-11. Do you mean the order or the Dec. 26, 2000 Craig Wilson memo? (*Richard Watson and Associates*)

Response: Both SWRCB WQ 2000-11 and the December 26, 2000 memorandum from Craig Wilson were considered during the development of the Tentative Order.

Section F.1 Subsection F.1.b.1

Comment: Item F.1.b(1) requires each Copermittee to include development project requirements in local permits to ensure that "receiving water quality objectives are not violated throughout the life of the project." Here again, the Tentative Order would impose limitations applicable to discharges from the MS4 to runoff from development projects into the MS4. The RWLs should be set forth in Item C of the Tentative Order and not repeated in other sections relevant to Permittee programs which are designed to meet the Item C RWLs.

JURMP Item F.1.b.(1) also requires the Permittees to ensure that all development will be in compliance with Copermittee storm water ordinances, local permits, all other applicable ordinances and requirements, and this Tentative Order." It is not clear how the Permittees can require "all development" to be in compliance with "this Tentative Order." Private developers are not dischargers

subject to the terms and conditions of “this Tentative Order.” Item F.1.b(1) of Tentative Order should be revised to delete the reference to “this Tentative Order.” (*County of Orange*)

Response: The Findings in the Tentative Order provide a clear link between runoff from development and the exceedence of receiving water quality objectives. The Tentative Order requires the Copermittees ensure that all development projects (not just priority development projects) reduce pollutant discharges and runoff flows to MEP.

Section F.1 Subsection F.1.b.1

Comment: The Provisions of F.I.b.(1)(b), page 14, Requiring Developers to “minimize impervious land coverage for all development projects” could be Argued to Violate the “Takings Clause” of the U.S. Constitution. (*Dana Point, Lake Forest, Laguna Woods*)

Response: The Regional Board has authority to require municipalities to exercise local planning and permitting authority in a manner that will reduce discharges of pollutants in MS4 to MEP in a manner consistent with state and regional water quality control plans and policies. Discharges of pollutants from development and other activities pursuant to municipalities' planning and subject to local permitting constitute a significant source of pollutants discharged to MS4. It is practicable for municipalities to exercise their authority over development projects and other regulated activities in a manner that will implement BMPs to control urabn runoff that does not represent a "Takings". In addition, the provision only requires the site design/landscape characteristics where it is feasible. If the Copermittees determines that such measures are not feasible, they need not require them.

Section F.1 Subsection F.1.b.1

Comment: Section F.I.b.(l) identities six (6) specific requirements that each Copermittee shall include in development project approvals. The imposition of development conditions is a discretionary act of city and county Planning Commissions and governing boards. The Regional Board has no regulatory authority over the content of development permits issued by municipalities, and may not prescribe the process by which development projects are approved. Sections F.I .b.(l)(a) through (f) should be eliminated, or offered only as examples for consideration by the Copermittees. (*Laguna Niguel*)

Response: The SDRWQCB has the authority to require Section F.1.b.1 of the Tentative Order under the broad and specific authority cited in the draft Fact Sheet/Techncial Report. The requirements in the section are broad and flexible to provide discretion to the Copermittees

Section F.1 Subsection F.1.b.1.c

Comment: Section F.I.b(l)(c) refers to “lighting restrictions” related to buffer zones. Please explain what lighting restrictions have to do with water quality. This reference should be eliminated. (*Laguna Niguel*)

Response: The reference in the project approval requirements to lighting restrictions in areas where buffer zones are infeasible is included because lighting infrastructure requires maintenance, roads, related equipment, easements, etc that may have associated water quality impacts.

Section F.1 Subsection F.1.b.2

Comment: Environmentally Sensitive Areas should be removed as a priority development category from the Tentative Order for the reasons it was overturned by SWRCB Order No. 2000-11 on appeal of the LA SUSMP. (*San Juan Capistrano, Richard Watson and Associates, Aliso Viejo, Laguna Hills, Construction Industry Coalition on Water Quality*)

Response: The SWRCB removed the Environmentally Sensitive Areas (ESAs) category from the LA SUSMP due to its poor definition, lack of a size threshold, extensively regulated, and is a location category, not a development category. However, SWRCB allowed for this category to be considered in future permits. In the Tentative Order, the ESA category is clearly defined as development which has the potential to impact ESAs and given specific size thresholds. The category only applies to development within or adjacent to the four specific types identified in the Tentative Order and gives the Copermittees discretion to define additional ESAs. The Tentative Order has been revised to include only areas that are designated as preserves or equivalent in the Natural Community Conservation Planning Program. Although ESA may be regulated by other agencies, this regulation does not necessary relate to water quality and urban runoff. This development category was included in the SD Municipal Permit No. 2001-01 that received extensive public comments.

Section F.1 Subsection F.1.b.2

Comment: Section F.1.b(2)(a), Item ix, page 16: This item should be clarified to indicate that only those roadways within the Copermittee's jurisdiction are subject to the SUSMP requirement of this Order, For example, on a CALTRANS highway project within the City's limits, the City cannot impose this SUSMP requirement because it has no jurisdiction over CALTRANS activities within CALTR4NS right-of-way. (*San Clemente*)

Response: The streets, roads, highways, and freeways category of priority development category only applies to projects for which the Copermittees have approval authority. It is implied in the Tentative Order that Copermittees do not have to require SUSMP requirements on state highway and freeways that are regulated by a seperate stormwater permit. However, the Copermittees cannot passively receive pollutants from urban runoff from projects outside their control that have not been reduced to MEP. The Fact Sheet will be amended to clarify this issue.

Section F.1 Subsection F.1.b.2

Comment: Section F.1.b.2.a.viii lists "Parking lots 5000 square feet or more with 15 or more parking spaces and potentially exposed to urban runoff" as a category of concern. It is unclear why the San Diego RWQCB staff chose to decrease the threshold of 25 parking spaces used in the LA SUSMP to 15 parking spaces in this Permit. There is no justification given for lowering this threshold, therefore it should be changed to 25 parking spaces. (*Construction Industry Coalition on Water Quality*)

Response: The change to 15 parking spaces was based on public comments during adoption of the San Diego Municipal Stormwater Permit. The comments indicated that a 5,000 square feet parking lot corresponds more closely to 15 parking spaces than 25 spaces.

Section F.1 Subsection F.1.b.2

Comment: Would the Regional Board please clarify that the "streets, roads, highways, and freeways" priority development project category does not include state highways and freeways that are regulated under a separate NPDES permit issued by the State Board. (*San Juan Capistrano*)

Response: The streets, roads, highways, and freeways category of priority development category only applies to projects for which the Copermittees have approval authority. It is implied in the Tentative Order that Copermittees do not have to require SUSMP requirements on state highway and freeways that are regulated by a separate stormwater permit. However, the Copermittees cannot passively receive pollutants from urban runoff from projects outside their control that have not been reduced to MEP. The Fact Sheet will be amended to clarify this issue.

Section F.1 Subsection F.1.b.2

Comment: The Application of Standard Urban Storm Water Mitigation Plans ("SUSMPs") to non-discretionary, or ministerial, approvals could be said to violate the "Takings Clause." Not only are the SUSMPs (Part F.1.b.(2)., p. 15), to be applied to the copermittees discretionary land use decisions, apparently the Tentative Order contemplates that the copermittees will apply the SUSMPs to non-discretionary, or ministerial decisions [footnote 4: Finding on page 13, in the last sentence provides, "For water quality purposes, the Regional Board considers that all new development and significant redevelopment activity in specified categories that receive approval or a permit from a local government are subject to storm water mitigation measures.]

Consider another example: a property owner already has satisfied all requirements for discretionary approvals for construction of homes in a 100-home subdivision, through the approval of a "vesting tentative map" [footnote 5: A vesting tentative map, if granted, will confer a vested right to proceed with the development in accordance with ordinances, policies, and standards in effect at the time the application for approval of the vesting tentative map is complete. California Gov't Code § 66498.1; see *Kaufman & Broad Central Valley, Inc. v. City of Modesto*, 25 Cal.App.4th 1577 (1994)] and now seeks to pull building permits for construction of a last phase of 10 homes on contiguous lots. Absent the SUSMP, a City, typically through its Building Official, would be required to issue the building permits if the Building Official determines that the permit application meets fixed, defined requirements, e.g., single family residences on lots zoned for single family. Imposition of a new requirement, to "minimize impervious cover" for the last ten single family homes in the development, conceivably by leaving nine lots undisturbed, and placing all ten homes on one one-acre lot, could be argued to be a "taking" of private property (the nine lots which now must be left undisturbed), for public use without just compensation. It is one thing to condition the issuance of a building permit on adherence to a new building code requirement. It is another thing altogether to require a landowner to leave nine out of ten lots undisturbed, in order to 'minimize impervious cover.'" (*Lake Forest & Laguna Woods*)

Response: The SUSMP requirements apply only to discretionary and non-discretionary projects falling under the priority project categories after the adoption of the Tentative Order. The Copermittees are required to use the 18-month SUSMP implementation period to ensure that projects undergoing approval processes include application of the SUSMP requirements. However, if the Copermittees determine that lawful prior approval of a project exists, whereby the SUSMP requirements are not feasible, then the requirements need not apply.

In addition, the requirements to minimize impervious surfaces for all development projects (including SUSMPs) are where feasible as determined by the Copermittees.

Section F.1 Subsection F.1.b.2

Comment: Even assuming one percent is the correct amount, the actual, absolute value of the investment incurred before the SUSMP has the potential to result in any meaningful water quality improvement is likely to be very high. Estimates for the San Diego region, assuming 20 years of SUSMP-type construction adding a one percent increment to each new development, were on the order of one to two billion dollars. (*Construction Industry Coalition on Water Quality*)

Response: The intent of SUSMP requirements is to implement developmental control on new development and significant redevelopment to ensure that urban runoff problem does not get worse. USEPA states in the preamble to the Phase II regulations, that "minimum measures identified for small MS4s should significantly reduce pollutants in urban storm water compared to existing levels in a cost effective manner". Since the smaller communities covered the Phase II regulations will realize these benefits, it is reasonable to assume that these same benefits will be realized by the larger communities covered by Phase I regulations and the Tentative Order. In addition, SWRCB found in Order No. 2000-11 that a one percent of total development costs was reasonable especially considering the costs of impairment (e.g. beach closure).

Section F.1 Subsection F.1.b.2

Comment: How is the phrase "or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring conditions" to be interpreted for redevelopment of a previously developed site? (*San Juan Capistrano*)

Response: If the redevelopment project results in the increase of impervious area of a project site to 10% or more of the naturally occurring conditions (predevelopment), then SUSMP requirements apply. If the existing previously developed site has more than 10% impervious area, then the 2,500 square foot criteria applies.

Section F.1 Subsection F.1.b.2

Comment: The Regional Board Should Not Impose The Standard Urban Storm Water Mitigation Plan Designed By And For The Los Angeles County Permittees. Item F.1.b(2) of the Tentative Order requires the Permittees to collectively develop a model Standard Urban Storm Water Mitigation Plan ("SUSMP") for new development and significant redevelopment, and then to each adopt their own local SUSMP. The SUSMP provision, comprising six full pages of the Tentative Order, includes prescriptive, detailed requirements for BMPs, numeric sizing criteria, infiltration and groundwater protection, and downstream erosion. Moreover, the SUSMP requirements were not developed with regional considerations in mind. Rather, they were taken almost verbatim from the SUSMP developed for the Los Angeles County MS4 permit ("LA County Permit"). Thus, contrary to the guidance provided by Congress and EPA, the SUSMP requirements in the Tentative Order are not flexible nor are they site-specific.

Furthermore, contrary to staff's apparent understanding, the State Board has not mandated SUSMPs in MS4 permits. In Order WQ 2000-11, the State Board concluded that the SUSMPs contained in the LA County Permit, as revised by the Order, were consistent with MEP (Order, p. 15) and that the "Final SUSMPs reflect a reasonable interpretation of development controls that achieve reduction of pollutants in storm water discharges to the maximum extent practicable." (Order, p. 28.) As noted above, the CWA requires MS4 permit applicants to propose certain management programs. These

include “[a] description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from [MS4s], which receive discharges from areas of new development and significant redevelopment. 40 C.F.R. §122.26(d)(2)(iv)(A)(2). The State Board in WQ 2000-11 merely determined that the SUSMP included in the LA County Permit (as proposed by the permittees and modified by the Regional Board and the State Board) met this requirement for the Los Angeles MS4 permittees.

However, the State Board did not say that this was the only way to satisfy such requirements. In other words, while the LA County SUSMP meets the MEP standard, it is not the only way to meet the MEP standard. “EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis.” 64 Fed. Reg. 68722 (Dec. 8, 1999). Thus, consistent with the need for flexibility in municipal storm water permitting, MS4 permittees should have the flexibility to develop programs for new development and significant redevelopment that are designed to meet the needs of their own jurisdictions. Moreover, there is no reason to believe that the SUSMP requirements proposed in the Tentative Order will be any more effective in reducing the discharge of pollutants from new development and significant redevelopment than the current approach reflected in the 2000 DAMP. In fact, SUSMPs may be less effective in protecting overall water quality. Section 7.0 and Appendix G of the 2000 DAMP set forth the Permittees’ current approach for reducing the discharge of pollutants from new development and significant redevelopment. The general approach requires implementation of routine structural and non-structural BMPs at all new private development and significant redevelopment. “Special” structural BMPs are required at new developments and significant redevelopments to address specific water quality problems identified through the water quality monitoring program and water quality planning process. In other words, all development and significant redevelopment is subject to BMPs to reduce the discharge of pollutants; “priority” sites that present specific water quality problems are addressed with additional structural BMPs. Thus each site would be subject to appropriate BMPs. The SUSMP approach would require the Permittees to focus solely on priority sites, to the exclusion of all other sites that may be contributing to water quality impairment. The Permittees should, accordingly, be allowed to continue addressing discharges from new development and significant redevelopment through implementation of the 2000 DAMP rather than SUSMPs. (*County of Orange*)

Response: The SUSMPs requirements are necessary, reasonable, will be effective in improving water quality, and will prevent the current situation from getting worse. This is a third term permit and the Copermittees are expected to build upon and improve on the requirements of the first and second term. This in line with USEPA guidance that states that BMPs should be expanded and better tailored in subsequent permits to attain water quality standards. The proposed DAMP represents the status quo and contains essentially the same requirements for new development/significant redevelopment that were developed during the first term. The program proposed in the DAMP could be modified to comply with Tentative Order including development of a comprehensive structural BMP list and numeric sizing criteria for these BMPs. The new development and redevelopment section of the proposed DAMP does not include many measures as noted in Appendix 5 of the Draft Fact Sheet/Technical Report.

Section F.1 Subsection F.1.b.2

Comment: The Definition of "Redevelopment" in the Tentative Order is Inconsistent with the Controlling EPA Definition of "Redevelopment." In PART F. 1 .b.(2)(a). on page 15, "Significant redevelopment" is defined to mean "the creation or addition of at least 5,000 square feet of impervious surfaces area on an already developed site." The definition further provides that "Significant redevelopment" includes exterior remodeling. These aspects of the definition of "Redevelopment"

conflict with the EPA's definition of the term. In promulgating the Phase II final rules, EPA stated EPA intends the term "redevelopment" to refer to alterations of a property that change the "footprint" of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse storm water quality impacts and offer no new opportunity for storm water controls.64 Fed.Reg. 68760,

December 8, 1999. The Cities are aware of no evidence to support the use of a 5,000 square foot, rather than EPA's one acre, threshold, or to apply the re-development requirements to remodeling. Similarly, the Cities are aware of no authority for the proposition that the EPA's one acre threshold, or exemption for remodeling, are not binding for purposes of this Order.

Recommendation: The definition of "Significant redevelopment" should be changed to alterations of a property that change the "footprint" of a site or building in such a way that results in the disturbance of equal to or greater than 1 acre of land. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse storm water quality impacts and offer no new opportunity for storm water controls. (*Lake Forest & Laguna Woods*)

Response: The SDRWQCB does have the authority to include more specific requirements than those stated in the federal NPDES regulations. When relating specifically to storm water, Clean Water Act section 402(p)(3)(B)(iii) clearly provides states with wide-ranging discretion, stating that municipal storm water permits "[s]hall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." Please refer to item 4 in section V of the Fact Sheet/Technical Report (Common Municipal Storm Water Permit Issues) for a further discussion of whether the SDRWQCB can include in the Tentative Order more specific requirements than those stated in the federal NPDES regulations. The 5,000 square feet requirement for redevelopment was developed during the LA municipal storm water permit process. This threshold was upheld on appeal by SWRCB Order No. 2000-11 and SWRCB defined redevelopment subject to SUSMP requirements if it results in the creation or addition of 5,000 square feet of impervious surfaces. If a redevelopment project involves exterior remodeling that adds 5,000 square feet of impervious surface, then SUSMP apply to the remodeling. If the remodel results in an increase in more than fifty percent of the impervious surface of the existing development, then SUSMP apply to the whole development.

Section F.1 Subsection F.1.b.2

Comment: Priority project categories that fall under SUSMP: a project that could impact environmentally sensitive areas and which increases the area of imperviousness of a proposed project site to 10% or more of it naturally occurring condition. Where in the permit is "naturally occurring condition" defined? (*Aliso Viejo*)

Response: Naturally occurring condition is defined as predevelopment condition.

Section F.1 Subsection F.1.b.2

Comment: Item F.1.b(2), with minor changes, the Regional Board staff has essentially cut and pasted the SUSMP developed pursuant to the Los Angeles County NPDES permit into the Tentative Order for the County, thereby imposing a storm water management program designed for new development in Los Angeles County on new development in Orange County. The Tentative Order

would ignore the unique circumstances of the County and its municipalities. As discussed in detail above, this cut and paste approach to municipal storm water permitting is inconsistent with policies established by Congress and EPA in the CWA and its implementing regulations which emphasize flexibility and site specific, case-by-case determinations for each permit. See supra General Comments § V. Even the Los Angeles Regional Board, where the SUSMP originated, has now recognized that the SUSMP may not be appropriate for everyone. The current draft of the LA County MS4 permit allows a Permittee or Permittee group to substitute a regional or sub-regional storm water mitigation program for the SUSMP. See Los Angeles Regional Water Quality Control Board, Order No. 01-XXX (NPDES No. CAS001001) (Second Draft, June 29, 2001), Part 4, Section D.10. The Tentative Order should, accordingly, be revised to delete the mandatory SUSMP requirements and, instead, build on the new development programs included in the 2000 DAMP. See supra General Comments § IV. (*County of Orange*)

Response: The new development and redevelopment section of the proposed DAMP does not include many of the important provisions of the Tentative Order as indicated in Appendix 5 of the Draft Fact Sheet/Technical Report. The Tentative Order provides minimum requirements for new development and significant redevelopment (including SUSMPs) that must be met and a framework for the Copermittees to work within. However, the Tentative Order does not preclude the Copermittees from using their DAMP to develop a program that meets or exceed these requirements.

Section F.1 Subsection F.1.b.2

Comment: Section F. 1 .b.(2): The Tentative Order defines environmentally sensitive areas as including “areas in the Natural Community Conservation Planning Program.” The Southern Subregion NCCP includes the communities of Mission Viejo, San Juan Capistrano, Ranch0 Santa Margarita, Coto de Caza and others. According to the definition, all urban and non-urban land uses with the subregion would be “environmentally sensitive areas”, when significant portions of the subregion are plainly not environmentally sensitive. A more appropriate definition of environmentally sensitive areas in an NCCP context would be the areas designated as reserves. This would also be consistent with the San Diego County permit. (*Rancho Mission Viejo*)

Response: The section F.1.b.2.a.vii of the Tentative Order has been changed to include only areas designated as preserves or equivalent under the NCCP Program.

