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STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION
AND
STATE WATER RESOURCES CONTROL BOARD

Petition of Los Angeles Waterkeeper and NRDC for Review by the California Regional Water Quality Control Board, Los Angeles Region, and the State Water Resources Control Board, of the Regional Board Executive Officer's Action to Approve the North Santa Monica Bay Watershed Management Group's Enhanced Watershed Management Program Pursuant to the Los Angeles County Municipal Separate Storm Sewer System Permit, NPDES Permit No. CAS004001, Order No. R4-2012-0175 as amended by State Water Board Order WQ 2015-0075	PETITION FOR REVIEW OF LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD EXECUTIVE OFFICER'S ACTION TO APPROVE THE NORTH SANTA MONICA BAY EWMP PURSUANT TO THE L.A. COUNTY MS4 PERMIT

Pursuant to Part VI.A.6 of the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175) ("2012 MS4 Permit" or "Permit"), Los Angeles Waterkeeper ("LAW") and the Natural Resources Defense Council ("NRDC") (collectively "Petitioners") hereby petition the Los Angeles Regional Water Quality Control Board ("Regional Board") to review the Regional Board Executive Officer's action in approving the North Santa Monica Bay Watershed Management Group's ("County and Malibu")[1] Enhanced Watershed Management Program (the "NSMB EWMP" or "EWMP") pursuant to the 2012 MS4 Permit. Additionally, in accordance with Section 13320 of the California Water Code and Section 2050 of Title 23 of the California Code of Regulations, Petitioners hereby petition the State Water Resources Control Board ("State Board") to review the Executive Officer's action to issue this approval.

The 2012 MS4 Permit regulates stormwater discharges from MS4s for Los Angeles County, the Los Angeles County Flood Control District, and 84 incorporated cities within Los Angeles County. The 2012 MS4 Permit is the fourth iteration of the MS4 permit for Los Angeles County. Unlike the prior 2001 Permit, the 2012 MS4 Permit provides Permittees the option of developing a Watershed Management Program or an Enhanced Watershed Management Program as an alternative mechanism to comply with permit requirements.

On April 19, 2016, the Executive Officer, on behalf of the Regional Board, approved the NSMB EWMP submitted by the County and Malibu. For reasons discussed below, Petitioners request that the Regional Board invalidate the Executive Officer's approval and remand the matter with instructions to staff to require compliance with Permit conditions. Absent such action by the Regional Board, Petitioners request that the State Board invalidate the Executive Officer's approval and remand the matter to the Regional Board with instructions to the Regional Board and its staff to require compliance with Permit conditions. The State Board has jurisdiction over this matter because the approval constitutes an abuse of discretion and was inappropriate and improper pursuant to Cal. Water Code §§ 13220 and 13330.

[1] The North Santa Monica Bay Watershed Management Group is a group of MS4 Permittees consisting of the City of Malibu, the County of Los Angeles, and the Los Angeles County Flood Control District.

1. NAMES, ADDRESSES, TELEPHONE NUMBERS, AND E-MAIL ADDRESSES OF THE PETITIONERS:

Los Angeles Waterkeeper
120 Broadway, Suite 105
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Attention: Arthur Pugsley, Esq. (arthur@lawaterkeeper.org)
Melissa Kelly, Esq. (melissa@lawaterkeeper.org)
(310) 394-6162

Natural Resources Defense Council, Inc.
1314 Second Street
Santa Monica, CA 90401
Attention: Becky Hayat, Esq. (bhayat@nrdc.org)
(310) 434-2300

2. THE SPECIFIC ACTION OR INACTION OF THE REGIONAL BOARD WHICH THE STATE BOARD IS REQUESTED TO REVIEW AND A COPY OF ANY ORDER OR RESOLUTION OF THE REGIONAL BOARD WHICH IS REFERRED TO IN THE PETITION:

Petitioners seek review of the Regional Board Executive Officer's action to approve the NSMB EWMP pursuant to the 2012 MS4 Permit. A Copy of the Executive Officer's letter of approval is attached as Exhibit D.

3. THE DATE ON WHICH THE REGIONAL BOARD ACTED OR REFUSED TO ACT OR ON WHICH THE REGIONAL BOARD WAS REQUESTED TO ACT:

April 19, 2016. (Ex. D.)

4. A FULL AND COMPLETE STATEMENT OF THE REASONS THE ACTION OR FAILURE TO ACT WAS INAPPROPRIATE OR IMPROPER:

In approving the NSMB EWMP, the Executive Officer failed to act in accordance with relevant governing law, acted inappropriately and improperly, and abused his discretion. Specifically, but without limitation, the Executive Officer:

A. Improperly approved the NSMB EWMP despite its failure to comply with the relevant terms of the MS4 Permit. (Ex. A.)

B. Improperly approved the NSMB EWMP despite its failure to comply with the conditions of State Board Resolution No. 2012-0012 ("ASBS Exception"). (Ex. F.)

C. Improperly approved the NSMB EWMP despite its failure to consider relevant, available ASBS stormwater and non-stormwater data and to comply with the ASBS Exception's prohibition against non-Stormwater discharges. (Ex. B.)

5. THE MANNER IN WHICH THE PETITIONERS ARE AGGRIEVED:

Petitioners are non-profit, environmental organizations that have a direct interest in protecting the quality of Los Angeles County's aquatic resources, including Santa Monica Bay, the portion of the Bay designated as an Area of Special Biological Significance between Laguna Point and Latigo Point ("ASBS 24"), and other Los Angeles area waters, as well as the health of beachgoers and other users. NRDC is a non-profit organization whose purpose is to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends. NRDC represents approximately 70,100 members in California, approximately 14,029 of whom reside in Los Angeles County. LAW is a non-profit organization dedicated to the preservation, protection, and defense of the coastal and inland surface and ground waters of Los Angeles County from all sources of pollution and degradation. LAW represents approximately 3,000 members who live and/or recreate in and around the Los Angeles area.

Petitioners have members who regularly use and enjoy waters in the Los Angeles region that are affected by the discharges authorized by the 2012 MS4 Permit. Those members depend on clean water for a variety of sustenance-related, recreational, aesthetic, educational, and scientific purposes, including drinking, hiking, fishing, swimming, boating, wildlife observation, scientific research, photography, nature study, and aesthetic appreciation. Petitioners' members are impacted by polluted stormwater runoff and its resulting health impacts, particularly by beach closures that restrict the ability of residents and visitors in Los Angeles County to use the beach and local waters for recreation and other purposes.

Petitioners' members are aggrieved by the Executive Officer's action to approve the NSMB EWMP because such action is an obstruction to achieving the Permit's ultimate goal of meeting Water Quality Standards ("WQSs"), as required by the Clean Water Act and Porter-Cologne Water Quality Act. Specifically, the Executive Officer's failure to deny the NSMB

EWMP as required by the 2012 MS4 Permit has enormous consequences for Los Angeles County residents and Petitioners' members. The NSMB EWMP is unique in that its geographical scope includes ASBS 24, which requires special protection of species and/or biological communities. The California Water Quality Control Plan, Ocean Waters of California ("Ocean Plan") prohibits all discharge of waste to any ASBS, subject to narrow exceptions articulated in State Board Resolution No. 2012-0012. The County and Malibu applied for and were granted an ASBS exception in 2012, which requires them to abide by the ASBS Exception's conditions.

Unfortunately, the NSMB EWMP fails to protect ASBS 24 and to comply with the 2012 MS4 Permit and ASBS Exception. Monitoring data collected by the County and Malibu show exceedances of Ocean Plan Instantaneous Maximum Limits for ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, and TSS at outfalls to the ASBS. Thus, approval of the NSMB EWMP will only lead to the continued degradation of water quality in ASBS 24. Both the Regional and State Board have defined the EWMP as the means by which compliance with WQSs is determined. By approving a clearly deficient EWMP, however, the Executive Officer is allowing Permittees to defer compliance with applicable WQSs, resulting in zero improvement in water quality for North Santa Monica Bay.

All of these documented facts demonstrate the considerable negative impact on Petitioners' members and the environment that continues today as a result of the Executive Officer's failure to comply with the terms of the 2012 MS4 Permit by approving the NSMB EWMP.

6. THE SPECIFIC ACTION BY THE REGIONAL OR STATE BOARD WHICH PETITIONERS REQUEST:

Petitioners seek an Order by the Regional Board or State Board that:

> Invalidates the Executive Officer's approval of the NSMB EWMP and remands the matter to the Regional Board and its staff with instructions to revise the EWMP to bring it into compliance with the Los Angeles County Municipal Separate Storm Sewer Permit, Order No. R4-2012-0175, NPDES Permit No. CAS004001, and the requirements of State Board Resolution 2012-0012.

7. A STATEMENT IN SUPPORT OF LEGAL ISSUES RAISED IN THE PETITION:

See, Section 4, above. Petitioners have also enclosed a separate Memorandum of Points and Authorities in support of legal issues raised in this Petition.

8. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE APPROPRIATE REGIONAL BOARD AND TO THE DISCHARGERS, IF NOT THE PETITIONER:

A true and correct copy of this petition was delivered by electronic mail to the State Board, Regional Board and the NSMB EWMP Permittees on May 19, 2016. A true and correct copy of this petition was also mailed via First Class mail to the State Board, Regional Board, and the NSMB EWMP Permittees on May 19, 2016.

9. A STATEMENT THAT THE SUBSTANTIVE ISSUES OR OBJECTIONS RAISED IN THE PETITION WERE RAISED BEFORE THE REGIONAL BOARD, OR AN EXPLANATION OF WHY THE PETITIONER WAS NOT REQUIRED OR WAS UNABLE TO RAISE THESE SUBSTANTIVE ISSUES OR OBJECTIONS BEFORE THE REGIONAL BOARD.

All of the substantive issues and objections raised herein were presented to the Regional Board during the period for public comment on the draft EWMPs. Petitioners submitted written comments regarding the NSMB EWMP on August 31, 2015. (Ex. C.) Petitioners presented testimony before the Regional Board on the draft NSMB EWMP on November 5, 2015 and on the revised EWMP on March 3, 2016.

Respectfully submitted via electronic mail and U.S. Mail,

Dated: May 19, 2016 LOS ANGELES WATERKEEPER

Arthur Pugsley
Attorney for LOS ANGELES WATERKEEPER

Dated: May 19, 2016

NATURAL RESOURCES DEFENSE COUNCIL, INC.

Becky Hayat
Attorney for NATURAL RESOURCES DEFENSE COUNCIL, INC.

PROOF OF SERVICE

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action. My business address is: 1004 O'Reilly Ave, San Francisco, California 94129.

On May 19, 2016, I served the within documents described as PETITION FOR REVIEW OF LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD EXECUTIVE OFFICER'S ACTION TO APPROVE THE NORTH SANTA MONICA BAY ENHANCED WATERSHED MANAGEMENT PROGRAM PURSUANT TO THE L.A. COUNTY MS4 PERMIT and MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF PETITION FOR REVIEW OF LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD EXECUTIVE OFFICER'S ACTION TO APPROVE THE NORTH SANTA MONICA BAY ENHANCED WATERSHED MANAGEMENT PROGRAM PURSUANT TO THE L.A. COUNTY MS4 PERMIT on the following interested parties in said action by submitting a true copy thereof via electronic mail to the email addresses below:

California Regional Water Quality
Control Board, Los Angeles Region
c/o Sam Unger
Executive Officer
samuel.unger@waterboards.ca.gov

State Water Resources Control Board,
Office of the Chief Counsel
c/o Adrianna Crowl
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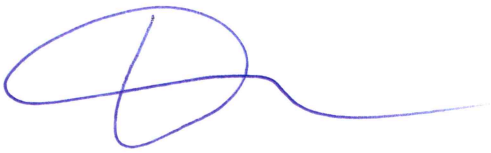
I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on May 19, 2016, at San Francisco, California.



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STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION
AND
STATE WATER RESOURCES CONTROL BOARD

Petition of Los Angeles Waterkeeper and NRDC for Review by the State Water Resources Control Board of the Regional Board Executive Officer Approval of North Santa Monica Bay Enhanced Watershed Management Program Pursuant to the Los Angeles County Municipal Separate Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R4-2012-0175, NPDES Permit No. CAS004001	MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF PETITION FOR REVIEW OF LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD EXECUTIVE OFFICER APPROVAL OF NORTH SANTA MONICA BAY EWMP PURSUANT TO THE L.A. COUNTY MS4 PERMIT

I. INTRODUCTION

This petition seeks review of the Los Angeles Regional Water Quality Control Board ("Regional Board") Executive Officer's April 19, 2016 approval of the North Santa Monica Bay ("NSMB") Enhanced Watershed Management Program ("EWMP") prepared by Los Angeles County, the Los Angeles County Flood Control District ("County"), and the City of Malibu ("Malibu") pursuant to the 2012 Los Angeles County Municipal Separate Storm Sewer System ("MS4") Permit (NPDES No. CAS 004001) ("MS4 Permit" or "Permit").

Petitioners' appeal is necessary because the EWMP fails to consider relevant stormwater and non-stormwater data, fails to apply the applicable standards to stormwater discharges, and fails to apply a prohibition on non-stormwater discharges. To protect important aquatic resources, permittees must fully comply with requirements of the EWMP development process and consider all available data. The NSMB EWMP requires particular attention, because it addresses discharges to the Laguna Point to Latigo Point Area of Special Biological Significance ("ASBS 24"). Areas of Special Biological Significance ("ASBS") are zones with special habitats, species or biological communities— coastal ecosystem jewels. Consequently, the California Water Quality Control Plan, Ocean Waters of California (State Water Resources Control Board, 2012) ("Ocean Plan") prohibits all discharge of waste to the ASBS—subject to a narrow exception via a State Board resolution—which authorizes discharges only under specific conditions ("ASBS Exception" or "Exception"). Yet the NSMB EWMP effectively ignores the requirements of the Ocean Plan and ASBS Exception for discharges to ASBS 24. The NSMB EWMP fails to protect ASBS 24 and to comply with the MS4 Permit and the ASBS Exception for at least four reasons:

1) The NSMB EWMP fails to consider stormwater data for discharges to ASBS 24 generated by the Permittees;
2) The NSMB EWMP fails to consider non-stormwater discharge data for ASBS 24 generated by the Permittees;
3) The NSMB EWMP fails to apply ASBS Exception standards to stormwater discharges to ASBS 24; and

4) The NSMB EWMP fails to apply the ASBS Exception's prohibition against non-stormwater discharges.

For these reasons, the Regional Board Executive Officer's approval of the NSMB EWMP was an abuse of discretion, inappropriate and improper, not based on substantial evidence, contrary to law, and therefore must be overturned.

II. REGULATORY BACKGROUND

A. LA County MS4 Permit and North Santa Monica Bay EWMP

Pursuant to the 2012 L.A. County MS4 Permit, the County and Malibu elected to comply with Permit requirements by developing and implementing an EWMP. In developing the EWMP, the Permit requires that the discharger conduct a Reasonable Assurance Analysis ("RAA"), which is a modeling exercise to identify Best Management Practices ("BMPs") sufficient to achieve compliance with applicable standards. The Permit states:

> The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

MS4 Permit at 65 (Ex. A).

The Permit sets minimum standards for the RAA:

> Permittees shall conduct a Reasonable Assurance Analysis for each water body-pollutant combination addressed by the Watershed Management Program. A Reasonable Assurance Analysis (RAA) shall be quantitative and performed using a peer-reviewed model in the public domain. Models to be considered for the RAA, without exclusion, are the Watershed Management Modeling System (WMMS), Hydrologic Simulation Program-FORTRAN (HSPF), and the Structural BMP Prioritization and Analysis Tool (SBPAT). *The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years,* including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis.

Id. at 65 (emphasis added).

In June 2015, the County and Malibu submitted a draft EWMP for the North Santa Monica Bay ("NSMB") watershed, which includes ASBS 24. The NSMB EWMP used no stormwater

discharge or receiving water sampling data, stating that "no MS4 discharge monitoring data were available at the time of this assessment." NSMB EWMP at 43 (Ex. B). Similarly, the RAA for dry weather discharges considers no data, and instead proposes a screening of outfalls for dry weather discharges to be completed by December of 2017, and starting 180 days later, for the dischargers to "strive to eliminate, divert, or treat significant non-stormwater discharges that are unauthorized and determined to be causing or contributing to RWL/WQBEL exceedances." *Id.* at 69. Finally, for all ocean discharges, the RAA and EWMP consider and apply the Santa Monica Bay Beaches Bacteria ("SMBBB") TMDL standards *only*, which does not offer the heightened protections necessary for ASBS 24 as the ASBS standards. *Id.* at ES-7.

On August 31, 2015, Petitioners commented on the draft EWMP, pointing out the failure to incorporate ASBS protections and the lack of consideration of existing and available monitoring data. LAWK/NRDC/HTB EWMP Comment Letter (August 31, 2015) at 19-20 (Ex. C). On April 7, 2016, the County and Malibu submitted a final EWMP. To address compliance with the Ocean Plan, and its standards and prohibitions for discharges to ASBS 24, the final EWMP merely states that its findings are consistent with a 2014 draft Compliance Plan for discharges to ASBS 24—also generated by the County and Malibu—which concludes that no additional measures are necessary to protect ASBS 24. NSMB EWMP at 6 (Ex. B). The ASBS Compliance Plan (discussed below) is attached to the NSMB EWMP as Appendix D. On April 19, 2016, the Regional Board Executive Officer approved the EWMP, but without addressing any of the ASBS-related deficiencies. Regional Board NSMB EWMP Approval Letter (April 19, 2016) ("Regional Board Approval") (Ex. D). Specifically responding to Petitioners' comment that the NSMB EWMP fails to consider ASBS data or ASBS discharge standards, Regional Board staff wrote:

> Finally, based on review of the draft EWMP, the Los Angeles Water Board determined that applicable water quality standards were referenced and appropriate monitoring data were reviewed, including those data presented in the ASBS Compliance Plan, which as noted above, is incorporated by reference into the revised EWMP.

Response to Written Comments, NSMBCW Draft EWMP, at 29-30 (Regional Board, May 12, 2016) ("Response to Comments") (Ex. E).

B. ASBS Exception

1. Required Incorporation of Exception Terms into NPDES Permits

State Water Resources Control Board Resolution No. 2012-0012 allows discharges of waste into the ASBS only where:

> a. The discharges are covered under an appropriate authorization to discharge waste to the ASBS, such as an NPDES permit and/or waste discharge requirements;
> b. The authorization incorporates all of the Special Protections, contained in Attachment B to this resolution, which are applicable to the discharge; and
> c. Only storm water and nonpoint source waste discharges by the applicants listed in Attachment A to this resolution are covered by this resolution. All other waste discharges to ASBS are prohibited, unless they are covered by a separate, applicable Ocean Plan exception.

Exception at 3 (Ex. F).

Thus, any NPDES permit, such as the 2012 LA County MS4 Permit, can authorize discharges to the ASBS *but only* where the ASBS Exception requirements are *incorporated* into the NPDES permit terms and requirements.

2. ASBS Exception Standards and Prohibitions

a. Stormwater

The ASBS Exception prohibits discharges of stormwater to the ASBS, unless in compliance with the requirements of the Exception. Specifically, discharge of stormwater is allowed only when:

> The discharges:
> (i) Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;
> (ii) Are designed to prevent soil erosion;
> (iii) Occur only during wet weather;
> (iv) Are composed of only storm water runoff.
> Discharges composed of storm water runoff shall not alter natural ocean water quality in an ASBS.

Exception at Att. B, A.1.E.

Thus, even where discharges to the ASBS fit into these narrow categories, discharges that alter natural ocean water quality in the ASBS are prohibited. The Exception requires sampling to

determine whether natural ocean water quality in the ASBS is being altered by the discharges:

> If the initial results of post-storm receiving water quality testing indicate levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the discharger must re-sample the receiving water pre- and post-storm. If after re-sampling the post-storm levels are still higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded.

Exception at Att. B, B.3.E.

b. Non-Stormwater Discharges

The Exception does not allow non-stormwater discharges, except for six limited categories of dry weather discharges:

1) Discharges associated with emergency fire fighting operations.
2) Foundation and footing drains.
3) Water from crawl space or basement pumps.
4) Hillside dewatering.
5) Naturally occurring groundwater seepage via a storm drain.
6) Non-anthropogenic flows from naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

ASBS Exception at Att. B, I.A.1.e.

In all events, these authorized non-stormwater discharges cannot cause or contribute to violations of Ocean Plan objectives or contribute to alterations of natural ocean water quality. *Id.* Compliance with the non-stormwater prohibition was required immediately upon adoption of the ASBS Exception in 2012. *Id.*at Att. B, I.A.3.a.

