ITEM NO. 13

STAFF REPORT

CITY OF OCEANSIDE

DATE: March 27, 2013

TO: Honorable Mayor and City Councilmembers

FROM: Water Utilities Department

SUBJECT: **PRESENTATION OF THE DRAFT MUNICIPAL SEPARATE STORM SEWER (MS4) PERMIT (TENTATIVE ORDER NO. R9-2013-0001)**

SYNOPSIS

Staff presents the draft Municipal Separate Storm Sewer (MS4) Permit (Tentative Order No. R9-2013-0001) and the effects on the City and development.

BACKGROUND

In July 1990, the City initially became one of 21 co-permittees of the San Diego Regional Stormwater Permit. The permit established rules and regulations that the 21 co-permittees must follow to reduce and/or eliminate urban discharge into city receiving waters.

Areas of regulation include construction, industrial, and municipal activities. Portions of the permit are implemented by Public Works, Development Services and Water Utilities Departments. Over time, the permit, considered an unfunded mandate, has become increasingly stringent and costly.

The current permit expired on December 31, 2012. Under the newly proposed permit, San Diego County, Southern Orange County and Riverside County co-permitees will be issued a single Regional MS4 Permit based on the boundaries of the San Diego Region instead of county political boundaries. The single permit will provide uniformity as well as maximize efficiency and resources for the Board.

ANALYSIS

As part of this permit renewal stakeholders were provided the opportunity to provide input to Board staff resulting in a revised Administrative Draft MS4 Permit which is sustainable in terms of meeting the "triple bottom line" integrating the economic, environmental, and social needs in our communities.

The Clean Water Program and the Engineering Division participated in multiple meetings with San Diego Co-permittees and Regional Board staff to reach consensus on many permit concepts. However, the City continues to have strong concerns about

proposed regulations in the permit which affect development; which are far-reaching and without scientific merit, which are unattainable, which further increase the cost for financially burdened families and fail to make clear the financial impact to potential development. These concerns were expressed in letters from Ron Roberts, Chairman of the County Board of Supervisors.

To date the City of Oceanside Clean Water Program and the City Engineering Division have made the following specific comments to the San Diego Regional Water Quality Control Board (SD-RWQCB) in response to the Administrative Draft Municipal Separate Storm Sewer System (MS4) Permit requirements:

1. Inclusion of Single-Family Development (SFD) in the Priority Development Project (PDP) with Commercial and Industrial uses with a 10,000 square foot impervious area threshold (Section E.3.b.(2)(a)).

The inclusion of SFD in the same PDP category with Commercial and Industrial development, and the application of a 10,000 square foot impervious area threshold, is not consistent with the separate Residential category and incremental reduction in impervious area cited in the last two San Diego County MS4 Permits (Orders No. 2001-01 and R9-2007-0001). The two preceding San Diego County MS4 Permits cite SFD PDP as a subdivision of 10 or more units.

To be consistent with the "watershed approach" to regulation, the City of Oceanside requested that the San Diego County watersheds continue the separate categorization of SFD and the PDP be defined as residential development of five (5) or more parcels or condominiums, consistent with a final map. This approach represents a compromise that reflects the incremental reduction in SFD PDP contained in previous San Diego County MS4 Permits.

Implementation of a lower impervious area threshold may reduce land development and redevelopment activities, and negatively affect funding sources that subsidize storm water programs.

2. Onsite retention of the 85th percentile volume (Section E.3.c.(2)(b)).

Retention of 85th percentile volume has the potential to negatively affect habitat located in and adjacent to receiving waters by creating reduced runoff conditions that mimic a drought state. A review of historic rainfall data indicates that more than two-thirds of annual rainfall events do not meet the 85th percentile volume. The requirement to capture low-flow runoff has the potential to negatively affect habitat quality and may reduce the size of sensitive habitats.

3. Application of the "Naturally occurring pre-development condition" to Hydromodification Management Plan (HMP) calculations (Section E.3.c.(3)(a)).

The proposed naturally occurring condition requirement will remove the incentive to redevelop existing sites by significantly increasing development costs. The application

of the "naturally occurring pre-development condition" to HMP calculations is not consistent with the goals of the HMP, does not foster improvements in water quality, and conflicts with the recently implemented five (5) year HMP monitoring plan. Whereas, redevelopment of existing sites promotes improved water quality by decreasing pre-project impervious area, requires the implementation of Low Impact Development (LID) practices, and necessitates the installation of HMP facilities. Without redevelopment of existing projects, receiving waters will remain subject to unmitigated discharges.

The adoption of a naturally occurring pre-development condition could cause a reduction in the redevelopment of existing sites and negatively affect funding sources that subsidize storm water programs.

The Administrative Draft MS4 Permit indicates the "San Diego Water Board recognizes that the degradation of water quality and impacts to beneficial uses of the waters in the San Diego Region [have] occurred over several decades" and "further recognizes that a decade or more may be necessary to realize demonstrable improvement to the quality of waters in the Region." The Permit "includes a long term planning and implementation approach that will require more than a single permit term to complete."

The City of Oceanside supports the long term planning and implementation approach to improving water quality. The City's support of this approach is reflected in the County of San Diego Co-permittees' comment letter to Regional Board (Exhibit D) which includes the list of the proposed changes to the Administrative Draft MS4 Permit. The Co-permittees' proposed changes represent a reduction in the possible impacts due to development, as compared to the previous MS4 Permits, and provide incentive to foster improvement in water quality through the redevelopment of existing unmitigated sites.

FISCAL IMPACT

The current regional cost associated with the existing MS4 Permit is $150 million annually and the estimated costs associated with the recently adopted Project-I Beaches and Creeks Bacteria Total Maximum Daily Load (Bacteria TMDL) would add $144 million to $272 million per year with a total annual cost of $294-$422 million.

The chart below represents the City's annual expenses for permit compliance since 2007.

Department	Water Utilities		Engineering		Public Works			Total
Fiscal Year	Personnel incl Code Enforcement	Misc. Expenses incl Consultants	Personnel	Misc. Expenses incl Consultants	Personnel for CWP Monitoring	Street & Median Maintenance	Flood Control (Conveyance System Cleaning)	
2007-08	$410,330	$957,016	$250,000	$22,510	$65,000	$907,000	$351,910	$2,963,766
2008-09	$557,023	$463,560	$260,000	$15,006	$65,000	$944,000	$360,580	$2,665,169
2009-10	$686,260	$567,198	$130,000	$ -	$65,000	$981,000	$369,597	$2,799,055
2010-11	$752,433	$379,297	$95,849	$ -	$65,000	$1,450,977	$223,952	$2,967,508
2011-12	$675,958	$637,316	$100,000	$ -	$65,000	$1,450,000	$330,000	$3,258,274

COMMISSION OR COMMITTEE REPORT

Does not apply.

CITY ATTORNEY'S ANALYSIS

City Attorney Analysis does not apply.

RECOMMENDATION

Staff presents the draft Municipal Separate Storm Sewer (MS4) Permit (Tentative Order No. R9-2013-0001) and the effects on the City and development.

PREPARED BY:

M.A. Lahsaiezadeh

Mo Lahsaie
Environmental Officer

SUBMITTED BY:

Peter Weiss

Peter A. Weiss
City Manager

REVIEWED BY:

Michelle Skaggs Lawrence, Deputy City Manager

Cari Dale, Water Utilities Director

Scott Smith, City Engineer

Terri Ferro, Financial Services Director

Attachments:

Exhibit A: City of Oceanside letter to San Diego RWQCB (09/14/2012)
Exhibit B: Chairman of the County Board of Supervisors letter to Calif. Governor (11/09/2012)
Exhibit C: San Diego Copermittees' elected official letter to Chairman SD-RWQCB (11/13/2012)
Exhibit D: Copermittees' collective comment letter to SD-RWQCB (12/04/2012)
Exhibit E: EGCC Magazine Article
Exhibit F: City of San Diego and County of San Diego Board of Supervisors Letter (03/15/2013)

CITY OF OCEANSIDE
WATER UTILITIES DEPARTMENT

September 14, 2012

Ms. Laurie Walsh
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Dear Ms. Walsh,

CITY OF OCEANSIDE COPERMITTEE COMMENT SUBMITTAL ON THE ADMINISTRATIVE DRAFT MUNICIPAL SEPARATE STORM SEWER (MS4) PERMIT (TENTATIVE ORDER NO. R9-2012-0011)

Dear Ms. Walsh,

Thank you for the opportunity to comment on the Administrative Draft Municipal Separate Storm Sewer (MS4) Permit. As participants in the Project Planning Subcommittee, Monitoring and Land Development Workgroups, and focused meetings, the City of Oceanside – Clean Water Program staff have been able to work closely with the San Diego Copermittees, the Regional Water Quality Control Board (Regional Board) staff, and other stakeholders to create a revised Administrative Draft MS4 permit which is sustainable in terms of meeting the "triple bottom line" of integrating the economic, environmental, and social needs in our communities. As a Copermittee the City of Oceanside submits the attached comments for your consideration.