Section F.1 Subsection F.1.b.2

Comment: The requirement in the new permit is to require post development to maintain predevelopment flow discharges and velocities. What storm event is this referring to? Is it 2yr, 5yr or other? (*County of Orange*)

Response: The Tentative Order does not specify a predevelopment storm event, but instead leaves establishment of such an event standard to the discretion of the Copermittees.

Section F.1 Subsection F.1.b.2

Comment: Section F.1.b(2)(a), Items i and ii, page 15: These two items together effectively require home subdivisions of 10 or more units to be subject to SUSMP requirements. Is there a specific reason that the “home subdivisions” category has been subdivided, or can these two items be combined? (*San Clemente*)

Response: Please see latest Tentative Order. The two categories will be combined into one.

Section F.1 Subsection F.1.b.2

Comment: Section F. 1 .b.(2): The Tentative Order defines the applicability of the SUSMP requirements as applying to “all priority projects or phases of priority projects that have not yet begun grading or construction activities.” RMV is currently constructing the planned community of Ladera Ranch. The entire site has been graded and residents are living in the first phase. RMV therefore views Ladera Ranch as vested under the language cited above. (*Rancho Mission Viejo*)

Response: Comment noted.

Section F.1 Subsection F.1.b.2

Comment: This Section requires that a SUSMP be implemented for the listed categories of development. We object to the Permit’s “one size fits all” approach to implementation of the SUSMP. Lumping all of these development categories into the same regulatory program ignores obvious thresholds that would result in development and regulatory savings without compromising the efficacy of the program. Although it might be appropriate to focus on certain categories of development for addressing water quality concerns, the selection of these categories should be based on tangible scientific data that determines these categories to be of higher concern or requiring additional attention than other development categories. It is not clear why residential development is even included as a priority development category when the water quality data collected to date has not shown residential land use to be of a high concern. Furthermore, even if residential development is included as a priority development, there is no reason why it should have a lower threshold (10 housing units) than industrial/commercial development (100,000 square feet) when the water quality data (Los Angeles County Flood Control District 1994-2000 Integrated Receiving Water Impacts Report) has not shown residential land use to be of higher concern. Also, the inclusion of residential development, as a category in the SUSMP, with a threshold of 10 housing units, is helping to prevent “smart growth” by creating a disincentive to high density, infill development that is needed to responsibly increase housing supply and affordability in urban, job rich areas. With the existing housing and affordability crisis, low or moderate-income housing should be exempt from these requirements anyway. (*Construction Industry Coalition on Water Quality*)

Response: The Tentative Order including SUSMPs provides a minimum framework for Copermittees to work within, but gives them broad discretion in determining what BMPs are appropriate at all developments (not only SUSMP). The priority development categories included in the Tentative Order will result in either a large increase in impervious area or are potential significant sources of pollutants and therefore are subject to SUSMP requirements. All of the categories were included in the SD Municipal Storm Water Permit Order No. 2001-01 and no information provided supports their removal from the Orange County permit. In contrast to comment, the Tentative Order does include specific thresholds for application of SUSMPs to prevent insignificant projects from having these requirements. The fact that a project is low or moderate income does not mean that it is less of a water quality threat than a similar more expensive project.

Section F.1 Subsection F.1.b.2

Comment: The Waste Discharge Requirements are a great step towards the mitigation of nonpoint source pollution and urban runoff, and towards the eventual restoration of the ecological integrity of our coastal waters. The inclusion of retail gasoline outlets, environmentally sensitive areas, and roads and highways to the development projects necessitating permits is critically important. Moreover, we support the incorporation of both flow-based and volume-based calculations of storm events. (*California Coastal Commission*)

Response: Comment noted.

Section F.1 Subsection F.1.b.2

Comment: We encourage the San Diego Regional Water Quality Control Board to continue to look for ways to mitigate runoff from all development projects, including those that are exempt in this review. Just as we believe all developments, no matter how small, may contribute to urban runoff and nonpoint source pollution, we also believe there are common sense, simple means of reducing runoff from small developments, such as the development projects of fewer than ten unit homes, less than 100,000 square feet industrial/commercial development, and parking lots of less than 5,000 square feet or 25 parking spaces. Moreover, the Coastal Commission would encourage you to periodically assess the cumulative impact of development not currently covered under the permit. (*California Coastal Commission*)

Response: Comment noted. The assessment of the cumulative impact resulting from discharges from development not currently covered under the permit is implicitly required throughout the Jurisdictional Urban Runoff Management Program (JURMP) and the assessment of effectiveness component of the JURMP Annual Reports.

Section F.1 Subsection F.1.b.2

Comment: In light of these issues, we suggest that the 10-99 housing units and the 100 housing units or more categories be combined with the commercial category to read, "A commercial or residential development with 100,000 or more square feet of directly connected impervious area which is not considered low or moderate income housing." Directly connected impervious area can be defined as follows: "the area covered by a building, impermeable pavement, and/or other impervious surfaces, which drains directly into the storm drain without first flowing across permeable land area (e.g. lawns)." It is clear throughout this Proposed Permit that the Regional Board is trying to promote natural drainage and less impervious area. This proposed category definition provides the incentive to help promote this approach. (*Construction Industry Coalition on Water Quality*)

Response: Sections F.1.b.2.a.i and F.1.b.2.a.ii will be combined into one home subdivision category and will remain separate from the criteria for commercial developments. Please see changes in Tentative Order.

Section F.1 Subsection F.1.b.2

Comment: Why doesn't the Regional Board specify the 80th percentile runoff event in the numeric sizing criteria since the 80th percentile runoff event is now considered by municipalities in the semi-arid southwest "as cost effective for stormwater quality management and is viewed as the design

event that achieves MEP..." (WEF Manual of Practices No. 23, page 174)? (*Richard Watson and Associates*)

Response: The 80th percentile reference is what size storm event the City of Denver has chosen to capture. This is not considered appropriate for the San Diego Region because using the 80th percentile storm event would ignore the point of diminishing returns. The 85th percentile storm event required in the Tentative Order represent the knee of the precipitation probability curve from which it is no longer cost effective to treat runoff. In addition, SWRCB Order No. WQ-2000-11 states that the 85th percentile storm event constitutes MEP.

Section F.1 Subsection F.1.b.2

Comment: The blanket application of the San Diego SUSMP requirements is inappropriate and poses some technical and regulatory difficulties for new development...We also submit that the permit should reflect the efforts taken to date and provide flexibility for the County to address the SUSMP requirements. With that in mind we recommend replacing the San Diego provision F. 1 .b.2 in its entirety and replacing it with the following [see letter for suggested replacements]. (*County of Orange*)

Response: The Tentative Order contains the framework of minimum requirements (Including SUSMPs) for the Copermittees to develop and implement urban runoff management programs. Within that framework, the Copermittees have significant discretion and flexibility with regard to the programs and the specific BMPs that are developed and implemented. The SUSMP requirements have been upheld by SWRCB in Order No. 2000-11. These requirements have also been adopted by the SDRWQCB in San Diego Municipal Storm Water Permit No. 2001-01 and represent what the Board considers MEP for the Region.

Section F.1 Subsection F.1.b.2.

Comment: The hillside development category should be deleted, as there have been no studies to justify its inclusion as a priority development category requiring SUSMP compliance. The pollutant loading from hillside developments are minimal when compared to other development categories. It is our belief that this category was originally placed as a priority planning category in the current Los Angeles Municipal Storm Water Permit due to the confusion between post-construction and construction phase. This development category is obviously of high concern during the construction phase due to the high potential for slope erosion, however the post-construction pollutant loading from these hillside developments is minimal when compared to other development categories due to slope stabilization being required in the State General Construction Permit prior to obtaining a Notice of Termination. It could also be structurally dangerous to divert roof runoff and surface flow to vegetated areas before discharge. One has to ask, "What are the benefits of implementing these requirements in comparison to the cost and potential risks involved?" Especially considering that a single-family hillside residence has not been shown to contribute substantially to water quality impairments. What is the purpose of this requirement, if it is not to address potential water quality impairment? Could it be to stop hillside development? (*Construction Industry Coalition on Water Quality*)

Response: The hillside development SUSMP priority category is necessary due to the high potential for erosion both on-site and downstream resulting from changes in the flow regime caused by this type of development. On-site and downstream erosion can be a significant source of pollutants and need structural treatment BMPs to prevent. The 5,000 square foot size threshold was

used in the Tentative Order is based on SWRCB guidance in Order 2000-11 and the SDRWQCB Order No. 2001-01.

Section F.1 Subsection F.1.b.2.a

Comment: Sub-paragraph “F. 1 .B. (2)” “Standard Urban Storm Water Mitigation Plan (SUSMPs)” in sub-paragraph (a). is overly prescriptive as to the application of these plans. In particular, sub-paragraph V regarding restaurants is so small in area that no restaurant facility could be created without the use of a SUSMP regardless of the location or type of facility being proposed. The restaurant limitation should be revised to where the land development is at least 20,000 sq. ft. (*Laguna Hills*)

Response: The 5,000 size threshold for restaurants that are subject to SUSMP requirements was defined in the LARWQCB SUSMP and upheld in SWRCB Order WQ 2000-11. In addition, this threshold was adopted in SDRWQCB Order No. 2001-01.

Section F.1 Subsection F.1.b.2.a

Comment: [Section F.1.B.2] Sub-paragraph VIII regarding parking lots is much too restrictive and inappropriate as there is not direct scientific linkage to the 5,000 square feet of a parking lot and adverse urban runoff. A parking lot of one acre or more in size should be the maximum criteria as being a reasonable size development that should be burdened with a SUSMP. Similarly, sub-paragraph IX inappropriately defines any road surface as having to comply with an SUSMP and is overly restrictive at 5,000 square feet. This requirement should be revised to match construction site limitations of 5 acres or more. (*Laguna Hills*)

Response: The 5,000 square foot size threshold was used in the Tentative Order is based on SWRCB guidance in Order 2000-11 and the SDRWQCB Order No. 2001-01. Streets, roads, highways, freeways, and parking lots are SUSMP priority development catagoreis due to their potential significant source of pollutants in urban runoff.

Section F.1 Subsection F.1.b.2.a

Comment: Section F.1.b.(2)(a) identifies ten (10) priority development project categories for new development and significant redevelopment. These specific project categories are not specifically found in the Clean Water Act, the applicable Federal Regulations, the Porter-Cologne Act, or EPA guidance documents. The Draft Fact Sheet/Technical Report provides no specific rationale for the selection of the priority project categories. Please provide additional information (i.e. scientific, empirical, other) for each of the priority project categories. Why is each project category a threat to water quality? What are the specific pollutants of concern associated with each project category? Why is there no category for new industrial uses? (*Laguna Niguel*)

Response: The SDRWQCB has the authority to include the priority development project categories Section F.1.b.2.a of the Tentative Order under the broad and specific authority cited in the draft fact sheet/technical report. As indicated in the draft fact sheet/technical report, the 10 priority development project categories either result in a large increase of impervious surfaces or are potential significant sources of pollutants. The inclusion of SUSMP priority development categories was upheld in SWRCB Order No. WQ 2000-11 and were included in the San Diego Municipal Storm Water Permit . All ten categories in the SDRWQCB Order No. 2001-01 are included in the Tentative Order and are

projects that will likely occur in Orange County. The Tentative Order requires the Copermittees to develop a procedure to identify the pollutants or conditions of concern for each development and significant project falling under the 10 priority categories. If a new industrial development or significant redevelopment projects falls under one of the 10 catagories listed in the Tentative Order, the SUSMP requirements apply.

Section F.1 Subsection F.1.b.2.a

Comment: Sections F.1.b.(2)(a)i and ii should be combined into one category to read as follows: ‘Home subdivisions of 10 housing units or more’. (*Laguna Niguel*)

Response: Sections F.1.b.2.a.i and F.1.b.2.a.ii of the Tentative Order will combined to be one priority development project category. Please see changes to Tentative Order.

Section F.1 Subsection F.1.b.2.a

Comment: [Section F.1.B.2] Sub-paragraph VI limiting hillside development to anything greater than 5,000 sq. ft. is an overly broad restriction and will create unnecessary development of a SUSMP for such facilities as an out building or barn and not a significant development. The size limitation should be revised to all hillside development greater than one acre in size. (*Laguna Hills*)

Response: The hillside development SUSMP priority category is necessary due to the high potential for erosion both on-site and downstream resulting from changes in the flow regime caused by this type of development. On-site and downstream erosion can be a significant source of pollutants and need structural treatment BMPs to prevent. The 5,000 square foot size threshold was used in the Tentative Order is based on SWRCB guidance in Order 2000-11 and the SDRWQCB Order No. 2001-01.

Section F.1 Subsection F.1.b.2.a

Comment: Retail establishments, including gasoline outlets, are not covered by the CWA MS4 regulations. Parts F.1.b.(2)(a).v and x on page 16 of the Tentative Order, would require each Co-permittee to apply the SUSMPs to commercial developments, including restaurants and Retail Gasoline Outlets. However, in the preamble to the promulgation of the Phase I regulations, the U.S. EPA stated that “EPA views gas stations as retail commercial facilities not covered by this regulation. It should be noted that SIC classifies gas stations as retail.” 55 Fed.Reg. 48013-14, Nov. 16,1990.

Recommendation: In view of EPA’s statement that gas stations, as they are retail facilities, are not covered by the Phase I regulations, Parts F.1.b.(2)(a).v. and x, on page 16 of the Tentative Order, should be revised to cite specific authority for the proposition that gas stations and restaurants may be covered by the Tentative Order, or Parts F.1.b..(2)(a).v. and x, on page 16 of the Tentative Order, should be deleted. (*Lake Forest & Laguna Woods*)

Response: In compliance with the Phase I section referred to by the comment, the Regional Board does not regulate retail gasoline outlets(RGOs) as industrial facilities that require separate industrial storm water permits. The Tentative Order considers RGOs to be commercial and are included in the SUSMP requirements due to their potential as a significant source of pollutants in urban runoff.

Section F.1 Subsection F.1.b.2.a

Comment: Section F.1.b.(2)(a)viii and rjr lists parking lots (5,000 sq. ft. or 15 spaces), streets and roads (5,000 sq. t?.) as high priority development that are subject to SUSMPs requirements. Listing the number of units in a residential project or the size of a commercial project site as a threshold for SUSMP requirements while at the same time listing the sizes and types of impermeable surfaces (parking lots and roads) as another threshold, is confusing. For example; is a 5-unit single-family residential development with a new private cul-de-sac street (larger than 5,000 sq. ft.) subject to SUSMP requirements? If the answer is yes, what is the criteria for sizing the BMP? Is the BMP sized to treat the runoff from the street or from both the street and the 5 residential lots? The same confusion results under Subsection iii. for commercial development. A viable new commercial development, no matter its site acreage (plus or minus 2.5 acres), is going to have a parking lot of at least 15 parking spaces; therefore, is Subsection viii. intended to apply to isolated fi-estanding parking lots or roads/streets that are not directly associated with a new residential or commercial development project? (*Laguna Niguel*)

Response: SUSMP requirements would only apply to the project or portion of a project that falls within the priority development categories listed in the Tentative Order. However, a road or parking lot would also be included in the total size of the project. For example, a 15,000 square foot parking lot for a 90,000 square foot commercial development would trigger SUSMP requirements for both the lot and development.

Section F.1 Subsection F.1.b.2.a.x

Comment: Section F.1.b.(2)(a)x refers to retail gasoline outlets. Does the 5,000 sq. ft. criteria for a gasoline outlet refer to the size of the building/canopy, impervious surface or land area? (*Laguna Niguel*)

Response: The 5,000 square feet criteria refers to impervious area.

Section F.1 Subsection F.1.b.2.b

Comment: Section F.1.b.(2)(b) requires all new development and significant redevelopment projects to implement a combination of BMPs including at least one (1) source control BMP and two (2) structural treatment BMPs. These minimum standards are arbitrary and inappropriate. The appropriate BMPs will vary from project to project. In some cases, the implementation of one (1) source control or structural treatment BMP may be sufficient to mitigate all water quality impacts of a project. The imposition of development conditions is a discretionary act of city and county Planning Commissions and governing boards. Please eliminate this part of Section F.1.b.(2)(b). (*Laguna Niguel*)

Response: The BMP requirements in the section apply only to SUSMP project categories and which BMPs that are to be implemented is left to the discretion of the Copermitttees. The intent of the criteria is to define what minimum performance standards that the selected BMPs must meet. The SUSMP provision requiring source control BMPs and structural BMPs has been upheld in SWRCB Order No. WQ 2000-11 and was included in the SDRWQCB Order No. 2001-01.

Section F.1 Subsection F.1.b.2.b

Comment: Second, in consecutive minimum requirements, the Permit directs permittees to “minimize storm water pollutants of concern in urban runoff,” as well as, “remove pollutants of concern from urban runoff.” Regardless of which standard is actually controlling, neither considers feasibility, costs, or any other factor used to define MEP. A literal reading of this requirement orders permittees to produce pristine drinking water from its MS4. (*Construction Industry Coalition on Water Quality*)

Response: Controlling the discharge of pollutants to the MEP is a basic standard of the Tentative Order and not repeated in every line. Both requirements, minimizing storm water pollutants of concern and removing pollutants of concern, are to this MEP standard. However, neither of these requirements require the removal of all pollutants of concern.

Section F.1 Subsection F.1.b.2.b

Comment: Section F.1.b.(2)(b)(i. through xiv.) also lists fourteen (14) specific areas which must be addressed by BMPs. These items should be eliminated as requirements, and offered only as examples for consideration by the Copermittees. (*Laguna Niguel*)

Response: The BMP requirements in the section apply only to SUSMP project categories and which BMPs that are to be implemented is left to the discretion of the Copermittees. The intent of the criteria is to define what minimum performance standards that the selected BMPs must meet. The SUSMP provision requiring source control BMPs and structural BMPs has been upheld in SWRCB Order No. WQ 2000-11 and was included in the SDRWQCB Order No. 2001-01. Many of the criteria are listed in the section as where feasible to give the Copermittee flexibility.

Section F.1 Subsection F.1.b.2.b

Comment: Section F.2.B.2.B - The Regional Board has made no showing that any of these unqualified directives are consistent with MEP. Thus, these unqualified, absolute directives should be stricken from the Permit or somehow made to conform with the MEP standard. (*Construction Industry Coalition on Water Quality*)

Response: Section F.2.B.2.B contains criteria for the Copermittees to apply in developing their recommended source control and structural treatment BMPs. Items ii,iii, v, vii, viii, ix, xi, xii, xiii, xiv are qualified measures. Items i, iv, and vi are objectives of BMPs and Items vii and x are common sense measures. Using this criteria, Copermittees will be able to develop recommended source control and structural treatment BMPs that do not exceed the MEP standard.

Section F.1 Subsection F.1.b.2.b

Comment: Section F. 1 .b.(2): The first BMP offered requires the “control of post development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion, and to protect stream habitat.” Requiring peak flow control for smaller storms can actually lead to more damage in streams and open channels from physical impacts than doing nothing (e.g. reducing post -development peaks to be equal with pre-development one or two year peaks will result in the stream flowing at a near bank-full rate for extended time periods, instead of letting some of the flows and energy go over bank, hence the steam will down-cut faster, depending of course on the channel bed and side materials). The approach should be to minimize the increase in

flows and volumes by use of BMPs that retain waters on-site and then work with the receiving waters to ensure that they can adapt to changing hydrology (e.g., stream stabilization measures) that occurs with development.