3. ASBS Compliance Plan and Pollution Prevention Plan[1]

The Exception provides six years to achieve compliance with the stormwater discharge prohibitions. Exception at Att. B, I.A.3.e. To implement pollution controls on this compliance schedule, the dischargers had to develop and submit a draft Compliance Plan ("CP") by September

[1] In their ASBS submissions, the County and Malibu inappropriately divided their plans into Compliance Plans (point source) and Pollution Prevention Plans (non-point source) based on pipe size (18 inches). While all pipes are point sources for purposes of the ASBS Exception and the Clean Water Act, for purposes of this Petition, the Compliance Plan and Pollution Prevention Plan are referred to collectively as "CP" or "Compliance Plan."

2013. *Id.* at Att. B, A.3.b. The CP must include a strategy to comply with all special conditions, including maintaining natural ocean water quality. *Id.* at Att. B, I.A.3.b; I.A.2, 2.d., and 2.g. The Exception specifically requires that the CP include:

> BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm [that] shall be designed to achieve on average:
>
> > Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or
> >
> > A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

Id. at Att. B, I.A.2.d.(1)-(2).

Where receiving water monitoring indicates that storm water runoff is causing or contributing to alteration of natural ocean water quality, the County and Malibu are required to submit an additional report within 30 days of receiving the results. Exception at Att. B, I.A.2.h. The report must:

1) identify the constituents in storm water altering natural water quality and the source of the constituents;
2) describe BMPs in place, proposed in SWMPs for future implementation, and any additional BMPs to prevent alteration of natural water quality; and
3) provide an implementation schedule.

Id. at Att. B, I.A.2.d.

The CP must describe a time schedule to implement structural controls to meet the special conditions, and ultimately be included in the County and Malibu's EWMP submitted pursuant to the MS4 Permit. Exception at Att. B, I.A.3.b. Further, a CP must "describe the measures by which all non-authorized non-storm water runoff (e.g., dry weather flows) has been eliminated." *Id.* at I.A.2.b. Dischargers were required to submit a final CP by September 2015, and where NPDES permits issued by Regional Boards authorize discharges to the ASBS, the draft and final CPs are subject to approval by the Executive Officer of the Regional Board, and incorporation into those NPDES permits. *Id.* at I.2.

4. LA County and Malibu Draft Compliance Plan Monitoring

a. Stormwater Discharge Data

After being granted a one-year extension based on the drought, the County and Malibu submitted a draft compliance plan in September 2014 ("Draft CP"). Draft CP, Cover Page (Ex. G.). A copy of the Draft CP is attached to the NSMB EWMP as Appendix D. The Draft CP includes some, but not all of the sampling required by the ASBS Exception. The Draft CP includes sampling to evaluate alteration of natural ocean water quality by discharges to ASBS 24 primarily at one location, S02. Samples at S02 were collected both at the discharge point of a 36 inch storm drain and in the receiving water at Escondido Beach. *Id.* at ES-4. A single discharge event in 2013 was sampled at S01, at a 60 inch storm drain at Zuma Beach. S02 was sampled during storm events on February 19 and March 8, 2013, and February 28, 2014. S01 was also sampled on February 28, 2014. *Id.* at 61-70.[2] Using the analysis required by the ASBS Exception, the Draft CP reports that stormwater discharges from S01 and S02 contributed to alteration of natural ocean water quality for selenium, total PAH, and mercury. *Id.* at 67-69.

The County and Malibu also conducted end of pipe monitoring in 2013 and early 2014 at 21 outfalls to the ASBS, with smaller outfall samples analyzed for a limited range of constituents. Draft CP at 71-75. In these samples, the County and Malibu reported repeated exceedances of Ocean Plan Instantaneous Maximum limits, including ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, and TSS. *Id.* Further, the County and Malibu collected and submitted to the State Board end of pipe monitoring data in ASBS 24 as part of their original ASBS Exception application. This data also documented elevated concentrations of copper, chromium, and PAH, and the State Board confirmed exceedances of Ocean Plan standards of these parameters, as well as acute and chronic toxicity, in discharges to ASBS 24. *See Program Final Environmental Impact Report, Exception to the California Ocean Plan for ASBS Discharge Prohibition for Storm Water and Non-Point Source Discharges, with*

[2] This sampling scheme itself violates the Exception's monitoring requirement that three samples must be collected during "each storm season." *See* Exception Att. B. at IV.B.2.b. February 2013 and February 2014 are different storm seasons. *See also* Ex __ (SWRCB Comment letter)

Special Protections (State Water Resources Control Board, Feb 21, 2012) ("ASBS Exception EIS") at 212-228 (Ex. H).

b. Non-Stormwater Discharge Data

Pursuant to ASBS Exception requirements, the County and Malibu conducted inspections for dry weather discharges during January, February, March and April of 2012, and February, March, May and July of 2013. Draft CP at 50-51, Table 3-3 and 3-4 (Ex F.). The County and Malibu inspected 13 outfalls, and observed dry weather discharges on 73[3] occasions during these inspections, many of them repeat discharges. Some, but not all, of these discharges are characterized as "Hillside dewatering," or "Natural stream," but the plan provides no data to support these characterizations, nor does it categorize any of the discharges as permitted or unpermitted. The Draft CP also distinguishes, without basis, between discharges that land on the beach in ASBS 24, and those that flow to the surf line. *Id.* at 49. The Draft CP proposes no measures beyond existing outreach programs to address these continuing violations of the Exception and Ocean Plan standards—particularly the numerous dry weather flows that the plan reports as not reaching the "surf." *Id.* Finally, the Draft CP did not propose, and the County and Malibu have not reported any additional inspections or monitoring of dry weather discharges.

c. LA Waterkeeper and State Board Comments

Both citizen stakeholders and the State Board raised concerns about the Draft CP. In January 2015, LA Waterkeeper commented to the State Board on the deficiencies of the Draft CP, and sent courtesy copies to the County and Malibu. LAWK Draft Compliance Plan Comment Letter (January 13, 2015) ("LAWK Draft CP Comment") (Ex. I). On March 17, 2015, State Board staff commented on the Draft CP. State Board Draft Compliance Plan Comment Letter (March 17, 2015) ("State Board Draft CP Comment") (Ex. J). State Board staff noted alteration of Natural ocean water quality by ASBS discharges, and required additional sampling and a description of structural BMPs to abate the pollution. *Id.* at 1-2. Staff further noted that: the Draft CP's

[3] This total includes non-stormwater discharges from 10 outfalls that the CP identifies as "ownership unknown." CP at 19.

distinction between non-stormwater discharges reaching surf and those not reaching surf was irrelevant, and that the Draft CP did not document that non-stormwater discharges would be eliminated, or how measures to eliminate discharges would be maintained over time. Staff required correction to both these gaps. *Id.* at 2-3. Finally, State Board staff required, consistent with the extended ASBS Exception deadline, submission of a Final CP containing the corrections by September 20, 2015. *Id.* at 3.

To date no Final CP has been approved by either the Regional Board or State Board. *See* NSMB EWMP at Appendix D; *see also* http://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_general_exception.shtml

II. STANDARD OF REVIEW

Petitioners seek State Board review under both the terms of the MS4 Permit (MS4 Permit at VI.A.6) and California Water Code § 13320, which states, "Upon finding that the action of the regional board, or the failure of the regional board to act, was inappropriate or improper, the state board may direct that the appropriate action be taken by the regional board, refer the matter to any other state agency having jurisdiction, take the appropriate action itself, or take any combination of those actions." In reviewing the Executive Officer's action pursuant to either the Permit process or Water Code § 13320, the Board must exercise its independent judgment as to whether the action was reasonable and in order to uphold the action, the Board must find that the action was based on substantial evidence. *See* State Water Resources Control Board, *In the Matter of the Petition of Stinnes-Western Chemical Corporation*, September 18, 1986, at 11.

Agency actions, such as approval of the EWMP, must be supported by findings. *See Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection* (2008) 44 Cal. 4th 459, 520-521 ("*EPIC*") (citing *Topanga Assn. for a Scenic Community v. County of Los Angeles*, 11 Cal.3d at 518-522). The record supporting the decision "must set forth findings that bridge the analytical gap between the raw evidence and ultimate decision" to survive a challenge alleging an abuse of discretion. *See Topanga*, 11 Cal.3d at 514-516. Further, findings

must provide "the analytic route [it] traveled from evidence to action" to satisfy this requirement, so as to allow the reviewing court to satisfy its duty to "compare the evidence and ultimate decision to 'the findings.'" *Id*. at 515. "While the findings need not be 'extensive or detailed,' 'mere conclusory findings without reference to the record are inadequate.'" *AGUA*, 210 Cal.App.4th at 1281 (citing *EPIC*, 44 Cal.4th at 516-517). Thus, in reviewing the Executive Officer's approval of the EWMP, the Regional Board, State Board, and Court may not speculate as to the administrative agency's basis for decision. *Topanga*, 11 Cal.3d at 514-516.

III. ARGUMENT

A. The RAA and EWMP Fail to Consider Relevant, Available ASBS Stormwater Data

The MS4 Permit requires the County and Malibu to assemble all available, relevant subwatershed data collected within the last 10 years. MS4 Permit at 65. If those data meet QA/QC requirements, the County and Malibu must identify those data, and use them in the RAA. *Id.*

Since at least 2008, sampling data for metals, PAH, ammonia, and other pollutants have been submitted to the State Board for direct discharges to the ASBS. ASBS Exception EIS at 214. In 2007 through 2008, as part of the Exception application process, the County, Malibu, and State Board collected discharge and receiving water data in ASBS 24. This data included documented exceedances of Ocean Plan standards for chromium and copper. *Id.* at 200-208. In 2013 and 2014, the County and Malibu also sampled 21 MS4 outfalls to the ASBS. Draft CP at 73-75. The County and Malibu reported to the State Board repeated exceedances of Ocean Plan Instantaneous Maximum limits, including ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, and TSS. *Id.*

Yet despite readily available and highly relevant data in the County's, Malibu's and State Board's files, and the 2013 and 2014 stormwater data attached to the NSMB EWMP itself as an appendix, the EWMP states:

Stormwater and non-stormwater discharges have not yet been characterized within the

> NSMBCW EWMP Area. No MS4 discharge monitoring data were available at the time of this assessment, but discharge characterization will occur as part of the implementation of the CIMP. Since outfall monitoring data from the CIMP were not available at the time of EWMP development, information from regional MS4 land use studies (eg. Los Angeles County, 2000) and/or TMDL technical reports were used in Section 2.2 for the water body prioritization.

NSMB EWMP at 43.

Thus, rather than collecting all of the available and relevant data – or even considering data that the County and Malibu themselves collected and attached to the EWMP – and including those data in the RAA as required by the MS4 Permit, the EWMP simply denies that any such data exist. Instead, the EWMP uses generalized land use data to conduct the RAA. *Id.* Itself a violation of Permit requirements, this self-acknowledged refusal to consider available and highly relevant data not only violates permit requirements but significantly undermines the ability of the RAA and EWMP to protect ASBS 24.

Petitioners pointed out the failure to consider relevant and available data in the RAA and EWMP to Regional Board staff in August 2015—yet the Regional Board Executive Officer approved the NSMB EWMP without addressing the issue. In the subsequently issued Response to Comments, Regional Board staff assert that appropriate data "were reviewed," and the data contained in the ASBS CP were "incorporated by reference" into the NSMB EWMP. Response to Comments at 30 (Ex. E). The express language of the NSMB EWMP itself that *no* stormwater or receiving water data for ASBS 24 were considered in the EWMP assessment directly contradicts the staff claim; moreover, a simple review of the RAA reveals that the data were not considered. NSMB EWMP at 43. Attachment of the CP as an appendix to the NSMB EWMP, and "incorporation by reference," is not equivalent to consideration of relevant and available data—particularly when the NSMB EWMP states that no such consideration took place. Further, Regional Board staff can point to no evidence in the EWMP or anywhere else that all the discharge and receiving water data for ASBS 24 referenced in the ASBS Exception EIS were considered as part of the NSMB EWMP. Regional Board staff's "'mere conclusory findings without reference to the record,'" both contradict the NSMB EWMP itself and fail to provide "the analytic route

traveled from evidence to action." (*AGUA*, 210 Cal.App.4th at 1281 (citing *EPIC*, 44 Cal.4th at 516-517).) The Executive Officer is bound by the unambiguous language of the EWMP when considering whether to approve the document, and cannot rely on counterfactual post hoc assertions that the EWMP considered data that the EWMP itself clearly states that it did not consider. The self-serving statement in the Response to Comments that the EWMP included review of relevant data is blatantly contradicted by the record and thus entitled to no weight. (See, for example, *Scott v. Harris* (2007) 550 U.S. 372, 380 [reversible error to rely on "utterly discredited" assertions].) As such, the Executive Officer acted inappropriately and improperly in approving the NSMB EWMP as the decision was clearly not based on substantial evidence.

B. The RAA and EWMP Fail to Consider ASBS Non-Stormwater Data

As noted above, as part of the ASBS Draft CP monitoring program, the County and Malibu conducted inspections for dry weather discharges during January, February, March and April of 2012, and February, March, May and July of 2013 at outfalls to ASBS 24. Draft CP at 50-51, Table 3-3 and 3-4. The County inspected 13 outfalls, and observed dry weather discharges on 73 occasions during these inspections, many of them repeat discharges. The Draft CP containing these dry weather inspection data was attached as an appendix to the NSMB EWMP.

Despite the considerable effort expended by the County and Malibu on its ASBS dry weather discharge inspections, the NSMB EWMP nowhere mentions or considers the data submitted by the County and Malibu in the Draft CP. In fact, rather than using these data to inform the non-stormwater discharge program, the EWMP proposes to essentially repeat the process conducted pursuant to the ASBS Exception. NSMB EWMP at 65-69. The EWMP proposes to complete its initial screening and source identification of non-stormwater discharges by December 28, 2017, to begin monitoring of those outfalls within 90 days of completion of the screening, and to strive to take some action 180 days thereafter. Thus, the NSMB EWMP proposes to delay implementation of any BMPs to address non-stormwater discharges until September 2018 at the soonest—six years after the Exception and the 2012 LA County MS4 Permit were adopted, five years after the County and Malibu submitted data documenting non-stormwater discharges to the

ASBS, and more than two years from now.

The failure of the NSMB EWMP to consider the available and relevant data generated by their own non-stormwater discharge survey violates the requirements of the MS4 Permit, creates unnecessary and harmful delays in program implementation, and wastes public resources by using data collection for delay rather than to inform decision-making. Regional Board staff's conclusory statement in the Response to Comments that appropriate data were considered is contradicted by the NSMB EWMP itself, which considered no existing non-stormwater field data in its analysis. In approving the NSMB EWMP, the Executive Officer acted inappropriately and improperly, and that approval must be overturned.

C. The RAA and EWMP Fail to Utilize Applicable ASBS Stormwater Standards

The 2012 LA County MS4 Permit requires that EWMPs "[p]rovide for meeting water quality standards and other CWA obligations by utilizing provisions in the CWA and its implementing regulations, policies and guidance." MS4 Permit at 49; *see also* 24 ("Pursuant to California Water Code Section 13263(a) the requirements of this Order implement the Ocean Plan."). Further, the ASBS Exception allows discharges to the ASBS only where the special protections of the ASBS Exception are incorporated into the authorizing NPDES Permit. Exception at 3.

For the portion of the NSMB EWMP applicable to ASBS 24, the Ocean Plan standards for stormwater discharges are those set out in the ASBS Exception. They are:

> Prohibition of Alteration of Natural Water Quality--post-storm receiving water quality with levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels. Exception at Att. B, B.3.E; and
>
> For CP (incorporation into EWMP, successor to SWMP, mandatory) BMPs sufficient to meet Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; *Id.* at I.A.2.d; or
>
> For CP (incorporation into EWMP, successor to SWMP, mandatory) BMPs sufficient to achieve a 90% reduction in pollutant loading during storm events, for the applicant's total discharges. *Id.*

Ocean samples collected by the County and Malibu for the Draft CP confirm that the County and Malibu ASBS stormwater discharges alter natural ocean water quality for at least selenium, total PAH, and mercury. Draft CP at 71-75. Further, outfall samples collected by the County and Malibu demonstrate exceedances of Ocean Plan Chapter II limits for ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, TSS. *Id.* at 71-75; ASBS Exception EIS at 212-228. Given these documented exceedences, the RAA and resulting NSMB EWMP must consider and apply ASBS Exception standards in order to address these discharges, and to comply with the requirements of the MS4 Permit.

Yet the NSMB EWMP nowhere references any of these ASBS standards. In fact, for discharges to the ASBS beaches, the RAA considers and applies the SMBBB TMDL standards *only*. NSMB EWMP at ES-7. SMBBB TMDL standards limit indicator bacteria in the surf zone, apply to all Santa Monica Bay beaches, and are based on an exceedance day determination. While important for public health, the SMBBB TMDL does not achieve the heightened protections required for ASBS – and fails to address the myriad additional pollutants (like metals) being discharged to the ASBS in excess of background levels. Without consideration of these standards in the RAA, the RAA and NSMB EWMP cannot ensure compliance with the Ocean Plan and Exception ASBS standards, nor can BMPs be developed that achieve required compliance. Because the EWMP fails to incorporate the proper standards from the ASBS Exception, there can be no reasonable assurance that the EWMP will meet those standards. And by failing to consider those standards, the EWMP violates the requirements of the MS4 Permit. Moreover, by failing to incorporate those standards into the analysis and resulting program, the EWMP also violates the requirements of the ASBS Exception.

Apparently in response to Petitioner's comments pointing to the lack of ASBS Exception protections, the final NSMB EWMP includes a reference to the Draft CP, and attaches the Draft CP as Appendix D. The EWMP defers to the analysis in the Draft CP, which concluded that no structural BMPs were required. The EWMP's deferral to the Draft CP fails to meet the requirements of the MS4 Permit and the ASBS Exception for at least three reasons: 1) the Draft

CP is a draft document, and to date, no Final CP has approved by the State or Regional Board; 2) the Draft CP failed to conduct all required sampling, to propose measures to prevent alteration of natural ocean water quality, or to prevent non-stormwater discharges—failures noted by State Board staff; and 3) the MS4 Permit and the ASBS Exception require incorporation of ASBS Exception standards into any NPDES Permit terms independent of the CP.

Because the NSMB EWMP fails to apply ASBS Exception protections, it violates the MS4 Permit and the ASBS Exception, and the Regional Board Executive Officer's approval of the NSMB EWMP was an abuse of discretion, inappropriate and improper, not based on substantial evidence, contrary to law, , and thus should be overturned.

D. The RAA and EWMP Fail to Utilize Applicable ASBS Non-Stormwater Standards

The ASBS Exception imposes a prohibition on non-stormwater discharges to ASBS, with certain limited exceptions for firefighting and natural sources. Exception at Att. B, I.A.1.e. No matter what the source, non-stormwater discharges cannot cause or contribute to violations of Ocean Plan objectives or contribute to alterations of natural ocean water quality. *Id.*

The EWMP proposes a "semi-quantitative conceptual model" to evaluate non-storm water discharges, using a four part test. NSMB EWMP at 63. Any one of the four elements would establish compliance with the MS4 Permit's qualified dry weather discharge prohibition. *Id.* at 64-65. As an initial matter, the EWMP screening is inconsistent with the ASBS Exception's dry weather discharge prohibition, and would permit non-stormwater discharges beyond the six limited categories set out in the ASBS Exception. *Compare* ASBS Exception, Att. B. at I.A.e. and NSMB EWMP at 66-69.

Further, element three of the EWMP methodology states:

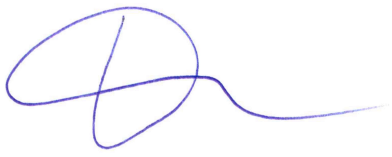
> For the Santa Monica Bay Beaches Bacteria TMDL compliance monitoring locations, if the allowed summer-dry and winter-dry singles sample exceedance days have been achieved for four out of the past five years and the last two years, then the existing water quality conditions at this compliance monitoring location are acceptable, and reasonable assurance is demonstrated. *Id.* at 69.

As noted above, while the SMBBB TMDL provides important beach standards, it is not equivalent to ASBS protection. In addition, the evaluation in the EWMP fails to even require strict SMBBB TMDL compliance because the EWMP methodology allows additional exceedances to be deemed acceptable. Finally, the EWMP ultimately commits the County and Malibu only to "strive to eliminate, divert, or treat significant non-stormwater discharges that are unauthorized and determined to be causing or contributing to RWL/WQBEL exceedances"—a standard falling far short of the Exception's prohibition on non-stormwater discharges. *Id.* at 69. Again, the Executive Officer's approval of the EWMP without application of the ASBS Exception prohibition on non-stormwater discharges was inappropriate and improper, and not based on substantial evidence. It must therefore be overturned.