We appreciate the opportunity to participate in the focused meetings and acknowledge the verbal consensus that has been reached on many permit concepts between the San Diego Copermittees and the Regional Board. The County of San Diego, as the lead Copermittee, has submitted Copermittee comments and the City of Oceanside supports these comments, except as follows:

1. Inclusion of Single-Family Development (SFD) in the Priority Development Project (PDP) with Commercial and Industrial uses with a 10,000 square foot impervious area threshold (Section E.3.b.(2)(a)).

   The inclusion of SFD in the same PDP category with Commercial and Industrial development, and the application of a 10,000 square foot impervious area threshold, is not consistent with the separate Residential category and incremental reduction in impervious area cited in preceding the San Diego County MS4 Permits (Orders No. 2001-01 and R9-2007-0001). The two preceding San Diego County MS4 Permits cite SFD PDP as a subdivision of 10 or more units.

To be consistent with the "watershed approach" to regulation, the City of Oceanside submits that the San Diego County watersheds continue the separate categorization of SFD and the PDP be defined as residential development of five (5) or more parcels or condominiums, consistent with a final map. This approach represents a compromise that reflects the incremental reduction in SFD PDP contained in previous San Diego County MS4 Permits.

Implementation of a lower impervious area threshold may reduce land development and redevelopment activities, and negatively affect funding sources that subsidize storm water programs.

2. Onsite retention of the 85th percentile volume (Section E.3.c.(2)(b)).

   Retention of 85th percentile volume has the potential to negatively affect habitat located in and adjacent to receiving waters by creating reduced runoff conditions that mimic a drought state. A review of historic rainfall data indicates that more than two-thirds of annual rainfall events do not meet the 85th percentile volume. The requirement to capture low-flow runoff has the potential to negatively affect habitat quality and may reduce the size of sensitive habitats.

3. Application of the "Naturally occurring pre-development condition" to Hydromodification Management Plan (HMP) calculations (Section E.3.c.(3)(a)).

   The proposed naturally occurring condition requirement will remove the incentive to redevelop existing sites by significantly increasing development costs. The application of the "naturally occurring pre-development condition" to HMP calculations is not consistent with the goals of the HMP, does not foster improvements in water quality, and conflicts with the recently implemented five (5) year HMP monitoring plan. Whereas, redevelopment of existing sites promotes improved water quality by decreasing pre-project impervious area, requires the implementation of Low Impact Development (LID) practices, and necessitates the installation of HMP facilities. Without redevelopment of existing projects, receiving waters will remain subject to unmitigated discharges.

   The adoption of a naturally occurring pre-development condition may cause a reduction in the redevelopment of existing sites and negatively affect funding sources that subsidize storm water programs.

The Administrative Draft MS4 Permit indicates the "San Diego Water Board recognizes that the degradation of water quality and impacts to beneficial uses of the waters in the San Diego Region [have] occurred over several decades" and "further recognizes that a decade or more may be necessary to realize demonstrable improvement to the quality

of waters in the Region." The Permit "includes a long term planning and implementation approach that will require more than a single permit term to complete."

The City of Oceanside supports the long term planning and implementation approach to improving water quality. Support of this approach is reflected in the proposed changes to the Administrative Draft MS4 Permit. The proposed changes discussed in this correspondence continue to represent a reduction in possible impacts due to development, as compared to previous Permits, and provides incentive to foster improvement in water quality through the redevelopment of existing unmitigated sites.

The City of Oceanside – Clean Water Program extends its gratitude to the Regional Board for providing a forum for open discussion as part of the permit reissuance process. We respectfully submit these comments for your consideration. Please contact me if you have questions.

Sincerely,

M. A. Lahsaiezadeh

Mo Lahsaie, Ph.D., REHS, Environmental Officer
Water Utilities Department

cc: Scott O. Smith, PE, PLS, City Engineer, Development Services Department
Billy Walker CPSWQ, QSD, Env. Asst, Development Services Department

RON ROBERTS
CHAIRMAN
SUPERVISOR, FOURTH DISTRICT
SAN DIEGO COUNTY BOARD OF SUPERVISORS

November 9, 2012

The Honorable Jerry Brown
Governor, State of California
State Capitol Building, Suite 1173
Sacramento, CA 95814

Dear Governor Brown:

On behalf of the County of San Diego (County), I would like to inform you of recent action taken by the Board of Supervisors (Board) regarding the renewal of the San Diego Municipal Stormwater Permit (Permit). The Board has voted unanimously to approve a strategy to ensure that reasonable compliance standards are incorporated into the renewed Permit now under consideration at the San Diego Regional Water Quality Control Board (RWQCB). The County is concerned that the proposed permit requirements included in the draft tentative order of the Permit would impose unreasonable costs and at the same time guarantee non-compliance with permit requirements. This is particularly true for the numeric standards that would have to be achieved to meet the objectives of the Bacteria Total Maximum Daily Load (TMDL).

The County of San Diego has been the principal permittee for the San Diego Municipal Stormwater Permit and is joined by 20 other regulated parties referred to as copermittees, including the 18 incorporated cities, the San Diego Unified Port District and the San Diego County Regional Airport Authority. This Permit is renewed every five years, and with each renewal the permittees have been required to meet more stringent and costly requirements. "Sustainable Environments" is one of the County's three Strategic Initiatives, and the County has long been a leader in promoting clean water at local beaches, bays and streams.

The County currently spends over $35 million annually to comply with existing stormwater requirements, and collectively the copermittees spend over $100 million per year. Additional compliance costs are difficult to quantify, but are also paid by the private sector. These costs would be compounded by new permit requirements, including the Bacteria TMDL, which seeks to return beaches and creeks to conditions that existed prior to urbanization within 18 years. Regional compliance costs for the Bacteria TMDL alone are estimated to be between $2.2 billion and $4.2 billion in the six watersheds that involve the County over the remaining 18 years of the 20-year compliance schedule. The County's portion of estimated compliance costs is between $286 million and $567 million. On average, this program would cost the County an additional $16 to $31 million dollars each year. These cost estimates are consistent with estimates provided in the RWQCB's own TMDL documentation, as well as estimates developed as part of TMDL load reduction plans in other regions. The state or federal government does not provide any funding to local agencies to comply with these requirements.

Despite the unrealistic price, the required limits may be unattainable and current science cannot reliably guarantee that this effort will result in permit compliance.

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The purpose of the Bacteria TMDL is to protect public health, as elevated bacteria levels at beaches have been shown to increase the risk of water-related illness in surfers and swimmers. However, the science used to develop the Bacteria TMDL underestimates the amount of bacteria that comes from natural sources such as birds, wildlife and natural decomposition. Since those sources of bacteria cannot be eliminated, compliance with the numeric limits in the proposed TMDL is unattainable. Additionally, bacteria are pervasive and can re-grow and multiply at a rapid rate, making them some of the most difficult pollutants to eliminate from the environment. Essentially, the Bacteria TMDL would require the impacts of over 100 years of urbanization to be reversed to pristine levels as soon as eight years from now in dry weather conditions and in less than 18 years for wet weather conditions. Above all, recent studies show that current technology is not capable of removing bacteria to levels that would meet standards, especially during rain events.

In addition to the Bacteria TMDL, the draft permit includes new unreasonable requirements for development projects that will increase costs significantly. The draft permit also includes performance standards that unnecessarily expose copermittees to third-party lawsuits.

While we necessarily focus on the specific requirements of the San Diego Municipal Stormwater Permit, we also remain concerned about developing policies at the national level where new stormwater permit requirements are expected next summer and United States Environmental Protection Agency (U.S. EPA) guidance on "waters of the U.S." could be released later this year. These represent significant additional regulatory requirements that could further impact the San Diego Municipal Stormwater Permit and increase its cost to residents and businesses in the San Diego region.

In the coming weeks the County will continue to express these concerns to the Regional Water Quality Control Board. The County urges your engagement on this issue at all levels, with the U.S. EPA, State Water Resources Control Board and RWQCB. Local government needs realistic objectives and schedules for the Bacteria TMDL, and more complete scientific analysis to ensure that resource commitments in water quality programs are justified based on the resulting benefits. Per the provisions of federal and state law, and the Maximum Extent Practicable standard established by the Clean Water Act, permit requirements should promote and ensure clean water while striking a reasonable balance in cost.

Concerns about the costs and compliance schedules for stormwater permits are shared by many jurisdictions in California and across the country. For this reason, the County is joining with other jurisdictions to bring attention to these concerns to regional water quality control boards, the U.S. EPA, and other appropriate state and federal offices. We appreciate your attention to the pending permit concerns in San Diego County, and we look forward to working with you in the months ahead to ensure that limited public funds are wisely dedicated to stormwater control. Please contact Geoff Patnoe, Director of the County of San Diego Office of Strategy and Intergovernmental Affairs, at (619) 531-5202 if you have any questions.