Such flow requirements (peak control) for smaller storms only make sense from a physical habitat perspective when discharging to receiving waters that are potentially sensitive to such changes in runoff. For example, a concrete lined channel that discharges directly to the ocean should not have issues with in-stream instability. Reducing volumes, however, would reduce pollutant loads. (*Rancho Mission Viejo*)

Response: It is the intent of the requirement to control peak flow rates and velocities as necessary to maintain downstream erosion and protect stream habitat. Where there is not a potential for increased downstream erosion, then this requirement need not apply.

Section F.1 Subsection F.1.b.2.b.1

Comment: First, permittees are directed to “control the post development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion and to protect stream habitat.” In other words, if a development project places concrete where grass once grew, permittees must somehow use concrete that has the same runoff discharge rate and velocity as “grassland,” or otherwise trick Nature into producing the same response to a storm as existed in the natural state. Of course, the Regional Board does not lend any suggestions as to how this impossible feat could actually be achieved (much less, achieved in a reasonably cost-effective manner). (*Construction Industry Coalition on Water Quality*)

Response: The Tentative Order does not require that concrete have the same runoff rates and velocities as grass. By replacing grass with impervious surfaces, the assimilative capacity of the ground is lost and there is an increase in both runoff rates and velocities. The Tentative Order simply requires that appropriate BMPs are implemented at SUSMP projects to control these increases and prevent additional downstream erosion and to maintain stream habitat. Urban impoundments, parking lot storage, rooftop runoff disposal, cistern storage, infiltration pits and trenches, concrete grid and modular pavement, porous asphalt pavement, grassed waterways, filter strips and seepage areas are some examples of BMPs for stormwater runoff detention/retention.

Section F.1 Subsection F.1.b.2.b.6

Comment: The Permit directs permittees to “protect slopes and channels from eroding.” Once again, the Permit prescribes an unqualified mandate in violation of MEP. As the Regional Board is well aware, it is a simple fact of nature that many slopes and channels do erode over time. This is a natural phenomenon that occurs with or without the presence of urban development and MS4s. A literal reading of this requirement actually requires permittees to alter the Earth’s natural cycle of erosion. As such, it should be qualified. (*Construction Industry Coalition on Water Quality*)

Response: BMPs are required to protect slopes and channels from erosion due to new development and significant redevelopment. Copermitees are not required to prevent erosion from naturally occurring conditions.

Section F.1 Subsection F.1.b.2.c

Comment: These requirements are inconsistent with the MEP standard because they are inflexible and bear no relationship to actual pollutant reduction and realized water quality benefits. Permittees are directed to treat an arbitrary amount of site runoff, regardless of its contents, and regardless of the treatment's effects on receiving water quality. This mandate is unfounded because, in many cases, treating 85% of site runoff may not result in significant water quality benefits over that which would be achieved by treating a much lesser percentage.[17] The amount of money needed to meet these requirements is clearly unreasonable, if the same water quality benefits could be achieved by BMPs that cost significantly less. The Regional Board has not made any showing that forcing specific permittees and developers to treat 85% of all site runoff is in fact reasonable, taking into consideration the relative costs and relative water quality benefits to be achieved.

These numeric sizing criteria run afoul of MEP because they are not applied in a site-specific and flexible manner. To comply with MEP, the Regional Board must consider the many variables that may change with respect to each new development site, as well as each permittee.

This inflexible standard leaves no room for these site-by-site determinations; developers and permittees will not have the needed flexibility to concentrate resources where they are most needed. In effect, this standard ties the hands of local government and discourages innovative and regionalized watershed solutions.

MEP (as well as the SWRCB's enforcement policy and due process and equal protection considerations)" requires the Regional Board to promulgate standards that can be applied in a fair and consistent manner. The Regional Board's one-size-fits-all standard will undoubtedly create unfair results. Many developers and permittees may unjustly be forced to comply with an "85% volume-based treatment standard" that produces no significant water quality benefits over a less expensive option. Control measures adopted in the storm water program should not create such disparate results." For the foregoing reasons, the flow and volume based BMP requirements are inconsistent with MEP and should be stricken. (*Construction Industry Coalition on Water Quality*)

Response: SWRCB Order No. 2000-11 finds that SUSMPs (including Numeric Sizing Criteria) that require the mitigation of 85% of runoff from new development and significant reflects a reasonable interpretation of developmental controls that achieve reduction of pollutants to the MEP. The Numeric Sizing Criteria included the Tentative Order were based on staff review of the LA Municipal permit, SWRCB Order. 2000-11, public comments, and the San Diego Municipal permit to determine applicability to the Tentative Order. In particular, the San Diego Municipal permit (including Numeric Sizing Criteria requirements) represents the Board's interpretation of what meets MEP within the San Diego Region. The sizing criteria is based on the point where it is no longer cost effective to treat urban runoff.

Section F.1 Subsection F.1.b.2.c

Comment: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement. We are concerned in particular that the permit: Specifies numeric design criteria for post-construction BMPs that are more stringent than the criteria in the San Diego permit (BMPs designed to mitigate [infiltrate, filter, or treat] the runoff produced by a 0.8-inch rain event rather than a 0.6 inch rain event in San Diego). (*Mission Viejo*)

Response: The 24-hour 85th percentile storm event of 0.8 inch was calculated using County of Orange historical rainfall data and represents an average for the area covered by the Tentative Order.

The 0.6 inch event in the San Diego permit was calculated using historical rainfall data from San Diego County.

Section F.1 Subsection F.1.b.2.c

Comment: May we have copies of the calculations used to determine that the average 24-hour 85th percentile storm for Orange County is 0.8 inch? (*Richard Watson and Associates*)

Response: The calculations are listed in Attachment C of the Draft Staff Report for SUSMPs and Numeric Sizing Criteria for Best Management Practices.

Section F.1 Subsection F.1.b.2.e

Comment: Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement and would be an attempt to expand Regional Board control over City policies and procedures. We are concerned in particular that the permit requires post-development runoff into a Clean Water Act 303(d) water body containing any pollutants (for which the water body is already impaired) does not contain the same pollutants in levels exceeding pre-development levels. (*Lake Forest*)

Response: The requirements of the Tentative Order are based on the federal regulations and USEPA and SWRCB guidance and are practicable for the Copermittees to implement. The Tentative Order is a third term permit rather than a first or second term permit and is intended to build upon the programs developed during the first two permits. With respect to post-development runoff into impaired water bodies, the SDRWQCB has legal authority to require additional controls for 303(d) water bodies and ESAs under the Clean Water Act and the California Water Code. The CWA requires in section 402(p)(3)(B)(iii) that permits for discharges from municipal storm sewers “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” California Water Code section 13377 provides that “Notwithstanding any other provision of this division, the state board or the regional boards shall, as required or authorized by the Federal Water Pollution Control Act (Clean Water Act), as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with anymore stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

The requirement for additional controls for these areas is a necessary layer of protection for these valuable resources. Each 303(d) water body or environmentally sensitive area (ESA) is either a valuable receiving water resource that should be protected from the impacts of urban runoff, or a degraded receiving water resource that should be protected from additional impacts. A sensitive habitat has a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance, and so deserves attention. In essence, a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant (LARWQCB, 2000). USEPA, in discussing storm water controls, notes: “Sensitive area protection is an important element of conservation design [...] These areas are particularly susceptible to degradation by storm water runoff” (USEPA, 1999a). Finally, the Office of Chief Counsel for State Water Resources Control Board noted in its October 14, 1999 discussion of the *Defenders v. Browner*

decision that "...because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies."

The requirements of the Tentative Order are based on the federal regulations and USEPA and SWRCB guidance and are practicable for the Copermittees to implement.

Section F.1 Subsection F.1.b.2.j

Comment: The County is experiencing the loss of mature riparian oak woodland within regional parks from stream downcutting resulting from sediment removal by various BMPs. Is this impact addressed? (*County of Orange*)

Response: Staff is not aware of damage to riparian vegetation from urban runoff BMPs, but has received reports of severe channel downcutting in southern Orange County watersheds. It is unlikely that BMPs have had much impact on the stream downcutting and loss resiliency of the riparian zone because BMPs were largely non-existent during the urbanization of the watersheds. The U.S. Army Corps of Engineers in a Reconnaissance Study of the San Juan and Aliso Creek watersheds attributed loss of riparian habitat primarily to channel degradation problems which have manifested during the past two decades. Channel degradation and the lack of recovery by riparian vegetation following large storm events corresponds to the large scale urbanization of the watersheds. For instance, the Corps found that degradation of lower Aliso Creek began as the upstream developments of Lake Forest, Leisure World (now mostly Laguna Woods), and Laguna Hills were built. Additionally they note that with intense development of the watersheds beginning in the 1980's there has been accelerated and dramatic stream channel bed degradation. The Tentative Order seeks to eliminate the practices of urbanization that have led to major modifications of the flow regime, and in turn should result in a decrease of further downcutting.

Section F.1 Subsection F.1.c

Comment: This section requires the Copermittees to revise their current environmental review processes to include requirements for evaluation of water quality effects and identification of appropriate mitigation measures. The provision sets forth eleven (11) questions that Copermittees should consider in addressing increased pollutants and flows from proposed projects. The State Legislature has enacted the California Environmental Quality Act and the State Office of Planning and Research has developed an environmental check list for use by local planning agencies. Item F.1.c. of the Tentative Order is preemptive, unnecessary, and should be eliminated. (*Laguna Niguel*)

Response: The section is included so the Copermittes ensure that their environmental review process addresses not only CEQA guidelines, but also the more specific requirements of the Tentative Order as it relates to urban runoff.

Section: F.2

Comment: F.2.b requires each Copermittee to review and update its grading ordinances. The section identifies nine (9) specific BMPs to be implemented during all construction grading activities. The imposition of grading permit conditions is a discretionary act of city and county building and planning officials. Appropriate conditions will vary from project to project. These items should be eliminated as requirements, and offered only as examples for consideration by the Copermittees. Section F.2.c.(1) lists eleven (11) requirements that shall be included in local grading and construction

permits. The imposition of grading permit conditions is a discretionary act of city and county building and planning officials. Appropriate conditions will vary from project to project. These items should be eliminated as requirements, and offered only as examples for consideration by the Copermittees.
(Laguna Niguel)

Response: Copermittees must reduce pollutant discharges in storm water from construction sites to the maximum extent practicable. In order to achieve this level of pollution reduction, BMPs must be implemented. An effective means for ensuring BMP implementation at construction sites is through the development and implementation of grading ordinances and grading permit approval processes which require pollution prevention, source control, and structural treatment BMPs. Updated grading ordinances and grading permit approval processes that adequately address water quality considerations will provide Copermittees with the necessary tools to require effective BMPs at construction sites.

The US EPA suggests that local ordinance be used to require implementation of BMPs, stating that “A description of the local erosion and sediment control law or ordinance is needed to satisfy this requirement [i.e., Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2)]” (1992). Regarding Copermittee approval of construction activities, the US EPA further states that “applicants must propose site review and approval procedures that address sediment and erosion controls, storm water management, and other appropriate measures. Approvals should be clearly tied to commitments to implement structural and nonstructural BMPs during the construction process” (1992)

During approval and issuance of grading and construction permits, each Copermittee must review construction and grading plans to ensure that the conditions of approval are met. US EPA states that to determine if a construction site is in compliance with construction and grading ordinances and permits, the “MS4 operator should review the site plans submitted by the construction site operator before ground is broken” (2000). Furthermore, in its Phase II Final Rule, US EPA requires small municipalities to develop and implement for construction sites “Procedures for site plan review which incorporate consideration of potential water quality impacts” (1999). Due to the greater water quality concerns generally experienced by larger municipalities, Phase II Final Rule requirements for small municipalities are also applicable to larger municipalities such as the Copermittees.

Section F.2.b & F.2.c of the Tentative Order allows the Copermittees the discretion to develop their own equivalent BMPs and measures in the update of their grading ordinances and approval processes, which will be reviewed by the Regional Board for their adequacy upon their submittal as part of the Copermittees JURMP. The requirements set forth in these sections provide the minimum requirements necessary to reduce pollutant discharges in storm water from construction sites to the maximum extent practicable, and therefore do not need to be removed from the language of the Tentative Order.

Section F.2

Comment: Part F-2, the "Construction Component," Would Be Enhanced if it Were Revised to Recognize the ISTEA Exemption. Section 1068(c) of the Intermodal Surface Transportation and Efficiency Act of 1991 ("ISTEA") granted an exception for certain facilities, (e.g., power plants, uncontrolled sanitary landfills) that are owned or operated by a municipality with a population under 100,000, an exception extended by the EPA when it promulgated the Phase II final rules. 64 Fed.Reg. 68780, December 8, 1999.

Recommendation: Revise Part F.2, the "Construction Component," to add the following, in substance "except that, pursuant to § 1068(c) of the Intermodal Surface Transportation and Efficiency Act of

1991, until March 10, 2003, storm water discharges associated with industrial activity, including construction, that are owned or operated by a municipality with a population under 100,000 are exempt from the need to apply for or obtain a storm water discharge permit. See 40 C.F.R. 1262.26(e)(1)(ii), 64 Fed.Reg. 68780, December 8, 1999." (*Lake Forest & Laguna Woods*)

Response: The Tentative Order does not continue the coverage of municipal construction sites greater than 5 acres. For municipal construction sites greater than 5 acres, the Copermittees will be expected to file a Notice of Intent (NOI) and comply with the requirements of the latest version of the State's General Construction Activity Storm Water Permit.

The Copermittees have been under a Phase I Storm Water Permit since 1990 and do not qualify for the Phase II exemption for small municipalities with populations less than 100,000. This finding was based on the Federal Regulations identification of physically interconnected MS4s in which small municipalities with populations less than 100,000 own or operate MS4s that substantially contribute to the pollutant loadings of a physically interconnected MS4s of larger Phase I communities regulated under the NPDES program for storm water discharges. Municipalities incorporated since the First and Second Term Permits were adopted assumed the responsibilities for the discharge of urban runoff from their MS4s.

Under Order No. 96-03, the second term permit, the Copermittees were required to comply with all "terms and conditions of the latest version of the State's General Construction Activity Storm Water Permit that are applicable" except filing a NOI. This including preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring program consistent with the State's General Construction Activity Storm Water Permit. Under the Tentative Order, the Copermittees will continue to comply with the State's General Construction Activity Storm Water Permit by filing the NOI and preparing and implementing a monitoring program and SWPPP. Furthermore, as stated on page 137 of the Fact Sheet/Technical Report, the municipalities should set a good example for all non-municipal personnel and the public in the conduct of municipal level programs and activities.

Section F.2

Comment: Provision number 19 of Order No. 96-03 currently covers municipal construction permits over 5 acres. This provision eliminates the requirement to submit annual fees for coverage under the state's general construction permit. We are however required to comply with all general construction permit requirements. The proposed permit does not have language to cover municipal construction permits 5 acres and more. Is it the regional board's intent to require that we now have to pay the annual fee? (*County of Orange*)

Response: The Tentative Order does not continue the coverage of municipal construction sites greater than 5 acres. For municipal construction sites greater than 5 acres, the Copermittees are required to file a Notice of Intent (NOI) and comply with the requirements of the latest version of the State's General Construction Activity Storm Water Permit.

The Copermittees have been under a Phase I Storm Water Permit since 1990 and do not qualify for the Phase II exemption for small municipalities with populations less than 100,000. This finding was based on the Federal Regulations identification of physically interconnected MS4s in which small municipalities with populations less than 100,000 own or operate MS4s that substantially contribute to the pollutant loadings of a physically interconnected MS4s of larger Phase I communities regulated under the NPDES program for storm water discharges. Municipalities incorporated since the First and Second Term Permits were adopted assumed the responsibilities for the discharge of urban runoff from their MS4s.

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Section F.2 Subsection F.2.c

Comment: The Grading Requirements are Unduly Restrictive. Part F.2.c.(1)(b), on page 22, imposing severe limitations on grading during the wet season, are unduly restrictive, especially as applied to construction sites smaller than five acres, and in light o the EPA Phase II regulations.

Recommendation: Delete Part F.2.c.(1)(b), page 22. (*Lake Forest & Laguna Woods*)

Response: Section F.2.c requires project proponents to minimize the extent of grading activities during the rainy season to the extent feasible, thus greatly reducing the potential for erosion on-site. This is a basic principle of site planning for erosion and sediment control as discussed for example in "San Diego County, Best Management Practices for Erosion and Sediment Control & Storm Water Detention/Retention". Grading activities should be undertaken during the dry months whenever possible. When grading is necessary during the rainy season, additional BMPs will be needed by construction sites no matter the size to prevent erosion and discharge of pollutants to the MS4.

Section F.2 Subsection F.2.c.1.a

Comment: Item F.2.c.(1)(a) implies that all construction projects, regardless of size, type or threat to water quality need to prepare a plan to manage storm water and non-storm water discharges. This requirement is overly burdensome due to the economic impact of smaller, low-priority sites needing to prepare a storm water management plan. The need for these plans should be based on threat to water quality, not just a blanket requirement for all sites. Also, what does it mean to manage discharges? Does this mean to prevent, treat, reduce? As a matter of fact, non-storm water discharges are already required to be eliminated, so does this mean that storm water discharges must also be eliminated. If this were the case, then this prohibition would make no allowance for naturally occurring baseline discharges from the site. Natural, undisturbed open space will cause a certain amount of sediment to be discharged to receiving waters under natural conditions. In addition, this prohibition would actually have the unintended consequence of upsetting the natural sediment allowance needed for a healthy environment. The prohibition would also ignore the fact that 100% removal of all sediment may actually be detrimental to downstream habitats by increasing the flow rate of the water entering the streams and, among other things, increasing downstream scouring and erosion. Sediment in receiving waters actually has been shown to slow down the flow rate of water moving downstream. Thus the Permit may actually mandate in some instances what it generally tries to prevent, i.e., downstream erosion. There is nothing practicable or even logical about such a mandate. (*Construction Industry Coalition on Water Quality*)

Response: The form of the channel network is a function of the hydrology and sediment supply from the land surface. Excessive erosion and sedimentation from the construction phase of

development deteriorates both water quality and the physical aquatic habitat. Wet weather flows are not prohibited, but municipalities must ensure that discharges, including those that carry sediment, are treated to MEP. The cumulative impact of smaller projects can cause an impact to water quality in receiving waters. The cost of developing a storm water management plan should be related to the size of the project, thus managers of smaller construction sites should not be excessively burdened.

Section F.2 Subsection F.2.c.1.b

Comment: {Section F.2.C.1.B} - How will this be enforced anyway?

Although there may be a higher potential of sediment runoff from grading construction sites during the rainy season, it should not be assumed that these sites would automatically result in water quality violations. These sites should require the implementation of BMPs necessary to keep sediments on site, but should not be restricted from grading during the rainy season. If grading were disallowed during the rainy season, it would have a major impact to the building and construction industries. (*Construction Industry Coalition on Water Quality*)

Response: Section F.2.c.(1)(b) requires that local construction and grading permit requirements include a provision to minimize to the extent feasible grading during the wet season and require additional BMPs for rain events if grading does occur during the wet season. Thus, grading is not prohibited during the wet season, but the Tentative Order seeks to minimize the threat of pollutant discharges from such events. Enforcement of local construction and grading permit requirements is the responsibility of the copermittees, most, if not all, of which have authorized construction site inspectors. In addition, each copermittee has reported to the Regional Board that code enforcement officers for stormwater ordinances have been established.