IV. REQUEST FOR RELIEF

Petitioners seek an order by the Regional Board to invalidate the Regional Board Executive Officer's April 19, 2016 final approval of the NSMB EWMP, and an order remanding the matter to the Regional Board with instructions for staff to require compliance with Permit requirements. Further, should the Regional Board deny Petitioners' request, Petitioners seek an order by the State Board to invalidate the Regional Board's Executive Officer's April 19, 2016 final approval of the NSMB EWMP, any approval by the Regional Board thereof, and an order remanding the matter to the Regional Board with instructions for staff to require compliance with Permit requirements.

Respectfully submitted,



Dated: May, 19, 2016

_____
Daniel Cooper
Lawyers for Clean Water, Inc.
Attorney for Plaintiff Los Angeles Waterkeeper

Dated: May 19, 2016 NATURAL RESOURCES DEFENSE COUNCIL, INC.

Becky Hayat

Attorneys for NATURAL RESOURCES DEFENSE COUNCIL, INC.

Dated: May 19, 2016 LOS ANGELES WATERKEEPER

Arthur S. Pugsley
Attorney for LOS ANGELES WATERKEEPER

Exhibit A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013

Phone (213) 576 - 6600 • Fax (213) 576 - 6640

http://www.waterboards.ca.gov/losangeles

ORDER NO. R4-2012-0175 as amended by State Water Board Order WQ 2015-0075 NPDES PERMIT NO. CAS004001

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE COASTAL WATERSHEDS OF LOS ANGELES COUNTY, EXCEPT THOSE DISCHARGES ORIGINATING FROM THE CITY OF LONG BEACH MS4

The municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach (hereinafter referred to separately as Permittees and jointly as the Dischargers) from the discharge points identified below are subject to waste discharge requirements as set forth in this Order.

I. FACILITY INFORMATION

Table 1. Discharger Information

Dischargers	The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach (See Table 4)
Name of Facility	Municipal Separate Storm Sewer Systems (MS4s) within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach MS4
Facility Address	Various (see Table 2)
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) have classified the Greater Los Angeles County MS4 as a large municipal separate storm sewer system (MS4) pursuant to 40 CFR section 122.26(b)(4) and a major facility pursuant to 40 CFR section 122.2.	

Table 2. Facility Information

Permittee (WDID)	**Contact Information**	
Agoura Hills (*4B190147001*)	**Mailing Address**	30001 Ladyface Court
		Agoura Hills, CA 91301
	Facility Contact, Title, and E-mail	Ken Berkman, City Engineer kberkman@agoura-hills.ca.us

water limitations. If such a demonstration is made, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the water quality-based effluent limitation or receiving water limitation. Individual co-permittees who demonstrate compliance with the water quality-based effluent limitations will not be held responsible for violations by non-compliant co-permittees.

Given the interconnected nature of the Permittees' MS4s, however, the Regional Water Board expects Permittees to work cooperatively to control the contribution of pollutants from one portion of the MS4 to another portion of the system through inter-agency agreements or other formal arrangements.

L. Ocean Plan. In 1972, the State Water Resources Control Board (State Water Board) adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan). The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to the ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in the table below.

Table 7. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within Los Angeles County coastal watersheds with the exception of the City of Long Beach	Pacific Ocean	Industrial Water Supply (IND); Water Contact (REC-1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)

M. Antidegradation Policy

40 CFR section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is

v. Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide watershed management program technical advisory committee (TAC) that will advise and participate in the development of the Watershed Management Programs and enhanced Watershed Management Programs from month 6 through the date of program approval. The composition of the TAC may include at least one Permittee representative from each Watershed Management Area for which a Watershed Management Program will be developed, and must include a minimum of one public representative from a non-governmental organization with public membership, and staff from the Regional Water Board and USEPA Region IX.

g. Permittees may elect to develop an enhanced Watershed Management Program (EWMP). An EWMP is one that comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others. In drainage areas within the EWMP area where retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP shall include a Reasonable Assurance Analysis to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of other watershed control measures. An EWMP shall:

i. Be consistent with the provisions in Part VI.C.1.a.-f and VI.C.5-C.8;

ii. Incorporate applicable State agency input on priority setting and other key implementation issues;

iii. Provide for meeting water quality standards and other CWA obligations by utilizing provisions in the CWA and its implementing regulations, policies and guidance;

iv. Include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VI.E. and do not cause or contribute to exceedances of receiving water limitations in Part V.A. by retaining through infiltration or capture and reuse the storm water volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects.;

v. In drainage areas where retention of the storm water volume from the 85th percentile, 24-hour event is not technically feasible, include other watershed control measures to ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VI.E. with compliance deadlines occurring after approval of a EWMP and to ensure that MS4

(e) The plan shall clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures.

(5) Permittees shall conduct a Reasonable Assurance Analysis for each water body-pollutant combination addressed by the Watershed Management Program. A Reasonable Assurance Analysis (RAA) shall be quantitative and performed using a peer-reviewed model in the public domain. Models to be considered for the RAA, without exclusion, are the Watershed Management Modeling System (WMMS), Hydrologic Simulation Program-FORTRAN (HSPF), and the Structural BMP Prioritization and Analysis Tool (SBPAT). The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated. The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

(a) Permittees shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality-based effluent limitations and/or receiving water limitations in Attachments L through R with compliance deadlines during the permit term.

(b) Where the TMDL Provisions in Part VI.E and Attachments L through R do not include interim or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term, Permittees shall identify interim milestones and dates for their achievement to ensure adequate progress toward achieving interim and final water quality-based effluent limitations and/or receiving water limitations with deadlines beyond the permit term.

(c) For water body-pollutant combinations not addressed by TMDLs, Permittees shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable receiving water limitations as soon as possible.

Exhibit B

ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP)

FOR

NORTH SANTA MONICA BAY COASTAL WATERSHEDS

Submitted to:
Los Angeles Regional Water Quality Control Board

Submitted by:
North Santa Monica Bay Coastal Watersheds EWMP Group

March 2016

RB-AR 6056

Table ES-1. Water Body Pollutant Prioritization for the NSMBCW EWMP Area

Category	Water Body	Pollutant	Basis
1	Malibu Creek and Lagoon	Nutrients	USEPA-established Nutrients TMDL and Benthic TMDL for the Malibu Creek Watershed
	SMB Beaches	Dry Weather Bacteria	SMB Beaches Bacteria TMDLs for both dry and wet weather
	SMB Beaches	Wet Weather Bacteria	
	Malibu Creek and Lagoon	Indicator Bacteria	Malibu Creek and Lagoon Indicator Bacteria TMDL
	Malibu Creek	Trash	Malibu Creek Trash TMDL
	SMB	Trash/Debris	TMDL for debris for Santa Monica Bay Offshore/Nearshore
	SMB	DDTs	USEPA TMDL for DDT and PCBs for Santa Monica Bay Offshore/Nearshore
	SMB	PCBs	
2	Topanga Canyon Creek	Lead	Topanga Canyons Creek 303(d) listing for lead.
	Malibu Creek	Sulfates & Selenium	Malibu Creek 303(d) listing for sulfates and selenium
	Malibu Lagoon	pH	Malibu Lagoon 303(d) listing for pH
3	None		There are currently no known available data demonstrating exceedances of receiving water limits within the NSMBCW Area, aside from those WBPCs already defined as Category 1 and 2.

The RAA was performed for bacteria in both the Santa Monica Bay Watershed and the Malibu Creek Watershed. In addition, the RAA was performed for nutrients (nitrates, total nitrogen, and total phosphorus) in the Malibu Creek Watershed and total lead in the Topanga Canyon Creek subwatershed.

The MS4 compliance targets for dichloro-diphenyl-trichloroethanes (DDTs) and polychlorinated biphenyls (PCBs) established in the Santa Monica Bay DDT & PCB TMDL were based on the assumption that the existing stormwater pollutant loads for DDT and PCBs were lower than what was needed to protect the Santa Monica Bay from these legacy pollutants (i.e., based on data used in the TMDL, no MS4 pollutant load reduction is expected to be required). Therefore, no reductions in DDT and PCB loading from the NSMBCW EWMP Group MS4s are required to meet the TMDL and therefore, no pollutant modeling is required.

highest concentrations of sulfate are in the upper portion of the watershed, and are reportedly due to the presence of the Monterey Geologic Formation, which is known to contain high levels of sulfur and selenium (LVMWD, 2011).

2.1.3 MS4 DISCHARGE QUALITY

Stormwater and non-stormwater discharges have not yet been characterized within the NSMBCW EWMP Area. No MS4 discharge monitoring data were available at the time of this assessment, but discharge characterization will occur as part of the implementation of the CIMP (NSMBCW EWMP Group, 2014d). Since outfall monitoring data from the CIMP were not available at the time of EWMP development, information from regional MS4 land use studies (e.g., Los Angeles County, 2000) and/or TMDL technical reports were used in Section 2.2 for the water body-pollutant prioritization.

2.2 WATER BODY-POLLUTANT PRIORITIZATION

Water body-pollutant combinations (WBPCs) were established and categorized based on Permit Section VI.C.5.b. **Figure 5** provides a brief conceptual overview of the process used to identify and categorize the WBPCs within the NSMBCW EWMP Area.

suspended sediments and attached pollutants with less space as compared to wet vaults and other settling devices. Several types of hydrodynamic separation devices are also designed to remove floating oils and grease using sorbent media. Like media filters, hydrodynamic separators can be used as stand-alone or pre-treatment measures to extend the life and effectiveness of downstream BMPs.

3.3 DEMONSTRATION OF BMP PERFORMANCE – INTRODUCTION TO THE REASONABLE ASSURANCE ANALYSIS

Because the EWMP is a planning document intended to lay out a framework of activities that will achieve Water Quality Objectives, it is necessary to demonstrate that selected BMPs are reasonably expected to meet defined goals. This evaluation of performance is described through a technically robust and rigorous Reasonable Assurance Analysis (RAA). Through this analysis, the NSMBCW EWMP Group identified and evaluated BMP implementation scenarios within the NSMBCW EWMP Area for each WBPC identified in Section 2. The RAA process shows that implementation of EWMP-defined activities within the NSMBCW EWMP Area are expected to result in discharges that achieve applicable Permit-specified WQBELs and that do not cause or contribute to exceedances of applicable RWLs. Since the modeling conducted as part of the RAA serves as the basis not only for BMP evaluation but also BMP identification, Section 4 is devoted to providing details on the RAA process. Results from the RAA are presented in Section 5 (Santa Monica Bay Watershed) and Section 6 (Malibu Creek Watershed).

4 RAA MODELING TOOLS AND APPROACH

In 2014, the Regional Board released a guidance document intended to establish baseline expectations and promote consistency and objectivity in the development of the RAAs throughout the Los Angeles Region. RAA details described herein, including model selection, data inputs, critical condition selection (90th percentile wet year), calibration performance criteria, and output types are consistent with the resulting Regional Board RAA Guidance.

4.1 RAA APPROACH - DRY WEATHER

Demonstrating reasonable assurance of compliance with applicable dry weather Permit limits **(Table 10**) requires a methodology that accounts for many factors which cannot be accurately modeled based on dry weather runoff processes alone (Thoe et al, 2015), despite the existence of somewhat extensive dry weather beach-specific monitoring datasets that are available. Therefore, to perform the RAA for dry weather for the NSMBCW EWMP Area, a semi-quantitative conceptual model (methodology) has been developed following the Permit compliance structure. This approach applies independent

lines of evidence for demonstrating that MS4 discharges are not causing or contributing to receiving water exceedances. The following series of criteria form the dry weather RAA methodology. If one criterion is met for each Coordinated Shoreline Monitoring Plan (CSMP) compliance monitoring location (CML), then "reasonable assurance" is considered to be demonstrated. This methodology was presented to Regional Board staff on April 9, 2014, and verbal feedback received at the time was supportive.

1. If a dry weather diversion, infiltration, or disinfection system is located at the downstream end of the analysis region, reasonable assurance is considered to be demonstrated. To meet this criterion, any such system must have records to show that it is consistently operational, well maintained, and effectively removing bacteria in the treated effluent (in the case of disinfection facilities). Diversion or infiltration systems must demonstrate consistent operation and maintenance so that all freshwater surface discharges to the receiving water are effectively eliminated during year-round dry weather days.
2. If there are no MS4 outfalls (major or minor) owned by the NSMBCW Agencies within the analysis region, MS4 discharges are considered to not be contributing to pollutant concentrations in the receiving water. Therefore, reasonable assurance is demonstrated.
3. For the Santa Monica Bay Beaches Bacteria TMDL compliance monitoring locations, if the allowed summer-dry and winter-dry single sample exceedance days have been achieved for four out of the past five years and the last two years, then the existing water quality conditions at this compliance monitoring location are acceptable, and reasonable assurance is demonstrated.
4. If non-stormwater MS4 outfall discharges have been eliminated within the analysis region, reasonable assurance is demonstrated. For this criterion to be met, supporting records from the non-stormwater outfall screening program should be supplied.

Table 10 summarizes the dry weather TMDL limits for each applicable WBPC in the NSMBCW EWMP Area.

Table 10. Dry Weather Permit Limits (Final Compliance Limits)

Waterbody	TMDL	Pollutant	RWL/WQBEL
SMB	SMB Beaches Bacteria TMDL for Dry Weather	Coliform	Exceedance Days (per season, per year)
Malibu Creek	Malibu Creek Watershed Nutrients TMDL	Coliform	
		Nitrate + Nitrite	8 lbs/day (summer daily maximum)
		Total Phosphorus	0.8 lbs/day (summer daily maximum)
	Malibu Creek and Lagoon Benthic TMDL	Total Nitrogen	1.0 mg/L (summer)[a]
		Total Phosphorus	0.1 mg/L (summer)[a]

[a] Values shown are TMDL WLAs, and are not yet formally incorporated into the Permit (e.g., as RWLs or WQBELs). These values are expressed in the TMDL as seasonal averages.

4.1.1 NON-STORMWATER DISCHARGE SCREENING

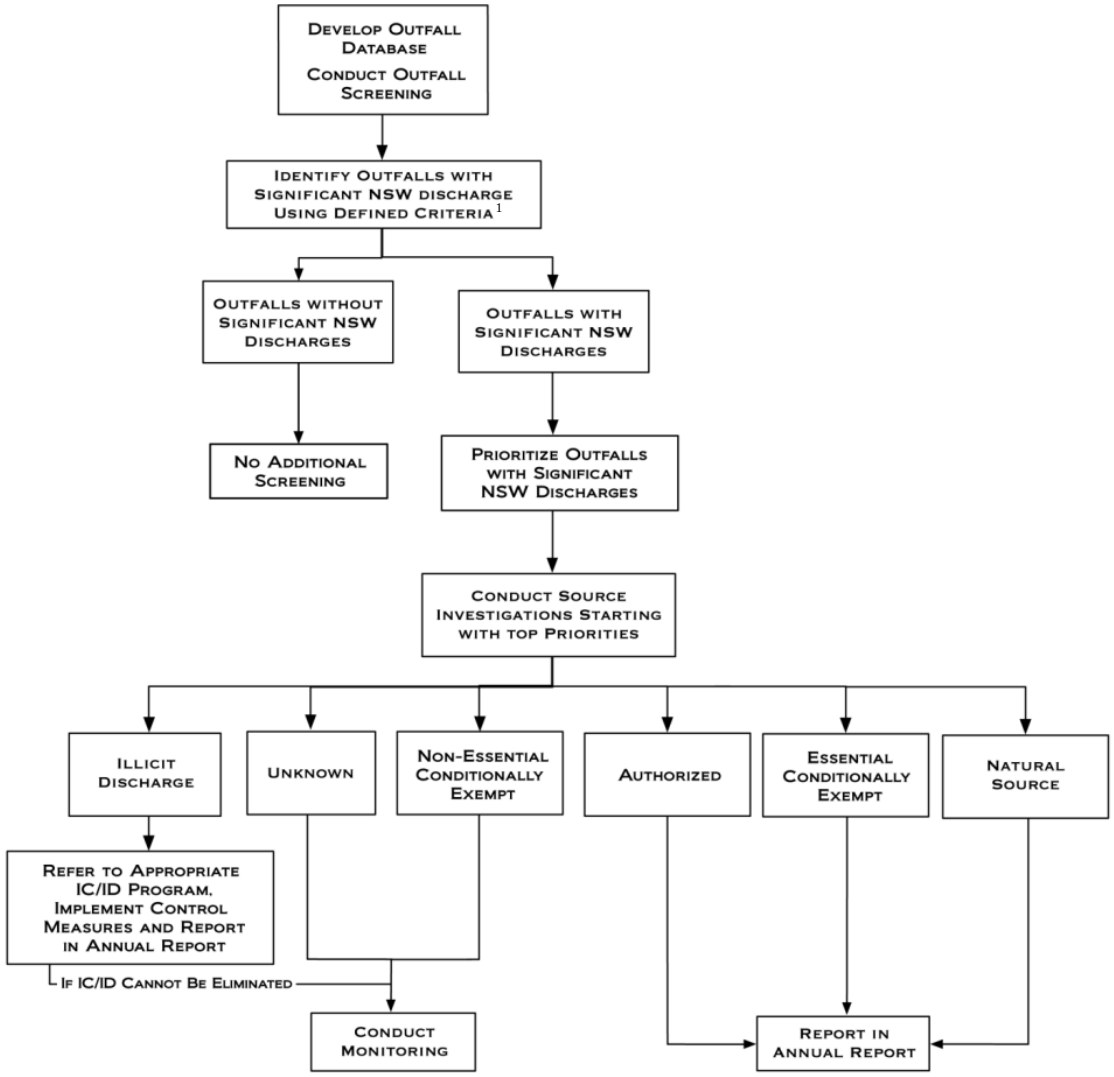
Since the NSMBCW EWMP Group's dry weather compliance approach is consistent with the Permit requirement to eliminate 100 percent of non-exempt dry weather MS4 discharges, the Group's non-stormwater screening process plays an important role in demonstrating reasonable assurance of compliance for dry weather.

The non-stormwater screening process, used to identify outfalls with significant non-stormwater discharge, consists of the steps outlined in Table 11 and shown in **Figure 6**. Further details on the NSMBCW EWMP Group's approach to meet this requirement are provided below and in Section 4 of the NSMBCW CIMP (NSMBCW EWMP Group, 2014d).

Table 11. Non-Stormwater Outfall Screening and Monitoring Program Summary

Element	Description
Develop MS4 outfall database	Develop a database of all major outfalls with descriptive information, linked to GIS.
Outfall screening	A screening process will be implemented to collect data for determining which outfalls exhibit significant NSW discharges.
Identification of outfalls with NSW discharge	Based on data collected during the Outfall Screening process, identify outfalls with NSW discharges.
Inventory of outfalls with significant NSW discharge	Develop an inventory of major MS4 outfalls with known significant NSW discharges and those requiring no further assessment.
Prioritize source investigation	Use the data collected during the screening process to prioritize significant outfalls for source investigations.
Identify sources of significant discharges	For outfalls exhibiting significant NSW discharges, perform source investigations per the prioritization schedule. If not exempt or unknown, determine abatement process.
Monitor discharges exceeding criteria	Monitor outfalls that have been determined to convey significant NSW discharges comprised of either unknown or non-essential conditionally exempt discharges, or continuing discharges attributed to illicit discharges must be monitored.

Figure 6. Non-Stormwater Outfall Screening Program



[1] Discharges are defined as "significant" based on a variety of factors, including, but not limited to: a) proximity of the outfall to receiving water bodies where TMDLs apply; b) presence of persistent flows at the outfall, meaning flow is observed on two or more of the three screenings at a rate "greater than a garden hose" (> 10 gpm); c) characteristics of the catchment area, including but not limited to, presence of permitted discharges in the area, land use characteristics, and previous IC/ID results.

4.1.2 Inventory of MS4 Outfalls with Significant Non-Stormwater Discharges

An inventory of MS4 outfalls will be developed identifying those outfalls with known significant non-stormwater discharges and those requiring no further assessment (Part

IX.D of the Permit MRP). If the MS4 outfall requires no further assessment, the inventory will include the rationale for the determination of no further action required. The inventory will be included in the outfall database. The inventory will be updated to incorporate the most recent characterization data for outfalls with significant non-stormwater discharges.

4.1.3 PRIORITIZED SOURCE IDENTIFICATION

Once the major outfalls exhibiting significant non-stormwater discharges have been identified through the screening process and incorporated in the inventory, the NSMBCW EWMP Group will prioritize the outfalls for further source investigations.