Sincerely,

RON ROBERTS
Chairman
San Diego County Board of Supervisors

RR:sia

Exhibit C

County of San Diego
City of Carlsbad
City of Chula Vista
City of Coronado
City of Del Mar
City of El Cajon
City of Encinitas
City of Escondido
City of Imperial Beach
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego
City of San Marcos
City of Santee
City of Solana Beach
City of Vista
S.D. Unified Port District

November 13, 2012

Mr. Grant Destache
Chairman
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Re: Regional Municipal Storm Water Permit

Dear Chairman Destache:

As representatives of the jurisdictions in San Diego County that are regulated by the Regional Water Quality Control Board (Regional Board), we share deep concerns over proposed regulations in the new Regional Municipal Storm Water Permit. While we strongly believe in the mission of achieving clean water, the proposed regulations are without sound scientific merit and, if implemented, will have catastrophic negative impacts on the fiscal health of local governments and private industry.

Collectively, we are committed to the goal of improving water quality through the storm water management programs that have been developed in conjunction with the Regional Board. Current compliance efforts to reduce storm water pollution are significant and cost regional agencies more than $100 million annually. As stewards of public tax dollars and governments that are faced with having to do more with less, we are concerned that with each permit renewal cycle, the stringency and cost of the unfunded mandates continue to go beyond any practical standards of attainment and what is required by the Clean Water Act.

The Draft Regional Municipal Storm Water Permit released by the Regional Board continues to include the far-reaching Bacteria Total Maximum Daily Load (TMDL), and other additional impractical and unattainable requirements for development projects. It is estimated that the proposed Bacteria TMDL standards alone would cost between $2.2 billion and $4.2 billion for those jurisdictions that share responsibility in six of the watersheds included in the permit. The cost to private industry is unknown but it is clear that any additional costs will be passed on to already struggling and financially burdened families.

Taxpayers will be gravely impacted if this unilateral regulatory practice is allowed to move forward. Governing bodies will be forced to shift public funds away from existing programs, increase taxes or assessments, or face regulatory fines resulting from non-compliance. The Bacteria TMDL, along with the many other proposed regulations, should not be incorporated into the next Regional Municipal Storm Water Permit until we are certain that they are founded on verifiable scientific data, achievable standards, and until sufficient resources are available.

On behalf of our respective constituencies, we are requesting that the Regional Water Quality Control Board direct staff to work collaboratively with all the co-permitees and various stakeholders to draft language that makes practical sense from an environmental and economic standpoint.

Sincerely,

Chairman Ron Roberts
County of San Diego

Vice Chairman Greg Cox
County of San Diego

Mayor Matt Hall
City of Carlsbad

Mayor Cheryl Cox
City of Chula Vista

Mayor Casey Tanaka
City of Coronado

Mayor Carl Hilliard
City of Del Mar

Mayor Mark Lewis
City of El Cajon

Mayor Jerome Stocks
City of Encinitas

Mayor Sam Abed
City of Escondido

Mayor Jim Janney
City of Imperial Beach

Mayor Mary Teresa Sessom
City of Lemon Grove

Mayor Ron Morrison
City of National City

Mayor Jim Wood
City of Oceanside

Mayor Don Higginson
City of Poway

Mayor Jerry Sanders
City of San Diego

Mayor Jim Desmond
City of San Marcos

Mayor Randy Voepel
City of Santee

Mayor Joe Kellejian
City of Solana Beach

Mayor Judy Ritter
City of Vista

Admiral Lou Smith
Chairman
S.D. Unified Port District

County of San Diego

DEPARTMENT OF PUBLIC WORKS

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December 4, 2012

Regional Water Quality Control Board
9174 Sky Park Court
San Diego, CA 92123

Dear Members of the San Diego Regional Water Quality Control Board:

SAN DIEGO COUNTY COPERMITTEE REPONSES TO QUESTIONS FROM SAN DIEGO WATER BOARD MEMBERS ON TENTATIVE ORDER NO. R9-2013-0001

The San Diego County Copermittees have developed answers to the some of the questions posed by the San Diego Board Members during the November 13, 2012 Public Workshop. These are provided for your consideration below.

Hydromodification

1. *When accounting for the impacts caused by hydromodification at a development or redevelopment site, how far back should the analysis go, pre-project or pre-development? {Grant Destache}*

   San Diego County Copermittee Response to Questions 1 and 3

   There are two aspects of the question: the policy perspective and the technical perspective. In terms of policy, the Tentative Order proposed requirement to match predevelopment hydrographs (flow rates and duration) is the exception to the current hydromodification requirement found in other parts of the State. Specifically, the following permits/programs require hydromodification controls to match pre-project conditions: Ventura, Sacramento, Caltrans, draft Phase 2 MS4, San Bernardino, and Los Angeles. The Caltrans, draft Phase 2 MS4 and Los Angeles are recent permits and reflect the current position of the State and other Regional Boards. Thus, there is precedent to use pre-project conditions as a reference for hydromodification. Additionally, requiring matching the predevelopment hydrograph may impose mitigation beyond a project's impacts.

   Regarding the technical perspective, the San Diego Copermittees have invested considerable time and resources to develop a technically sound and defensible hydromodification management plan (HMP). The San Diego Copermittees determined, during the development of the San Diego HMP, that the flow control design criteria should be based on flow duration matching the pre-project condition and not the pre-development condition. This determination was made based upon the following.

- Prior HMP implementation precedent in the State of California, specifically in Santa Clara and Contra Costa Counties, mandated flow duration matching to the pre-project condition.
- Following consultation with leading geomorphologists in the State of California, the San Diego Copermittees determined that in areas of significant existing urbanization the receiving streams had shown an ability to attain a new channel equilibrium based upon the developed flow conditions.
- Redevelopment practices often decrease the existing site's impervious area, especially with the new Low Impact Development (LID) requirements. In such cases, the post-project runoff rates and durations will decrease rather than increase over time.
- The Copermittees stated a desired goal of encouraging redevelopment projects for multiple planning, economical, and water quality purposes. From a hydromodification perspective, increasing redevelopment project implementation would invariably decrease the conversion of existing open space. The Copermittees were careful to avoid implementing hydromodification requirements on beneficial redevelopment projects if the redevelopment project decreased the site impervious area as compared to existing conditions.

In the case of new development, where open land was to be converted to impervious area, the hydromodification controls were required to match the pre-project condition, which equates to the pre-development condition. In these situations the pre-development conditions were based on Natural Resources Conservation Service soil maps and existing topography and vegetation. In cases where redevelopment projects increase impervious area as compared to the existing condition, hydromodification controls were required to mitigate for the impacts of the added impervious surfaces.

Copermittee Request:

We request to use pre-project conditions as a reference for hydromodification.

2. *How can the San Diego County Hydromodification Plan (HMP) be implemented into the MS4 Permit in a more succinct manner? How can we implement the rules and regulation in the San Diego County HMP, because we really have not had it in place for a very long before we, "throw it down the drain"? {Grant Destache}*

San Diego County Copermittee Response

The SD HMP Plan can be incorporated into the Permit by clearly referencing Resolution No. R9-2010-0066, a *Resolution for Approval of the Hydromodification Management Plan for the San Diego County*, and stating that all provisions of the order continue to be in effect. Chairman Destache correctly stated that the SD HMP has not been in place for that long. The San Diego County Copermittees met all scheduling requirements for HMP development and submittals as outlined in Attachment D of the Municipal Permit Order No. R9-2007-0001.

The San Diego County Copermittees developed a technically sound HMP with a Technical Advisory Committee and input from all stakeholders. This HMP has been in effect for less than two years. In accordance with the adopted resolution, the San Diego County Copermittees have embarked on a monitoring project to validate the HMP parameters and design criteria. The SD Copermittees are not aware of any current scientific data that would suggest the SD HMP is no longer effective or needs improvement prior to the completion of their current monitoring project.

Copermittee Request:

We request that the Regional Board incorporate the approved resolution into the Permit and allow implementation and monitoring according to the approved HMP during this Permit cycle.

3. *How do you document predevelopment or naturally occurring on a map? How is "naturally occurring" defined? How far do you go to document predevelopment? 100 years? 500 years? Before the Indians were picking acorns? {Gary Strawn}*

San Diego County Copermittee Response to Question 3

Please see the response to Question #1 above.