Section F.2 Subsection F.2.d

Comment: JURMP Item F.2.d. requires each Copermittee to prepare an annual inventory of all construction sites within its jurisdiction. However, the Permittees may not be aware of sites that are operating without permits, whether lawfully or unlawfully. Given this, the Permittees should only be required to prepare an inventory of sites for which grading permits or building permits have been issued. JURMP Item F.2.d should be revised accordingly. (*County of Orange*)

Response: Copermittees are required to enforce their local ordinances, including those that mandate permits. Using grading and/or building permit applications may be a reasonable approach to developing the initial inventory, and other means, such as attempts to locate non-filers, may also be necessary to develop a reasonably complete inventory.

Section F.2 Subsection F.2.e

Comment: Threat to Water Quality Prioritization (Construction). This section requires each Copermittee to inventory construction sites and classify each site as a high, medium, or low threat to water quality. Please provide a practical example(s) of how a Copermittee might classify a construction site as a high threat to water quality. (*Laguna Niguel*)

Response: Construction sites are high risk areas for pollutant discharges to storm water. By assessing information provided in the watershed based inventory of construction sites required (such as site topography and site proximity to receiving waters), sites can be prioritized by threat to water

quality. Those sites that pose the greatest threat can then be targeted for inspection and monitoring. This will allow for limited inspection and monitoring time to be most effective.

Section F.2.e of the Tentative Order provides the minimum criteria a Copermittee shall use to define whether a construction site poses a high threat to water quality. This framework provides the Copermittees the discretion to further define their own prioritization criteria. The Copermittees are allowed discretion in determining the criteria for medium and low threat sites.

A practical example of classifying a construction site as a high threat to water quality would be any site that met the minimum criteria established by the Tentative Order No. 2001-193 :

- (a) The site is 50 acres or more and grading will occur during the wet season; OR
- (b) The site is (1) 5 acres or more and (2) tributary to a Clean Water Act section 303(d) water body impaired for sediment or is within or directly adjacent to or discharging directly to a receiving water within an environmentally sensitive area (as defined in section F.1.b.(2)(a)vii of this Order).

Section F.2 Subsection F.2.f

Comment: Do I understand correctly that all new construction, regardless of size, will require some BMPs? (*Laguna Beach*)

Response: Yes, under the Tentative Order, the copermittees are required to enforce implementation of minimum BMPs at all construction sites to ensure pollutants and runoff will be reduced to MEP.

Section F.2 Subsection F.2.f.3

Comment: JURMP Item F.2.f(3) would require implementation of construction site BMPs “year round.” This is an unnecessary burden for those construction site operators who will not be operating during any part of the rainy season and should be revised to distinguish between dry and wet weather BMPs. (*County of Orange*)

Response: BMP implementation requirements can vary based on wet and dry seasons. BMPs must be implemented at construction sites year round to reduce the discharge of pollutants in storm water to the maximum extent practicable. Construction sites that have been graded in the dry season, but at which no operations would occur during the wet season, for instance, may pose threats to water quality if BMPs are not in place for exposed areas.

Section F.2 Subsection F.2.g

Comment: Item F.2.g is an example of the overly prescriptive requirements that characterize this permit. The Regional Board staff specifies in great detail how and how often the Permittees must inspect construction sites to determine whether they pose a threat to water quality. This approach hamstring the Permittees’ ability to determine which sites require the most attention and, in turn, will result in an unnecessary expenditure of resources at sites that do not pose a threat to water quality. Subparagraph (2) beginning with “During the wet season. . .” therefore should be deleted in its entirety. (*County of Orange*)

Response: The Tentative Order, under section F.2.e, allows the copermittees to prioritize construction sites based on the threat posed to water quality. Construction site inspection frequencies are to be based on threat to water quality prioritization. This will allow for limited inspection and monitoring time to be most effective. Inspections provide a necessary means by which Copermittees can evaluate compliance with their municipal ordinances. Inspections are especially important at high-risk areas for pollutant discharges, such as construction sites. The minimum wet season inspection frequencies in the Tentative Order are necessary to ensure compliance with local ordinances and implementation of BMPs.

Section F.2 Subsection F.2.g

Comment: Section F.2.g establishes minimum inspection frequencies for high priority construction sites. Establishing the level of municipal services is a discretionary action of city and county governing boards. Section F.2.g.(2) of the Tentative Order should be eliminated. (*Laguna Niguel*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include "A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality." Thus, construction site inspection frequencies are to be based on threat to water quality prioritization. This will allow for limited inspection and monitoring time to be most effective. Weekly to monthly inspection of high threat sites is necessary due to the dynamic nature of construction activities. Medium and low threat construction sites can be inspected less frequently, due to their reduced risk of negatively impacting receiving waters. Review of SWPPPs can be one effective tool for determining frequency of site inspections. Construction sites which effectively implement the measures of a comprehensive SWPPP may not need to be inspected as frequently as less diligent sites.

Section F.2 Subsection F.2.g.2

Comment: The definition of "Environmentally Sensitive Areas" includes all Clean Water Act Section 303(d) impaired water bodies. So for example, the entire Aliso Creek Watershed would be so labeled. In that case any construction site of five acres or more falls into the high priority construction site category so the Board is essentially requiring the cities in the watershed to do weekly monitoring of all the board's general construction permit sites for them. (*Aliso Viejo*)

Response: Section F.2.g (Inspection of Construction Sites) of the Tentative Order describes conditions under which high priority construction sites may qualify for monthly monitoring. Weekly inspections of high priority sites during the wet season until such time that the site provides the necessary erosion and sediment control measures is reasonable.

Section F.2 Subsection F.2.i

Comment: This question is on Immediate Reporting of Non-Compliant Construction Sites. It seems to be a waste of effort for each copermittee to develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. Why should this criteria be different from copermittee to copermittee? It should be defined in the permit.

Item F.2.i requires the Permittees to make certain oral notifications to the Regional Board regarding any non-compliant sites that “are determined to pose a threat to human and environmental health.” This section further requires that the Permittees submit written reports to the Regional Board concerning such non-compliant sites within five days after they have been discovered by the Permittees. However, the requirement for submittal of written reports appears to apply to any non-compliant site, even those that do not pose a threat to human health or the environment. This is an unnecessary requirement that forces the Permittees to generate needless paperwork. As with the oral notification requirement, the requirement to submit written reports should apply only to those sites that are determined to pose a threat to human health and the environmental. (*Aliso Viejo, County of Orange*)

Response: The requirement within the Tentative Order that the Copermittees shall report events of non-compliance is a standard reporting requirement of the NPDES program. Reporting of these events is necessary and an effective tool to ensure compliance with the Tentative Order. In order to provide the maximum degree of flexibility, the Copermittees have been given the discretion to define the criteria by which to evaluate events of non-compliance that constitute a threat to human or environmental health. There is no requirement in the Tentative Order that these criteria be different from Copermittee to Copermittee. These criteria shall be submitted in the Copermittees Jurisdictional Urban Runoff Management Program Documents and Annual Reports.

Section F.2 Subsection F.2.j

Comment: Since San Diego has had a storm water permit for a few months, are there model JURMPs, local ordinances for implementation and an educational training program that have been approved by the Regional Board and can be used as a sample for communities to use as a good example or sample model to be tailored to meet a local municipality requirement? If not available yet, when is their deadline? (*MJF Consulting*)

Response: The San Diego Copermittees (under Order 2001-01) have until February 2002 to implement their JURMPs. Model components are currently being developed, and some of these may be available from the County of San Diego's web site. Additionally, when the San Diego Copermittees submit to the Regional Board their JURMPs, these will be available for public review from our office.

Section: F.3

Comment: Public education and voluntary compliance should be the primary emphasis of the permit. While the Tentative Order includes an Education Component that provides helpful guidance on target communities and educational program content, the Order tends to emphasize prohibition, legal authority, and enforcement. Even the placement of the Education Finding (No. 23 of 43 Findings) diminishes its significance. The hiring of water police, threats of citations and prosecution will not materially improve water quality. The mere specter of such programs causes most reasonable people to simply shake their heads and question the governmental agencies and officials responsible for such decisions. Enforcement should be used as a last resort after all reasonable attempts at voluntary compliance have failed, and then only be used for the most egregious and/or deliberate violations. The Tentative Order should be modified to clearly embrace this philosophy.

We agree, wholeheartedly, that the public education program is the single-most important element of eventually eliminating the sources of most of the components of urban runoff pollution, and the City of Dana Point, as a Co-permittee, intends to continue, ad infinitum, with its education programs, or, at

least, until the health of our local beaches and the ocean is restored (*Laguna Niguel, Dana Point, County of Orange*)

Response: The SDRWQCB considers public education a vital to the preservation and enhancement of water quality, and the Tentative Order places a high priority on education. The breadth of topics outlined in section F.4. (Education Component) of the Tentative Order underscores the need for public education and its value. Enforcement of local urban runoff related ordinances, permits, and plans, however, is an essential component of every urban runoff management plan and is specifically required in the federal storm water regulations and this Order. For instance, 40 CFR 122.26(d)(2)(iv)(B)(1) requires the copermittees to include in their proposed management program, "A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system..."

The Phase II guidance documents are targeted at municipalities primarily without existing stormwater management programs. Tentative Order 2001-193 is a third-term permit that assumes the copermittees have been conducting educational efforts for 10 years, and thus, places an appropriate emphasis on management and enforcement.

Assessments for compliance with ordinances, permits, and plans are essential for a municipality to ensure that third parties are not causing the municipality to be in violation of its municipal storm water permit. When conditions of non-compliance are determined, enforcement is necessary to ensure that violations of municipality ordinances and permits are corrected. Enforcement increases the probability of correction of a violation. Without enforcement, third parties do not have incentive to correct violations. US EPA (1992) supports inspections and enforcement by municipalities when it states "Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described."

Section F.3

Comment: Must cities (or other copermittees) implement grease interceptor monitoring, permitting, and inspection programs? (*Irvine Ranch Water District*)

Response: The Tentative Permit allows each Copermittee to designate BMPs for High Priority commercial activities.

Section F.3

Comment: Laguna Niguel is 99% developed. Source control and prevention will take a long time to be effective. Structural BMPs at the end of the pipe can achieve much faster water quality improvements to the receiving waters. Is this strategy acceptable for the City's JURMP along with source control? (*Laguna Niguel*)

Response: The Regional Board has repeatedly raised concerns about the use of short-term end-of-pipe treatment systems, such as end of pipe diversions into sanitary sewers, that are effective only for dry weather flows. Additionally, it is important to note that in 2000, Governor Davis opposed increasing funding for regional diversion BMPs. In his veto message of a \$6.9 million bill that would have funneled money to Orange County to help curb urban runoff and clean beaches, Davis said the legislation "focuses on a temporary, seasonal fix and does not provide for identification and elimination of the sources of contamination."

In addition, there is no need to control or treat pollutants that are not initially generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media. In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. Since pollution prevention is an effective and efficient means for reducing pollutant loads in storm water runoff, pollution prevention methods are an important aspect of BMPs to be included in the residential existing development component of the Jurisdictional URMP.

While onsite BMPs provide many benefits, there may be cases where offsite structural BMPs, implemented on a "neighborhood" or "sub-watershed" basis, may be more feasible. This is particularly the case for existing development, where opportunities for innovative site design do not exist.

As a result, structural BMPs at the end of the pipe that are proposed in a jurisdictional urban runoff management program will be reviewed for their context within the overall program to reduce pollutants to the maximum extent practicable. Among other factors, such a review may assess the proposed role of receiving waters and associated impacts, viability of the technique in wet weather, justification for relying on end or pipe measures for short term results, and commitments to implement and encourage source control to the maximum extent reasonable.

Section F.3

Comment: We extend our enthusiastic support of the sections requiring existing development to minimize the short and long-term impacts of stormwater runoff on receiving water quality, and we applaud your proactive efforts to mitigate runoff from the entire watershed. (*California Coastal Commission*)

Response: Comment noted.

Section F.3 Subsection F.3.a

Comment: If the Regional Board is suggesting that existing development and certain non-storm water discharges are highly pollutant, doesn't this require that NPDES permit be obtained by the discharger instead of the municipality? Since section 402 does not allow the discharge of pollutants into waters of the U.S. (*County of Orange*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittees shall prevent all types of illicit discharges into the MS4 except for the non-storm water discharges listed in Prohibition item B.2., provided that these discharges are not found to be a significant source of pollutants. Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1), those categories of non-storm water discharges need to be prohibited from entering an MS4 if such categories of discharges are identified by the Copermittee as a significant source of pollutants to waters of the United States. The intent of EPA, therefore, was not to require separate NPDES permits for dischargers of the listed activities, but rather for municipalities to address such discharges through the Municipal Storm Water Permit, where necessary.

Section F.3 Subsection F.3.A

Comment: The requirement in the Tentative Order to apply BMPs to municipal waste facilities such as POTWs, landfill and HW facilities is redundant with pre-existing, highly restrictive regulatory schemes. Part F.3.a.(4), on page 26, the Tentative Order would require each co-permittee to designate a set of BMPs for, inter alia, Publicly Owned Treatment Works, Solid Waste Transfer Facilities, Sanitary Landfills, sites for disposing of sewage sludge, and hazardous waste treatment, disposal and recovery facilities. Each of these operations is already subject to rigorous regulatory schemes. Any BMPs for such facilities would be redundant with the regulatory schemes which already govern those facilities.

Recommendation: In Part F.3.a.(3)(b)iv, on page 26, delete the items regarding Publicly Owned Treatment Works, Solid Waste Transfer Facilities, Sanitary Landfills, sites for disposing of sewage sludge, and hazardous waste treatment, disposal and recovery facilities. (*Lake Forest & Laguna Woods*)

Response: The requirements for Copermitees to establish priorities for oversight municipal areas and activities by threat to water quality and to implement BMPs is supported by the federal NPDES regulations, as well as USEPA guidance. With respect to the high priority municipal areas and activities cited in the comment:

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(5) provides that the proposed management program include "A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges."

Identification of high priority municipal pollutant areas and activities allows for limited pollution reduction resources to be most effective. Targeting high priority municipal areas and activities for BMP implementation, inspection, and monitoring provides the greatest reduction in risk of degrading receiving waters per expenditure.

Item (iv) in section F.3.a.3.b of the Tentative Order above is considered to be high priority sources since these areas and activities are specifically addressed in Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A)(3-5). Regarding municipal waste facilities, the USEPA states "Applicants must describe programs that identify measures to monitor and reduce pollutants in storm water discharges from facilities that handle municipal waste, including sewage sludge. [...] The types of facilities that should be included are: active or closed municipal waste landfills; publicly owned treatment works, including water and wastewater treatment plants; incinerators; municipal solid waste transfer facilities; land application sites; uncontrolled sanitary landfills; maintenance and storage yards for waste transportation fleets and equipment; sites for disposing or treating sludge from municipal treatment works; and other treatment, storage, or disposal facilities for municipal waste" (USEPA, 1992).

Section F.3 Subsection F.3.a.4.b.I

Comment: The last word in item F.3.a.(4)(b)i (BMP Implementation Municipal) should be revised from "needed" to "feasible" to read: "Each Copermitee shall evaluate feasibility of retrofitting existing structural flood control devices and retrofit where feasible." (*Laguna Niguel*)

Response: In the phrase "where needed," SDRWQCB is giving the Permittees the opportunity to develop a schedule based on their needs. Determination of necessity of retrofitting is left to the discretion of the Copermitees. Problem areas need to be both identified and evaluated for how they might be retrofitted. The provision does require an evaluation, and the process of retrofitting is the responsibility of the Copermitees.

Section F.3 Subsection F.3.a.5

Comment: Sub-section F.3.a(5) "Maintenance of Municipal Separate Storm Sewer System (Municipal)" establishes an unrealistic and unnecessary burden of inspections and storm drain cleaning activities. Evidence has shown that the frequency of inspections required by the permit is entirely unnecessary and inappropriate as storm drain systems are not a large accumulator of waste. This section should be eliminated in favor of an annual inspection and cleaning of inlets or catch basins to storm drain systems only. (*Laguna Hills*)

Response: The minimum frequency of MS4 maintenance called for in section F.3.a.(5) includes inspection and waste removal once between May 1 and September 30 each year and additional cleaning as necessary during the rest of the year. This is not an unnecessary burden. Maintenance of municipal facilities, control structures, and the MS4 is considered so essential by US EPA that the requirement to conduct a maintenance program is specifically directed in both the Phase I and Phase II storm water regulations. In addition, documentation provided by the copermittees demonstrates that the MS4 does accumulate debris and can be a source of pollutants, including fecal coliform, for which several waterbodies in the region are listed as 303(d) impaired. For example, the copermittees to Cleanup and Abatement Order 99-211 (regarding the J03P02 MS4 outfall) have identified "accumulated organic debris in the surface and subsurface storm drain system" as one of six probable contributors of fecal coliform in the J03P02 drainage area. In the November 2000 NPDES Annual Progress Report, the copermittees report cleaning 1960 cubic yards of debris, including soil, vegetation, paper, plastic, and other during drainage facility maintenance. In addition, the County of Orange reported removing over 22,000 tons of debris from its drainage facilities, although the volume attributable to the region covered by the Tentative Order was not provided.

Section F.3 Subsection F.3.a.5

Comment: Item F.3.a.(5) requires that each Copermittee shall, at a minimum, inspect and remove accumulated waste from MS4s between May 1" and September 30" of each year. The establishment of municipal service levels and maintenance schedules is a discretionary decision of city and county governing boards. Section F.3.a.(5)(c) should be eliminated from the Tentative Order. (*Laguna Niguel*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(1) provides that the proposed management program include "A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers." EPA (1992) finds that in cases where scheduled maintenance is not appropriate, maintenance should be based on inspections of the control structure or frequency of storm events.

The Tentative Order does not establish the maintenance level for the copermittees, but does call for each copermittee to establish a maintenance schedule. The Tentative Order, in section F.3.a.(5) calls for the frequency of maintenance activities to be based on both frequency of storm events (cleaning prior to October 1) and inspections (additional cleaning as necessary between October 1 and April 30).

Section F.3 Subsection F.3.a.7

Comment: Item F.3.a.(7) requires the Copermittees to inspect high priority municipal areas and activities annually. Please provide a practical example(s) the type of inspection activity(s) that might be appropriate for roads, streets, highways and parking facilities. (*Laguna Niguel*)

Response: Determination of the most appropriate inspection activities should be made by the copermittee based on site-specific knowledge and expectations based on monitoring activities and other information sources for the roads, streets, highways and parking facilities of concern. One type of inspection activity that may be appropriate based on local conditions for roads, streets, highways, and parking facilities is a visual inspection of the conveyances that carry urban runoff and stormwater to the MS4, the best management practices that have been implemented to reduce pollutant discharges, and surrounding land use activity for signs of changes or conditions that may impact the ability of those BMPs to function properly.

Section F.3 Subsection F.3.b

Comment: Will the Regional Board be sharing the revenue generated from industrial permits with the Copermittees to help defray the costs associated with this mandate? (*Mission Viejo*)

Response: State law would need to be amended to allow the Regional Board to share permit fees.