Once the prioritization is complete, a source identification schedule will be developed. The scheduling will focus on the outfalls with the highest priorities first. Based on the recent approval of the CIMP, the schedule will ensure that source investigations are completed on no fewer than 50 percent of the outfalls with significant non-stormwater discharges by December 28, 2016 and 100 percent by December 28, 2017.

4.1.4 SIGNIFICANT NON-STORMWATER DISCHARGE SOURCE IDENTIFICATION

Based on the prioritized list of major outfalls with significant non-stormwater discharges, investigations will be conducted to identify the source(s) or potential source(s) of non-stormwater flows. The source investigation results will then be classified into one of four endpoints outlined as follows:

A. Illicit connections or illicit discharges (IC/IDs): If the source is determined to be an illicit discharge, the Permittee must implement procedures to eliminate the discharge consistent with IC/ID requirements (Permit Part VI.D.10) and document actions.
B. Authorized or conditionally exempt NSW discharges: If the source is determined to be an NPDES permitted discharge, a discharge subject to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or a conditionally exempt essential discharge, the Group Member must document the source. For non-essential conditionally exempt discharges, the Group Member must conduct monitoring consistent with Part IX.G of the MRP to determine whether the discharge should remain conditionally exempt or be prohibited.
C. Natural flows: If the source is determined to be natural flows, the Permittee must document the source.
D. Unknown sources: If the source is unknown, the Permittee must conduct monitoring consistent with Part IX.G of the MRP.

Based on the results of the source assessment, outfalls may be reclassified as requiring no further assessment and the inventory will be updated to reflect the information and justification for the reclassification.

Where investigations determine the non-stormwater source to be authorized, natural, or essential conditionally exempt flows, the EWMP Group will conclude the investigation, categorize the outfall as requiring no further assessment in the inventory, and move to the next highest priority outfall for investigation. Where investigations determine that the source of the discharge is non-essential conditionally exempt, an illicit discharge, or is unknown – further investigation may be conducted to eliminate the discharge or demonstrate that it is not causing or contributing to receiving water problems. In some cases, source investigations may ultimately lead to prioritized programmatic or structural BMPs. Where Permittees determine that they will address the non-stormwater discharge through modifications to programs or by structural BMP implementation, the EWMP Group will incorporate the approach into the implementation schedule developed for the EWMP Group and the outfall can be lowered in priority for investigation, such that the next highest priority outfall can be addressed.

4.1.5 NON-STORMWATER DISCHARGE MONITORING

Outfalls with significant NSW discharges that remain unaddressed after source investigation will be monitored for water quality in accordance with the CIMP. Monitoring will begin within 90 days of the completion of the respective source investigation.

4.1.6 SIGNIFICANT NON-STORMWATER DISCHARGE ELIMINATION

Within 180 days of the completion of the source identification, the Group will strive to eliminate, divert, or treat significant non-stormwater discharges that are unauthorized and determined to be causing or contributing to RWL/WQBEL exceedances.

4.2 RAA APPROACH – WET WEATHER

The Permit specifies the TMDL RWLs and WQBELs applicable to each Permittee. The NSMBCW RAA was conducted to demonstrate reasonable assurance of compliance with these limits. In instances where critical conditions were not clearly defined (e.g., a critical condition of "wet weather") or the limit's expression could not be directly modeled based on pollutant loads in stormwater (e.g., exceedance days as the expression for bacteria RWLs), steps were taken to establish a link between the expressed Permit limit and relevant modelable data (i.e., rainfall, runoff, and pollutant concentrations in the runoff). **Table 12** summarizes these steps for each modeled WBPC with a Permit-established limit.

Exhibit C

August 31, 2015

Via electronic mail

Mr. Sam Unger
Executive Officer and Members of the Board
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Email: losangeles@waterboards.ca.gov

Re: Comments on Draft Enhanced Watershed Management Programs Pursuant to the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit), NPDES Permit No. CAS004001, Order No. R4-2012-0175

Dear Mr. Unger:

On behalf of the Natural Resources Defense Council, Los Angeles Waterkeeper, and Heal the Bay (collectively, Environmental Groups), we are writing with regard to the draft Enhanced Watershed Management Programs (EWMPs) submitted by the Permittees pursuant to the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit, NPDES Permit No. CAS004001, Order No. R4-2012-0175 (2012 Permit or Permit). This comment letter addresses, in general, draft EWMPs for the following watershed groups: Upper Los Angeles River (ULAR),[1] Upper San Gabriel River (USGR),[2] North Santa Monica Bay Coastal Watersheds (NSMBCW),[3] and Beach Cities.[4]

[1] Permittees include Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, Los Angeles County, and the Los Angeles County Flood Control District.
[2] Permittees include Baldwin Park, Covina, Glendora, Industry, La Puente, Los Angeles County, and the Los Angeles County Flood Control District.
[3] Permittees include Malibu, Los Angeles County, and the Los Angeles County Flood Control District.
[4] Permittees include Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, and the Los Angeles County Flood Control District.

We appreciate the opportunity to submit these comments to the Los Angeles Regional Water Quality Control Board (Regional Board). Given the large volume of material submitted by the Permittees, Environmental Groups were unable to review in detail all of the draft EWMPs. The lack of particular comments on a specific EWMP, however, should not be taken as indication of our agreement with the sufficiency or legality of those documents. In many cases, our specific examples are representative of deficiencies in all of the submitted draft EWMPs. As a result, we urge the Regional Board to review all 12 submitted management programs in light of our comments here.

I. Introduction

As an initial matter, Environmental Groups' comments on the draft EWMPs submitted by the Permittees should not be construed as approval or acceptance of the 2012 Permit terms. We continue to maintain that several provisions of the Permit are in violation of the federal Clean Water Act (CWA) and California Porter-Cologne Water Quality Control Act. Environmental Groups filed a petition for review of the 2012 Permit with the State Water Resources Control Board (State Board), which discusses, in detail, the ways in which the Permit violates both federal and state law. After making certain changes to the Permit and its accompanying Fact Sheet (none of which affected the provisions Environmental Groups contest as illegal), the State Board upheld the Permit on June 16, 2015. As a result, on July 24, 2015, Environmental Groups filed a petition for writ of mandate in a California Superior Court to challenge the State Board's decision to uphold the Permit with all of its illegal provisions. The Court has yet to make a determination on our petition.

Due to the deficiencies in the submitted draft EWMPs, many of which are detailed below, the programs do not ensure that discharges from the Permittees' MS4 systems will not "cause or contribute" to exceedances of Receiving Water Limitations (RWLs), including Total Maximum Daily Loads (TMDLs) in the 2012 Permit, and thus are in violation of Permit requirements. This letter is not intended to exhaust the reasons why the submitted draft EWMPs fail to meet Permit requirements and why the EWMPs will not ensure ultimate compliance with water quality standards.

II. Summary of Comments

Several of the draft EWMPs reflect significant effort on the part of the Permittees, mainly with respect to the level of specificity that is provided regarding the set of Best Management Practices (BMPs) proposed for reaching compliance. However, the submitted EWMPs, in numerous aspects, fail to meet the requirements of the 2012 Permit or are otherwise inadequate to control pollution and control the region's water quality. The Regional Board should not approve these programs until such deficiencies are corrected. Common issues with the submitted draft EWMPs include:

1. The proposed financial strategies are inadequate;

2. Proposed compliance schedules are in violation of state or federal law or are otherwise unreasonably long;

3. Permittees' use of the Exceedance Volume approach is flawed;

4. The implementation strategy relies too heavily on the adaptive management process, which itself relies on flawed and inadequate monitoring programs;

5. There is insufficient analysis to back up the claims about what can be achieved through green streets implementation and regional BMPs implemented on privately owned lands;

6. The EWMPs lack sufficient detail to achieve load reductions assumed from institutional BMPs;

7. In at least two instances, the RAA's model calibration regularly diverges from observed values at higher stream flows;

8. The analysis for LID BMPs is limited to the consideration of only two approaches: biofiltration and bioretention;

9. The assumptions regarding redevelopment are inadequate;

10. In at least two instances, there are several potential sources of error associated with the data underlying the model calibration;

11. The margins for error in reaching TLRs as a result of BMP implementation are extremely small;

12. In at least two instances, Permittees fail to consider the possible intermingling of privately owned stormwater infrastructure within the full MS4 system;

13. In at least one instance, no analysis of standards applicable to discharges to ASBS are included, and existing data for discharges to ASBS are not included in the modeling exercise or the EWMP;

14. There is insufficient data to demonstrate reasonable assurance of compliance with applicable dry weather Permit limits;

15. In at least two instances, there is very little to no discussion on how trash reduction requirements will be met; and

16. The claims about removal efficiencies by catch basin inserts are questionable.

III. Common Deficiencies Identified in Draft EWMPs

The 2012 Permit allows for Permittees to "develop Watershed Management Programs to implement the requirements of [the Permit] on a watershed scale through customized strategies, control measures, and BMPs." (2012 Permit, at VI.C.1.a.) Permittees that elect to participate in an EWMP must develop a plan that:

> comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others.

(Id. at VI.C.1.g.) In areas of the Permittees' jurisdictions where retention of the 85th percentile, 24-hour storm event is not technically feasible, the EWMP "must include other watershed control measures to ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VI.E… and [] ensure that MS4 discharges do not cause or contribute to exceedances of receiving water limitations in Part V.A." (Id. at VI.C.1.g.v.) EWMPs are additionally required, among other provisions, to:

- identify water quality priorities through conducting a water quality characterization of the watershed, classifying water-body pollutant combinations (WBPCs), conducting a pollutant source assessment, and prioritizing pollution issues to be addressed (Id. at VI.C.5.a.);
- select watershed control measures, including identifying specific "strategies, control measures, and BMPs to implement their individual storm water management programs, and collectively on a watershed scale" (Id. at VI.C.5.b.);
- conduct a Reasonable Assurance Analysis (RAA) for each WBPC addressed by the EWMP, in drainage areas where retention of the 85th percentile, 24-hour storm event is not technically feasible (Id. at VI.C.5.b.iv(5), VI.C.1.g.v.);
- establish compliance schedules and interim milestones for achieving pollutant reduction goals (Id. at VI.C.5.c.);
- except where Permittees demonstrate technical infeasibility, "include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VI.E. and do not cause or contribute to exceedances of receiving water limitations in Part V.A. by retaining through infiltration or capture and reuse the storm water volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects" (Id. at VI.C.1.g.iv.); and
- ensure that a financial strategy is in place to fund the implementation of identified control measures and projects.

In numerous regards, and as detailed further below, the Permittees appear to be proceeding with plans that fail to meet the above-referenced or other legal requirements.

A. The Proposed Financial Strategies are Inadequate

The 2012 Permit requires that Permittees participating in an EWMP maximize the effectiveness of funding, and "[e]nsure that a financial strategy is in place" to implement the pollution control measures identified by the RAA and EWMP process. (2012 Permit, at VI.C.1.g.vi., VI.C.1.g.ix.) This Permit provision underpins the State Board's rationale for approving the EWMP process. In its Final Order upholding the 2012 Permit including its EWMP provisions, the State Board concluded that "the WMP/EWMP approach is a clearly defined, implementable, and enforceable alternative to the receiving water limitations provisions… and that the alternative provides Permittees an ambitious, yet achievable, path forward for steady and efficient progress toward achievement of those limitations while remaining in compliance with the terms of the permit."[5] However, without an adequate financial strategy to properly execute the BMPs proposed by the EWMPs, compliance with RWLs and TMDL-specific limitations will *not* be ensured. Failure to demonstrate a real financial commitment for implementing the EWMP, therefore, goes against the State Board's clearly stated goal of the EWMP approach – that is, to achieve compliance with water quality standards.[6]

In all of the four EWMPs that Environmental Groups reviewed, Permittees' cost estimates for implementing the EWMP are substantial and orders of magnitude higher than have previously been committed by the agencies to their MS4 programs. For example, for the ULAR EWMP Group, the capital costs to address Water Quality Priorities by 2037 is estimated at over $6.0 billion, with total operations and maintenance costs exceeding $210 million per year once fully implemented.[7] For the USGR EWMP Group, the total cost for implementation of the EWMP through 2040, including operation and maintenance, is approximately $2.14 billion.[8] For the NSMBCW EWMP Group, the estimated total capital and operation and maintenance costs for proposed structural BMPs over 20 years are $54.2 million.[9] Lastly, for the Beach Cities EWMP Group, the total 20-year life-cycle costs to implement each structural BMP plus the associated annual operation and maintenance costs over 20 years are $150 million.[10] Currently, none of these four watershed groups have sufficient funds or dedicated funding streams to construct the projects proposed in their EWMPs; thus, all four EWMP Groups must pursue additional stormwater funding from multiple sources in order to ensure that the *additional* costs of compliance with the 2012 Permit as a result of EWMP implementation can be covered.

Unfortunately, none of the EWMPs that Environmental Groups reviewed provides a funding roadmap, let alone demonstrates a commitment to securing funds, to implement the proposed control measures as required for achieving Permit compliance. While the EWMPs identify, to varying degrees, the potential funding sources/projects needed to achieve compliance

[5] State Water Resources Control Board, Order WQ 2015-0075 (June 16, 2015), at 51 (Final Order).
[6] Id. at 14.
[7] Upper Los Angeles River EWMP, at ES-9.
[8] Upper San Gabriel River EWMP, at 111.
[9] North Santa Monica Beach Coastal Watersheds EWMP, at 138.
[10] Beach Cities EWMP, at 6-18.

with RWLs and TMDL-specific limitations, without an actual step-by-step *plan or strategy* to carry out the identified financial projects, however, the EWMPs are merely paper exercises. For example, the potential funding sources identified in the EWMPs generally included grants, bonds, State Revolving Funds, interagency partnerships, local funding opportunities, legislative or policy changes, and public private partnerships. A couple of the EWMPs also discuss, in general terms, barriers associated with some of the funding sources and ways those barriers might be overcome. However, all of the Financial Strategy sections reviewed end at the identification of these sources and barriers. To the extent any type of "strategy" is actually discussed, the draft EWMPs recognize the need for interagency collaboration and a coordinated, regional approach, but this need is merely described in a vague, cursory manner and again, with no specific details on how to accomplish the necessary interagency and regional collaboration.

Mere identification of potential funding sources, with no details whatsoever regarding the specific action steps that Permittees will need to take in order to carry out some of the funding strategies proposed, does *not* constitute a sound financial strategy sufficient to meet the Permit requirement. In order for Permittees to provide the level of assurance that the EWMPs will ultimately achieve compliance with water quality standards as required by the State Board, the Financial Strategy element of the programs must *actually* be "in place" before the Regional Board can approve the EWMPs. At a minimum, the Financial Strategy section must describe in detail the following elements:

1) Selection and prioritization of the multiple financial approaches identified;
2) Identification of current funding streams, for each of the EWMP Group Members, sufficient to implement existing stormwater projects;
3) An articulation of the relative financial responsibility and contribution of each of the EWMP Group Members to EWMP implementation, and the Memorandum of Understandings or other legal documents memorializing this organization;
4) An identification of the available grants, application timelines and requirements, and the lead EWMP Group Member(s) that will undertake and coordinate the grant-writing efforts;
5) Model legislation or ordinance, and a timeline for seeking municipal stormwater fees, if any;
6) A funding schedule, based on the interim and final compliance deadlines in the 2012 Permit, which sets forth the timeline for securing grants, loans, stormwater fees, or other funding mechanisms that will ensure funding is in place to timely implement the EWMP measures; and
7) A demonstration that the collective mix of funding sources identified in the Financial Strategy is sufficient to implement all of the proposed control measures in the EWMPs and consistent with the schedules established in the EWMPs.

The funding strategy aspect of the EWMP is one of, if not, *the most* important piece of the program because without an adequate financial strategy and commitment in place, it will be impossible for Permittees to successfully implement their EWMPs and thus the entire program development process would be a futile exercise and would only result in the delay of achieving ultimate compliance with water quality standards.

B. Proposed Compliance Schedules are in Violation of State or Federal Law or are Otherwise Unreasonably Long

i. Pollutants Subject to an Established TMDL

In several instances, Permittees incorrectly incorporate interim milestones and final compliance deadlines for certain WBPCs addressed by TMDLs. For WBPCs addressed by TMDLs, the 2012 Permit requires the Permittees to incorporate the compliance schedules found in Attachments L through R of the Permit into the EWMP, and where necessary, develop interim milestones and dates for their achievement. (2012 Permit, at VI.C.5.c.) A Permittee participating in an EWMP that does not thereafter comply with the compliance schedule must instead demonstrate compliance with its interim water quality-based effluent limitations (WQBELs) and/or RWLs of the Permit. (Id. at VI.E.2.d.i(4)(c).)

The ULAR EWMP sets interim and final compliance dates for the LAR Metals TMDL and Harbors Toxics TMDL based on their pre-established implementation schedules.[11] The pollutants addressed by these TMDLs, however, are regulated by the California Toxics Rule (CTR), which establishes water quality standards for priority toxic pollutants in California's inland surface waters and enclosed bays and estuaries.[12] The CTR also states that the compliance schedules for the regulated pollutants cannot extend for more than five years from the date of permit issuance; however, the provisions authorizing compliance schedules in the CTR expired on May 18, 2005.[13] This means that permits issued after that date may not incorporate compliance schedules for pollutants regulated by the CTR. As a result, EWMPs pursuant to the 2012 Permit may not incorporate compliance schedules for CTR-regulated pollutants, therefore the interim and final compliance deadlines for LAR Metals TMDL and Harbor Toxics TMDLs established by the ULAR EWMP are illegal because they violate the CTR. Permittees of the ULAR EWMP Group must instead demonstrate immediate compliance with the pollutants addressed by these TMDLs.

For the USGR EMWP, the same situation exists. The USGR EWMP illegally incorporates interim and final compliance deadlines for SGR Metals and Impaired Tributaries Metals and Selenium TMDL and DC and Greater LA and LB Harbor Water Toxic Pollutants TMDL[14] because the pollutants covered by these TMDLs are governed by the CTR. Because these TMDLs were established based on CTR criteria, the USGR EWMP (which is being developed pursuant to a permit issued *after* May 18, 2005) may not incorporate their implementation schedules, and instead, the Permittees must demonstrate immediate compliance with these CTR-regulated pollutants.

[11] Upper Los Angeles River EWMP, Table 3-1 at 3-2.
[12] See 40 C.F.R. § 131.38.
[13] Id. at § 131.38(e)(6), (e)(8).
[14] Upper San Gabriel River EWMP, Table 2-3 at 22.

In the Beach Cities EWMP, for the Dominguez Channel (DC) watershed, toxicity, copper, lead, and zinc are all addressed by a Regional Board-established TMDL and therefore their corresponding compliance schedules are incorporated into EWMP.[15] However, copper, lead, and zinc are pollutants covered by the CTR, therefore their compliance schedules are illegal.

ii. Pollutants in the Same Class as Those Addressed in a TMDL

In several instances, Permittees establish incorrect milestones and final compliance dates for WBPCs not addressed by a TMDL, but where the relevant pollutant is in the same class as a TMDL pollutant and for which the water body is identified as impaired on the State Board's CWA section 303(d) List. For these types of pollutants, the Permit requires the EWMP to incorporate a schedule consistent with the TMDL schedule for a pollutant of the same class. (Id. at Part VI.C.a.i.)

The ULAR EWMP lists the following pollutants as Category 2 WBPCs: dioxin, total mercury, copper, total thallium, and daizinon.[16] The ULAR EWMP defines Category 2 pollutants as those "pollutants on the State Water Resources Control Board 2010 Clean Water Act Section 303(d) List of Impaired Water Bodies or those constituents that have sufficient exceedances to be listed."[17] Table 3-5 indicates that the interim and final schedule milestones for dioxin are based on the dry and wet weather schedule for the LAR Bacteria TMDL. However, the LAR Bacteria TMDL is an incorrect compliance schedule source to use for dioxin because dioxin is not in the same pollutant class as bacteria. According to the Permit, pollutants are considered to be in the same class "if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline…" (Id. at fn 21). Dioxins do not have similar fate and transport mechanisms as bacteria and cannot be addressed by all the same control measures as bacteria. Although retention BMPs would treat for both, the ULAR EWMP does not commit to specific BMP types. Design of flow-through BMPs would likely be very different if the target pollutant is bacteria versus bacteria and dioxins.