4. *Why was the concrete/hardened channel exemptions removed? {Eric Anderson}*

San Diego County Copermittee Response

A Hydromodification Workshop with a panel of hydromodification management experts was held on August 30, 2012 as part of the Administrative Draft Permit process. The purpose of the workshop was to share ideas on different hydromodification management approaches. Some of the more innovative researchers brought forth philosophical shifts in how stakeholders might think about applying hydromodification management. The Regional Board staff may have assumed that a consensus was reached at the workshop because they subsequently issued a revised administrative draft with the hardened channel exemption stricken. Review of the HMP Workshop Recommendations document dated October 10, 2012 finds the absence of consensus from the panel on this type of exemption. Recommendations emphasized that this is largely a policy decision rather than a technical matter. The focused meetings allowed for policy debate, but this final edit was introduced after the focused meetings were completed.

The exemptions that are currently in the SD HMP are a product of thorough technical analyses and policy debate, and therefore represent the most appropriate rule for the region for the present date. SD Copermittees are in their second year of a 5 year effectiveness monitoring plan, and work has only recently started to establish a state-wide framework for hydromodification management. There will be opportunity to update policies on exemptions as this work progresses, rather than making an abrupt and somewhat arbitrary change immediately.

Copermittee Response:

We request that this exemption be included in the Permit.

5. *Copermittees commented that road projects have unique space limitations and may not be able to meet retention & HMP requirements. Should road projects be treated differently and could requirements in the new CALTRANS Storm Water Permit be used to provide more options? {Grant Destache}*

San Diego County Copermittee Response

Road projects should be treated differently than other types of land development projects because of public safety and their unique characteristics compared to traditional land development. The primary difference is that road projects are linear in nature, with a limited contribution to many receiving waters and right-of-way space constraints. The space constraints are exacerbated by underground utilities and other appurtenances which further limits the area available for Best Management Practices. Many roadway projects are an expansion of existing roadways, constrained within the existing available land area.

Other MS4 permits also provide options beyond retention of the water quality volume for road projects. Below is a list of MS4 Permits in California where the requirements for road projects use the USEPA Guidance, "Managing Wet Weather with Green Infrastructure: Green Streets".

Region	Region/County	Permit Reference	Regional Board
4	Los Angeles	Order No. R4-2012-XXXX NPDES No. CAS004001	LARWQCB
4	Ventura	Order No. R4-2010-0108 NPDES No. CAS004002	LARWQCB
5	Central Valley	Order No. R5-2008-0142 NPDES No. CAS004003	CVRWQCB
5	Sacramento	Order No. R5-2008-0142 NPDES No. CAS082597	CVRWQCB
8	Riverside (SAR)	Order NO. R8-2010-0033 NPDES NO. CAS618033	SARWQCB
8	Orange (SAR)	Order NO. R8-2009-0030 NPDES NO. CAS618030	SARWQCB
8	San Bernardino	Order NO. R8-2010-0036 NPDES NO. CAS618036	SARWQCB

Copermittee Request:

We request that road projects be treated differently than other types of land development projects because of public safety and their unique characteristics compared to traditional land development.

6. *If a project is unable to comply with the HMP requirements at the site, how far away from the site can the project proponent place their retentions basins? What other limitations exist when not placing a BMP on site? There is a concern that low income areas will become targets for placement of retention basins. {Tomas Morales}*

San Diego County Copermittee Response

No response to this question.

Cost

1. *What is the cost of not implementing the provision in the Tentative Order? (e.g. beach closures, ill health that taxpayers have to pay for through their private health plans or public costs, deaths...) {Henry Abarbanel}*

San Diego County Copermittee Response

No response to this question.

2. *Lots of big cost numbers were used during the meeting. (e.g. $2 to $4 billion over 20 years) How much do the Copermittees spend now? What is being spent now and on what? {Henry Abarbanel}*

San Diego County Copermittee Response

Please see the response to Question #3 below.

3. *What is the breakdown of costs? What is the timeframe of these costs? How much is already being spent? {Tomas Morales}*

San Diego County Copermittee Response to Questions 2 and 3

Recent Storm Water Program Implementation Costs for Copermittees

As previously stated by the Copermittees during the focused meeting process, current costs already represent over $150 million annually. As detailed below, Project I Beaches and Creeks Bacteria TMDL (Bacteria TMDL) would add $144 million to $272 million per year, in addition to the current programmatic costs.

Current Annual Costs	$150 million
Bacteria TMDL Costs	$144 - 272 million
Total Annual Cost	**$294 – 422 million**

Bacteria TMDL Costs

Full implementation of the Bacteria TMDL is to be complete within 10 years of the effective date (April 4, 2011) for both wet and dry weather TMDLs, unless an alternative compliance schedule is approved as a part of a Comprehensive Load Reduction Plan (CLRP). If a CLRP is approved by the Regional Board, Copermittees must achieve compliance with the wasteload allocation (WLAs) within 20-years, by 2031.

The Bacteria TMDL addresses 1,738 square miles throughout the region, with implementation efforts spanning multiple city and county jurisdictions. The costs of implementation efforts over the entire compliance schedule are still being determined as CLRPs are being developed. However, preliminary cost estimates have been compiled from various references.

Costs from the Bacteria TMDL Technical Report

Section 12.6 of the Regional Board's Bacteria TMDL Technical Report (2010) includes economic factors, or ranges of cost estimates for various TMDL implementation activities. The following summarizes some of the estimates generated by Board staff (monitoring is not included):

- **Education and Outreach:** up to $211,000 *per program*
- **Structural BMPs:** $500,000 to $9.73 billion *per watershed*
- **Yearly maintenance:** $10,000 to $68 million *per watershed*

Costs from the Comprehensive Load Reduction Plans

CLRPs were submitted to the Regional Board for five watersheds in the San Diego Region. The CLRPs include recommendations for various activities to address bacteria and other pollutants in the watersheds, including:

- Nonstructural BMPs (e.g., street sweeping, public education, inspections)
- Decentralized structural BMPs (e.g., bioretention, green streets, porous pavement)
- Centralized structural BMPs (e.g., regional detention facilities)
- Special studies to better understand sources of impairments, appropriate BMPs, etc.
- Monitoring to evaluate BMP effectiveness, compliance to receiving water quality objectives, and overall achievement of the objectives of the CLRPs

Based on the CLRPs submitted for the San Diego Region, costs for the above activities were estimated through a robust modeling process to range from $2.6 billion to $4.9 billion over the 20 year compliance schedule. This would more than double current program costs.

Copermittee Request:

Incorporate the recommendation shown in response to TMDL Question #4.

Total Maximum Daily Load (TMDL)

1. *Can the Copermittees meet the bacteria levels that are specified in the Total Maximum Daily Loads (TMDLs)? What sorts of technologies are available to the Copermittees to treat bacteria to the levels specified in the TMDLs? {Grant Destache}*

   San Diego County Copermittee Response

   Please see the response to Question #5.

2. *Can the Copermittees achieve adequate waste load reductions in MS4 discharges to meet the effluent limitations and compliance dates for bacteria in the Tentative Order? {Grant Destache}*

   San Diego County Copermittee Response

   Please see the response to Question #5.

3. *What are the benefits of BMP based compliance with the TMDLs for bacteria compared to compliance with Water Quality Based Effluent Limitations (WQBELs)? {Grant Destache}*

   San Diego County Copermittee Response

   According to USEPA guidance[1], water quality based effluent limitations can either be expressed as numeric limits or as BMPs. As stated by USEPA and NRDC representatives during their comments at the November 13 workshop, BMP-based WQBELs are allowed as long as BMP strategies (as described in the WQIPs) are measureable and have sufficient scientific and engineering rigor. The Copermittees have fully embraced the WQIP approach and are prepared to develop scientifically-based WQIPs that will result in improved water quality.

   The proposed approach to WQBELs will have a profound effect on the Copermittees' storm water programs. The draft Tentative Order currently requires compliance with end-of-pipe, numeric, concentration-based WQBELs, which will require a "brute force" approach to TMDL implementation, addressing every single outfall in every watershed. If the WQBELs were expressed as BMPs (as envisioned when the TMDL was originally adopted), Copermittees would have much greater opportunity to implement innovative, watershed-based implementation plans (e.g., WQIPs). The BMP-based WQBELs are trackable and enforceable, and Copermittees would be out of compliance if they did not implement the committed-to BMPs. Overall, BMP-based WQBELs would provide the Copermittees many advantages over numeric WQBELs, as follows:

   - **BMP-based WQBELs will improve the ability of Copermittees to secure the funding needed to implement BMPs:** In order for storm water programs to achieve the pollutant reductions needed to attain TMDL wasteload allocations, we must garner broad public support for the needed projects/BMPs. In our experience, this support hinges on whether

[1] Memorandum (Revised) from Denise Keehner, Director of OWOW and James Hanlon, Director of OWM to Regional Water Division Directors: Establishing TMDL Wasteload Allocations (PDF) http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf

rate payers and other members of the public perceive projects as likely to be successful (i.e., the projects improve water quality and result in compliance with the permit). Given the overwhelming number of water quality challenges across our jurisdictions and the compounding costs to address those challenges, it is increasingly difficult for water quality projects to receive the acceptance necessary to attain funding. Given the estimated billions of dollars in costs that will be required to implement the Bacteria TMDL (as described above) it will be necessary to seek additional funding from the public. Without the linkage between BMPs/projects and TMDL compliance, major expenditures to comply with TMDLs are perceived as "risky", with the risk being that projects are implemented (based on a scientifically-robust plan) yet the Copermittees may still be deemed to be out of compliance with its MS4 permit. BMP-based WQBELs will increase public support for funding measures to implement storm water quality BMPs/projects.