Section F.3 Subsection F.3.b

Comment: The Board needs to provide a definition or lists of industrial categories and commercial categories to clarify what constitutes an industrial site and what constitutes a commercial site (see F.3.c.) The Standard Industrial Classification Manual published by the Office of Management and Budget includes Retail and Service categories in their industrial categorization, while the EPA definition of "storm water associated with industrial activity" is written to describe those facilities that must obtain an industrial storm water permit. (*Aliso Viejo*)

Response: Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 Code of Federal Regulations (CFR) Section 122.26(b)(14) (Federal Register, Volume 55 on Pages 48065-66) and in Attachment 1 of the Statewide General Industrial Permit. A list of regulated Standard Industrial Classification Codes for the statewide Industrial NPDES program is available on-line at <http://www.swrcb.ca.gov/stormwtr/sicnum.html>. If any commercial site/source listed in section F.3.c of the Tentative Order as a high priority commercial activity is also inventoried as an industrial site as required under section F.3.b.(2) of the Tentative Order, it is not necessary to also inventory it as a commercial site/source.

Section F.3 Subsection F.3.b

Comment: Inspecting industrial sites is a responsibility of the State's industrial permitting program. Why is the Regional Board placing this burden on the municipalities? The permit specifies in detail both the content of and schedule for inspections of industrial sites to determine whether they pose a threat to water quality. This approach is overly prescriptive, hamstringing the Permittees' ability to determine those sites that require the most attention, and would result in the expenditure of resources at sites that are not a high priority. The requirements pertaining to inspection frequency set forth in Item F.3.b(6) should be deleted.

In 1988 EPA proposed to require municipalities to enforce and inspect industrial sites as part of the storm water management plan. When the final regulations were issued in 1990, this requirement was omitted. In assessing the change, EPA noted that this would be a tremendous burden that would overwhelm municipalities and is deemed prudent that this component not be required. (*County of Orange*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermitee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.” These ordinances must be applied at all industrial sites to ensure that pollutant discharges to the MS4 are reduced to the maximum extent practicable and permit requirements are met. Furthermore, 40 CFR 122.26(d)(2)(iv)(C)(1) requires that municipalities “identify priorities and procedures for inspections and establishing and implementing control measures...” for discharges from industrial sites that the municipality determines are contributing a substantial pollutant loading to the MS4. Regarding enforcement at industrial sites, the US EPA further states “The municipality, as a permittee, is responsible for compliance with its permit and must have authority to implement the conditions in its permit. To comply with its permit, a municipality must have the authority to hold dischargers accountable for their contributions to separate storm sewers” (1992).

Section F.3 Subsection F.3.b

Comment: There also is no support for imposing obligations on the Permittees to reduce pollutants in runoff from all industrial sites within their jurisdictions. Under the programmatic requirements of the CWA, the Permittees are only required to monitor and control pollutants in storm water discharges from those industrial facilities: (1) that “are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)” or (2) which a municipal permittee “determines are contributing a substantial pollutant loading to the municipal storm sewer system.” 40 C.F.R. § 122.26(d)(2)(iv)(C) (emphasis added). The requirements of SARA Title III, in turn, are applicable only to facilities that fall within Standard Industrial Classification (“SIC”) codes 20 through 39, and which manufacture certain toxic chemicals in excess threshold amounts (generally, 10,000 pounds for facilities using one or more Section 313 toxic chemicals and 25,000 pounds for facilities manufacturing one or more Section 313 toxic chemicals). See 42 U.S.C. § 11023. The CWA clearly does not require the Permittees to reduce pollutants in runoff from all industrial sites located within their jurisdictions. (*County of Orange*)

Response: The cited federal NPDES regulation 40 CFR 122.26 (d)(2)(iv) requires the development of a management program to “...reduce the discharge of pollutants to the maximum extent practicable, using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate.” Land used for industrial activities is clearly identified in the federal regulations as one of several high priority land uses from which pollutants in urban runoff discharges must be reduced, and 40 CFR 122.26(d)(2)(iv)(C) describes the minimum standard that must be addressed in the management program by the municipalities with respect to industrial sites and activities. The SDRWQCB does have the authority to include more specific requirements than those stated in the federal NPDES regulations. When relating specifically to storm water, Clean Water Act section 402(p)(3)(B)(iii) clearly provides states with wide-ranging discretion, stating that municipal storm water permits “[s]hall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” Please refer to item 4 in section V of the Fact

Sheet/Technical Report (Common Municipal Storm Water Permit Issues) for a further discussion of whether the SDRWQCB can include in the Tentative Order more specific requirements than those stated in the federal NPDES regulations.

Section F.3 Subsection F.3.b and F.3.c

Comment: Commercial and Industrial programs in the URMP should be combined as they are virtually identical and there is no clear definition to distinguish the two categories of sites. This will reduce the effort associated with establishing and maintaining separate inventories for these categories and the added effort of attempting to distinguish between these categories. Decisions about required BMPs can then be based on the type of activities conducted at the sites and whether these activities occur in exposure to storm water. (*Aliso Viejo*)

Response: The Copermitees have the discretion to implement the requirements of the Tentative Order in a manner that they determine to be the most effective. However, the Tentative Order specifically addresses construction and industrial activities separately from other land uses in order to facilitate the effective dual regulation of these activities by both the Copermitees and the SDRWQCB. The format of the Jurisdictional Urban Runoff Management Program was intended to enable the management and reporting of these activities in a manner that will to facilitate cooperation and coordination between the Copermitees and SDRWQCB at these sites. The structure of the Tentative Order was also intended to ensure fair and consistent municipal audits and uniform implementation and enforcement of the Tentative Order throughout the region.

Section F.3 Subsection F.3.b.2

Comment: Item F.3.b.(2) requires each Copermitee to develop and annually update an inventory of all industrial sites within its jurisdiction. The inventory shall include minimum information for each industrial site including name, address, and a narrative description including SIC codes which best reflect the principal products or services provided by each facility. Please define "industrial site". Please provide us the above-referenced minimum information for all businesses within the City of Laguna Niguel that are subject to the California Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities. Most of the Copermitees do not have business license or registration programs. Therefore, the information requested in this section is not readily available to most Copermitees. Please consider an alternative for the development of the industrial site inventory. (*Laguna Niguel*)

Response: Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 Code of Federal Regulations (CFR) Section 122.26(b)(14) (Federal Register, Volume 55 on Pages 48065-66) and in Attachment 1 of the Statewide General Industrial Permit. The facilities can be publicly or privately owned. A general description of these categories are: Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards (40 CFR Subchapter N); Manufacturing facilities; Mining/oil and gas facilities; Hazardous waste treatment, storage, or disposal facilities; Landfills, land application sites, and open dumps that receive industrial waste; Recycling facilities such as metal scrap yards, battery reclaimers, salvage yards, automobile yards; Steam electric generating facilities; Transportation facilities that conduct any type of vehicle maintenance such as fueling, cleaning, repairing, etc.; Sewage treatment plants; Certain facilities (often referred to as "light industry") where industrial materials, equipment, or activities are exposed to storm water.

A list of regulated Standard Industrial Classification Codes for the statewide Industrial NPDES program is available on-line at <http://www.swrcb.ca.gov/stormwtr/sicnum.html>. The requirements in Section F.3.b refer to all industrial sites regardless of whether the industrial site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Industrial Activities Except Construction or other individual NPDES permit. The Tentative Order requires the Copermittees to include in their inventories the minimum information for each site including SIC codes that best reflect the principal products or services offered by each facility.

The SDRWQCB will provide your city with information about the industrial NPDES permitted facilities in your jurisdiction. During the first term Permit, the copermittees reported distributing flyers to more than 10,000 industrial businesses in Orange County, though numbers are not available for the region subject to this Tentative Order. This action demonstrates the ability of the copermittees to identify potential industrial dischargers.

Section F.3 Subsection F.3.b.2

Comment: JURMP Item F.3.b.2 would require each Permittee to develop and maintain an annual inventory of all industrial sites within its jurisdiction regardless of whether these sites are within the scope of 40 C.F.R. § 122.26d(2)(iv)(C). The Permittees should not be required to address industrial sites that are not subject to CWA programmatic requirements for MS4s. Such sites are not significant sources of pollutants and preparation of an inventory for all sites is an unnecessary burden on the Permittees. Moreover, most of the Permittees do not have any database listing all of the industrial sites within their jurisdictions. Thus, it would be impracticable to develop an inventory of industrial sites and maintain that inventory on a current basis. (*County of Orange*)

Response: The SDRWQCB does have the authority to include more specific requirements than those stated in the federal NPDES regulations, and has determined an annual inventory of all industrial sites is appropriate for the control of pollutants delivered via the MS4. The copermittees must have the ability to identify potential industrial dischargers, and during the first term Permit, the copermittees reported distributing flyers to over 10,000 potential industrial dischargers, although numbers were not reported separately for the region subject to the Tentative Order. The SDRWQCB will provide your city with information about the industrial NPDES permitted facilities in your jurisdiction.

Section F.3 Subsection F.3.b.3.a

Comment: Item F.3.b.(3)(a) requires the Copermittees to prioritize industrial sites by threat to water quality. Each industrial site shall be classified as high, medium, or low threat to water quality. Please provide a practical example(s) of how a Copermittee might classify an industrial site as a high threat to water quality. (*Laguna Niguel*)

Response: Copermittees should use the criteria in section F.3.b.(3) of the Tentative Order to prioritize the threat of industrial activities to water quality. As discussed in the Fact Sheet to the Tentative Order, EPA suggests that copermittees should at a minimum consider the type of industrial activity (SIC codes can help characterize the type of industrial activity); the use and management of chemicals or raw products at the facility and the likelihood that storm water discharge from the site will be contaminated; and the size and location of the facility in relation to sensitive watersheds”

Section F.3 Subsection F.3.b.3.b

Comment: BMP Implementation (Industrial): Is there a list of businesses that currently have the various federal and state permits and approvals referenced in section F.3.b.(4)? How can this information be obtained? The Copermittee does not have records of businesses subject to these permits and programs. (*Laguna Niguel*)

Response: The Regional Board maintains a database of industrial storm water permit holders in the region, which is accessible over the internet at <http://www.swrcb.ca.gov/stormwtr/indpmt.html> or from the Regional Board office. The 303(d) list of impaired waterbodies is also available on-line at http://www.swrcb.ca.gov/tmdl/303d_lists.html or from the SDRWQCB office.

Section F.3 Subsection F.3.b.5.b

Comment: Item F.3.b(5) (b) requires a monitoring program from two storm events per year by high threat to water quality industrial sites. The monitoring program shall provide quantitative data on various constituents. One constituent is any pollutant listed in effluent guideline subcategories. What are "effluent guidelines subcategories?" Another constituent is any pollutant for which an effluent limit has been established in an existing NPDES permit for the facility. Where does a Copermittee obtain information regarding pollutants for which effluent limits have been established in an existing NPDES permit? If the Board has this information for Laguna Niguel businesses, please provide it.

Please provide additional information (i.e. scientific, empirical, other) regarding each of the constituents in F.3.b.(5)a. Why is each constituent a threat to water quality? What types of industrial activities/processes are normally associated with the presence of these constituents in storm water? What is a "Conditional No Exposure Exclusion for Industrial Activity"? (*Laguna Niguel*)

Response: The constituents listed in the Tentative Order for monitoring at industrial sites is taken from the Federal regulations. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(2) provides that the proposed management program shall "Describe a monitoring program for storm water discharges associated with the industrial facilities identified in paragraph (d)(2)(iv)(C) of this section, to be implemented during the term of the permit, including the submission of quantitative data on the following constituents: any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing NPDES permit for a facility; oil and grease, COD, pH, BOD5, TSS, total phosphorus, total Kjeldhal nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv)."

Effluent guideline subcategories refer to conditions under which effluents from a facility is subject. To the extent that such constituents may be reasonable expected to be exposed to storm water, they would need to be monitored.

Information concerning pollutants for which effluent limits have been set in an existing NPDES permit is available from the Regional Board office. The copermittees may be able to obtain this monitoring information some industrial sites by requesting submittal of the Annual Reports required under the General Industrial Storm Water Permit.

Under the conditional no exposure exclusion, operators of industrial facilities in any of the 11 categories of "storm water discharges associated with industrial activity," (except construction activities, which are addressed under the construction component of the NPDES Storm Water Program) have the opportunity to certify to a condition of "no exposure" if their industrial materials and operations are not exposed to storm water. As long as the condition of "no exposure" exists at a certified facility, the operator is excluded from NPDES industrial storm water permit requirements. The

conditional no exposure exclusion replaces the no exposure exemption described under the Phase I Storm Water Program. The certification form used by the State of California, which includes a checklist of criteria, is available on-line at <http://www.swrcb.ca.gov/stormwtr/industrial.html>.

Section F.3 Subsection F.3.b.7

Comment: What does "necessary to maintain compliance with this order" mean? Municipalities do not have the same power that the Regional Board has with respect to industrial sites. (*San Juan Capistrano*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermittee must demonstrate that it can control "through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity." These ordinances must be applied at all industrial sites to ensure that pollutant discharges to the MS4 are reduced to the maximum extent practicable and permit requirements are met. To this effect, the US EPA "recommends that municipal applicants incorporate a provision in the proposed management program that allows the municipality to require priority industrial facilities to implement the controls necessary for the municipality to meet its permit responsibilities" (1992). Regarding enforcement at industrial sites, the US EPA further states "The municipality, as a permittee, is responsible for compliance with its permit and must have authority to implement the conditions in its permit. To comply with its permit, a municipality must have the authority to hold dischargers accountable for their contributions to separate storm sewers"

Section F.3 Subsection F.3.c

Comment: F.3.c. "Commercial (Existing Development)" is an inappropriate transfer of responsibility from the Board to the co-permittee. Further, no mechanism exists within the jurisdictions of south Orange County to identify the commercial uses on an annual basis to the extent required by this section. Typically, there is no business license or registration requirement in cities of south Orange County for commercial operations. No staffing exists to perform such an inventory and cannot be complied with within the one-year requirement of the Order. (*Laguna Hills*)

Response: The requirements of the Tentative Order for Copermittees to implement a Commercial (Existing Development) Component of the Jurisdictional Urban Runoff Management Program to reduce pollutants in runoff from commercial activities is not an inappropriate transfer of responsibility from the SDRWQCB to the Copermittees. As discussed in the Fact Sheet/Technical Report, CWA sections 402(p)(3)(B)(ii-iii) require each Copermittee to prohibit non-storm water discharges into its MS4 and to reduce the discharge of pollutants to the maximum extent practicable for all urban land uses. The purpose of these two broad requirements is to minimize the short and long-term impacts of urban runoff on receiving water quality. Land used for commercial activities is clearly identified in the federal regulations as one of several high priority land uses that have the potential to be a significant source of pollutants and from which pollutants in urban runoff discharges must be reduced to the maximum extent practicable by each Copermittee.

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) requires the development of a proposed management program to reduce the discharge of pollutants in storm water to the maximum extent practicable. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) requires that this program include a component which addresses commercial sites and sources. To reduce the discharge of pollutants in urban runoff from commercial sites to the maximum extent practicable, BMPs must be

implemented. As discussed in Finding 12, BMPs effectively reduce pollutants in urban runoff by emphasizing pollution prevention and source controls, followed by treatment controls. The commercial existing development component will provide a program for the development and implementation of BMPs to address pollutants in storm water discharges from commercial sites and activities.

In order to prohibit non-storm water discharges, reduce commercial pollutant sources to the maximum extent practicable, and ensure that adequate BMPs are implemented, Copermittees must first identify all high priority threat to water quality commercial pollutant sources. Based on the number of complaints received by the SDRWQCB and the Copermittees, the types of commercial sites and activities listed in item F.3.c.(2) are potential high risk areas for pollutant discharges to storm water. The sites and activities are identified as such due to their frequent use of substances often found to be present as pollutants in urban runoff, combined with frequent mismanagement of runoff from the sites and activities. Therefore, development of an inventory of these commercial sites within a watershed will help identify the location of potential sources of pollutants in storm water. Pollutants found to be present in receiving waters can then be traced to the sites that frequently use such substances. In this manner an inventory of commercial sites can help in targeting commercial sites for inspection, monitoring, and potential enforcement. This will allow for limited inspection, monitoring, and enforcement time to be most effective. Also, the existing permit Order No. 96-03 requires that the Copermittees conduct and coordinate with the Principle Permittee any surveys and characterizations needed to identify the pollutant sources and drainage areas. Furthermore, the existing Order clearly identified commercial activities as a target of the education and outreach effort. Given that the Tentative Order is a third term permit, the requirement to identify and inventory commercial activities and to implement a BMP program to address discharges from these activities is reasonable and justified. To the extent that the Copermittees do not presently have mechanisms or resources to implement the programs required by the Tentative Order for the commercial activities within their jurisdiction (e.g. business license or registration requirement), the Copermittees will be required to adopt the authority and implement the programs necessary to comply with the requirements of the Tentative Order.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.c. in Order No. 2001-193 under the broad legal authority cited in the Fact Sheet/Technical Report

Section F.3 Subsection F.3.d

Comment: Could the residential programs, other than pollution prevention, be deferred until the next permitting cycle so municipalities could focus their efforts on higher priority water quality issues? (*San Juan Capistrano*)

Response: Residential activities currently discharge pollutants to the MS4 and receiving waters in southern Orange County, and they will need to be addressed during this permit cycle.

Section F.3 Subsection F.3.d.2

Comment: Item F.3.d.(2), Threat to Water Quality Prioritization (Residential): In section B.2 automobile washing may be exempted, but in this section it is a high priority. In fact, all of the City's residential areas would be high priority if the listed items are the standard. For most of the items listed, an education program will prove beneficial, while others have a high probability of not being controllable from a municipality's standpoint. (*Dana Point*)

Response: The residential areas and activities are identified in the Tentative Order as high priority threats to water quality due to their wide distribution, their association with pollutants of concern in urban runoff, and their historical mismanagement of associated urban runoff. Identification of high priority residential areas and activities will help focus BMP implementation efforts on these areas and activities. This list represents the minimum requirement by which residential areas and activities shall be prioritized. By focusing efforts on high priority areas and activities, the greatest potential for water quality improvements will result. Therefore, limited Copermittee staff time will be focused where it can be most effective. With respect to automobile washing, the exemption refers only to the exemption of this discharge from prohibition by the Copermittees unless it is found to be a significant source of pollutants. The exemption does not include an exemption from implementing BMPs to reduce pollutants to the MEP for this or other exempted non-storm water discharges. In fact, because these discharges are exempted and very common in residential areas, it is all the more important that the Copermittees address these discharges as a high priority for the implementation of BMPs such as public education. By limiting the generation of pollutants, less pollutants are available to be washed from residential areas and activities, resulting in reduced pollutant loads in storm water discharges from these areas and activities. In addition, there is no need to control or treat pollutants that are not initially generated.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Program item F.3.d.(2) in Order No. 2001-193 under the broad legal authority cited in the Fact Sheet/Technical Report.

Section F.3 Subsection F.3.d.2

Comment: It is unclear what constitutes a “residential area “. Please clarify. (*Laguna Niguel*)

Response: Residential areas can be broadly categorized as those where local governments have permitted dwelling units. Please refer to section F.3.d.(2) of the Tentative Order for a description of the minimum areas and activities that must be identified as high priority. This list should assist the copermittees in identifying additional residential activities.

Section F.4

Comment: What if any competency requirements will be established for co-permittee staff that are trained on stormwater issues? Are similar requirements, i.e. certifications, being considered for the trainers? (*Clayton Group Services*)

Response: The copermittees are responsible for proper training of staff to address and implement the municipal storm water programs. Particular requirements for any local government position is at the discretion of the jurisdiction. Previously, the copermittees have expressed a desire for consistent storm water enforcement actions across the jurisdictions, and as a result have considered establishing baseline goals for municipal authorized inspectors.