In the Beach Cities EWMP, indicator bacteria has been defined as a Category 2 WMPC for the DC watershed. The 2012 Permit defines Category 2 pollutants as those "[p]ollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment." (Id. at VI.C.5.a.ii(2).) The final compliance date for dry weather bacteria (year 2025) was selected to be consistent with the draft TMDL for indicator bacteria in the SGR Estuary and Tributaries, and the final compliance date for wet weather bacteria (year 2032) was selected to be consistent with the DC and Greater LA and Long Beach Harbor Toxic Pollutants TMDL.[18] However, selecting compliance schedules from TMDLs from other watersheds, or for

[15] Beach Cities EWMP, Table 4-2 at 4-3.
[16] Upper Los Angeles River EWMP, Table 3-5 at 3-10.
[17] Id. at ES-2.
[18] Beach Cities EWMP, Table 4-2 at 4-3 – 4-4.

pollutants of different classes, is inconsistent with the requirements of the Permit. The DC watershed discharges to Los Angeles Harbor, impacting the inner channel, and the San Pedro and Long Beach area beaches. Thus, a more appropriate bacteria TMDL compliance schedule for consideration in the DC watershed is the implementation schedule for the Los Angeles Harbor Bacteria TMDL, the Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL, and/or the Santa Monica Bay Beaches Bacteria TMDL.

iii. Pollutants Not in the Same Class as Those Addressed in a TMDL

In at least one instance, Permittees establish an incorrect compliance schedule for WBPCs not addressed by a TMDL, and not in the same class as a TMDL pollutant but for which the water body is identified as impaired on the State Board's CWA section 303(d) List. For these types of pollutants, if retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP must either have a final compliance deadline within the 5-year permit term or Permittees are expected to initiate development of a stakeholder-proposed TMDL and incorporate a compliance schedule consistent with the TMDL. (Id. at VI.C.2.a.ii(5).)

The USGR EWMP states that indicator organisms (bacteria) are the sole Group B WBPC. The USGR EWMP defines Group B pollutants as those "pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the 303(d) List as of December 28, 2012."[19] The USGR EWMP then proposes a 25-year schedule for bacteria compliance in order to mimic the scheduling adopted in TMDLs developed for other areas of the Basin, namely the Los Angeles River Bacteria TMDL.[20] However, according to Permit requirements, the USGR EWMP Group must either propose a final compliance date within the 5-year term of the Permit, or initiate a stakeholder-proposed TMDL and incorporate the implementation schedule for that TMDL. Because the Regional Board recently approved a bacteria TMDL covering the SGR Watershed,[21] at a minimum, the USGR EWMP schedule for bacteria should be consistent with the Regional Board-adopted TMDL, which proposes a 20-year schedule for compliance, as opposed to the currently proposed schedule of 25 years from the Los Angeles River Bacteria TMDL.

iv. Exceedances of RWLs Not Addressed by a TMDL

Lastly, for exceedances of RWLs not addressed by a TMDL, the EWMP must include milestones based on measurable criteria or indicators and a schedule for achieving the milestones, and demonstrate that the RWLs will be achieved "as soon as possible." (Id. at VI.C. 5.c. iii.) The time between interim dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint and dates shall relate to taking a specific action or meeting a milestone. (Id. at VI.C.2.a.iii(2)(c).)

[19] Upper San Gabriel River EWMP, at 17.
[20] Id. at 20.
[21] See TMDL for Indicator Bacteria in the San Gabriel River, Estuary and Tributaries, available at http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml.

For the ULAR EWMP, interim and final wet weather Category 3 WBPCs milestones are January 11, 2024 and January 11, 2028, respectively.[22] The ULAR EWMP defines Category 3 pollutants are defined as those "pollutants with observed exceedances that are too infrequent to be listed, and parameters that are not considered typical pollutants."[23] Permittees of the ULAR EWMP do not provide any explanation for why and how this schedule meets the "as soon as possible" standard; at the very least, some level of analysis should be provided to show how Permittees arrived at this schedule. Furthermore, Permittees fail to provide interim milestones, in violation of Permit requirements.

The USGR EWMP concludes that most of the WBPCs in Group C are of the same class as the SGR Metals TMDL WBPCs, therefore it is proposed that the Group C WBPCs be linked to compliance schedules established in the SGR Metals TMDL Implementation Plan.[24] The final compliance deadline for SGR Metals TMDL is 2032. The USGR EWMP defines Group C pollutants as those "pollutants for which there are exceedances of RWLs, but for which the water body is not identified as impaired on the 303(d) List as of December 28, 2012."[25] The Group C pollutants identified by the USGR EWMP are: sulfate, chloride, alpha-endosulfan, MBAS, and lindane.[26] However, fate and transport characteristics of these pollutants are different from that of metals, and potential control measures may be different, therefore these should not be categorized as being in the same class of pollutants as those addressed in the SGR Metals TMDL. Therefore, Permittees' reliance on the implementation schedule for the SGR Metals TMDL for Group C pollutants is misplaced.

C. Permittees' Use of the Exceedance Volume Approach is Flawed

For the ULAR and USGR EWMPs, Permittees use a concept called "Exceedance Volume"[27] to establish targets based on BMP capacity rather than strictly BMP load reduction. The Exceedance Volume was chosen based on an analysis of the 90th percentile 24-hour storm volume over a 10-year analysis period. The Exceedance Volume is the portion of the storm volume associated with concentrations exceeding WQBELs. Environmental Groups acknowledge that there are benefits to the Exceedance Volume metric, in particular with bacteria where concentrations are known to vary widely; however, this approach is nevertheless problematic for several reasons detailed below.

First, in parts of the EWMPs, for example for the interim targets, load reductions are used as a measure of progress. It is assumed that these load reductions are based on the load produced from the Exceedance Volume, but this is problematic because as the EWMPs acknowledge,

[22] Upper Los Angeles River EWMP, at 3-9.
[23] Id. at ES-2.
[24] Upper San Gabriel River EWMP, at 21.
[25] Id. at 17.
[26] Id., Table 2-4, at 25.
[27] Upper Los Angeles River EWMP, at 6-12; Upper San Gabriel River EWMP, at 70.

concentrations of pollutants may vary significantly from one storm to another.[28] In other words, the 90th percentile storm volume may not represent the 90th percentile load.

This issue is of particular concern since the EWMPs define the compliance strategy in terms of volumes of stormwater and non-stormwater to be managed rather than by specific project lists, and thus allow for a tremendous amount of flexibility with regards to project location and project type. As the two EWMPs note, "the identified BMPs (and BMP preferences) will likely evolve over the course of adaptive management…."[29] The EWMPs note that as projects change, the EWMP Groups will demonstrate equivalency between projects. While demonstrating this equivalency is critical to the success of the Exceedance Volume approach, the EWMPs fall short of providing precise details on how this will be accomplished. Of particular concern are situations where the actual BMP type is switched, for instance, from a retention-type BMP to a flow-through BMP. Establishing equivalency in this case necessitates some translation from volume managed to actual load reduced, but as noted above, it is not clear how this would be accomplished and whether the load associated with the Exceedance Volume is appropriate.

Further, and importantly, the Exceedance Volume approach fails to take into account differences in loading from different land uses – load reductions from BMPs tributary to primarily low density residential areas will not be equivalent to load reductions from BMPs tributary to primarily industrial land uses, for instance, regardless of whether their actual volumetric capacities are identical. If specific projects in specific locations were outlined in the EWMPs, this may not be an issue; however, as noted above, both EWMPs instead set targets of Exceedance Volume managed rather than specific project lists. Finally, because the EWMPs use the Exceedance Volume approach to set metrics for compliance rather than detailing specific projects, it is impossible to evaluate error in the proposed compliance strategy and thereby establish the degree of confidence in the proposed plans to achieve compliance with water quality standards.

D. The Implementation Strategy Relies Too Heavily on the Adaptive Management Process, Which Itself Relies on Flawed and Inadequate Monitoring Programs

Due to the fact that the ULAR and USGR EWMPs use the Exceedance Volume approach to establish a "recipe for compliance"[30] rather than name specific projects that will be implemented, the robustness of the adaptive management process is critical to success of the approach. As noted in the previous section, a detailed methodology must be developed to establish equivalency between projects selected and volume targets, particularly in cases where flow-through, rather than retention BMPs are proposed. The adaptive management sections in both EWMPs, however, do not come close to providing the level of detail necessary to achieve

[28] Upper Los Angeles River EWMP, fn 25 at 6-12; Upper San Gabriel River EWMP, fn 12 at 70.
[29] Upper Los Angeles River EWMP, at 7-2; Upper San Gabriel River EWMP, at 90.
[30] Upper Los Angeles River EWMP, at -24; Upper San Gabriel River EWMP, at 84.

these goals. These sections merely describe the need to show equivalency,[31] while failing to actually describe how this would be accomplished.

Another issue that is significantly related to the adaptive management process and critical to its success is the strength and adequacy of the Coordinated Integrated Monitoring Programs (CIMPs). In addition to the EWMPs, Permittees also develop CIMPs to collect water quality data and measure the effectiveness of the EWMPs. The CIMPs, therefore, is the ultimate driver for Permittees' decisions regarding future adaptive management of their EWMPs. However, as Environmental Groups have pointed out previously, the draft CIMPs developed by the EWMP Groups suffered from a litany of flaws.[32] Unfortunately, Permittees' revised CIMPs failed to address most of the Environmental Groups' concerns.[33] Despite the deficiencies that remain in the revised CIMPs, the Regional Board Executive Officer recently conditionally approved all of the revised monitoring programs; however, the conditions are themselves insufficient because they fail to address all of the CIMP inadequacies.[34]

While Environmental Groups have not seen the final draft CIMPs that were submitted by the EWMP Groups pursuant to the conditional approval letters (and we reserve the right to comment on those final CIMPs once they are issued to the public), the current state of the revised CIMPs is alarming because without an adequate CIMP in place, Permittees cannot engage in a meaningful adaptive management process. The State Board has stated that the adaptive management provisions of the 2012 Permit is one of the main reasons the EWMP process can ensure the necessary rigor and accountability to effectively and timely achieve water quality standards.[35] However, the success of the adaptive management process depends on the effectiveness of the CIMPs, therefore, at a minimum, the CIMPs must meet the substantive requirements of the Permit in order to ensure that Permittees can appropriately adapt the EWMP in response to monitoring results and make modifications only when necessary.

E. There is Insufficient Analysis to Back up the Claims About What can be Achieved Through Green Streets Implementation and Regional BMPs Implemented on Privately Owned Lands

The ULAR and USGR EWMPs rely on a tremendous amount of green streets implementation for compliance. While Environmental Groups are in favor of distributed projects conceptually, practically speaking, it is unclear whether the degree of implementation proposed is achievable. We do, however, commend the EWMP Groups for discussing the need for streamlining the process of green infrastructure project implementation, but more analysis is

[31] Upper Los Angeles River EWMP, at 8-6; Upper San Gabriel River EWMP, at 108.
[32] See Environmental Groups' Comments on Enhanced Watershed Management Program Work Plans and Monitoring Plans Pursuant to Requirements under the Los Angeles County Municipal Separate Storm Sewer System Permit, NPDES Permit No. CAS004001, Order No. R4-2012-0175, including attached Exhibits A-K (September 16, 2014).
[33] See Appendix A to this letter: Environmental Groups' Table of CIMP Deficiencies.
[34] Id.
[35] Final Order, at 38.

needed to demonstrate that the amount of proposed green street projects are actually feasible and achievable. In addition, the EWMPs also rely heavily on regional BMPs implemented on privately owned lands to achieve compliance, with this portion of the "recipe" accounting for around 30% of the total capacity. However, due to the uncertainty around the ability to acquire such lands as well as the associated costs of land acquisition, the practicality and achievability of this goal is questionable.

F. The EWMPs Lack Sufficient Detail to Achieve Load Reductions Assumed From Institutional BMPs

In all of the EWMPs reviewed by Environmental Groups, institutional BMPs are assumed to account for between 5% and 10% of the load reduction with no data to support these assumptions. These goals may be achievable but require a structure dedicated to their attainment. However, there is little evidence of the development of an institutional framework and programs to reach these levels, either in the EWMPs or, apparently, anywhere else in the jurisdiction's organizations. The mechanisms are straightforward technologically but much more complex institutionally. Applying them successfully relies on a host of actions broadly spread through the affected communities, the participation of various jurisdictional agencies and numerous agency personnel, and cooperation by many private citizens. Lacking a structure to implement them makes the assumptions questionable and requires evaluation of the consequences of not meeting the goals.

Further, the ULAR EWMP suggests that institutional controls will be sufficient to achieve compliance with Category 2 and 3 dry weather metals WBPCs,[36] while the USGR EWMP states that these will be sufficient to control all dry weather metals.[37] As stated above, there is little data and little structure built into the EWMPs to provide assurance that these load reductions will be achievable through these programs. In addition, it is not clear how it was determined that a 5% or 10% reduction would be what is required to achieve compliance with a number of the metals WBPCs since zinc, copper, and lead were the only metals that were modeled. The EWMPs state that this assumption is made in part due to the infrequency of dry weather metals exceedances,[38] but it seems that the ability for minimum control measures to address these exceedances should be more dependent on the actual magnitude of the exceedances rather than their frequency.

G. In at Least Two Instances, the RAA's Model Calibration Regularly Diverges From Observed Values at Higher Stream Flows

For the ULAR and USGR EWMPs, although the model calibration met the parameters specified in the RAA Guidelines,[39] it seems to regularly diverge from observed values at higher

[36] Upper Los Angeles River EWMP, at 6-15.
[37] Upper San Gabriel River EWMP, at 77.
[38] Upper Los Angeles River EWMP, at 6-15; Upper San Gabriel River EWMP, at 77.
[39] Los Angeles Regional Water Quality Control Board, *Guidelines for Conducting Reasonable Assurance Analysis in a Watershed Management Program, Including an Enhanced Watershed*

stream flows.[40] Both the ULAR and USGR EWMPs are designed around a relatively extreme condition (i.e., the 90th percentile storm), yet it is not clear whether an analysis was conducted to determine how the model would perform specifically at the stream flows expected from such a storm.

H. The Analysis for LID BMPs is Limited to the Consideration of Only Two Approaches: Biofiltration and Bioretention

In all of the draft EWMPs that Environmental Groups reviewed, the analyses assume low impact development (LID) BMPs would be a 50/50 split between biofiltration (underdrained) and bioretention (not underdrained). First, these two practices are not the only LID BMPs that might be chosen for the applications, yet others received zero consideration. Second, their capabilities differ considerably. Open-draining bioretention can infiltrate and evaporate a large fraction, even all, of the influent runoff, thus greatly or even fully diminishing pollutant loadings. The best evidence is that underdrained biofiltration, as normally constructed, is limited to withholding through evaporation roughly 30% of the runoff received.[41] Load reductions also benefit from pollutant concentration decreases but generally do not approach those achieved with open-draining bioretention.

Furthermore, there was no examination in the EWMPs of the feasibility of reaching 50% bioretention capability, or, alternatively, of surpassing it and doing better with load reduction. While the best procedure would be to conduct that examination, as well as to consider other LID BMPs, a substitute in the absence of these steps is to conduct a sensitivity analysis to examine the implications of other arrangements (e.g., a 70/30 or 30/ 70 split) and see how the results change. The purpose in this case would be to add assurance that the LID BMPs proposed would actually reach the target load reductions (TLRs) if field conditions ultimately dictate a different scenario than represented by the primary model assumption.

I. The Assumptions Regarding Redevelopment are Inadequate

For the NSMBCW and Beach Cities EWMPs, achieving TLRs further relies on BMP installation during redevelopment: (1) from 2003 to the present – as prescribed by the 2001 MS4 Permit's Standard Urban Stormwater Management Program (SUSMP) provisions; and (2) from

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Management Program (March 25, 2014), available at http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/stormwater/municipal/watershed_management/docs/RevisedRAAModelingCriteriaFinal-withAtts.pdf.

[40] See Upper Los Angeles River EWMP, Figures A-10, A-12, and A-16; see also Upper San Gabriel River EWMP, Figures C-1-6, C-1-13, C-1-17, and C-1-19.

[41] Horner, R.R., Section 4-2, Protection and Restoration Strategies for Watersheds and Tributaries; Chapter 4: A Science-Based Review of Ecosystem Protection and Restoration Strategies for Puget Sound and Its Watersheds; Puget Sound Science Update., Puget Sound Partnership (2010)

the present forward – according to the 2012 Permit's LID requirements.[42] However, the Permittees did not conduct an examination of actual achievements of stormwater treatment BMPs in the past. For various reasons, regulatory requirements are usually not completely fulfilled. Furthermore, there was no particular attention given to an enhanced institutional framework and programs to advance application of the present Permit requirements. As with the assumptions regarding programmatic BMPs and residential incentives, lacking verification of historical performance and a solid structure to advance future implementation makes the assumptions uncertain and requires appraisal of the repercussions of that uncertainty.

Moreover, Permittees' reliance on the redevelopment rates used in the EWMPs lacks justification. For example, in the Beach Cities EWMP, BMPs added through redevelopment, in the past and projected in the future, were based on redevelopment rate data from the Cities of Hermosa Beach and Manhattan Beach and, otherwise, from the Los Angeles region.[43] There is little explanation of how the specific city rates were obtained, and no explanation at all for the regional ones. On the presumption that they are statistical means over some period, they have some statistical variance, particularly because the period over which they were likely to be derived experienced substantial economic fluctuations inevitably affecting redevelopment. This variance is one more source lending uncertainty to predictions that should be quantified and incorporated in the overall potential error analysis. For the other three EWMPs that Environmental Groups reviewed, BMPs added through redevelopment, in the past and projected in the future, were based on redevelopment rate data from the Los Angeles region.[44] Again, there is no explanation of how these rates were obtained, and as explained above, the statistic variance is problematic.

J. In at Least Two Instances, There are Several Potential Sources of Error Associated with the Data Underlying the Model Calibration

In the NSMBCW and Beach Cities EWMPs, there are several potential sources of error associated with the data underlying modeling, with no quantitative analysis of these sources and the associated level of certainty in the forecasts of load reductions and BMPs needed to accomplish them. Potential error sources include:

- For the NSMBCW EWMP, the model flow calibration was rated as "very good" according to the Regional Board's RAA Guidance, but still has associated potential error, as evident in the deviation of points from the diagonal line in Figure 10.[45] The same data was used in the model flow calibration in the Beach Cities EWMP, and the calibration was also rated as "very good" according to the Regional Board's RAA guidance, but similar to the calibration in NSMBCW's EWMP, has associated potential error, as

[42] North Santa Monica Beach Coastal Watersheds EWMP, at ES-5 – ES-6; Beach Cities EWMP, at ES-10.
[43] Beach Cities EWMP, at 2-45 – 2-46, 3-28.
[44] North Santa Monica Beach Coastal Watersheds EWMP, at 90; Los Angeles River EWMP, Table 6-7, at 6-21; Upper San Gabriel River EWMP, at 49.
[45] North Santa Monica Beach Coastal Watersheds EWMP, at 69.

evident in the deviation of points from the diagonal line in Figure 2-9 for the Santa Monica Bay (SMB) watershed and Figure 3-4 for the DC watershed.[46] These dispersions should be quantified (in terms of confidence limits or some other statistical measure of the excursion of model predictions from measured data) and taken into account in an overall analysis of the level of certainty in the model predictions and compliance demonstration.

- For the NSMBCW EWMP, the model water quality calibration is not as "good" as the flow calibration. Environmental Groups do not agree with the EWMP's conclusion that Figure 11 portrays "very good" agreement.[47] The distributions of modeled versus measured fecal coliform measurements actually deviate fairly substantially, especially in the higher portion of the data range. Again, this dispersion should be quantified and included in the overall certainty analysis.
- In Beach Cities' EWMP, there was no model water quality calibration for the SMB watershed because of lack of data for the relevant WBPC (fecal coliforms). The EWMP mentions possible calibration when CIMP data accumulate, but it should firmly commit to doing so. For the DC watershed, water quality calibrations were performed for fecal coliforms and total zinc, portrayed in Figures 3-5 and 3-6.[48] The fecal coliform calibration is fairly good, but the zinc calibration is not. Especially for zinc, this dispersion should be quantified and included in the overall certainty analysis.
- Neither EWMP directly models expected compliance with the bacteria exceedance day limits in the TMDL. Instead, a relationship was developed between fecal coliform loadings[49] and exceedance days, so that the latter can be estimated from a model prediction of the former variable. Figure 12 and Figure 2-10 present the relationship, a statistical regression equation, for the NSMBWC and Beach Cities EWMPs, respectively.[50] The R^2 value presented on the graphs indicates that loading explains 83% of the variance in exceedance days. While this represents a good relationship, it is not perfect and has potential error associated with it. It is also a product of only seven data points, and a relatively small data set itself spreads the confidence interval associated

[46] Beach Cities EWMP, at 2-28, 3-20.
[47] North Santa Monica Beach Coastal Watersheds EWMP, at 61.
[48] Beach Cities EWMP, at 20, 23.
[49] The entire subject of computing a loading for bacteria is questionable, which itself is a potential source of error. The questionable nature arises from the need to take only grab samples, and not flow-weighted composite samples, for bacteria, because of potential contamination and sample holding time considerations. Loading, being the multiplication product of concentration and flow volume, is most legitimately calculated with concentration measurements performed on a flow-weighted composite sample. However, unlike the other potential error sources discussed in this section, the error introduced by this procedure is not quantifiable. The best that can be done, short of a radical revision of procedure, is a judicious qualitative consideration of how it may affect the ultimate compliance demonstration after the quantifiable potential error sources are taken into account. Of course, the EWMP does neither.
[50] North Santa Monica Beach Coastal Watersheds EWMP, at 73; Beach Cities EWMP, at 2-30.

with a predictive relationship. As with the other potential error sources discussed, this one too should be quantified and brought into the overall certainty analysis.