- **BMP-based WQBELs would promote innovative WQIPs, and lead to an integrated, watershed-based permitting approach:** During the Focused Meetings and Workshop, all stakeholders have expressed support for the watershed-based (WQIP) approach to permitting. The WQIPs could serve as the vehicle for identifying cost-effective, innovative BMP strategies. For development of the Comprehensive Load Reduction Plans (CLRPs), the Copermittees developed watershed-scale BMP modeling systems to create BMP strategies. Application of BMP-based WQBELs (instead of concentration-based WQBELs) would foster continued refinement of these modeling systems and creation of next-generation TMDL implementation approaches. These approaches are most likely to include multi-use BMPs that support open space in the region and sustainable LID practices that would promote infiltration to increase regional groundwater supplies. If the WQBELs are expressed as end-of-pipe concentrations, the type and location of BMPs will be greatly constrained given the need to focus resources on each individual outfall rather than through a watershed approach, and innovative strategies would be stymied.

- **BMP-based WQBELs better reflect the nature of storm water management:** MS4s are faced with highly variable flows and transient pollutant sources, and thus uncertainty is an inherent aspect of our program. Design and implementation of storm water BMPs is challenging due to the nature of storm water and the types of treatment systems that are available. The State Water Board's Blue Ribbon Panel of Experts[2] concluded the following:

  > "Even for conventional pollutants, there presently is no protocol that enables an engineer to design with certainty a BMP that will produce a desired outflow concentration..." [page 6]

  In other words, the state of the science is in *direct conflict* with the concentration-based, end-of-pipe WQBELs that are currently in the Order. BMP-based WQBELs would allow the Copermittees to focus on the highest impact outfalls (not all outfalls are created equal in terms of their effect on receiving waters) and use green/low impact development (LID) practices to reduce *flows* instead of being "locked in" to concentrations.

To reiterate, BMP-based WQBELs are allowed by USEPA, which was stated by USEPA and NRDC representatives at the November 13 workshop. If these stakeholders acknowledge that BMP-based WQBELs are allowed under certain conditions, and the Copermittees are ready to meet those conditions by developing scientifically-based WQIPs, then why not revise the Order to promote innovative, watershed-based approaches?

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[2] *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial, and Construction Activities.* Storm Water Panel Recommendations to the State Water Board. June 2006. http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf

Copermittee Request:

Revise language in Attachment E.6.b and Attachment E.6.e to incorporate BMP based WQBELs through a Regional Board EO approved WQIP as allowed by the TMDL.

4. *Address the issues that Ruth Kolb, City of San Diego raised regarding the Bacteria TMDLs. Clarify how we incorporated the Bacteria TMDLs into the Tentative Order to demonstrate that we incorporated it into the Tentative Order the way it was intended to be implemented. {Eric Anderson}*

   San Diego County Copermittee Response

   As described above, the Phase I Bacteria TMDL represents an enormous undertaking for the Copermittees. The TMDL went through a significant public process where the technical and policy elements were discussed and ultimately adopted by the Regional Water Board. The Copermittees have already begun implementing the requirements of the TMDL, and the requirements to submit Comprehensive Load Reduction Plans (CLRPs) will be met in all applicable watersheds. These CLRPs will be an important resource for Copermittees as WQIPs are developed in accordance with the Tentative Order. However, the approach by which the TMDL is currently incorporated into the Tentative Order (in Attachment E) can have a profound impact on the Copermittees' TMDL implementation efforts. The current approach of the current Tentative Order has greatly and unnecessarily increased the stringency of the TMDL, in that it requires more BMPs than are needed to meet TMDL wasteload allocations (WLAs) and implementation schedules will be shorter. The current approach of the Tentative Order goes against the intent of the TMDL that was adopted by the Board.

   There are four key areas where the Tentative Order could be improved to better reflect the TMDL and allow for consistency with the efforts completed to date, as presented in the table below, and described in the following subsections:

Concern	TMDL	Tentative Order	Copermittee Request
Reopener	TMDL contains an explicit reopener provision	No specific TMDL reopener	Include language in Provision H (Modification of Programs) and Attachment E acknowledging the TMDL reopener and describe how the Permit will be modified to reflect the TMDL reopener.
Revision to Interim Milestone Compliance Dates	TMDL contains specific language allowing for the revision of interim milestones based on CLRPs	No acknowledgement of the ability to revise the interim schedules	Include language in Attachment E 6.c.2.c acknowledging that the interim compliance dates may be revised based on alternative interim compliance dates provided in a BLRP/CLRP (or WQIP) accepted by the San Diego Regional Board Executive Officer.
BMP-Based WQBELs	TMDL states that WLAs will be incorporated as BMP-based WQBELs	No BMP-based WQBELs are incorporated nor is an allowance for a BMP-based approach provided	Revise language in Attachment E.6.b and Attachment E.6.e to incorporate BMP based WQBELs through a Regional Board EO approved WQIP as allowed by the TMDL.
Mass-based WLAs	TMDL assigns mass-based WLAs to MS4 Copermittees	No mass-based WLAs are incorporated into the permit as WQBELs, rather concentration based WQBELs are used.	Replace concentration based effluent WQBELs with mass-based effluent WQBELs.

TMDL Reopener not Acknowledged in the Permit

A TMDL reopener is scheduled to occur during the term of the permit, and Copermittees consider the reopener to be a critical component of the TMDL. During the TMDL adoption process, the Regional Water Board members added the reopener provision *during the adoption hearing* to address Copermittees concerns. The Copermittees have placed much weight on the reopener as an opportunity to add to the knowledge and improve upon a number of the technical aspects of the TMDL through additional data collection efforts. Data is already being collected to address the reopener, including the Reference Watershed Study. Given the significant efforts the Copermittees to improve our understanding of the science, it is imperative the Order recognizes the importance of the TMDL reopener and describe how the Order will reflect the TMDL after it is revised. We would greatly appreciate the inclusion of language into both Provision H (Modification of Programs) and Attachment E to acknowledge the reopener. The language should outline a process by which the Order will be reopened and revised to reflect the revised TMDL after it is adopted.

Ability to Revise Interim Milestone Compliance Dates for Copermittees Submitting CLRPs

As discussed in the TMDL and noted in the TMDL Implementation Milestone schedule (see page A70/71), alternative interim milestone compliance dates may be proposed in BLRPs or CLRPs to reflect the implementation approach selected by Copermittees. The Tentative Order does not currently acknowledge or allow for alternative interim compliance dates. The BLRPs and CLRPs to be submitted by Copermitees will likely propose alternative interim compliance dates, as allowed by the TMDL, to meet the 50% reduction milestone for dry and wet weather. The CLRPs submitted by Copermittees may propose different interim compliance dates for different watersheds, and the Order should acknowledge the flexibility allowed by the TMDL (see page 68 of Attachment A of the Basin Plan Amendment). We would greatly appreciate the inclusion of language into Attachment E 6.c.2.c acknowledging that the interim compliance dates may be revised based on alternative interim compliance dates provided in a BLRPs/CLRPs (or WQIP) that are accepted by the San Diego Regional Board Executive Officer.

BMP-based WQBELs are not Incorporated into the Permit

As stated under the header of "Implementation of TMDLs" on page 12 of the TMDL Resolution:

> "WQBELs may be expressed as numeric effluent limitations, when feasible, and/or as a best management practice (BMP) program of expanded or better-tailored BMPs[3]. The WQBELs will likely need to include a BMP program to achieve the load reductions required to attain the TMDLs in the receiving waters. The Phase I MS4s and Caltrans will be required to submit Bacteria or Comprehensive Load Reduction Plans outlining a proposed BMP program that will be capable of achieving the necessary load reductions required to attain the TMDLs in the receiving water."