Section F.4

Comment: The State Water Quality Control Board or the Regional Board should coordinate the development of K-12 curricula with the California Integrated Waste Management Board as the CIWMB already provides such curricula for municipalities to use for outreach. A single curriculum

could easily cover both storm water and waste reduction topics as they are interrelated and it would greatly reduce duplication of effort and waste. The permittees could then offer the curricula in the actual outreach to educational institutions. (*Aliso Viejo*)

Response: Regional Board staff has contacted the CIWMB regarding storm water. An integrated program is planned for the future that would incorporate all of the issues under CAL EPA. In the meantime, the CIWMB is happy to work with any/all of the copermitees to provide the waste management curriculum. The current waste management curricula does deal with some storm water issues that pertain to CIWMB activities, such as proper disposal of used oil, and related ground and waters pollution prevention. The CIWMB curricula can highlight such lessons for the copermitees while providing workshops.

The copermitees are also encouraged to work together, perhaps through the public education committee, to incorporate storm water issues into any existing curriculum model. Another resource that may be helpful is a storm water curriculum for Junior High School students developed by the Fresno Metropolitan Flood Control District (For information contact Environmental Resources Manager, 5469 E. Olive Avenue; Fresno, CA 93727; Tel: 559-456-3292; Email: fmfdmm@gte.net).

Section F.4 Subsection F.4.B

Comment: The Board should provide educational materials and training courses regarding Statewide General NPDES Permits for Industrial and Commercial sites. It is appropriate for the copermitees to distribute these materials or provide notice of opportunities for training courses, but it should not be the responsibility of the copermitees to develop and conduct the training courses and materials for the Board's General Permits. (*Aliso Viejo*)

Response: Both the Regional Board and State Board offer educational material and periodic training courses regarding Statewide General NPDES permits for Industrial and Commercial sites. Some of this material can be found on line at <http://www.swrcb.ca.gov> and are available from the Regional Board office. In addition, Regional Board staff is available to participate in educational and training efforts initiated by the copermitees.

Section: F.5

Comment: Section F.5. "Illicit Discharge Detection and Elimination Component". All illicit discharge detection and elimination efforts were previously complied with under the existing permit and no illicit discharges were identified within the co-permittee area. To initiate a new investigation would be a waste of resources. Specifically, Section F.5.a. requires each co-permittee to implement a program to actively seek and eliminate illicit discharges and connections into its MS4. This matter has already been addressed and concluded and should not be reinforced within this Order. The Co-permittees have already investigated all drainage systems for illicit connections and discharges. These action and compliance with prior permits should be acknowledged by the Order and no further work on this should be required. (*Laguna Hills*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermitee include in its proposed management program "a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system."

The DAMP defines an illicit connection as “an undocumented and/or unpermitted physical connection from a facility to the storm drain system.” The commentors, and the proposed revised DAMP, report that all illicit physical connections were identified and eliminated by 1997. Section F.5 of the Tentative Order, however, does not refer solely to illicit physical connections, but also targets other illicit discharges. In addition, there have been numerous new developments and redevelopments, and opportunities for illicit physical connections, in the region since 1997. In certain cases of detected illegal discharges, therefore, illicit connections should be considered as a potential source.

The Tentative Order does not require the type of reconnaissance of the storm drain system that was completed in 1997, but rather calls for investigation, inspection, and follow-up when appropriate information indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water

Section F.5.a of the Tentative Order reads “Each Copermittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with Section B. of this Order.” Any program to reduce pollution from urban runoff through the MS4 would be ineffective without a component for identifying illicit discharges. The program outlined in the Tentative Order calls for use of several tools to detect illicit discharges, including those resulting from illicit connections. These tools, found in sections F.5.a through F.5.i, include dry weather monitoring, investigations, enforcement of ordinances, pollution prevention, and others.

Section: F.5

Comment: Section F.5.d requires that each Copermittee shall immediately eliminate all detected illicit discharges, discharge sources, and connections. We would agree that illicit connections (as of sewer pipes) and identifiable point sources (like gas station washdown effluent) should be eliminated immediately upon detection. However, we question the feasibility of eliminating "all detected illicit discharges" on the "immediate" timeframe, given the very broad meaning (i.e., all non-stormwater discharges) that the RWQCB is attaching to the "illicit discharge" phrase. Although it is possible for to immediately eliminate specific illicit connections and point-source discharges, this is not so for non-point sources, especially on an “immediate” basis. As worded, this section could place the City into immediate noncompliance and subject them to noncompliance enforcement actions or litigation. This section should be revised to distinguish between immediately eliminating illicit connections and point source discharges versus controlling non-point sources over a longer period of time. This clause should be revised to read "eliminate all detected illicit connections immediately, and all other illicit discharges and sources to MEP as quickly as feasible."

Section F.5.e requires that each Copermittee implement and enforce ordinances, orders, and other legal authority to prevent and eliminate illicit discharges and connections. Relative to the enforcement of ordinances, the Copermittees would have to provide due process to any potential violators. The provision of due process may be contrary to requiring the immediate elimination of a discharge. How can these concepts, “provision of due process to violators” and “immediate elimination,” be reconciled? (*Laguna Niguel, San Clemente*)

Response: The Copermittees are required under CWA section 402(p)(3)(B)(ii) and Water Quality Control Plan for the San Diego Basin Waste Discharge Prohibition 8 to prohibit non-storm water discharges. By definition, illicit discharges and connections are non-storm water discharges. Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) also requires illicit discharges and connections to be detected and removed. Therefore, any detected illicit discharges or connections must be eliminated.

USEPA supports elimination of detected illicit discharges and connections when it states "Once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action." To prevent and eliminate illicit discharges and connections, the Copermittee must implement and enforce its ordinance, orders, or other legal authority over illicit discharges and connections. The USEPA states that this "proposed management program component should describe how the prohibition on illicit discharges will be implemented and enforced. The description could include a schedule and allocation of staff and resources. A direct linkage should exist between this program component and the adequate legal authority requirements for the ordinances and orders to effectively implement the prohibition of illicit discharges" (1992). Moreover, in the preamble to the Phase II Federal Storm Water Regulations, the USEPA emphasizes the need for enforcement actions when it states "...that enforcement and compliance at the local level is both necessary and preferable." The requirement for Copermittees to eliminate illicit discharges immediately does not preclude the application of due process for potential violators. To the extent that a Copermittee discovers an illicit discharge or illegal connection, the Copermittee is required to immediately take such actions that are necessary to eliminate the illicit discharge or illegal connection.

The Copermittees are required to effectively prohibit the non-storm water discharges not specifically exempted and, to the extent that the Copermittee becomes aware of specific illicit discharges, the Copermittee must take all necessary steps to eliminate the discharge. Through the implementation of the requirements of the Tentative Order to prevent, identify, and eliminate sources of illicit discharges and reduce pollutants to the MEP, the Copermittees can avoid the condition of non-compliance described for non-point sources.

The SDRWQCB has discretion to require Jurisdictional Urban Runoff Management Program item F.5 in Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section: F.5

Comment: The permit prohibits sewer spills, including private laterals to reach the storm drain system. If a sewer spill occurs which enters the storm drain, will both the City and water district be considered in violation of permits and therefore subject to fines or enforcement actions? What about Copermittees that do not own/operate sewers? The Permittees should not be held liable for systems that they do not have any jurisdiction over. Shouldn't this be the responsibility of the respective sewer agency under their NPDES permit? If so, what are the performance expectations of such Copermittees?

As it stands, the requirement for copermittees to "prevent" spills from private laterals could mean that copermittees must now require routine maintenance of private laterals. Please clarify the language to indicate that "prevent" as used means preventing spills from entering the MS4. Copermittees cannot prevent sewage spills from private laterals - they can use their police powers to put in place standards that are designed to prevent spills and notification requirements in the event of spills from private laterals so that response teams can act to prevent discharge of the spill into the MS4. How is it possible to detect leaking sewer laterals? If the leak is minor, even video taping of the lateral will not detect the leak. If the leak is major, the connected property will be effected and the leaking sewer lateral be repaired without the City ever knowing about the leak or the repair, unless the repair involves cutting open the street. This section also requires Cities to prevent sewer leaks from mains and laterals. How is that possible? Please provide information as to how Copermittees can prevent such leaks. (*SOCWA, Mission Viejo, County of Orange, San Clemente, Laguna Niguel*)

Response: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) requires a description of a program to prevent, contain, and respond to spills that may discharge into the municipal storm sewer. As used in F.5.f of the Tentative Order, the phrase "shall prevent...all sewage and other spills that may discharge into its MS4..." requires the copermittees to implement reasonable pollution prevention actions that seek to prevent the occurrences of such spills because these spills have been found to frequently enter the MS4 and be discharged to receiving waters. Assessment of copermittee compliance would involve a determination of whether the copermittee had taken appropriate pollution prevention measures and whether the response to the spill met the conditions of the Tentative Order.

As noted in the comment, the Copermittees are directed to implement a program in which they are notified of all such spills. As mentioned in the Fact Sheet/Technical Report, one mechanism to achieve compliance with this requirement is to update business licenses or permits of plumbers or other potential responders (e.g. apartment management agencies, homeowners associations, etc) to these spills to require them to report them to the Copermittee in whose jurisdiction the spill occurred.

Sewer agencies are subject to NPDES permits that are enforced by the SDRWQCB. The Tentative Order requires each copermittee to coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies.

Section F.5

Comment: Section F.5 (Illicit Discharge Detection and Elimination Component) requires that Copermittees implement a program of "illicit discharge detection and elimination "to prevent unauthorized discharges into MS4s. The Regional Board does not have the jurisdiction to dictate the manner in which municipalities regulate discharges into their MS4s. (*Laguna Niguel*)

Response: The detection and elimination of illicit discharges and connections is also clearly identified in the federal regulations as a high priority (40 CFR 122.26(d)(2)(iv)(B) and 122.26(d)(2)(iv)(B)(1)). As guidance for detecting and eliminating illicit discharges and connections, the US EPA (1992) states that "The proposed management program must include a description of inspection procedures, orders, ordinances, and other legal authorities necessary to prevent illicit discharges to the MS4".

California Water Code (CWC) section 13377 provides that the Regional Boards shall issue waste discharge requirements which apply and ensure compliance with all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), as amended, also known as the federal Clean Water Act (CWA). Section 402(p)(3)(B)(iii) of the CWA requires municipalities to implement "controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." The SDRWQCB's responsibility is to translate this section of the CWA into the form of waste discharge requirements. Therefore the SDRWQCB has the authority to require specified programs to be implemented by the municipalities in order to carry out CWA requirements. Furthermore, illicit discharges are specifically addressed at 40 CFR 122.26(d)(2)(iv)(B).

Section F.5 Subsection F.5.e

Comment: Section F.5.e should be revised to read "Each Copermittee shall enforce its storm water ordinance for all detected illicit discharges, discharge sources and connection as necessary to

maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.” This is the same language that is provided in Item F.3.b(7) re industrial sites. (*Laguna Niguel*)

Response: The language is cited does not apply to section F.5.e. Section F.5.e implements the Phase I Federal Regulations by requiring the Copermittees to both prevent (i.e. effectively prohibit) and eliminate illicit discharges and illegal connections to their MS4s through the implementation and enforcement of their ordinances, orders, or other legal authority. The language of section F.3.b.7 refers to industrial facilities that are regulated by both the SDRWQCB under the Statewide General Industrial Storm Water Permit and by the Copermittees under their municipal storm water ordinances. Because these industrial facilities are permitted under the NPDES program, the Copermittees are not required to prohibit these discharges, but are required to implement and enforce its storm water ordinance as necessary to maintain compliance with the Tentative Order. In implementing and enforcing its ordinances at these facilities, the Copermittees are directed to identify the sanctions that will ensure compliance. These are specified in the section cited in the comment. With respect to illicit discharges and illegal connections, the Copermittees must effectively prohibit these discharges and take the actions, including education or imposing enforcement with sanctions, necessary to eliminate the sources.

Section F.5 Subsection F.5.I

Comment: Section F.5.i “Limit Infiltration for Sanitary Sewer” is not appropriate for this copermittee as we have no authority over the sewer system within the community. (*Laguna Hills*)

Response: To the extent that a Copermittee operates both a MS4 and a sanitary sewer, the Copermittee is directed to coordinate the thorough, routine preventive maintenance of both systems. In cases where the Copermittee does not operate the sanitary sewer, the Copermittee is implicitly encouraged to coordinate the maintenance of the MS4 and sanitary sewer with the operator of the sanitary sewer, but must at a minimum ensure the thorough, routine preventive maintenance of the MS4 system.

Section: F.6

Comment: Why were the HOA and Common Interest Area requirements included in the Draft Orange County NPDES Permit when they were not included in the San Diego Permit? The Copermittees have no jurisdiction over HOAs and Common Interest Areas and cannot require these entities comply with the Tentative Order. It is inappropriate to require the Copermittees to be responsible for storm water discharges from these entities and maintenance of private storm drains. The Tentative Order should be changed to directly address the HOAs and Common Interest Areas. (*Aliso Viejo, Lake Forest, Laguna Niguel, Dana Point, Rancho Santa Margarita, Mission Viejo, Laguna Hills, Laguna Woods, County of Orange*)

Response: Prior to drafting the Tentative Order, staff visited with most of the Copermittees' storm water managers and learned that significant portions of the jurisdictions are within common interest developments and many of these have storm water outfalls that discharge directly to receiving waters. To address this situation, explicit requirements were included in the Tentative Order. The Tentative Order interprets common interest areas as property subject to the codes and ordinance and enforcement mechanisms of the city or county in which it resides and, therefore, holds the local government responsible for the discharge of wastes from private storm water conveyance systems.

In most, if not all, common interest developments, siting of sections of the storm water conveyance system, including roads, catch basins, and outfalls were approved by the municipality governing land use, and therefore, the conveyance system became a component of the overall municipal separate storm sewer system to manage urban runoff. The Tentative Order does not require municipalities to perform maintenance on storm water conveyance systems that are owned by common interest developments, but that is one option that can be used to ensure that discharges do not cause or contribute to water quality impairments. Other options, including ones based on education and incentives, can be developed based on the local circumstances. Regional Board staff will be available to discuss the development of options with the copermittees during development of jurisdictional plans.

Section F.7

Comment: What is the purpose of the public participation in the preparation of the JURMP? The requirements as presented in this Order appear black and white and there is no room for discretion, flexibility, negotiation, or discussion. The bottom line is that unless the particular discharge is one of the few items listed in Section B.2 that might be excluded, it can not be discharged. The public participation process should be occurring at this stage as the Board determines the contents of the Permit. After the determination by Board, the Copermittee role is mandated to educate, implement, and enforce. (*Laguna Niguel*)

Response: The public has the right to comment on all discretionary activities considered by the Copermittees. The federal NPDES regulations clearly require the Copermittees to include public participation in the development of their urban runoff management programs. 40 CFR 122.26(d)(2)(iv) requires management programs to "include a comprehensive planning process which involves public participation [...]". Public participation can be an important tool for strengthening an urban runoff management program. Also, public participation represents an educational opportunity for the Copermittees. As discussed in the Fact Sheet/Technical Report, USEPA strongly supports public participation when it states "An active and involved community is crucial to the success of a storm water management program because it allows for:

Broader public support since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;

Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers;

A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and

A conduit to other programs as citizens involved in the storm water program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis, as encouraged by EPA" (2000).

Consequently, the Tentative Order requires public participation on the part of the Copermittees in the development and implementation of Jurisdictional and Watershed Urban Runoff Management Plans. Some requirements, such as the prohibition on illicit discharges, are non-discretionary, but the implementation of many of the Tentative Order program requirements provides the Copermittees with

flexibility and discretion. How the public participation component is implemented is left to the discretion of the Copermittees in the Tentative Order.

The SDRWQCB has the discretion to require the Jurisdictional Urban Runoff Management Program item F.7 in Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section F.8

Comment: With respect to the requirements in section F.8 (Assessment of Jurisdictional URMP Effectiveness), it would be virtually impossible for the City of Dana Point to measure and assess the impact of its water quality efforts on receiving waters such as San Juan Creek and the Pacific Ocean since our City's contribution as a part of the overall watershed is so miniscule and is accomplished through a great number of small drain outlets or via direct surface runoff. It would be more appropriate to make that specific task a part of the Watershed URMP. Any measurable changes to large receiving water bodies could not specifically identify a single source of that change unless that source were relatively large. The language of this provision does not work very well for small coastal cities such as ours. (*Dana Point*)

Response: Section F.8 of the Tentative Order refers to the assessment of effectiveness for the entire Jurisdictional Urban Runoff Management Program, only part of which includes an assessment of the impact of the JURMP on the discharge of urban runoff from its jurisdiction to the receiving waters. This requirement is also included as a central part of the Watershed Urban Runoff Management Program. These requirements are mandated by Federal NPDES regulation 40 CFR 122.26(d)(2)(v) which provides that the Copermittees must include "Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water." Under Federal NPDES regulation 40 CFR 122.42(c) applicants must provide annual reports on the progress of their storm water management programs. Furthermore, the General Accounting Office recently released a report "Better Data and Evaluation of Urban Runoff Programs Needed to Assess Effectiveness (GAO-01-679) which included the recommendations to determine the extent to which activities conducted under the NPDES Storm Water Program are reducing pollutants in urban runoff and improving water quality and the costs of this program to local governments. The Copermittees are directed to identify and utilize both direct and indirect measurements to track the long term progress of the JURMPs towards achieving improvements in water quality. Some of the methods that can be used to accomplish this include surveys and water quality monitoring (e.g. the dry weather monitoring required in section F.5 of the Tentative Order). The requirement of section F.8 to assess the effectiveness of the JURMP supports these recommendations and is a necessary and fundamental part of the JURMP.

Section F.9

Comment: Item F.9, Fiscal Analysis Component: The City receives input and regulations in a variety of areas (affordable housing, air quality, building regulations, infrastructure maintenance, etc.), all of which require the City to allocate a portion of its budget for that function. This portion of the Tentative Order seems to imply that the budget associated with water quality is bottomless, and funds must be secured. This is inconsistent with the definition of MEP, which states that an MEP must be technically feasible and not cost prohibitive. The City has the responsibility of selecting the BMP's to be employed and the Regional Board will be the final determinant as to whether the City has met its

obligation to employ the proper BMP's. The language in the this section needs to be revised to better describe the fiscal responsibilities within the definition of MEP. (*Dana Point*)

Response: The definition of MEP refers to the implementation of BMPs and BMP programs to reduce pollutants not to the budget limitations of a Copermittee. BMPs must be implemented to MEP that are technically feasible and not cost prohibitive. The Tentative Order does not imply that the budget for addressing water quality is bottomless, but does recognize that significantly greater steps must be taken to satisfy the SDRWQCB's interpretation of MEP. The commenter is correct that the SDRWQCB as the permitting agency will determine whether the Copermittee has met its obligation to employ the proper BMP's that meet the MEP standard. The language in section F.9 is appropriate and does not require revision to better describe the fiscal responsibilities within the definition of MEP.

Section F.9

Comment: Section F.9 provides that "each Copermittee shall secure the resources necessary to meet the requirements of this Order." The Regional Board has no authority to impose this requirement. By what legal authority does the Regional Board believe it can impose this requirement? (*Laguna Niguel*)

Response: Federal NPDES regulation 40 CFR 122.26(d)(2)(vi) provides that "[The Copermittee must submit] for each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs under paragraphs (d)(2)(iii) and (iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds

Section F.9

Comment: Item F.9, Fiscal Analysis Component: Since this is a mandated program, what reimbursement funds are available pursuant to State law for implementation of State mandated programs? (*Laguna Niguel*)

Response: The SDRWQCB will not be providing reimbursement funding for the development and implementation of urban runoff management programs as the requirement falls within the purview of the NPDES Program created by the Clean Water Act. The State of California has simply been delegated to administer this federally mandated program.