- When it was necessary to convert *Escherichia coli* (*E. coli*) measurements to fecal coliforms (FC), a ratio of *E. coli*/FC = 0.85 was assumed.[51] A U.S. Geological Survey study found substantial variation in the ratio and quantified confidence limits.[52] This is an additional potential source of error that should be taken into account in forecasting load reductions and specifying BMPs sufficient to provide a low risk of not meeting target reductions.

K. The Margins for Error in Reaching TLRs as a Result of BMP Implementation are Extremely Small

As explained above, for the NSMBCW and Beach Cities EWMPs in particular, there are a number of assumptions and potential error sources embedded in the analyses that create uncertainty in the predictions of load reductions achievable with the BMPs thought to be in place and proposed for future implementation.

For NSMBCW, the Permittees did not make any attempt to quantify these uncertainties and their effects on the demonstration of compliance. Table 27 summarizes that demonstration.[53] Its last two columns show cumulative fecal coliform load reductions (resulting from all BMPs) and TLRs. Comparison of the data in these two columns shows very small margins for error in reaching the TLRs forecast to result from their implementation. For non-zero TLRs, the difference between load reduction provided and TLRs for the various analysis regions averages only 1.98%. As discussed above and shown in the table, substantial contributions to load reductions are from assumed 5% accruing from programmatic BMPs, 10% participation in home downspout disconnection, and BMPs already installed during redevelopment. The fifth column of Table 27 shows the load reductions estimated to occur as a result of downspout disconnection and redevelopment BMPs. The overall average is 4.91%. Thus, the unexamined assumptions together are credited for about 10% loading reduction. From the perspective of averages, if they fall short by just 2%, the very small 1.98% compliance margin will vanish.

Similarly, for Beach Cities, the Permittees made no attempt to quantify the uncertainties created by the EWMP's assumptions and potential error sources and their effects on the wet weather RAA demonstration of compliance. Tables 2-16 and 3-12 summarize that demonstration for the SMB watershed and DC watershed, respectively.[54] Columns toward the right side of each table show cumulative pollutant load reductions (resulting from all BMPs) and TLRs. Only two of 18 SMB watershed analysis regions were modeled to have fecal coliform TLRs. Comparison

[51] North Santa Monica Beach Coastal Watersheds EWMP, Table 13 at 59; fn 14 at 70; Beach Cities EWMP, Table I-1, fn e at I-2.
[52] Francy, D.S., D.N. Myers, and K.D. Metzker. *Escherichia coli* and Fecal Coliform Bacteria as Indicators of Recreational Water Quality, Water-Resources Investigations Report 93-4083, U.S. Geological Survey (1993), available at http://pubs.usgs.gov/wri/1993/4083/report.pdf.
[53] North Santa Monica Beach Coastal Watersheds EWMP, Table 27 at 108.
[54] Beach Cities EWMP, at 2-66, 3-42.

of the data for these two regions in Table 2-16 shows very small margins for error in reaching the TLRs forecast to result from BMP implementation – only 1% in one case and 4% in the other.[55] As discussed above and shown in the table, substantial, and questionable, contributions to loading reductions are from assumptions: (1) 5% accruing from programmatic BMPs, (2) 10% participation in home downspout disconnection, (3) BMPs already installed during redevelopment, and (4) assumptions that Caltrans and industrial areas will achieve their permit requirements. In the case with only 1% margin between load reduction (46% of base load) and TLR (45% of base load), these highly uncertain sources of reduced pollutant loadings are assumed to account in total for 11% of the 46%. In the case with 4% margin between loading reduction (50% of base load) and TLR (46% of base load), these highly uncertain sources of reduced pollutant loadings are again assumed to account in total for 11% of the 50%.

The DC watershed has zinc, copper, and fecal coliform WBPCs.[56] Only the Redondo Beach and Manhattan Beach portions of the watershed were modeled for the wet weather RAA. The Torrance part was not appropriately modeled or subjected to an adequate RAA, because beyond some non-structural measures, Torrance has committed only to catch basin inserts in a fraction (less than one-third) of its drain inlets. Because estimated load reductions are associated only with individual inserts, the estimates cannot be applied to the entire analysis region.[57] Failure to perform an adequate RAA for a significant part of the watershed is a violation of Permit requirements, and undermines the validity of the RAA and the EWMP.

For the Redondo Beach and Manhattan Beach portions of the DC watershed, Table 3-12 indicates the final copper and fecal coliform TLRs to be met handily, but the final zinc and interim fecal coliform TLR achievements to be marginal (0-0.1% difference in estimated load reduction and the respective TLRs for interim fecal coliforms and 3% for zinc).[58] The questionable assumptions regarding programmatic BMPs, home downspout disconnection, BMPs already installed during redevelopment, and the Caltrans and industrial permit compliance are credited for 20% of the 79% loading reduction forecast for zinc (against a TLR of 76%), with 6% from the latter exceptionably doubtful assumption. Thus, there is no real margin, the situation also existing for the interim fecal coliform requirements. The healthy margin for copper (23%) is heavily influenced by brake pad reduction, which is thus crucial to achieve. The margin for the final fecal coliform TLR is much greater (41%) and accounted for in large measure by new regional and distributed BMPs, the completion of which is thus also crucial.

[55] Id. at 2-66.
[56] The EWMP did not model or complete a RAA for DC watershed medium-priority WBPCs (cyanide, pH, selenium, mercury, and cadmium), on the grounds of no evidence supporting linkage between the MS4 and exceedances of numeric limits for these pollutants. As a general matter, all have been detected in urban stormwater, particularly from industrial land uses. Cadmium is the fourth most commonly detected regulated metal in urban stormwater, after zinc, copper, and lead.
[57] See discussion of the inadequacy of catch basin inserts below.
[58] Beach Cities EWMP, at 3-42.

The larger point underlying all of the discussion in this section is that, as pointed out above, there are more potential sources of error (beyond the assumptions Environmental Groups have pointed out thus far). In the face of all this uncertainty, it is highly unlikely that the generally extremely slim margins allowed will lead to compliance. The responsible and essential procedure is to quantify all of these potential sources and determine what BMPs are necessary to give some set level of assurance (e.g., 90%) of achieving compliance.

L. In at Least Two Instances, Permittees Fail to Consider the Possible Intermingling of Privately Owned Stormwater Infrastructure Within the Full MS4 System

The analyses in the NSMBCW and Beach Cities EWMPs were based entirely on publically owned drainage outfalls, without consideration of intermingling of privately owned stormwater infrastructure with the MS4 system. The MS4 system is defined by the federal regulations as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)… [o]wned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district…"[59] Comingled "public" and "private" stormwater, therefore, is regulated by the Permit, and is the responsibility of the municipal Permittees. Thus, the NSMBCW and Beach Cities EWMPs illegally exclude the analysis of a significant source of pollutant loads to receiving waters, and thereby limit the analysis of reductions required on that basis. Without inclusion of all MS4 discharges, the EWMPs cannot ensure compliance with RWLs or TMDL-specific limitations, and therefore do not comply with the requirements of the 2012 Permit.

M. In at Least One Instance, No Analysis of Standards Applicable to Discharges to ASBS are Included, and Existing Data for Discharges to ASBS are Not Included in the Modeling Exercise or the EWMP

Beyond referencing the draft Compliance Plan and draft Pollution Prevention Plan (ASBS Plans), the NSMBCW EWMP ignores the standards applicable to the receiving waters, designated as Areas of Special Biological Significance (ASBS), as well as the data collected in the receiving waters pursuant to the State Board's ASBS program. The NSMBCW EWMP's approach to ASBS discharges is inadequate for at least two reasons:

1) The draft ASBS Plans are inadequate and do not meet the requirement of either the ASBS Exception[60] or the 2012 Permit;
2) The EWMP applies the wrong water quality standards, and ignores extensive available sampling data, rendering its analysis incomplete and inconsistent with Permit requirements.

[59] 40 C.F.R. §122.26(b)(8).
[60] State Water Board Resolution No. 2012-0012, as amended by 2012-0031 (ASBS Exception).

NRDC and Los Angeles Waterkeeper submitted comments on the draft ASBS Plans detailing their inadequacies in January 2015.[61] In summary:

- The ASBS Plans fail to address non-stormwater discharges, which are strictly prohibited into the ASBS. Dry weather discharges were observed by Permittees 73 times in 2012 and 2013, even with reconnaissance on only eight dates; yet, the ASBS Plans propose nothing beyond existing outreach and education programs.
- The ASBS Plans improperly exempt pipes smaller than 18 inches diameter from meaningful pollution control. This arbitrary and illegal definition eliminates dozens of MS4 discharge pipes from control.
- Receiving water sampling conducted pursuant to ASBS requirements demonstrate alteration of natural water quality concerning selenium, total polyaromatic hydrocarbon, and mercury. Although end-of-pipe sampling demonstrates exceedances of Ocean Plan[62] Instantaneous Maximum limits for ammonia and a number of metals, the ASBS Plans neither acknowledge these exceedances, nor propose to meet compliance, either by meeting Ocean Plan limits or reducing baseline pollutant discharges by at least 90%.

Rather than relying on these flawed plans, the NSMBCW EWMP must conduct its own RAA, based on all available data, and the applicable standards. Because the ASBS was the focus of regulatory attention at the State Board level for a number of years, considerable data is available. The State Board collected outfall and receiving water data in developing the ASBS Exception.Under the terms of the Exception, Los Angeles County and Malibu collected outfall and receiving water data beginning in 2013. However, the NSMBCW EWMP nowhere references this data – data collected by the municipalities conducting the EWMP analysis – and apparently failed to include the data in the modeling exercise. Further, the ASBS Exception requires that dischargers develop plans to achieve either: 1) Ocean Plan Instantaneous Maximum limits at all discharges points, or 2) 90% reduction in pollutant loads based on an articulated baseline calculation.[63] Compliance is required within six years, or 2019.[64] Again, the NSMBCW EWMP fails completely to consider these applicable standards, or the compliance deadline, as set out in the ASBS Exception.

Because the NSMBCW EWMP effectively eliminates consideration of ASBS data, or ASBS regulatory requirements, it fails to comply with state and federal law, and the requirements of the 2012 Permit.

[61] See Appendix B to this letter: NRDC and LA Waterkeeper Comments on ASBS 24 Draft Los Angeles County Compliance Plan and Pollution Prevention Plan (January 13, 2015).
[62] State Water Resources Control Board, Water Quality Control Plan: Ocean Waters of California (2012), available at http://www.swrcb.ca.gov/water_issues/programs/ocean/docs/cop2012.pdf.
[63] ASBS Exception, Attachment B, at I.A.2.d.
[64] Id. at Att.B, at I.A.3.e.

N. There is Insufficient Data to Demonstrate Reasonable Assurance of Compliance with Applicable Dry Weather Permit Limits

For NSMBCW, the EWMP assumes reasonable assurance is demonstrated for a compliance monitoring location (CML) if any one of four criteria is met, namely:

- Diversion or infiltration eliminates all dry weather discharge, or disinfection is provided and is effective (claimed for two CMLs);
- There are no jurisdictionally owned MS4 outfalls (claimed for eight CMLs);
- If all bacteria exceedance day requirements are met in four of the past five years and in the last two years (claimed for one CML); and/or
- If dry weather discharges have been eliminated (claimed for 18 CMLs).[65]

Two of these claims are very questionable. Given the EWMP's failure to consider the interrelationship between private and public drainage, the second criterion and the claims asserted regarding it are problematic. Concerning the fourth criterion and the extensive claims associated with it, outfalls were screened on only eight dates in 2014 and 2015 for the EWMP effort. There is no detail on the observations, only the inclusion of a note to Table 29 stating that the associated column entry of "yes" indicates that no dry weather flows were present. However, the data collected in the ASBS assessment and summarized above shows extensive dry weather discharges occurring in the ASBS portion of the study area.

For the SMB watershed, the Beach Cities EWMP assumes reasonable assurance is demonstrated for a CML if any one of three criteria is met, namely:

- Diversion or infiltration eliminates all dry weather discharge, or disinfection is provided and is effective (claimed for eight CMLs);
- There are no jurisdictionally owned MS4 outfalls (claimed for two CMLs); and/or
- If dry weather discharges have been eliminated (not determined).[66]

The claim relative to the second criterion is questionable due to the EWMP's lack of consideration of the interrelationship between private and public drainage. Additionally, no screening has been conducted to apply the third criterion. As a result, the dry weather RAA could not be completed for three of 12 CMLs. An incomplete RAA is a violation of Permit requirements.

The DC watershed did not receive even this level of attention. The analysis is brief, qualitative, and unconvincing. Its primary basis is "… education, enforcement, and behavioral modification …"[67] in Torrance and, in each city, water conservation regulations. The only substantive provision is building two regional BMPs in Redondo Beach and Manhattan Beach,

[65] North Santa Monica Beach Coastal Watersheds EWMP, at 46-47.
[66] Beach Cities EWMP, at 2-19.
[67] Id. at 3-43.

installed primarily for wet weather control but also available for dry weather service. This single feature does not constitute a full RAA.

O. In at Least Two Instances, There is Very Little to No Discussion on How Trash Reduction Requirements will be Met

Both the NSMBCW and Beach Cities EWMPs are very weak on specifying how trash reduction requirements will be met. The plans say no more than there will be phased catch basin retrofits to meet the 20% per year reduction targets.[68] Moreover, the plans give no information, or any sign of thinking about, such subjects as: (1) what trash source controls might be brought to bear on the problem, (2) the equipment that will be used in the retrofits, (3) the rate at which it must be installed to meet the targets, (4) where and when it can be most strategically placed, and (5) what options there are if targets are not met.

P. The Claims About Removal Efficiencies by Catch Basin Inserts are Questionable

Appendix B of the Beach Cities EWMP covers the RAA for the DC watershed within the city of Torrance. The central feature of Torrance's proposed contribution to meeting TLRs is the installation of inserts in less than one-third of the catch basins in the subwatershed. The appendix cites insert manufacturers' literature, an unreliable gauge of performance without independent verification, and a few studies to claim questionably high catch basin insert removal efficiencies for the pollutants of interest.

Appendix B presents what it terms a "literature review" in its own Appendix B. However, this latter appendix omits some studies cited in the text and contains only some manufacturers' "fact sheets" and one very long report of a study completely concerned with removal of oil and grease, not one of the WBPCs. The items are just pasted into the appendix with no assessment of their contents and no development and justification of conclusions used in the RAA. It is thus not a literature review at all. The review also omits studies not supporting its claims. A particular example is the Caltrans BMP Retrofit Pilot Program.[69] This study found two different inserts to provide only 0-7% mass loading reduction efficiencies for copper, lead, and zinc. The inserts also needed substantial maintenance attention, including during storms; i.e., they did not operate passively and unattended. With this experience, Caltrans did not adopt inserts as an accepted BMP.

An additional weakness of the Torrance RAA coverage of drain inlet inserts is citing performance in terms of pollutant concentration reduction efficiency, instead of mass loading reduction efficiency as used by Caltrans. As has been widely discussed in the literature, percentage concentration reduction efficiency is a misleading concept. This measure can be manipulated by feeding high concentrations into the unit and measuring a respectable percentage reductions but still having relatively high concentrations in the effluent.

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[68] North Santa Monica Beach Coastal Watersheds EWMP, at 131; Beach Cities EWMP, Table ES-12, at ES-25.

[69] California Department of Transportation, *BMP Retrofit Pilot Program Final Report* (January 2004), available at http://www.dot.ca.gov/hq/oppd/stormwtr/Studies/BMP-Retro-fit-Report.pdf.

IV. Conclusion

Based on the deficiencies noted above, the draft EWMPs are not in compliance with the program development requirements pursuant to the 2012 Permit. The Regional Board should review all of the submitted EWMPs in light of our comments here, and should not approve any EWMPs that are in violation of Permit requirements. Environmental Groups appreciate this opportunity to comment on the draft EWMPs. Please feel free to contact us with any questions or concerns you may have.

Sincerely,

Becky Hayat
Staff Attorney
Natural Resources Defense Council

Rita Kampalath
Science and Policy Director
Heal the Bay

Daniel Cooper
Los Angeles Waterkeeper

APPENDIX A

ENVIRONMENTAL GROUPS' TABLE OF CIMP DEFICIENCIES

Environmental Groups' Comments from September 16, 2014	Analysis of Revised CIMPs	Conditional Approval Requirements
Upper Los Angeles River		
Forgoes sensitive species screening for toxicity and defers *C. dubia*	No correction made in revised CIMP	No requirements to address deficiency
No maps showing land use in monitoring location drainage areas, and no full map of storm drains and outfalls	No correction made in revised CIMP	No requirements to address deficiency
Proposes process for modifying CIMP in certain cases without Regional Board approval on an annual rather than biannual basis	No correction made in revised CIMP	No requirements to address deficiency
Upper San Gabriel River		
Proposes discontinuation of some monitoring sites or constituents based on results of monitoring	No correction made in revised CIMP	No requirements to address deficiency
Only includes one monitoring outfall per jurisdiction rather than one per jurisdiction per HUC-12	No correction made in revised CIMP	No requirements to address deficiency
North Santa Monica Bay Coastal Watersheds		
Scale of map makes review of adequacy of monitoring locations impossible	No correction made in revised CIMP	No requirements to address deficiency
Receiving water monitoring locations do not cover full watershed management area	No correction made in revised CIMP	No requirements to address deficiency
Only includes two outfall monitoring locations	No correction made in revised CIMP	No requirements to address deficiency
Legacy Park receiving water site only sampled when outfall is discharging	No correction made in revised CIMP	No requirements to address deficiency
Beach Cities		
Rotating, biannual sampling schedule is inappropriate	No correction made in revised CIMP	No requirements to address deficiency
Definition of significant non-stormwater discharge should not be based solely on surface flow	No correction made in revised CIMP	No requirements to address deficiency

APPENDIX B

NRDC AND LA WATERKEEPER COMMENTS ON ASBS 24 DRAFT LOS ANGELES COUNTY COMPLIANCE PLAN AND POLLUTION PREVENTION PLAN (JANUARY 13, 2015)

Dr. Maria de la Paz Carpio-Obeso
Chief, Standards Unit
California State Water Resources Control Board
Division of Water Quality
Watersheds, Oceans, and Wetlands Unit
P.O. Box 100
Sacramento, CA, 95812-0100
MarielaPaz.Carpio-Obeso@waterboards.ca.gov

Re: Los Angeles Waterkeeper and
Natural Resources Defense Council Comments;
ASBS 24 Draft Los Angeles County Compliance Plan,
Pollution Prevention Plan

Dear Dr. Carpio-Obeso,

In September of 2014, consistent with a one-year extension granted by State Board staff, Los Angeles County ("County") and the Los Angeles County Flood Control District ("Flood District") submitted a draft Compliance Plan ("CP") and a draft Pollution Prevention Plan ("PPP") pursuant to the requirements of the ASBS Exception, Resolution Number 2012-0012 as amended by 2012-0031 ("Exception").

Los Angeles Waterkeeper ("Waterkeeper") and Natural Resources Defense Council ("NRDC") have had an opportunity to review the draft plans. Unfortunately, the plans fail to comply with the requirements of the Exception in numerous basic ways that prevent them from providing a means of eliminating the discharge of Waste to the ASBS. In summary, while the plans identify 1) non-stormwater discharges to the ASBS; 2) alterations of natural water quality caused by storm water discharges; and 3) storm water discharges above Ocean Plan objectives, the plans fail to propose measures to address them.

Given these failures, the plans do not comply with the requirements of the Exception and cannot serve as a basis for the County and the Flood District's implementation of the Exception's other substantive provisions. Waterkeeper and NRDC request that the State Board reject the draft plans, with direction to the County and Flood District to correct the plans' deficiencies. Given that a Final CP is due in September of 2015 at the latest, Waterkeeper and NRDC request that State Board Staff act on this request promptly.

Waterkeeper and NRDC's detailed comments follow.