Additionally, in the discussion of the incorporation of the TMDL into the MS4 permit on page A41, the TMDL clearly states the intent to consider the expression of WQBELs as BMPs:

"In addition to the discharge prohibitions and receiving water limitations, WQBELs consistent with the assumptions and requirements of the WLAs of any applicable TMDL must also be incorporated into the NPDES requirements. The San Diego Water Board will revise and re-issue the WDRs and NPDES requirements for Phase I MS4s to incorporate the following:

- WQBELs consistent with the requirements and assumptions of the Municipal MS4 WLAs. WQBELs may be expressed as numeric effluent limitations, when feasible, and/or as a BMP program of expanded or better-tailored BMPs.[4]
- If the WQBELs include a BMP program, periodic reporting requirements on BMP planning, implementation, and effectiveness in improving water quality at impaired beaches and creeks (i.e., progress reports). Progress reports will also be required to include water quality monitoring results. Progress reports will be required as long as necessary to ensure that the beneficial uses of the impaired water bodies have been restored and maintained.
- Compliance schedule for Phase I MS4s to attain the MS4 WLAs and TMDLs in the receiving waters."

The concept and stated intent of allowing for the incorporation of BMP-based WQBELs into the MS4 permit is repeated throughout the TMDL. However, the Tentative Order does not incorporate this approach into Attachment E.6. Copermittees believe the WQIPs can and should be used as the

[3] Code of Federal Regulations Title 40 section 122.44(k)(2)&(3)

[4] Code of Federal Regulations Title 40 section 122.44(k)(2)&(3)

basis for establishing BMP-based WQBELs. The TMDL envisioned the CLRPs would satisfy this requirement and the WQIPs required by the Tentative Order could and should be viewed as a natural extension of the CLRP requirement. The WQIPs can outline the BMPs, a corresponding schedule, and provide, through a robust technical analysis, reasonable assurance that BMPs are expected to meet the TMDL requirements consistent with EPA's expectations. We would greatly appreciate the revision of language in Attachment E.6.b and Attachment E.6.e to incorporate BMP-based WQBELs through a Regional Board EO approved WQIP as allowed by the TMDL.

TMDL Expresses MS4 WLAs on a "Mass-Basis", but Order uses Concentrations

To quantify the amount of bacteria that could be discharged from MS4s while the creeks and beaches still attain WQOs, the TMDL used mass-based wasteload allocations (WLAs). As stated in the TMDL:

"Each mass-load based TMDL is allocated to known point sources and nonpoint sources. WLAs are assigned to point sources and load allocations (LAs) are assigned to nonpoint sources. WLAs and LAs are the ***maximum load a source can discharge*** and still achieve the TMDL in the receiving water." [emphasis added]

The TMDL presents the assigned mass-based loads in a series of tables that define current loads, allowable loads (i.e., MS4 WLAs), and the percent reduction needed in the current loads to attain the allowable loads. It is clear the TMDL intended these mass-based WLAs and/or percent reductions to be incorporated into the MS4 permit(s).

In contrast, the Tentative Order expresses WQBELs as *concentrations*. Instead of allowing the MS4s to manage their bacteria loading (both flow and concentration) on a watershed-basis, the Order requires that every single outfall meet the WQOs at the end of the pipe (prior to discharge). This approach is extremely stringent, and would greatly increase the cost of TMDL implementation without added environmental benefit. The Copermittees should have the flexibility to address the outfalls in the watershed that have the biggest impact on water quality, rather than be required to address every single outfall. During source investigation analyses for the Los Angeles River Bacteria TMDL, it was estimated the TMDL could be achieved by addressing the loads from the 20% of the outfalls that were highest-ranked in terms of bacteria loading[5]. The current Order does not allow for such a ranking/prioritization; it unnecessarily requires that 100% of outfalls be addressed, which could increase implementation requirements by a factor of five (100% instead of 20%). The concentration-based approach is not a good use of the Copermittees resources, and it will not result in greater environmental benefit to our watersheds.

In summary, the TMDL clearly established mass-based TMDLs, assigned a portion of the TMDLs to the MS4 via mass-based WLAs, and intended for those loads to be incorporated into the MS4 permit(s). However, no mass-based WLAs are incorporated into the Permit as WQBELs or otherwise. The concentration based effluent WQBELs in the Permit should be replaced with the mass-based effluent WLAs consistent with the TMDL. Alternatively, and at a minimum, the Permit should incorporate the mass-based WLAs as effluent WQBELs as an option so that Copermittees who are meeting the TMDL WLAs are in compliance with the Permit.

5. *Throughout the presentation, it was said that it is infeasible to cleanup bacteria. Provide an explanation as to why, it is not the case, that the cleanup of bacteria is infeasible. IN OTHER WORDS... Explain why it is in fact feasible to cleanup bacteria. Is it feasible to cleanup bacteria to the levels in the TMDLs? {Tomas Morales}*

[5] Los Angeles River Watershed Bacteria TMDL Staff Technical Report. Page 88.
http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/80_New/LARiverFinal/Staff%20Report%20LAR%20Bact%2015Jul10%20final.pdf

San Diego County Copermittee Response to Questions 1, 2 and 5

Two main types of technologies are available to potentially treat bacteria to the levels specified in the TMDLs: non-structural and structural BMPs. These technologies and their ability to meet the effluent limits for bacteria specified in the Tentative Order were researched in the development of the Bacteria TMDL CLRPS and are discussed below.

Bacteria Water Quality Standards are Not Consistently Attainable by Non-Structural Source Controls Only

Because of their low cost relative to structural treatment controls, the first emphasis during the development of the Bacteria CLRPs was to exhaustively explore non-structural options to control bacteria at the source. Non-structural BMPs include outreach, inspection, and enforcement-based programs, such as those targeting homeowners to address over-irrigation and car washing as sources of dry weather runoff, pet owners to address pet waste, and food outlets to address sidewalk hose-down and proper trash and grease trap management. Non-structural BMPs also include illicit discharge detection and elimination programs, including efforts to identify sources of human waste into the MS4, such as recreational vehicle discharges and leaking sewer lines (where such flows may re-emerge into nearby stormdrains). Street sweeping and catch basin cleaning are also emphasized and intended to remove sources of sediment, trash and organic litter, all of which may contribute bacteria to the MS4.

Non-structural BMPs are essential components of the CLRPs, and their effectiveness was quantified to the extent possible based on available data. The CLRP analyses found these collective BMPs to achieve MS4 bacteria load reductions of 8 to 43% during dry weather and 5 to 29% during wet weather; wide ranges are necessary due to the significant uncertainty associated with the effectiveness of such programs. However, even with the most optimistic assumptions, a thoroughly exhaustive and comprehensive implementation of non-structural BMPs can simply not achieve compliance with the TMDL WLAs. This is partly because outreach, inspection, and enforcement can never achieve perfect control outcomes (i.e., some target groups will miss outreach, some behaviors won't change, and some activities will miss inspection). This is also partly because some urban bacteria loads are not addressable by such programs (e.g., biofilms in storm drains consistently grow and then mobilize whenever flows are present, such as during one of the many allowed dry weather flow sources like groundwater inflow and infiltration, and fire hydrant testing). Evaluations of the effectiveness of other source controls, such as sweeping and cleaning programs, have indicated that they are not able to capture 100% of sediments and organic debris.

Bacteria Water Quality Standards are Not Attainable by Using Structural BMPs

Because of limitations in the effectiveness and consistent performance of non-structural BMPs, more costly and time-intensive (i.e., longer time to implement), structural BMPs are described in the CLRPs in order to provide additional, more effective and controllable bacteria reduction. Dry weather structural BMPs potentially include localized infiltration, diversions to sewer, and disinfection. During wet weather, however, many of these BMPs are often not feasible because flow rates are substantially greater and more variable, and considerable transient storage would be required. In general, more natural, passive, and sustainable wet weather structural BMPs are preferred and recommended (as opposed to energy-intensive, mechanical systems). The International Stormwater BMP Database was used to help evaluate and predict performance of such BMPs. Statistically evaluated monitoring data from the database, however, indicate that many structural BMPs are not capable of achieving REC WQOs with the consistency, frequency, and predictability required by the TMDL and a corresponding load reduction plan. The CLRPs also describe other structural BMPs for wet weather controls such as subsurface flow wetlands (which have less performance data available but initial datasets suggest a relatively high level of effectiveness) and "zero discharge" types that rely on infiltration (e.g., infiltration trenches and basins) or capture and use (e.g., rainwater harvesting cisterns). These BMPs are effective for bacteria but are subject to local and site-specific constraints,

which must be evaluated before implementation. For instance, infiltration BMPs are not appropriate for areas with relatively impervious soils, shallow groundwater, steep hillsides, subsurface contamination, or close proximity to certain structures. Similarly, capture and use BMPs are not cost effective for areas with little available water demand (such as minimal landscaping irrigation needs) or where water demand is temporally inconsistent with available supply (frequently the case in the arid southwest where rainfall occurs during one season while peak irrigation demands occur during a different period).

Even Combining Structural and Non-Structural BMPs, Consistent and Reliable Attainment of Bacteria Standards is not Possible

In order to reduce existing wet weather MS4 bacteria concentrations with the objective of meeting TMDL waste load allocations (with some regularity), no potential and reasonable non-structural and structural BMPs are excluded from the currently developed CLRPs. Many Los Angeles area MS4 Copermittees include the same strategy in their TMDL Implementation Plans.