Please note, however, that certain State assistance programs, including storm water pollution prevention grants and loans, may be available to assist the copermittees in implementation of certain components of jurisdictional programs. An updated description of the State's water quality financial assistance programs can be found on-line at <http://www.swrcb.ca.gov/funding/index.html>.

Section G

Comment: This section states that "each Copermittee shall have completed full implementation of all requirements of the JURMP no later than 365 days after adoption of the Order." In the case of the Aliso Creek watershed, "full implementation" would include retrofitting BMPs to entire existing

communities and street systems in response to the data recently generated showing ubiquitous non-compliant fecal coliform concentrations. It seems probable that this will be the case with many, if not most, Copermittees throughout the Region as soon as fecal coliform monitoring is instituted. This "full implementation" is physically, financially and administratively impossible with respect to the procedural and physical improvements required to implement structural treatment retrofits to every existing development and street. Is it good public policy to deliberately place non-feasible requirements on Copermittees, opening them to third-part litigation on Day 366? The section needs to be rephrased to clearly explain that Copermittees have a year to develop the JURMP, which should include an implementation schedule for prioritized BMPs retrofitting over the 5-year life of the Permit. (*Laguna Niguel*)

Response: Municipalities in the Aliso Creek watershed are developing action plans for addressing elevated fecal coliform levels. Actions taken to date include visual inspections of the MS4 and contributing drainage areas for illicit discharges and other sources of fecal coliform. Provision C.2 of the Tentative Order describes procedures that the Copermittees in the Aliso Creek watershed shall implement if implementation of the URMP and other requirements of the Order do not prevent discharges from MS4s from causing or contributing to a violation of water quality standards. The Tentative Order does not require retrofitting BMPs where it is not necessary or infeasible. The Regional Board in Finding No. 14 of the Tentative Order recognizes that an iterative process of BMP development, implementation, monitoring, and assessment is necessary to assure that an URMP is sufficiently comprehensive and effective to achieve compliance with receiving water objectives.

Section G

Comment: Item G requires each Copermittee to complete "full implementation" of the Jurisdictional URMP within 365 days after adoption of the Order. Please define "full implementation". Section Q (Pages 48-50) identifies twenty (20) separate and complex tasks that must be completed within 365 days after adoption of the Order. This schedule appears unrealistic and inconsistent with illustrative timetables found in the EPA Storm Water Phase II Final Rule Fact Sheet Series and Compliance Assistance Guide. Please provide the opportunity for the Co-Permittees to reasonably "phase" the implementation of required tasks over the term of the new permit. (*Laguna Niguel*)

Response: The Copermittees are expected to implement their JURMPs within 365 days. Schedules for the implementation of the requirements of the Tentative Order should be adequate. Please note the JURMPs are based on requirements largely derived from Order 90-38, Order 96-03 and the NPDES regulations which have been in place for many years. Thus, unlike Phase II communities, the copermittees have been implementing storm water management programs for 10 years. While phased implementation of required tasks will not be allowed, please note that prioritization of threats to water quality (see section F.3) is an effective means for focusing efforts during the implementation phase.

Section H

Comment: The City of Aliso Viejo asks that the Board consider a more streamlined, albeit innovative, approach to submittals and reporting that focuses on the development of implementation tools such as checklists and decision trees and less on lengthy plans and policy statements. Let the Permittee's submittals to the Board be the functional elements of a Jurisdictional Urban Runoff Management Program that form the basis of a living, useful program rather than an untested Plan.

Ultimately this will place us farther along the path toward water quality improvements and will effectively achieve the same level of technical compliance with URMP requirements at the 24-month point as would have been theoretically accomplished under the Tentative Order as currently written.

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Response: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv) require each Copermittee to develop and implement an urban runoff management program. The SDRWQCB must assess the urban runoff management program to ensure that it is adequate to prohibit non-storm water discharges and reduce pollutant discharges to and from the MS4 to the maximum extent practicable. In order for the SDRWQCB to assess and enforce the urban runoff management program in a fair and consistent manner, each Copermittee must submit to the SDRWQCB a description of their program. The description must detail all activities the Copermittee is undertaking to implement the requirements of each component of the Jurisdictional URMP section of Order No. 2001-193.

The submittal schedule of 365 days for Jurisdictional URMP documents is designed to provide each Copermittee some time to develop its Jurisdictional URMP. However, this time is limited since the Jurisdictional URMP requirements are based on NPDES regulations and existing programs implemented under the previous permits that have been in place for many years. The vast majority of the requirements in the Jurisdictional URMP should already be implemented by each Copermittee. Therefore, the provided submittal schedule should be more than adequate for each Copermittee to rework and tailor its programs to meet the Jurisdictional URMP requirements of Order No. 2001-193.

Section H Subsection H.3

Comment: Section H.3, page 4 1: Regarding the requirement for a "signed certified statement" in the Jurisdictional URMP, is the signature of a City staff person sufficient to meet this requirement? (*San Clemente*)

Response: Signatory requirements are addressed in the Tentative Order in Attachment C, section B.9.

Section H Subsection H.7.j

Comment: There are several sections of the Order which state that the City is supposed to develop controls and measures to limit infiltration of seepage from sanitary sewers into the MS4. These sections seem to say that the MS4s must be watertight. Making MS4s watertight is a very expensive proposition. The only real way to do this is to insert a plastic liner at several hundred dollars per linear foot. Also, some portions of the MS4, like canyon drains, use perforated pipe to help collect ground water to help stabilize the hillsides above. Given the fact that detecting leaking sewer laterals is next to impossible, is it cost effective to spend millions on lining the MS4 system,

as opposed to spending money on programs and treatment systems that prevent or clean-up pollutants before they reach the receiving waters? (*Laguna Niguel*)

Response: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) provides that the Copermittee include in its proposed management program “a description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.” In addition, federal NPDES regulations also require that the copermittees prevent all types of illicit discharges into the MS4, except for the non-storm water discharges listed in item B.2. The Tentative Order does not require specific BMPs to be used by each copermittee to meet the requirements. With respect to spills and seepage from the sewer system to the MS4, the Tentative Order in item F.5.i requires the copermittees to implement controls and measures to limit infiltration to the MS4 through routine preventative maintenance of the MS4. Where copermittees operate both the MS4 and the sewer system, they must routinely maintain both. Similarly, section F.5.f of the Tentative Order requires each copermittee to prevent, respond to, contain and cleanup all sewage and other spills that may discharge into the MS4. The Tentative Order relies heavily on pollution prevention measures, which is supported by both the federal EPA and the State of California. Effective, routine pollution prevention measures should limit the need for more costly alternatives, such as lining the sewers.

Section I

Comment: As the Tentative Order is currently written, the Board will require that the permittees submit the first JURMP Annual Report at the same time (January 2003) that the JURMP Document is submitted (365 days after the order). For the permittees to spend the first year developing the JURMP document and simultaneously to submit an annual report documenting the accomplishments of a program that they have only just finished developing and have not yet implemented for any significant period of time seems to result in reporting just for the sake of reporting and will be a drain on copermittee staff time and resources. Again we suggest that the Board find some way to streamline all reporting requirements under this Order. (*Aliso Viejo*)

Response: The Tentative Order does not require the submittal of the first Jurisdictional Urban Runoff Management Program (JURMP) Annual Report on the same date as the JURMP Document. The Tentative Order requires the first JURMP Annual Report to be submitted by the Copermittees on January 31, 2003. The JURMP Document shall be submitted 365 days following adoption. The requirement to submit a specific JURMP Document is necessary since this document will report on all aspects of the JURMP and will be used to assess the Copermittees' compliance with the Tentative Order. Section F of the Tentative Order requires the Copermittees to continue the implementation of the programs executed under Order No. 96-03 during the first year of the Tentative Order while the JURMP is being developed. The JURMP Annual Report submitted on January 31, 2003 will describe the implementation of these programs and the activities, including preparation of the JURMP Document, conducted under the first year of the Tentative Order.

Section J

Comment: Flexibility Needs to be Provided to Undertake Watershed Planning at the Sub-Watershed level. There is a need to provide flexibility in carrying out large-scale watershed planning. The proposed Watershed URMP appears to indicate that all jurisdictions in a watershed must work together at the same time in order to undertake watershed approaches. Given the widely differing conditions and jurisdictional relationships in the San Juan and San Mateo Creek watersheds, the Regional Board should specifically provide an option for watershed planning at the sub-watershed

level so long as the planning units are coherent from a hydrologic and geomorphological perspective.
(*Rancho Mission Viejo*)

Response: The Tentative Order does not preclude watershed planning at a sub-watershed level. The Tentative Order does require that each Copermitttee in the San Juan Creek Watershed Management Area within Orange County collaborate to develop a Watershed Urban Runoff Management Plan to identify, address, and mitigate the highest priority water quality issues. As noted by the commenter, such planning must be based on an assessment of watershed conditions including water quality of receiving waters. Watershed planning must also be based on the characterization of MS4 discharges, prioritization of major water quality problems in the watershed, existing and planned land uses, and the short term and long term strategy to assess and track the short term and long term progress of the Watershed URMP towards achieving improvements in receiving water quality impacted by urban runoff discharges.

Section J

Comment: The August 23 revision to the Tentative Order lists the “Arroyo Salada Creek” as a tributary to San Juan Creek. What is the Arroyo Salada Creek? Where is it located? Why is it considered to be a major receiving water? (*Laguna Niguel*)

Response: Arroyo Salada is identified in the San Diego Region Basin Plan as a tributary to Salt Creek (Hydrologic Unit Basin Number 1.14). It is the tributary which flows into Salt Creek at the coast. It is considered a major receiving water for the Dana Point area in that one of only a few receiving water bodies in the that area.

Section J Subsection Table 4

Comment: Aliso Viejo needs to be added as a Copermitttee for Orange County Coastal Steams - Laguna. A small section of AV drains to Laguna Canyon. (*Surfrider Foundation*)

Response: Aliso Viejo will be added as a Copermitttee for Orange County Coastal Streams - Laguna.

Section O Subsection O.3

Comment: Must the principal permittee be the same entity for purposes of the Unified Jurisdictional URMP and the Watershed URMPs? It may be too much of a burden for Orange County PFRD to have to manage and coordinate five different Watershed URMPs and annual reports. (*Aliso Viejo*)

Response: The Tentative Order does not define a Principal Permittee for the Watershed URMPs.

Section P

Comment: How will the Receiving Waters Monitoring Program data tie into the new Statewide General Permit for Construction Activities monitoring standards applicable to general permittees? (*Clayton Group Services*)

Response: The monitoring that will be conducted by entities permitted under the General Statewide Construction Storm Water Permit is site specific. The Receiving Waters Monitoring Program that will be implemented under the Tentative Order will assess the impact of urban runoff, which may include runoff from construction sites, on receiving waters. The Copermittees may individually or collectively review and consider any data generated from water quality monitoring of construction site discharges in the implementation of their programs.

Section: Q

Comment: The proposed permit has numerous new components/programs that must be developed and implemented (some within 180 or 365 days). Some of these programs will require municipalities to establish new funding sources and hire additional staff, which will be extremely difficult within the prescribed timelines. Is it possible to extend the completion dates of items required within the first 12 months by an additional 12 months?

The Board's timeline for preparation of the Urban Runoff Management Plan, and the Watershed Urban Runoff Management Plan and implementation of the Watershed URMP is aggressive. The financial burden of the copermittees to comply with these requirements will be onerous and the copermittees will most likely seek assistance from state and federal grant and loan programs. However, the timeline for applying for and receiving monies under these grant and loan programs is much longer than the compliance time period allowed by the Regional Board. Will the Board allow extensions on the due dates set forth in the Order if the co-permittees can show that applications have been made in a reasonable period of time and that every effort to comply with the Order is being made? (*Mission Viejo*)

Response: The Tentative implements the requirements of the 1990 Federal NPDES regulations and California Water Code regulations. The programs and BMPS required under the Tentative Order are intended to build upon those already developed and implemented by the Copermittees during the previous two permits. The timeline appears aggressive since the Tentative Order is a third term permit rather than a first or second term permit. The development and implementation of the Tentative Order are realistic and achievable. Most of the requirements of the proposed permit are also required by the existing permit and have been in place for almost five years. In addition, most of the funding sources and staff should already be in place. For these reasons, additional time for implementation of the requirements of the Tentative Order is not considered necessary.

Section Q

Comment: We recommend that fines and penalties pertaining to meeting deadlines, implementation requirements and regulations stated within this permit should be more clearly delineated. (*Surfrider Foundation*)

Response: Enforcement action is dependent on a number factors and must be handled on a case by case basis. Nonetheless, Attachment C of the Tentative Order defines the Standard Provisions, Reporting Requirements, and Notifications that apply to violations of the laws and regulations implemented and enforced under the Tentative Order.

Section Q

Comment: Section Q, Task No. 1: This task is inconsistent with the permit Section B.3. The language in this task description should be clarified according to Comment 4: following text change is recommended:

“For each discharge category not prohibited, the Copermittee shall submit the following information to the SDRWQCB within 60 days of determining that the discharge category is a significant source of pollutants to waters of the United States” (*San Clemente*)

Response: The completion date requirement and tasks specified in section B.3.c and Table 5 is appropriate. The requirement refers to non-prohibited, non-storm water discharge categories that the Copermittee has determined to be a significant source of pollutants. Since the Tentative Order is a third term permit, the Copermittees may have individually or collectively determined that one or more of these discharge categories may be a significant source(s) of pollutants. In that event, the Copermittees may prohibit the discharge category or not prohibit the discharge category and implement or require the implementation of BMP(s) to prevent or reduce pollutants to the MEP.

Section: Attachment B

Comment: The Tentative Order’s monitoring requirements reflect poor public policy and are contrary to the California Water Code. The Permittees have performed, and continue to perform, extensive monitoring of water quality within their jurisdictions that is described in Section 11.0 and Appendix K of the 2000 DAMP (Water Quality Monitoring Program). Yet, the Tentative Order would effectively throw out the years of work and millions of dollars spent on this effort by the Permittees in order to implement a new monitoring program – a program developed for San Diego County, a county without the Permittees’ historic water quality monitoring program. Not only is this poor public policy, representing an extremely ineffective use of public funds, but it is also contrary to the Water Code. Rather than imposing an entirely new monitoring program, the Tentative Order should allow for the Permittees to build upon the existing program, so that none of the valuable historical data or sampling frequencies necessary for calculating long term trends is lost. Tentative Order also should recognize and incorporate collaborative research and monitoring opportunities to aid the Permittees in determining the chemical, physical and biological impacts to receiving waters resulting from urban runoff.

Furthermore, to the extent that Permittees’ monitoring program could be made more effective, the Permittees should be allowed to review and revise their current program within the time frame established in the DAMP, thereby avoiding the massive revision (and resulting costs) that the Tentative Order would otherwise require now. Finally, to further maximize public resources, water quality monitoring reporting should coincide with the annual status report and an individual Permittee should be allowed to perform (by way of a consultant or the Permittee’s own staff) monitoring for an entire region.

In addition to the public policy reasons for not throwing out the Permittees’ existing monitoring program, there are also legal reasons that prohibit the Regional Board from doing so. In imposing the new monitoring requirements (see Tentative Order, Items F.5.b & P, and Appendices B & E), the Regional Board staff have provided no justification for the need within the County for a new monitoring program. Without such justification, the monitoring requirement violates Water Code sections 13267(b)(1) and 13224(c), both of which require that the cost of water monitoring required by a regional board “bear a reasonable relationship to the need for [such monitoring] and the benefits to be obtained [therefrom].” Without knowing why the monitoring is required, there is no way to tell whether the cost of the monitoring bears any relationship to the need for, or benefits from the monitoring. With no apparent reason for implementing a new monitoring program (other than to make it consistent with

the program imposed on San Diego County), and therefore no justification for the significant costs it would impose on the Permittees, the Tentative Order's monitoring program is contrary to the Water Code and is poor public policy. The Permittees should, accordingly, be allowed to continue implementing their existing Water Quality Monitoring Program. (*County of Orange*)

Response: The Monitoring and Reporting requirements of the Tentative Order, including the requirement to conduct a Receiving Waters Monitoring Program, are based on and strongly supported by the Federal NPDES regulations and the California Water Code. The Copermittees must conduct a comprehensive monitoring program as required under Federal NPDES regulations 40 CFR 122.26(d)(2)(iii). Standard provisions, reporting requirements, and notifications included in Attachment C are consistent to all NPDES permits and are generally found in Federal NPDES regulation 40 CFR 122.41 (Federal NPDES regulation citations are provided in the Attachment). The CWC sections 13377, 13267, and 13225 support the monitoring requirements contained in the Tentative Order. As the largest discharge of waste in Orange County, the costs to implement the monitoring requirements and reporting requirements for urban runoff in Attachment B of the Tentative Order are necessary and bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. The argument that "without knowing why the monitoring is required, there is no way to tell whether the cost of the monitoring bears any relationship to the need for, or benefits from the monitoring" is specious since to a great extent the Copermittees have the discretion, within the framework provided in Attachment B, to determine what monitoring will be performed, the frequency and location of monitoring, and how the monitoring activities will be conducted. Furthermore, both the Tentative Order and the Fact Sheet/Technical Report provide ample justification, rationale, and discussion of each of the Receiving Waters Monitoring Program requirements contained in Attachment B of the Tentative Order. Moreover, many of the objectives of the Tentative Order are represented in the Orange County Water Quality Monitoring Program (99-04) currently being implemented by the Copermittees.

Contrary to the comments above, the Tentative Order does not require the Copermittees to "effectively throw out the years of work and millions of dollars spent on this effort by the Permittees in order to implement a new monitoring program – a program developed for San Diego County, a county without the Permittees' historic water quality monitoring program." Rather the section B.2 of Attachment B of the Tentative Order specifically requires the Copermittees to submit a Receiving Waters Monitoring Program Document that includes:

- 1) A Previous Monitoring and Future Recommendations Technical Report
- 2) Receiving Waters Monitoring Program

Neither the requirement to review previous monitoring work, including the 99-04 Plan, nor the requirement to specifically define the Receiving Waters Monitoring Program to be implemented under the Tentative Order constitute "effectively throwing out" the current monitoring program. The Copermittees are specifically directed in Attachment B section B.2.b to "collaborate to review and revise the existing 99-04 Plan utilizing the findings of the Previous Monitoring and Future Recommendations Technical Report." It is difficult to see how utilizing their own review of their own previous monitoring efforts, including the 99-04 Plan, would result in the Copermittees revising the 99-04 Plan in such a manner as to "...throw out years of work and millions of dollars..." If the previous work performed cannot sustain review and revision, the considerable effort described above may, in fact, have been of questionable value. However, it is reasonable to expect that the previous monitoring work performed will easily be able to sustain any review and revision and will prove to be of great value. It is equally reasonable to expect that the findings resulting from the review of the monitoring work performed under the 99-04 Plan will be incorporated in the Receiving Waters Monitoring Program to be conducted by the Copermittees under Tentative Order 2001-193.

Moreover, the Copermittees are provided the maximum degree of latitude, flexibility and discretion to revise the 99-04 Plan. This does not constitute, as claimed by the commenter, an imposition of a new monitoring program. The SDRWQCB has the authority to require receiving waters monitoring and reporting in which the costs bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. The SDRWQCB has determined that the structure and format of the Receiving Waters Monitoring and Reporting Program is necessary in the San Diego Region and that the costs bear a reasonable relationship to the need for the reports and the benefits to be obtained.