I. The CP and PPP Fail to Address Non-Stormwater Discharges

The Exception allows the discharge of Waste to the ASBS only when in compliance with the terms and conditions of the Exception. Exception Att. B at I.A.1.a-d. Further, the Exception does not cover non-stormwater discharges, except for six limited categories of dry weather discharges:

(a) Discharges associated with emergency fire fighting operations.
(b) Foundation and footing drains.
(c) Water from crawl space or basement pumps.
(d) Hillside dewatering.
(e) Naturally occurring groundwater seepage via a storm drain.
(f) Non-anthropogenic flows from naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

Exception Att. B at I.A.1.e. And in all events these authorized non-stormwater discharges cannot cause or contribute to violations of Ocean Plan objectives or contribute to alterations of natural water quality. Id.

Pursuant to the Exception requirements, a Compliance Plan must "describe the measures by which all non-authorized non-storm water runoff (e.g., dry weather flows) has been eliminated." Id. at I.A.2.b. The County and the Flood District's CP reports dry weather outfall inspections during January, February, March and April of 2012, and February, March, May and July of 2013. CP at 50-51, Table 3-3 and 3-4. The County observed dry weather discharges on 73[1] occasions on these inspections, many of them repeat observations. Some of these discharges are characterized as "Hillside dewatering," or "Natural stream," but the plan provides no data to support these characterizations, nor does it categorize any of the discharges as permitted or unpermitted. The CP also distinguishes, without basis, between discharges that land on the beach in the ASBS, and those that flow to the surf line. CP at 49. The CP proposes no measures beyond existing outreach programs to address these continuing violations of the Exception and Ocean Plan standards—particularly the numerous dry weather flows that the plan reports as not reaching the "surf."

The PPP reports no dry weather inspections, and as with the CP, proposes no additional measures to address non-storm water discharges.

Given the unabated dry weather discharges from the County and Flood District's outfalls to the ASBS, continuing the existing failed outreach and education programs will not achieve compliance with the Exception, the LA County MS4 Permit, and the Clean Water Act. The County must propose in the CP and PPP, and immediately implement, appropriate structural BMPs, such as infiltration swales, trenches, or basins, to stop dry weather discharges.

[1] This total includes non-stormwater discharges from 10 outfalls that the CP identifies as "ownership unknown." CP at 19.

II. The CP and PPP Fail to Address the County and Flood District's Contribution to Alteration of Natural Water Quality

The Exception prohibits discharges that alter natural water quality in an ASBS. Exception Att. B. at I.A.1.b; I.A.1.e.3. The Exception provides 6 years to achieve compliance with these prohibitions. Exception Att. B. at I.A.3.e. However, the draft CP must include a strategy to comply with all special conditions, including maintaining natural water quality. Exception Att. B. at I.A.3.b; *id.* at I.A.2, 2.d., and 2.g. The draft CP must describe a time schedule to implement structural controls to meet the special conditions, and ultimately be included in the County and Flood Districts' SWMP submitted pursuant to the County MS4 Permit. Id. at I.A.3.b.

Further, where receiving water monitoring indicates that storm water runoff is causing or contributing to alteration of natural water quality, the County and Flood District are required to submit an additional report within 30 days of receiving the results. Exception Att. B. at I.A.2.h. The report must:

1) identify the constituents in storm water altering natural water quality and the source of the constituents;
2) describe BMPs in place, proposed in SWMPs for future implementation, and any additional BMPs to prevent alteration of natural water quality; and
3) provide an implementation schedule. Id.

Based on safety limitations and lack of discharge to receiving waters, the CP and PPP report receiving water sampling primarily at one location, S02, at a 36 inch storm drain at Escondido Beach. A single sample was collected at S01, a 60 inch storm drain at Zuma Beach. S02 was sampled during storm events on 19 February and 8 March 2013, and 28 February 2014. S01 was also sampled on 28 February 2014. CP at 61-70.[2]

Using the analysis required by the Exception, the CP reports that stormwater discharges from S01 and S02 contributed to alteration of natural water quality for selenium, total PAH, and mercury. CP at 67-69.

Despite this admission by the County and the Flood District that discharges from their outfalls are causing or contributing to alteration of natural water quality, neither the CP nor the PPP propose any strategy to address this violation, let alone a time schedule to implement structural controls identified by that strategy, in violation of the Exception. Exception Att. B at I.A.1.b, I.A.2, I.A.3.b and e. The CP and PPP fail to address in any way this core requirement of the Exception. The County and Flood District seem to conflate two independent requirements of the Exception. One is not to alter natural water quality. *See id.* Another is to implement BMPs to

[2] This sampling scheme itself violates the Exception's monitoring requirement that three samples must be collected during "each storm season." *See* Exception Att. B. at IV.B.2.b. February 2013 and February 2014 are different storm seasons.

achieve Ocean Plan limits or a 90% pollutant load reduction. *See id.* at I.A.2.d. The County and Flood District instead assume that *if* natural water quality is exceeded, then *only* the constituents that exceed natural water quality must achieve Ocean Plan limits. *See* CP at 71, 76-77. That is a misreading of the Exception.

Further, information currently available to Waterkeeper and NRDC indicates that the County and Flood District have failed to submit to the State Board the report required by Exception section I.A.2.h, due within 30 days of receiving results indicating the alteration of natural water quality. At the latest the County and Flood District received the S01 and S02 sampling results 30 days after the February 2014 sampling event, or March of 2014. All documents relating to ASBS Exception compliance for the County and Flood District in the possession of the State Board were produced to Waterkeeper in September 2014 and no such report was included. Therefore the County and Flood District have not complied with this additional reporting requirement.

III. The CP and PPP Fail to Propose BMPs to Achieve Either Ocean Plan Limits or 90% Pollutant Reduction

The Exception requires that the CP include:

> BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm [that] shall be designed to achieve on average the following target levels:
>
> 1) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or
> 2) A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

Exception Att. B at I.A.2.d. The County and the Flood District conducted end of pipe monitoring in 2013 and early 2014 at between 17 and 21 outfalls to the ASBS, with smaller outfall samples analyzed for a limited range of constituents. CP at 71-75. In these samples the County and the Flood District report repeated exceedances of Ocean Plan Instantaneous Maximum limits, including ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, and TSS. Id. The County had previously reported elevated concentrations of copper, chromium, and PAH in its exception application, and the State Board documented exceedances of Ocean Plan standards of these parameters, as well as acute and chronic toxicity, in County discharges to the ASBS. *See Program Final Environmental Impact Report, Exception to the California Ocean Plan for ASBS Discharge Prohibition for Storm Water and Non-Point Source Discharges, with Special Protections* (SWRCB, 21 Feb 2012) at 212-228.

Despite reporting sampling results documenting ongoing and alarming levels of toxic and conventional pollutants discharging to the ASBS, the CP and PPP propose no strategy either to

reduce baseline pollutant loads by 90%, or to meet Ocean Plan limits. Instead, the CP argues that because discharges from S01 and S02, the only two of the County's 57 outfalls to ASBS 24 analyzed, were determined to contribute to alteration of natural water quality for selenium, total PAH, and mercury, only those pollutants need to be addressed by comparing them to Ocean Plan limits. CP at 77. This cramped and erroneous interpretation is contrary to the plain language of the Exception, which makes no link between the design standard for BMPs in the CP, and the parameters identified in the natural water quality analysis.

Because the CP and PPP fail to include a BMP strategy designed to comply with the requirements of Section I.A.2.d of the Exception, they are inadequate and must be revised.

IV. The CP and PPP Attempt to Exempt Pipes Less than 18 Inches from NPDES Permit Requirements

Under the heading *Pollution Prevention Plan Objective and Scope,* the PPP states:

> This Plan focuses on source discharges not regulated under the National Pollutant Discharge Elimination System (NPDES) permit (SWRCB, 2012a). The Parties have prepared a Compliance Plan, under a separate cover, to evaluate sources regulated under the NPDES permit that include outfalls that have associated storm networks that drain significant areas and entirely or partially maintained by an agency. These NPDES permit regulated sources coincide with conveyances that are equal to or greater than 18 inches in size that discharge directly to the ASBS shoreline.

PPP at 1. The CP contains a similar statement. CP at 1 ("point sources identified in this document coincide with conveyances that are equal to or greater than 18 inches in size").

Based on this novel definition of point source discharge and an MS4 system under the Clean Water Act, the PPP includes storm water pipes or other man made conveyances (point sources) (see, e.g., PPP at 35)—a plan limited under the terms of the Exception to Nonpoint Source Discharges. Exception at Att. B at I.B.2.

Neither the LA County MS4 Permit (NPDES Permit No. CAS004001), nor the Clean Water Act definition of Point Source Discharges include an exemption for storm water pipes of 18 inches or less, or that drain "insignificant areas." *See* MS4 Permit, Attachment A (Definitions); 40 CFR 122.2; 40 CFR 122.26(b)(8)-(9). In fact 18 inch storm water pipes discharging to the Pacific Ocean are without question man made conveyances discharging to waters of the United States, and MS4 pipes covered by the LA County MS4 Permit. Similarly, gutters and drains are man-made conveyances of storm water. Further, any point source discharges not covered by the MS4 Permit are not eligible for coverage under the Exception. *See* Exception Att. B at I.A.1.a(1).

Because the PPP improperly includes point source discharges in a planning document limited to non-point source discharges, and the CP improperly excludes certain point source discharges, both the CP and the PPP are inconsistent with the requirements of the Exception.

V. Conclusion

The County and Flood District's draft Exception compliance documents are inconsistent with the requirements of the Exception, and as a result fail to achieve compliance with the immediate requirement for elimination of non-storm water discharges, and will fail to prevent alteration of natural water quality within the timeline set out in the Exception compliance schedule. Therefore Waterkeeper and NRDC request that State Board staff reject the plans, and direct the County and Flood District to redraft the plans to include:

1) An immediate plan to implement a comprehensive inspection program to identify all County and Flood District non-storm water discharges to ASBS 24;
2) An immediate plan to implement structural BMPs to eliminate non-storm water discharges to ASBS 24, including an implementation schedule not to exceed 12 months;
3) A plan to implement structural BMPs, including an implementation schedule, to achieve natural ocean water quality by 2018;
4) Submission of reports in accordance with Exception Att. B at I.A.2.h;
5) A plan to implement structural BMPs, including an implementation schedule, to achieve either compliance with Ocean Plan Objectives, or 90% reduction from baseline, on or before 2018, from *all* outfalls to the ASBS and for *all* parameters;
6) Proper inclusion of all point source discharges that are part of the County/Flood District MS4 in the CP, with only non-point source discharges in the PPP;
7) All revisions to be submitted within 120 days, to ensure approval of a compliance Final CP and PPP by September 2015.

Thank you again for your anticipated attention to this matter. Please call Liz Crosson, Executive Director of Los Angeles Waterkeeper at (310) 394-6162 x100 with questions about any of the above.

Regards,

Liz Crosson
Los Angeles Waterkeeper

Exhibit D

April 19, 2016

Permittees of the North Santa Monica Bay Watershed Management Group[1]
(See Distribution List)

APPROVAL OF THE NORTH SANTA MONICA BAY WATERSHED MANAGEMENT GROUP'S ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP), PURSUANT TO PART VI.C OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175 AS AMENDED BY STATE WATER BOARD ORDER WQ 2015-0075)

Dear Permittees of the North Santa Monica Bay Watershed Management Group:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board or Board) adopted Order No. R4-2012-0175, *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach* (hereafter, LA County MS4 Permit). Part VI.C of the LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), and by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program. Pursuant to Part VI.C.4.c.iv of the LA County MS4 Permit, the North Santa Monica Bay Watershed Management Group (Group) submitted a draft EWMP on June 29, 2015 to the Los Angeles Water Board for review.

Public Review and Comment

On July 1, 2015, the Los Angeles Water Board provided public notice and a 61-day period to allow for public review and written comment on the draft EWMPs. A separate notice of availability regarding the draft EWMPs was directed to State Senators and Assembly Members

[1] Permittees of the North Santa Monica Bay Watershed Management Group include the City of Malibu, County of Los Angeles, and Los Angeles County Flood Control District.

within the Coastal Watersheds of Los Angeles County. The Board received four written comment letters in total. The comment letter submitted by the Construction Industry Coalition on Water Quality (CICWQ) had comments on the twelve EWMPs generally. The comment letter submitted jointly by the Natural Resources Defense Council (NRDC), Heal the Bay, and Los Angeles Waterkeeper (Environmental Groups) contained specific comments on four of the twelve EWMPs[2]; comments specific to the North Santa Monica Bay EWMP were raised. The two remaining letters, from the Los Angeles County Sanitation Districts and Ms. Joyce Dillard, contained specific comments on various EWMPs; however, no comments specific to the North Santa Monica Bay EWMP were raised.

On July 9, 2015, the Board held a public workshop at its regularly scheduled Board meeting on the draft EWMPs. On November 5, 2015, again during its regularly scheduled Board meeting, the Board held a second public workshop on the draft EWMPs. The Board held a third public workshop on March 3, 2016 for Permittees and interested persons to comment on and discuss the revised EWMPs with the Executive Officer, Board members, and staff. During our initial review of the draft EWMP and our review of the revised EWMP, the Los Angeles Water Board considered written comments and comments made at these workshops that were applicable to the Group's EWMP.

Los Angeles Water Board Review

Concurrent with the public review, the Los Angeles Water Board reviewed the draft EWMP. As part of the review process, the Los Angeles Water Board staff corresponded with the consultants for this EWMP Group on August 6, 2015, in order to obtain some modeling files. On October 21, 2015, the Los Angeles Water Board sent a letter to the Group detailing the Board's comments on the draft EWMP and identifying the revisions that needed to be addressed prior to the Board's approval of the EWMP. Where appropriate, the public's comments were incorporated into the Board's review letter on the draft EWMP to ensure that the public's comments were addressed appropriately in the revised EWMP.

The Group submitted a revised EWMP on January 19, 2016 for Los Angeles Water Board review and approval. After the Group's submittal of the revised EWMP, Board staff had several telephone and email exchanges with the Group's representatives and consultants to discuss the Board's remaining comments and necessary modifications to the January 19, 2016 revised EWMP. On April 1, 2016, the Group submitted a second revised EWMP for Los Angeles Water Board review and approval. There were a small number of minor changes requested by Regional Boards staff to the April 1, 2016 version of the EWMP. The final version was submitted on April 7, 2016.

[2] These four EWMPs were the North Santa Monica Bay EWMP, Upper San Gabriel River EWMP, Upper Los Angeles River EWMP, and Beach Cities EWMP.

Approval of EWMP

The Los Angeles Water Board hereby approves the Group's revised EWMP as submitted on April 7, 2016.

Determination of Compliance with EWMP

Pursuant to Part VI.C.6 of the LA County MS4 Permit, the Permittees of the North Santa Monica Bay Watershed Group shall begin implementation of the approved EWMP immediately. To continue to be afforded the opportunity to implement permit provisions within the framework of the EWMP, Permittees must fully and timely implement all actions per associated schedules set forth in the approved EWMP regardless of any contingencies indicated in the approved EWMP (e.g., funding) unless a modification to the approved EWMP, including any extension of deadlines where allowed, is approved by the Los Angeles Water Board pursuant to Part VI.C.6.a or Part VI.C.8.a.ii-iii of the LA County MS4 Permit. The Los Angeles Water Board will determine the Permittees' compliance with the EWMP on the basis of the compliance actions and milestones included in the EWMP including, but not limited to, the following:

- Table 5. Final RWLs and WQBELs for NSMBCW TMDLs
- Table 6. Single Sample Allowable Exceedance Days for NSMBCW Bacteria Monitoring Stations
- Figure 2. Compliance Monitoring Locations
- Table 7. General Timeline for FCS Installation
- Table 10. Dry Weather Permit Limits (Final Compliance Limits)
- Table 11. Non-Stormwater Outfall Screening and Monitoring Program Summary
- Section 5 Santa Monica Bay Watershed Demonstration of Compliance
    - Wet Weather Target Load Reductions
    - Best Management Practices
- Table 22. Allowable Discharge Days for each Modeled Analysis Region
- Table 23. Target Load Reductions for the Santa Monica Bay Watershed
- Table 24. TMDL Effective Dates and Final Compliance Dates
- Table 25. Common MCM Modifications/Enhancements for City and County
- Table 28. Proposed Distributed BMPs in the NSMBCW EWMP Area
- Figure 24. BMP Locations in Santa Monica Bay Watershed
- Section 6 Santa Monica Bay Watershed Demonstration of Compliance
    - Wet Weather Target Load Reductions
    - Best Management Practices
- Table 33. TMDL Effective Dates and Final Compliance Dates
- Section 7: EWMP Compliance Schedule
- Table 35. TMDL Compliance Dates and Load Reduction Requirements for WBPCs Within the NSMBCW EWMP Area
- Table 37. Proposed Implementation Schedule for NSMBCW EWMP BMPs

Pursuant to Parts VI.C.3 and VI.E.2.d.i.(4)(a) of the LA County MS4 Permit, the Permittees' full and timely compliance with all actions and dates for their achievement in their approved EWMP shall constitute compliance with permit provisions pertaining to applicable water quality-based effluent limitations (WQBELs)/wasteload allocations (WLAs) in Part VI.E and Attachment M of the LA County MS4 Permit. Further, per Part VI.C.2.b of the LA County MS4 Permit, The Permittees' full compliance with all requirements and dates for their achievement in its approved EWMP constitutes compliance with the receiving water limitations provisions of Part V.A of the LA County MS4 Permit for the specific waterbody-pollutant combinations addressed by the approved EWMP.

If the Permittees fail to meet any requirement or date for its achievement in the approved EWMP, which will be demonstrated through the Group's Annual Reports and program audits (when conducted), the Permittees shall be subject to the baseline requirements of the LA County MS4 Permit, including but not limited to demonstrating compliance with applicable receiving water limitations and TMDL-based WQBELs/WLAs through outfall and receiving water monitoring. See Parts VI.C.2.c and VI.E.2.d.i.(4).(c) of the LA County MS4 Permit.

Annual Reporting

The Permittees shall report, as a group, on achievement of actions and milestones within the reporting year, as well as progress towards future milestones related to multi-year projects, through their Annual Report per Attachment E, Part XVIII of the LA County MS4 Permit. For multi-year efforts, the Permittees shall include the status of the project, which includes the status with regard to standard project implementation steps. These steps include, but are not limited to, adopted or potential future changes to municipal ordinances to implement the project, site selection, environmental review and permitting, project design, acquisition of grant or loan funding and/or municipal approval of project funding, contractor selection, construction schedule, start-up, and effectiveness evaluation (once operational), where applicable. For all stormwater retention projects, including LID BMPs implemented in compliance with new/redevelopment provisions, green streets provisions, and regional BMPs, the Permittees shall report annually on the volume of stormwater retained in each subwatershed area.

The Permittees shall also include in their Annual Report the source(s) of funds used during the reporting year, and those funds proposed for the coming year, to meet necessary expenditures related to implementation of the actions identified in their EWMP per Part VI.A.3 of the LA County MS4 Permit. Further, as part of the annual certification concerning a Permittee's legal authority required by Part VI.A.2.b of the LA County MS4 Permit, each Permittee shall also certify in the Annual Report that they have the necessary legal authority to implement the actions and milestones in the approved EWMP as required by Part VI.C.5.b.iv.(6). If a Permittee does not have legal authority to implement an action or milestone at the time the Group submits their Annual Report, the Permittee(s) shall propose a schedule to establish and maintain such legal authority.

Adaptive Management

The Permittees, as a group, shall conduct a comprehensive evaluation of their EWMP no later than two years after the date of this approval (i.e., by April 19, 2018), and subsequently, every two years thereafter pursuant to the adaptive management process set forth in Part VI.C.8 of the LA County MS4 Permit. As part of this process, the Permittees must evaluate progress toward achieving:

- Applicable WQBELs/WLAs in Attachment M of the LA County MS4 Permit according to the milestones set forth in their EWMP;
- Water quality objectives applicable to receiving waters within ASBS 24, as set forth in the California Ocean Plan;
- Improved water quality in MS4 discharges and receiving waters;
- Diversion of non-storm water discharges that would otherwise discharge to receiving waters within ASBS 24 to a sanitary sewer, where capacity and infrastructure exists;
- Stormwater retention milestones; and
- Multi-year efforts that were not completed in the current year and will continue into the subsequent year(s), among other requirements.

As part of the adaptive management process, the Permittees shall also re-evaluate their Category 2 and Category 3 water quality priorities based on data collected through their Coordinated Integrated Monitoring Program (CIMP) as well as any additional data collected from receiving waters within ASBS 24, and discharges from MS4 outfalls to ASBS 24, as required by the California Ocean Plan. When re-evaluating water quality priorities within ASBS 24, Permittees shall also consider attainment of applicable water quality objectives in the California Ocean Plan as well as any undesirable alteration in natural water quality. Where new water quality priorities are identified, the Permittees shall conduct a RAA for the pollutants and identify and incorporate into their EWMP appropriate watershed control measures to address them.