There remain numerous examples where exhaustive non-structural and structural BMP efforts were conducted, and significant costs expended, without the desired (or initially predicted) outcome of compliance.

- In Santa Barbara, extensive storm drain investigations were conducted using conventional techniques (e.g., CCTV, visual flow observation, automated flow rate measurement, wastewater chemical indicators, bacteria sampling, dye testing, etc.) as well as more novel ones (e.g., canines scent trained for human waste, and human waste genetic markers) to seek inputs of human waste. As a result, RV discharges and leaking sewer lines were identified and immediately addressed. Despite these efforts, however, channel and creek indicator bacteria levels are unchanged.
- At the Santa Monica Pier, BMPs included bird netting, trash covers, homeless enforcement, prevention of pier washing, repair of leaking sewer, major dry weather storm drain diversion and potable offset use, and human source marker sampling to confirm that human fecal sources were indeed removed. Despite these significant efforts, however, beach bacteria concentrations improved but TMDL exceedances persist.
- At Inner Cabrillo Beach in the Port of Los Angeles, BMPs and studies included circulation enhancement pilot testing, bird deterrent testing, dry weather storm drain diversions, sewer inspection and groundwater sampling, eelgrass sampling (eelgrass was found to be a natural source of indicator bacteria), human source marker sampling, and beach sand replacement (since beach sands were found to be a reservoir for indicator bacteria). Again, despite several million dollars spent at this one beach, TMDL WLA exceedances persist.
- At Ramirez Canyon in Malibu, where dry weather flows are disinfected at the beach, surf zone water quality continues to exceed TMDL WLAs.

It therefore stands to reason that if the comprehensive bacteria removal of dry weather flows (coming at a very high cost when every creek and beach in the San Diego TMDL is considered) does not result in receiving water TMDL compliance, uncertainty must remain during wet weather conditions (which would require a cost significantly greater than for dry weather). As such, consistent and reliable compliance with TMDL standards and recreational bacteria water quality objectives is infeasible.

Copermittee Request:

Include language in Provision H (Modification of Programs) and Attachment E acknowledging the TMDL reopener and describe how the Permit will be modified to reflect the TMDL reopener.

Other

1. *Clarify the Tentative Order is a one size fits all approach. Is the Water Quality Improvement Plan a one size fits all approach? {Grant Destache}*

   San Diego County Copermittee Response

   The Permit provides considerable flexibility in many places, but a critical example of a one-size-fits-all approach is land development. While the Permit uses the concept of a Water Quality Improvement Plan to allow Copermittees to define priorities on a watershed basis and to tailor programs and BMPs based on the specific needs of each watershed, **the Permit takes a one size fits all approach to development planning standards**. Specifically, the sizing criteria to meet pollutant removal and hydromodication BMPs are very prescriptive in the Permit. The sizing criteria are the same for all projects regardless of pollutant removal efficiencies, soil retention capacities and susceptibility to erosion.

Copermittee Request:

We request that the Permit allow adaptive management to establish sizing criteria on a watershed level, and to propose in the Water Quality Improvement Plans adjustments to the Board recommended standards. This would allow Copermittees to define areas where more attention is needed and areas where applying the fixed standards does not provide a significant water quality benefit.

2. *Further explain the Illicit Discharge Detection and Elimination Requirement in Provision E.2.a (1) and (3) of the Tentative Order that pertains to discharges from footing drains and fountain drains. {Eric Anderson}*

   San Diego County Copermittee Response

   No response to this question.

Sincerely,

CID TESORO, Manager
Department of Public Works

Cc: David Gibson
Eric Becker
Laurie Walsh

Exhibit E

Protecting Water Quality: The Strange Case of Dr Jekyll and Mr. Hyde

By S. Wayne Rosenbaum, Esq.
Stoel Rives, LLP, Attorneys at Law

Most of us have read or heard Robert Louis Stevenson's tale of Dr Jekyll and Mr. Hyde. It is about a London lawyer named Gabriel John Utterson who investigates strange occurrences between his old friend, Dr. Henry Jekyll, and the evil Edward Hyde.

The work is commonly associated with the rare mental condition often spuriously called "split personality," referred to in psychiatry as dissociative identity disorder, where within the same body there exists more than one distinct personality. In this case, there are two personalities within Dr. Jekyll, one apparently good and the other evil; complete opposite levels of morality.

Over the last year, the staff of the San Diego Regional Water Quality Control Board ("SDRWQCB") has attempted to craft a new Municipal Storm Water Permit ("Permit") for the regulation of urban storm water runoff in San Diego, Southern Riverside and Southern Orange counties.

Much like the story of Dr. Jekyll and Mr. Hyde, within this permit there exist two distinct personalities. In this case a progressive and enlightened personality expressed as Water Quality Improvement Plans versus a regressive and dogmatic personality represented by more "command and control" regulation that has proven to be effective only in stifling economic and job growth while doing nothing to improve water quality. Over the next several months, we will see which of these personalities survive, for as with Jekyll and Hyde, it will be impossible for them to co-exist in the same permit.

In addition to all of the command and control requirements in the existing municipal permit, Mr. Hyde strikes again with new and more draconian regulations which could easily throw Southern California back into recession. **Some of the most egregious changes include:**

1. Retain the 85th percentile storm event. In the current permit, development and redevelopment projects were required to retain the 85th percentile storm event. This required the construction of huge detention basins or underground vaults to store rain water and trickle it out over a series of days. In the new version, Mr. Hyde will require that the storm water be retained on site and either infiltrated or evaporated. The theory behind Mr. Hyde's new requirement is "if you never discharge storm water you can never discharge pollutants." Due to the soil conditions in much of San Diego County, it will not be possible to infiltrate the storm water, thus making any new development, including public projects such as roads, prohibitively expensive. Moreover, Mr. Hyde seems to have ignored the impact of this command on protected species, and existing water rights.

In addition to all of the command and control requirements in the existing municipal permit, Mr. Hyde strikes again with new and more draconian regulations which could easily throw Southern California back into recession . . .

. . . On the other hand, Dr. Jekyll proposes a completely different path to cleaner water sooner. The doctor proposes developing Water Quality Improvement Plans ("WQIP") for each of the 10 water sheds within the SDRWQCB's jurisdiction.

2. Remove the hydromodification exemptions from the permit. The current permit provides for certain exemptions from hydromodification requirements where it can be shown that those requirements are infeasible or will result in no benefit to water quality. Mr. Hyde believes that the permit should move the region towards a "pre development" hydromodification condition. To achieve this goal, Mr. Hyde wants to remove the hydromodification exemption the co-permittees spent three years and $1.5 million developing. Mr. Hyde's permit fails to define "pre development" but many observers believe that this is code for pre Columbian. With this interpretation of "pre development" coupled with the removal of the exemptions, any significant development or redevelopment is likely to be economically infeasible.

3. Strict liability for storm water discharges. Under the existing permit, co-permittees are considered to be in compliance if they are implementing Best Management Practices ("BMP") to the Maximum Extent Practicable ("MEP"). This has been interpreted to mean that so long as the co-permittees are moving towards better water quality within the economic constraints imposed upon them, they are in compliance. As part of the proposed permit, Mr. Hyde seeks to impose strict liability for any exceedance of a Water Quality Objective.

Water Quality Objectives were established over twenty years ago as part of the basin plan. As their name implies they were intended to be aspirational objectives. Mr. Hyde would convert those aspirational objectives to Numeric Effluent Limits enforceable not only by the SDRWQCB but by any individual under the citizen suit provisions of the Clean Water Act. These litigation costs, which will ultimately be passed on to the private sector through permit conditions and indemnities, could crush the economic

recovery in the region.