The Tentative Order does not require that the 99-04 Plan be discontinued, but that it be reviewed and revised to include specific monitoring requirements considered necessary by the SDRWQCB for the assessment of compliance, measuring the effectiveness of Urban Runoff Management Plans, assessing the chemical, physical, and biological impacts to receiving waters resulting from the discharge of urban runoff, and assessing the overall health and evaluating the long-term trends in receiving water quality. While the 99-04 Plan includes some of these objectives in its three program elements (described in Appendix K of the Proposed DAMP), it does not include assessment of compliance with the Order and it does not require or provide for the monitoring and assessment of all parameters included in Attachment B. The 99-04 Plan, furthermore, does not adequately address all of the receiving waters of the San Juan Creek Watershed Management Area in Orange County. The 99-04 Plan was developed to assess urban runoff in Orange County as a whole, but a very strong emphasis was placed on the northern parts of the County outside of the San Diego Region covered under this Order. The Copermittees have committed to a revision of the 99-04 Plan by 2003; the requirements of the Tentative Order simply require that this revision be performed one year earlier and include the additional monitoring program requirements in Attachment B. Thus the Receiving Waters Monitoring and Reporting Program does, in fact, build upon the previous monitoring programs.

Finally, the SDRWQCB is not precluded from including Receiving Waters Monitoring Program requirements in the Tentative Order that are similar to those required in Order No. 2001-01 for the San Diego Municipal Storm Water Permit. Moreover, there is ample justification for consistency in Monitoring and Reporting Programs under NPDES permits and Waste Discharge Requirements within a region.

In response to the comment that the Tentative Order should recognize and incorporate collaborative research and monitoring opportunities, the Tentative Order Receiving Waters Monitoring and Reporting Program does not preclude and in fact encourages and incorporates collaborative research and monitoring opportunities that the Copermittees. The Copermittees have the discretion to determine how they may use these approaches to assess compliance with the Order and determine the chemical, physical and biological impacts to receiving waters resulting from urban runoff.

With respect to the comments regarding the maximization of public resources, the submittal of the Receiving Waters Monitoring and Report does in fact coincide with the submittal of the Annual Reports. The Receiving Waters Monitoring Program Document shall be submitted 180 days following adoption of the Tentative Order, but the submittal of the Receiving Waters Monitoring Annual Reports coincides with the January 31st submittal of the Jurisdictional and Watershed Annual Reports. The Tentative Order does not preclude an individual Copermittee performing (by way of a consultant or the Copermittee's own staff) monitoring for an entire region, but does require that all of the Copermittees collaborate in the effort to review, revise and implement the Receiving Waters Monitoring and Reporting Program. The capacity and degree of participation is at the discretion of the individual Copermittees. The Tentative Order does not prohibit the Copermittees from utilizing their staff to perform the work required in the Receiving Waters Monitoring and Reporting Program provided that any necessary certification or training requirements that may apply with respect to Standard Monitoring Requirements of Attachment B are satisfied.

For the reasons described above, the requirements of Receiving Waters Monitoring Program in Attachment B of the Tentative Order are not poor public policy and are not contrary to either the California Water Code or the Federal NPDES Regulations. The SDRWQCB has discretion to require Receiving Waters Monitoring and Reporting Program item P and Attachment B in the Tentative Order No. 2001-193 under the broad and specific legal authority cited in the Fact Sheet/Technical Report.

Section Attachment B

Comment: What is the status of State's proposed new Ambient Water Monitoring Program? How will it relate to municipal permit monitoring requirements? (*Richard Watson and Associates*)

Response: The SDRWQCB is currently developing its Surface Water Ambient Monitoring Program (SWAMP) workplan and selecting sampling sites in the San Juan Creek Watershed Management Area, Carlsbad Hydrologic Unit, Los Penasquitos Hydrologic Unit, and the Otay River Watershed. Sampling is expected to begin in 2002 and will use an integrative, rotating watershed approach to assessing the physical, chemical, and biological condition of surface waters in the San Diego Region.

Section Attachment B

Comment: Sampling can be misleading if taken at a time of day and site that shows low readings. Who selects sites and time of sampling? (*South Orange County Watershed Conservancy*)

Response: The Copermittees proposed specific monitoring methods, criteria and rationale for the selection of monitoring parameters, sampling sites, times, and frequencies. These will be reviewed by the Copermittees in the Previous Monitoring and Future Recommendations Technical Report and proposed in the Receiving Waters Monitoring Program required in Attachment B of the Tentative Order, which are subject to review, comment, and modification by the SDRWQCB.

Section Attachment B

Comment: The permittees are being required to conduct Urban Stream Bioassessment Monitoring as Part of the Receiving Waters Monitoring Program to assess the insitu survival of aquatic life in receiving waters, why impose toxicity testing which is a laboratory assessment and less representative and costly? (*Aliso Viejo*)

Response: Bioassessment monitoring provides a direct measurement of the impact of cumulative, sub-lethal doses of pollutants or contaminants that may be below reasonable water chemistry detection limits, but that are not without biological affect. Bioassessment not only identifies that an impact has occurred, but also measures the affect of the impact and tracks recovery when control or restoration measures (e.g. implementation of BMPs) have been taken. Bioassessment does not, however, identify the sources or causative agents of the impact. The toxicity testing requirement is necessary to identify the sources or causative agents of impact to the benthic macroinvertebrate community to enable the Copermittees to adequately address these sources in their programs.

As discussed in the another comment on bioassessment and toxicity testing, the Monitoring and Reporting Requirements of the Tentative Order include a requirement for the Copermittees to develop a program for standardized toxicity and Toxicity Identification Evaluation (TIE) analyses to be performed at urban stream bioassessment stations where the bioassessment data indicates significant impairment. In this context, toxicity testing and TIE analysis are follow-up tools to identify

potential sources and causative factors for an observed impact on the benthic community. However, toxicity testing and TIE analysis is also an appropriate means for identifying the impact of the discharge of urban runoff in and of itself, which is the focus of Finding 26. The Tentative Order properly includes toxicity and TIE analysis as a primary assessment procedure as well as a follow-up procedure for stations in which benthic bioassessment data that indicate an impact has occurred.

Section Attachment B Subsection B.2

Comment: Why is the reporting period for the receiving waters monitoring program different than the reporting period for the rest of our reports? We currently submit one annual status report a year that includes all of our information including the water quality monitoring program. If the two reports reflect different reporting periods and schedules it adds significantly to the confusion and difficulty in evaluating the effectiveness of the programs. (*County of Orange*)

Response: As outlined in Section Q, Table 6 "Submittal Summary," the annual reporting period for both the annual receiving waters monitoring program and the Jurisdictional Annual Report is concurrent, with both due on January 31, beginning in 2003. The Tentative Order does require within 180 days of Permit adoption a technical report that contains previous monitoring findings, provides recommendations for future monitoring, and describes a revised receiving waters monitoring program that reflects the requirements of the Order. The purpose of this report is to document the rationale for previous and future monitoring activities.

Section Attachment C

Comment: The "Bypass" and "Upset" Provisions are Inappropriate in an MS4 Permit. The standard provisions for "Bypass" and "Upset" in Attachment C, at A8 and 9, seem inappropriate in a MS4 permit, as they pertain only to POTWs. Recommendation: Delete the POTW standard provisions in Attachment C, at A.8 and A.9. (*Lake Forest & Laguna Woods*)

Response: These are conditions for NPDES permits set out in 40 CFR 122.41 and 122.42. The SDRWQCB does not have discretion to omit these standard conditions from the permit.

Section Attachment D

Comment: The Board defines non-storm water as "all discharges to and from a storm water conveyance system that do not originate from precipitation events..." while the USEPA defines storm water as "storm water runoff, snow melt runoff, and surface runoff drainage." Thus the federal definition of storm water seems to include surface runoff and drainage which may not be the result of precipitation while the Board does not. This may be the source of some fundamental problems in this order. (*Aliso Viejo*)

Response: Comment noted. The Tentative Order regulates the discharge of urban runoff. The Board's definition of urban runoff is consistent with USEPA's definition of storm water.

Section Attachment D

Comment: "Biomagnication" - is not the appropriate term biomagnification? (*Aliso Viejo*)

Response: Yes, biomagnification is the correct term, the change will be made in the final draft.

Section Attachment E

Comment: Please define a "major drainage area" as referenced within Attachment E section 4, B.2. (*Irvine Ranch Water District*)

Response: The Tentative Order was drafted to provide each Copermittee with the discretion to define what will constitute a major drainage area within their jurisdictions, based on the geographic extent of its jurisdiction, land use activities, etc. This definition and a description of the dry weather monitoring program will be included by each Copermittee in their Jurisdictional Urban Runoff Management Program Document, which is subject to SDRWQCB review and comment.

Section: Attachment E

Comment: Why is the Receiving Water Monitoring element (Attachment B) to be reported on as a separate report and the Dry Weather Monitoring element (Attachment E) to be reported on within the annual status report? All monitoring should be reported in one annual status report section so that data is kept together and analyzed holistically. Opportunities for more through analysis may be lost if the data are reported in two different reports. The Permittees opted to revise this program element and tie it directly into the water pollution database in order to find illegal discharges. If they so choose the Copermittees should be able to pool their resources in order to collectively benefit from a larger program by updating their current 99-04 plan to include some additional components.

The above referenced section states that the Permittees need to submit two separate monitoring reports. Since this basis of this information has already been submitted in two previous Reports of Waste Discharge and annually for the past nine years, why is this information needed again? The Permittees have already completed an extensive program to eliminate illicit connections and are now in a maintenance mode whereby the connections are dealt with when found through the channel maintenance program. In fact, very few illicit connections are found and most of them are pool drains. Wouldn't it be appropriate to revise the next monitoring annual status monitoring report to include some additional items?

Many of the proposed requirements in the draft permit would be administratively and operationally overwhelming to implement. The staff proposal to expand dry weather monitoring by applying the field screen criteria from the original Part I application requirements to on-going monitoring will have tremendous financial implications. The use of a 1/4-mile grid system was designed for initial field screening during the very expensive Part I application process. We are long past that process, and in Orange County we are now preparing to enter our third permitting cycle. Further, 40 CFR 122.26(d)(2)(iii)(A) requires between five and ten outfalls or field screening points as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system. No justification appears to warrant this requirement and it is clearly an unfunded mandate.

These sections identify eighteen (18) specific constituents for Dry Weather Analytical Monitoring. Please identify the reasons for including each of the constituents, the water quality issues or problems associated with each, and the typical construction, industrial, municipal, commercial and/or residential

operations or practices that may cause such constituents to be found in urban runoff. (*County of Orange, Lake Forest, Mission Viejo, Laguna Niguel,*)

Response: The Dry Weather Monitoring Program is a jurisdictional level program requirement that is based on Federal NPDES Regulations found at 40 CFR 122.26(d)(2)(iv)(B) and 40 CFR 122.26(d)(2)(iv)(B)(1). Federal NPDES Regulation 40 CFR 122.26(d)(2)(iv)(B)(2) provides that the Copermittee shall include in its proposed management program “a description of the procedures to conduct on going field screening activities during the life of the permit, including areas or locations that will be evaluated by each field screens.” The Dry Weather Monitoring requirement is a central component of each Copermittee’s jurisdictional level programs and activities to identify and eliminate illicit discharges and illegal connections. Furthermore, each Copermittee is expected to develop a Dry Weather Monitoring Program tailored to the conditions, land use activities, and urban runoff management issues specific to its jurisdiction. The Copermittees in the three counties in the San Diego Region have implemented this requirement with varying degrees of success since 1990 and have generally not found it to be administratively and operationally overwhelming to implement. A review of recently submitted enforcement letters and monitoring reports from San Diego Region municipal storm water Copermittees indicate that suspected small illicit discharges are in fact being identified at a jurisdictional level through frequent inspections or monitoring by the Copermittees. The identification and elimination of actual sources, however, has not been as successful and the Dry Weather Monitoring Program requirements of the Tentative Order were drafted to address this problem regionwide.

The program to detect and eliminate illicit connections and illegal discharges should be an on-going and flexible program that will ensure future problems are identified and addressed. As land use activities change, the potential for illicit discharges and illegal connections also change. The Dry Weather Monitoring Program should be flexible and specific to the needs of each jurisdiction and should not be constrained by the more rigid requirements of Receiving Waters Monitoring Program. In order to facilitate a more comprehensive monitoring of the MS4s to detect illicit discharges and illegal connections, each Copermittee is directed to develop and implement a flexible, responsive dry weather monitoring program designed to detect the highly episodic, short term illicit discharges that might escape detection in a monitoring program that is conducted by a second party at a countywide level. Furthermore, it is essential that the Dry Weather Monitoring Program be fully integrated with the other municipal programs and activities in its Jurisdictional Urban Runoff Management Program (JURMP), especially the programs implemented under section F.5 of the Tentative Order. Thus, because the permit is issued to each Copermittee, it is necessary for each Copermittee to conduct its Dry Weather Monitoring Program and report on the findings and follow-up activities initiated as a result of the findings in its JURMP Annual Report. Nonetheless, the Tentative Order does not preclude the Copermittees from collaborating and coordinating the monitoring activities. Significant advantages and economies can be realized through the coordinated effort of multiple Copermittees, particularly on a watershed scale (e.g. the Aliso Creek watershed). Such coordinated monitoring, however, should not be conducted without consideration of individual Copermittee flexibility and integration of the monitoring requirements with the source identification, elimination, and enforcement follow-up requirements specified in section F.5 of the Tentative Order.

While Dry Weather Monitoring will be conducted by each Copermittee as part of its JURMP, the Receiving Waters Monitoring Program will be conducted collectively by the Copermittees (i.e. the Principal Permittee) and addresses the impact of the discharge of urban runoff on receiving waters. Consequently, the reporting requirements for the two programs are different. The Tentative Order does not preclude collective evaluation of both sets of data by any or all of the Copermittees. The Copermittees have the discretion to collate the data and analyze it holistically. This approach is supported by the requirement that each Copermittee shall submit their Dry Weather Monitoring data annually to the Principle Permittee. It is important to note that the program management structure of

developed by the Copermittees should ensure that data collected by each Copermittee would be available to the Principal Permittee and each of the Copermittees for these types of analyses. With respect to Orange County Water Quality Monitoring Program (99-04 Plan), the Copermittees have the discretion to revise and implement the 99-04 Plan jointly as described above.

Under previous permits, a Report on Illicit/Illegal Discharges was required, but this report did not terminate the requirement for dry weather monitoring to detect and eliminate illicit discharges and illegal connections. The responsibility for each Copermittee to identify and eliminate illicit discharges is an ongoing requirement. The requirement does not go away because the permit is in its third renewal. Moreover, the detection and elimination of illicit discharges and illegal connections is not a process that the Copermittees as continuous dischargers of urban runoff can be considered to be "long past." As an ongoing requirement, it is essential that each Copermittee report annually on its activities and programs implemented to satisfy the requirements of section F.5 and Attachment E of the Tentative Order.

In regards to the use of a 1/4-mile grid system, this approach is not required in the Tentative Order. Moreover, the Copermittees have been provided with the maximum degree of latitude to determine the number, location and frequency of sampling in the Dry Weather Monitoring Program and to revise them annually.

With respect to the water quality constituents designated as the minimum monitoring requirements for the Dry Weather Monitoring Program, the constituents were selected from the Federal NPDES Regulations, and UESPA guidance documents cited in the Fact Sheet/Technical Report. Many of these constituents have been included in Dry Weather Monitoring Programs by San Diego Region municipal storm water Copermittees since 1990.

Section Fact Sheet

Comment: On page 17 of the draft fact sheet / technical report it states that there was a general lack of action by the Permittees... On what basis was this statement made? (*County of Orange*)

Response: The statement on page 17 of the Fact Sheet/Technical Report was based on ten years of staff review of Copermittees reports, enforcement actions, and studies. In particular, while some Copermittees reported enforcement action, many did not. Furthermore, in some cases where significant exceedances of receiving water quality objectives were reported by the Copermittees, source identification and elimination efforts were often ineffective or incomplete. Also, the extent of industrial and construction site inspection and enforcement actions performed by the Copermittees has not been adequate to fully address discharges from these facilities into the MS4.

Section Fact Sheet

Comment: On page 10 of the draft fact sheet/technical report it states that the Aliso Creek 205(j) study suggested several possible sources of aquatic toxicity, all of which are derived from urban runoff. Since the 205(j) study merely tested for the presence/absence of toxicity and did not conduct any actual TIE studies, it would be premature to assume that all of the possible sources would be derived from urban runoff. (*County of Orange*)

Response: Comment noted. The possible sources of toxicity suggested in the Aliso Creek 205(j) study include trace metals, polynuclear aromatic hydrocarbons (PAHs), pesticides (especially organophosphates), herbicides, polychlorinated biphenyls (PCBs), and ammonia. The Receiving

Waters Monitoring Program of the Tentative Order (Attachment B) will provide an measurement of the effectiveness of the Urban Runoff Management Plans. The monitoring program requires the copermittees to design and implement a program to conduct standardized toxicity testing at urban stream bioassessment stations where bioassessment data indicated significant impairment. When findings indicate the presence of toxicity, a Toxicity Identification Evaluation (TIE) shall be conducted to determine the cause(s) of the toxicity.

Section Fact Sheet

Comment: On page 6 of the draft fact sheet/technical report it states that preliminary results of the SDRWQCBs ambient bioassessment monitoring program indicates that the benthic macroinvertebrate communities of Aliso and San Juan Creeks may be adversely impacted. By what constituents? Did this monitoring take into account other habitat stressors such as water temperature, shading? How many stations were monitored? (*County of Orange*)

Response: The SDRWQCB Ambient Bioassessment Monitoring Program included two sites on Aliso Creek and a single site each on Arroyo Trabuco and San Juan Creek. In the 1998 and 1999 sampling, the ranking scores for the Aliso Creek and San Juan Creek sites were typically below the mean Benthic Macroinvertebrate Ranking for the San Diego Region. Arroyo Trabuco was generally at or above the mean BMI Ranking for the San Diego Region. These scores are derived from multiple metrics, which are attributes that are empirically shown to change predictably in value across a gradient of human influence. These metrics include taxa richness, percent pollution tolerant, biotic index, and functional feeding guild measures. This type of monitoring integrates the affects of multiple stressors, including habitat both spatially and temporally. Physical conditions and habitat are also assessed to ensure that sites being compared are comparable. Over 70 stations have been monitored in the four year Ambient Bioassessment Monitoring Program. These results are preliminary and additional data from samples collected in 2001 and the final report are still forthcoming from the California Department of Fish and Game Aquatic Bioassessment Laboratory. A more definitive assessment of the biological and physical condition of the creeks can be made when this information is available. Because aquatic bioassessment is a highly robust assessment that integrates multiple stressors, including sub-lethal doses of contaminants, it is a high monitoring priority for the SDRWQCB and is being included in Monitoring and Reporting Programs for NPDES permits and Waste Discharge Requirements including Tentative Order 2001-193. The Receiving Waters Monitoring Program in Attachment B of the Tentative Order expands this preliminary effort to include 15 bioassessment stations sampled biannually in the San Juan Creek Watershed Management Area within Orange County.

Section Fact Sheet

Comment: We request that Draft Fact Sheet/Technical Report language be updated at the same time as the Revised Order language is prepared. (*Laguna Niguel*)

Response: To the extent feasible, the Fact Sheet/Technical Report is updated to reflect changes in the Tentative Order. Some original material was retained following revisions to the Tentative Order when staff concluded that the material was still relevant to the Tentative Order as a whole.