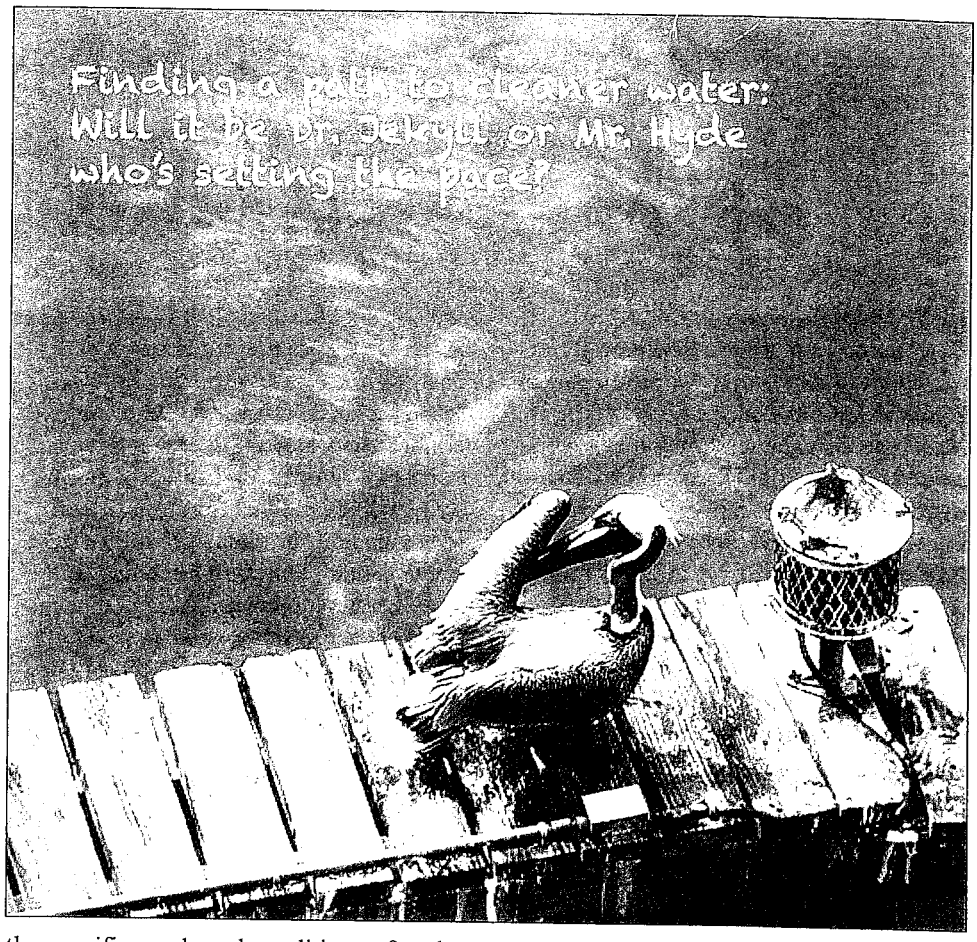
4. Unfunded Mandates. The co-permittees estimate that the increased cost to implement the requirements of this new permit over the next twenty years is between two billion and four billion dollars. Neither the SDRWQCB nor the state appears willing to shoulder any of these additional costs. Mr. Hyde's written response in the proposed permit findings are that these new requirements are not an unfunded mandate because the co-permittees have the authority to raise fees and taxes to pay for the additional costs. Not only does Mr. Hyde completely ignore the realities of what these costs are likely to do to the local economy, but he also ignores the realities of California's Proposition 218 which requires two thirds vote to raise fees for storm water services. As recently demonstrated by the County of Los Angeles, this super-majority hurdle has effectively been a political impossibility.

On the other hand, Dr. Jekyll proposes a completely different path to cleaner water sooner. The doctor proposes developing Water Quality Improvement Plans ("WQIP") for each of the 10 water sheds within the SDRWQCB's jurisdiction.

Each plan would be based on the Deming Model of Plan, Do, Check and Review; a model that has proven to be highly successful in other environmental arenas. Deming argued that the essence of continuous improvement lies in stakeholder involvement. This happens when stakeholders improve the process, product or services by applying their creative faculties to their work problems. The Deming Model is diametrically opposed to the command and control regulation proposed by Mr. Hyde.

The first step in Dr. Jekyll's approach is to develop a plan through an open public process that identifies the specific aspects and impacts that need to be addressed to achieve the beneficial uses for the water resources in each watershed. Once the plan has been developed and approved by the SDRWQCB, the co-permittees would implement the plan and monitor the results to see if the plan is moving the watershed closer to achieving the designated beneficial uses. Once every several years, the plan would be reviewed and updated based on the monitoring results and any changes in the designated beneficial uses.

WQIPs will be customized to address



the specific needs and conditions of each of the ten watersheds. For example, where soil conditions allow for infiltration and ground water recharge, on site retention might be included as one of the BMPs applied to achieve the beneficial uses of the watershed. Conversely, where hardened channels have existed for long periods of time and the hydromodification exemption makes sense, a WQIP could continue to maintain the exemption. Simply stated, WQIPs would allow the co-permittees to use the right tool for each job rather than being forced to try and drive a round peg into a square hole.

WQIPs will allow the co-permittees, in conjunction with the public, to make wise choices about how to spend limited resources, rather than having costs imposed by SDRWQCB staff members who are less familiar with the needs and aspirations of each individual watershed community.

Finally, by converting WQIPs to time scheduled orders, Dr. Jekyll would avoid the problem of strict liability for co-permittees. As long as the co-permittees implemented the plans laid out in their WQIPs, they could be deemed to be in compliance with the Permit and the Clean Water Act.

As Robert Louis Stevenson so graphically explained in his short story, Dr. Jekyll and Mr. Hyde cannot co-exist in the same body. So, too, command and control regulation and WQIPs cannot co-exist in the same permit. After 20 years of command and control, the SDRWQCB admits that it has not been able to achieve the water quality objectives it believes are necessary to sustain the beneficial uses of water in the basin. Isn't it time to try something new?

Mr. Hyde needs an intervention. Without the support of the community, WQIPs will go by the wayside, and Mr. Hyde will prevail with more command and control regulation. Get involved. Talk to your neighbors and colleagues. Ask your association what you can do to help. Only you can prevent another round of Mr. Hyde.

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The statements and opinions expressed in this article belong solely to the author and are not a reflection of an official position or stance of the Associated General Contractors of America, San Diego Chapter, Inc., or of its Engineering & General Contractors Council. S. Wayne Rosenbaum, Esq., is a partner in the law firm Stoell Rives, LLP.

City of San Diego

County of San Diego

March 15, 2013

Mr. David Gibson
California Regional Water Quality Control Board
San Diego Region 9
9174 Sky Park Court, Suite 100
San Diego, CA 92123

NOTICE OF PUBLIC HEARING – NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WATER DISCHARGE REQUIREMENTS FOR DISCHARGES OF URBAN RUNOFF FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4S) DRAINING THE WATERSHEDS WITHIN THE SAN DIEGO REGION

Dear Mr. Gibson:

On March 6, 2013 the San Diego Regional Water Quality Control Board (Regional Board) announced that hearings for the proposed Municipal Storm Water Permit for the San Diego Region would be held on April 10 and 11, 2013. The City of San Diego (City) and the County of San Diego (County) submitted lengthy written comments during the public comment period for the draft permit and is concerned that the hearings will be held without our respective jurisdictions being given an opportunity to review responses to their comments. Furthermore, we believe that it would be prudent to postpone any approval of the Municipal Storm Water Permit until the California State Water Resources Control Board provides guidance on the Receiving Waters Limitation language, which if not included in the initial approval of our regional permit, could necessitate that the Regional Board amend its regulations in the immediate future.

The City and the County appreciate the difficulties and challenges in implementing such complex regulatory matters as the Municipal Storm Water Permit, but as copermittees regulated by this permit, we are concerned that the Regional Board has decided to move this hearing forward without providing sufficient time to appropriately respond to and address stakeholders' concerns.

Locally and on a statewide level there continue to be numerous outstanding issues with this proposed permit. We believe it would be inappropriate and irresponsible to rush adoption

without continued dialog between the stakeholders and Regional Board staff. The City and County are committed to the goal of improving water quality through the storm water management programs that have been developed in conjunction with the Regional Board, but the current proposed permit include provisions that are flawed and need to be addressed.

Considering the significant financial burden this permit will have on so many local governments, we believe it is more important to create a permit that incorporates sound regulation than to needlessly rush toward an arbitrary deadline. The Regional Board staff has acknowledged on the record that the impacts of some of the proposed standards and regulations are not fully understood. We do not even know that compliance can be achieved with the tools and science available today. However, we do know for certain, based on the Regional Board's own studies, that significant cost in the range of billions of dollars will be incurred as a result of copermittees trying to comply with the proposed regulations if implemented.

As stewards entrusted with managing public tax dollars, we do not believe it is prudent to implement policy without having a clear understanding of whether it will mitigate the problem it was created to address. The City and the County believe it would be more productive to postpone any hearing in order to step back and continue working with all stakeholders to clearly define goals that are achievable and do not have such detrimental financial impacts to local governmental services.

Thank you for your consideration of this request. If the Regional Board does choose to move forward with holding the hearing in April, the City and County respectfully request to speak at the designated meeting to have the record reflect our respective positions on this matter. We would also respectfully request a time certain be allocated at the beginning of such hearing so that the City and County representatives can provide testimony.

If you have any questions, please contact Richard Crompton, County of San Diego Director of Public Works at (858) 694-2233 or Kip Sturdevan, City of San Diego Director of Transportation and Storm Water at (619) 236-6594.

Respectfully,

Hon. Bob Filner
Mayor
City of San Diego

Hon. Greg Cox
Chairman
San Diego County Board of Supervisors