The Permittees' evaluation of the above shall be based on both progress implementing actions in the EWMP and an evaluation of outfall-based monitoring data and receiving water monitoring data. Per Attachment E, Part XVIII.6 of the LA County MS4 Permit, the Permittees shall implement adaptive management strategies, including but not limited to:

- Refinement and recalibration of the Reasonable Assurance Analysis (RAA) based on data specific to the Group's EWMP area that are collected through the Group's CIMP and other data, as appropriate;
- Identifying the most effective control measures, why they are the most effective, and how other control measures can be optimized based on this understanding;
- Identify the least effective control measures, why they are ineffective, and how the control measures can be modified or replaced to be more effective;
- Identify significant changes to control measures during the prior year(s) and the rationale for the changes; and

- Describe all significant changes to control measures anticipated to be made in the next year(s) and the rationale for each change.

As part of the adaptive management process, any modifications to the EWMP, including any requests for extension of deadlines not associated with TMDL provisions, must be submitted to the Los Angeles Water Board for review and approval. The Permittees must implement any modifications to the EWMP upon approval by the Los Angeles Water Board or its Executive Officer, or within 60 days of submittal of modifications if the Los Angeles Water Board or its Executive Officer expresses no objections. Note that while the first adaptive management process is scheduled for April 19, 2018, the Group's Report of Waste Discharge (ROWD) is due no later than July 1, 2017. The Group should conduct a preliminary evaluation of its EWMP in the spring of 2017 and present the results of the evaluation and any proposed modifications to the EWMP in the Group's ROWD.

The Los Angeles Water Board appreciates the participation and cooperation of the Permittees in the North Santa Monica Bay Watershed Management Group in the implementation of the LA County MS4 Permit. If you have any questions, please contact Mrs. Deborah Brandes of the Storm Water Permitting Unit at Deborah.Brandes@waterboards.ca.gov or by phone at (213) 576-6688. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Enclosures: North Santa Monica Bay Watershed Management Group Distribution List

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Exhibit E

Los Angeles Water Board Response to Specific Written Comments by NRDC, LA Waterkeeper, and Heal the Bay, dated August 31, 2015, on the North Santa Monica Bay Coastal Watersheds (NSMBCW) Draft EWMP

Comment No.	NRDC, LA Waterkeeper, and Heal the Bay Comment	Los Angeles Water Board Response
III.A	**A. The Proposed Financial Strategies are Inadequate** The 2012 Permit requires that Permittees participating in an EWMP maximize the effectiveness of funding, and "[e]nsure that a financial strategy is in place" to implement the pollution control measures identified by the RAA and EWMP process. (2012 Permit, at VI.C.1.g.vi., VI.C.1.g.ix.) This Permit provision underpins the State Board's rationale for approving the EWMP process. In its Final Order upholding the 2012 Permit including its EWMP provisions, the State Board concluded that "the WMP/EWMP approach is a clearly defined, implementable, and enforceable alternative to the receiving water limitations provisions… and that the alternative provides Permittees an ambitious, yet achievable, path forward for steady and efficient progress toward achievement of those limitations while remaining in compliance with the terms of the permit." However, without an adequate financial strategy to properly execute the BMPs proposed by the EWMPs, compliance with RWLs and TMDL-specific limitations will *not* be ensured. Failure to demonstrate a real financial commitment for implementing the EWMP, therefore, goes against the State Board's clearly stated goal of the EWMP approach – that is, to achieve compliance with water quality standards. In all of the four EWMPs that Environmental Groups reviewed, Permittees' cost estimates for implementing	These comments on the proposed financial strategy were considered and reflected as appropriate in the Los Angeles Water Board's October 21, 2015 review letter on the draft EWMP (hereafter, Review Letter). Specifically, the Board commented that the NSMBCW Group needed to provide more detail on estimated costs of non-structural BMPs and sources and amounts of past funding and existing funding for stormwater projects. The Board also commented that the draft EWMP needed to be revised to make clear the responsibilities of each participating Permittee. The Group's revised EWMP was responsive to the Board's comments. The permit requirement is to "ensure that a financial strategy is in place." The permit does not require that each element of the financial strategy is fully developed before the Board can approve an EWMP. The Board finds that the level of detail provided in Section 9 of the revised EWMP is appropriate to the permit requirement for a financial strategy. Section 9 includes: • Estimates of BMP costs; • Current budgets for Permittees' implementation of permit requirements, particularly those pertaining to the minimum control measures (MCMs); • Enumeration of past stormwater projects and the sources of funds used for those projects; • Current funds being pursued for key proposed projects in the EWMP, including the Group's largest proposed regional project - the Topanga Canyon Regional Green Street project; and

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	the EWMP are substantial and orders of magnitude higher than have previously been committed by the agencies to their MS4 programs. For example, for the ULAR EWMP Group, the capital costs to address Water Quality Priorities by 2037 is estimated at over $6.0 billion, with total operations and maintenance costs exceeding $210 million per year once fully implemented. For the USGR EWMP Group, the total cost for implementation of the EWMP through 2040, including operation and maintenance, is approximately $2.14 billion. For the NSMBCW EWMP Group, the estimated total capital and operation and maintenance costs for proposed structural BMPs over 20 years are $54.2 million. Lastly, for the Beach Cities EWMP Group, the total 20-year life-cycle costs to implement each structural BMP plus the associated annual operation and maintenance costs over 20 years are $150 million. Currently, none of these four watershed groups have sufficient funds or dedicated funding streams to construct the projects proposed in their EWMPs; thus, all four EWMP Groups must pursue additional stormwater funding from multiple sources in order to ensure that the *additional* costs of compliance with the 2012 Permit as a result of EWMP implementation can be covered. Unfortunately, none of the EWMPs that Environmental Groups reviewed provides a funding roadmap, let alone demonstrates a commitment to securing funds, to implement the proposed control measures as required for achieving Permit compliance. While the EWMPs identify, to varying degrees, the potential funding sources/projects needed to achieve compliance with RWLs and TMDL-specific limitations,	• An evaluation of potential funding sources for other EWMP projects, including the potential of the funding source, general process for pursuing the funding source, conditions for obtaining funding from the source, and challenges associated with the funding source. The commenters state that, at a minimum, the Financial Strategy section must describe in detail certain elements. While the permit provision does not require this degree of specificity, as noted above, the Board finds that the Group has described the elements identified by the commenters in the revised EWMP, as indicated below. 1) Selection and prioritization of the multiple financial approaches identified; a. The Group has selected and prioritized pursuit of Proposition 1 and Proposition 84 grant funding for its proposed regional project and for one of its earliest distributed projects. 2) Identification of current funding streams, for each of the EWMP Group Members, sufficient to implement existing stormwater projects; a. The Group identified its current funding streams, in terms of each Permittee's annual budget for the last four fiscal years, through 2015-16. 3) An articulation of the relative financial responsibility and contribution of each of the EWMP Group Members to EWMP implementation, and the Memorandum of Understandings or other legal documents memorializing this organization; a. The Group articulated each Permittee's relative financial responsibility in the EWMP. For structural BMPs, see Sections 5.2.4.3.1 and

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	without an actual step-by-step plan or strategy to carry out the identified financial projects, however, the EWMPs are merely paper exercises. For example, the potential funding sources identified in the EWMPs generally included grants, bonds, State Revolving Funds, interagency partnerships, local funding opportunities, legislative or policy changes, and public private partnerships. A couple of the EWMPs also discuss, in general terms, barriers associated with some of the funding sources and ways those barriers might be overcome. However, all of the Financial Strategy sections reviewed end at the identification of these sources and barriers. To the extent any type of "strategy" is actually discussed, the draft EWMPs recognize the need for interagency collaboration and a coordinated, regional approach, but this need is merely described in a vague, cursory manner and again, with no specific details on how to accomplish the necessary interagency and regional collaboration. Mere identification of potential funding sources, with no details whatsoever regarding the specific action steps that Permittees will need to take in order to carry out some of the funding strategies proposed, does *not* constitute a sound financial strategy sufficient to meet the Permit requirement. In order for Permittees to provide the level of assurance that the EWMPs will ultimately achieve compliance with water quality standards as required by the State Board, the Financial Strategy element of the programs must *actually* be "in place" before the Regional Board can approve the EWMPs. At a minimum, the Financial Strategy section must describe in detail the following elements:	5.2.4.4, as well as Table 28 in conjunction with Table 39. 4) An identification of the available grants, application timelines and requirements, and the lead EWMP Group Member(s) that will undertake and coordinate the grant-writing efforts; a. The Group identified potential funding sources in Table 41, and indicated which Permittee(s) were undertaking efforts to secure funding for key projects (see Section 9.4.2). 5) Model legislation or ordinance, and a timeline for seeking municipal stormwater fees, if any; a. The County of Los Angeles and City of Malibu already have developed green streets policies to help support implementation of distributed projects throughout the EWMP Area. Additionally, recently the County of Los Angeles Board of Supervisors adopted a motion calling for development of a Water Resiliency Plan to increase stormwater capture and improve water quality. A task in the development of this plan is to evaluate and recommend the most appropriate funding mechanism(s) to implement the plan. 6) A funding schedule, based on the interim and final compliance deadlines in the 2012 Permit, which sets forth the timeline for securing grants, loans, stormwater fees, or other funding mechanisms that will ensure funding is in place to timely implement the EWMP measures; and a. The funding schedule is implicitly laid out based on the compliance deadlines and the project implementation schedules in Table 37. 7) A demonstration that the collective mix of funding

Comment No.	NRDC, LA Waterkeeper, and Heal the Bay Comment	Los Angeles Water Board Response
	1) Selection and prioritization of the multiple financial approaches identified; 2) Identification of current funding streams, for each of the EWMP Group Members, sufficient to implement existing stormwater projects; 3) An articulation of the relative financial responsibility and contribution of each of the EWMP Group Members to EWMP implementation, and the Memorandum of Understandings or other legal documents memorializing this organization; 4) An identification of the available grants, application timelines and requirements, and the lead EWMP Group Member(s) that will undertake and coordinate the grant-writing efforts; 5) Model legislation or ordinance, and a timeline for seeking municipal stormwater fees, if any; 6) A funding schedule, based on the interim and final compliance deadlines in the 2012 Permit, which sets forth the timeline for securing grants, loans, stormwater fees, or other funding mechanisms that will ensure funding is in place to timely implement the EWMP measures; and 7) A demonstration that the collective mix of funding sources identified in the Financial Strategy is sufficient to implement all of the proposed control measures in the EWMPs and consistent with the schedules established in the EWMPs. The funding strategy aspect of the EWMP is one of, if not, *the most* important piece of the program because	sources identified in the Financial Strategy is sufficient to implement all of the proposed control measures in the EWMPs and consistent with the schedules established in the EWMPs. a. The Group has identified a wide mix of potential funding sources that could be used to implement the proposed control measures. Establishment of some of these funding sources is a work-in-progress, while funding from other sources is readily available. The Group is pursuing both immediately available funding and longer term funding sources. Regarding the commenters' concerns that there is a "failure to demonstrate a real financial commitment," the Los Angeles Water Board has made clear that once schedules are set in the EWMP, financial constraints cannot be used to justify a missed deadline. While Permittees will likely continue to refine their financial strategy and work to establish certain elements, as is appropriate, the interim and final implementation milestones in the EWMP provide sufficient accountability relative to the Los Angeles Water Board's and State Water Board's goal that implementation of the EWMPs will effectively address MS4 discharges to achieve compliance with TMDL requirements and receiving water limitations. Any extensions to the schedules in the EWMPs must be justified and approved by the Los Angeles Water Board. In addition, the Permittees in the NSMBCW Group have provided evidence of their commitment to pursue funding by presenting past stormwater projects that they have successfully implemented and enumerating the various sources of funds they have secured to implement these projects.

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	without an adequate financial strategy and commitment in place, it will be impossible for Permittees to successfully implement their EWMPs and thus the entire program development process would be a futile exercise and would only result in the delay of achieving ultimate compliance with water quality standards.	Further, it must be noted that the Los Angeles Water Board recognizes the sizable investment that Permittees will need to comply with the EWMPs and has committed to supporting, as it is able, Permittees' efforts to secure funding. Since submittal of the draft EWMPs, and in response to concerns raised regarding the cost of EWMP implementation, the Board has held and invited Permittees and other stakeholders to attend two additional workshops on the proposed EWMPs on November 5, 2015 and March 3, 2016. The costs of EWMP implementation were a central topic of both workshops. In particular, the November 2015 workshop included a staff presentation on cost considerations and a focused "funding strategies panel" that included presentations from the authors of the *Stormwater Funding Options* report prepared for the California Contract Cities Association and the League of California Cities (Los Angeles County Division); the City of Los Angeles; Heal the Bay; and the State Water Board Office of Chief Counsel. Public comments were also heard during this workshop. The Los Angeles Water Board also coordinated with USEPA Region IX to host an "East Coast/West Coast Knowledge Exchange" on local stormwater financing strategies in February 2015, which was attended by many Permittees participating in an EWMP.
III.B.i	**B. Proposed Compliance Schedules are in Violation of State or Federal Law or are Otherwise Unreasonably Long** **i. Pollutants Subject to an Established TMDL** In several instances, Permittees incorrectly incorporate interim milestones and final compliance deadlines for certain WBPCs addressed by TMDLs. For WBPCs addressed by TMDLs, the 2012 Permit requires the Permittees to incorporate the compliance schedules found in Attachments L through R of the Permit into	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP. There are no compliance schedules for California Toxics Rule (CTR) criteria in the TMDL provisions of the permit that are applicable to the NSMBCW Group. However, even if there were, it must be noted that compliance schedules for TMDLs implementing CTR criteria do not violate state or federal law. The commenters have previously raised this assertion regarding the legality of compliance schedules for CTR-based pollutants to both the Los Angeles Water Board and the State Water Board. The Los Angeles Water

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	the EWMP, and where necessary, develop interim milestones and dates for their achievement. (2012 Permit, at VI.C.5.c.) A Permittee participating in an EWMP that does not thereafter comply with the compliance schedule must instead demonstrate compliance with its interim water quality-based effluent limitations (WQBELs) and/or RWLs of the Permit. (Id. at VI.E.2.d.i(4)(c).) The ULAR EWMP sets interim and final compliance dates for the LAR Metals TMDL and Harbors Toxics TMDL based on their pre-established implementation schedules. The pollutants addressed by these TMDLs, however, are regulated by the California Toxics Rule (CTR), which establishes water quality standards for priority toxic pollutants in California's inland surface waters and enclosed bays and estuaries. The CTR also states that the compliance schedules for the regulated pollutants cannot extend for more than five years from the date of permit issuance; however, the provisions authorizing compliance schedules in the CTR expired on May 18, 2005. This means that permits issued after that date may not incorporate compliance schedules for pollutants regulated by the CTR. As a result, EWMPs pursuant to the 2012 Permit may not incorporate compliance schedules for CTR-regulated pollutants, therefore the interim and final compliance deadlines for LAR Metals TMDL and Harbor Toxics TMDLs established by the ULAR EWMP are illegal because they violate the CTR. Permittees of the ULAR EWMP Group must instead demonstrate immediate compliance with the pollutants addressed by these TMDLs.	Board responded to this comment during the Los Angeles Water Board's proceedings to adopt the permit and in response to the petition filed by the Environmental Groups with the State Water Board. In Order WQ 2015-0075, the State Water Board upheld the Los Angeles Water Board's inclusion of compliance schedules in the permit and stated the following with regards to CTR pollutants – "We also note that the State Water Board's Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005) (State Implementation Policy) and the CTR itself (40 C.F.R. § 131.38(e)) restrict the scope of compliance schedules for effluent limitations addressing the discharge of toxic pollutants; however the policy does not apply to storm water discharges. (State Implementation Policy, p.3, fn.1.)." The compliance schedules in the NSMBCW EWMP are consistent with the TMDL implementation schedules set forth in the Los Angeles Water Board's Basin Plan and the compliance schedules set forth in Attachment M for the applicable TMDLs in the Los Angeles County MS4 Permit. The EWMP also contains interim requirements consistent with the permit requirements, where appropriate.

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	For the USGR EMWP, the same situation exists. The USGR EWMP illegally incorporates interim and final compliance deadlines for SGR Metals and Impaired Tributaries Metals and Selenium TMDL and DC and Greater LA and LB Harbor Water Toxic Pollutants TMDL because the pollutants covered by these TMDLs are governed by the CTR. Because these TMDLs were established based on CTR criteria, the USGR EWMP (which is being developed pursuant to a permit issued after May 18, 2005) may not incorporate their implementation schedules, and instead, the Permittees must demonstrate immediate compliance with these CTR-regulated pollutants. In the Beach Cities EWMP, for the Dominguez Channel (DC) watershed, toxicity, copper, lead, and zinc are all addressed by a Regional Board-established TMDL and therefore their corresponding compliance schedules are incorporated into EWMP. However, copper, lead, and zinc are pollutants covered by the CTR, therefore their compliance schedules are illegal.	
III.B.ii	**B. Proposed Compliance Schedules are in Violation of State or Federal Law or are Otherwise Unreasonably Long** **ii. Pollutants in the Same Class as Those Addressed in a TMDL** In several instances, Permittees establish incorrect milestones and final compliance dates for WBPCs not addressed by a TMDL, but where the relevant pollutant is in the same class as a TMDL pollutant and for which the water body is identified as impaired on the State Board's CWA section 303(d) List. For these types of pollutants, the Permit requires the EWMP to	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP.

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	incorporate a schedule consistent with the TMDL schedule for a pollutant of the same class. (Id. at Part VI.C.a.i.) The ULAR EWMP lists the following pollutants as Category 2 WBPCs: dioxin, total mercury, copper, total thallium, and daizinon [sic]. The ULAR EWMP defines Category 2 pollutants as those "pollutants on the State Water Resources Control Board 2010 Clean Water Act Section 303(d) List of Impaired Water Bodies or those constituents that have sufficient exceedances to be listed." Table 3-5 indicates that the interim and final schedule milestones for dioxin are based on the dry and wet weather schedule for the LAR Bacteria TMDL. However, the LAR Bacteria TMDL is an incorrect compliance schedule source to use for dioxin because dioxin is not in the same pollutant class as bacteria. According to the Permit, pollutants are considered to be in the same class "if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline…" (Id. at fn 21). Dioxins do not have similar fate and transport mechanisms as bacteria and cannot be addressed by all the same control measures as bacteria. Although retention BMPs would treat for both, the ULAR EWMP does not commit to specific BMP types. Design of flow-through BMPs would likely be very different if the target pollutant is bacteria versus bacteria and dioxins. In the Beach Cities EWMP, indicator bacteria has been defined as a Category 2 WMPC for the DC watershed. The 2012 Permit defines Category 2 pollutants as those "[p]ollutants for which data indicate water quality	

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	impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment." (Id. at VI.C.5.a.ii(2).) The final compliance date for dry weather bacteria (year 2025) was selected to be consistent with the draft TMDL for indicator bacteria in the SGR Estuary and Tributaries, and the final compliance date for wet weather bacteria (year 2032) was selected to be consistent with the DC and Greater LA and Long Beach Harbor Toxic Pollutants TMDL. However, selecting compliance schedules from TMDLs from other watersheds, or for pollutants of different classes, is inconsistent with the requirements of the Permit. The DC watershed discharges to Los Angeles Harbor, impacting the inner channel, and the San Pedro and Long Beach area beaches. Thus, a more appropriate bacteria TMDL compliance schedule for consideration in the DC watershed is the implementation schedule for the Los Angeles Harbor Bacteria TMDL, the Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL, and/or the Santa Monica Bay Beaches Bacteria TMDL.	
III.B.iii	**B. Proposed Compliance Schedules are in Violation of State or Federal Law or are Otherwise Unreasonably Long** **iii. Pollutants Not in the Same Class as Those Addressed in a TMDL** In at least one instance, Permittees establish an incorrect compliance schedule for WBPCs not addressed by a TMDL, and not in the same class as a TMDL pollutant but for which the water body is identified as impaired on the State Board's CWA	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP.

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	section 303(d) List. For these types of pollutants, if retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP must either have a final compliance deadline within the 5-year permit term or Permittees are expected to initiate development of a stakeholder-proposed TMDL and incorporate a compliance schedule consistent with the TMDL. (Id. at VI.C.2.a.ii(5).) The USGR EWMP states that indicator organisms (bacteria) are the sole Group B WBPC. The USGR EWMP defines Group B pollutants as those "pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the 303(d) List as of December 28, 2012." The USGR EWMP then proposes a 25-year schedule for bacteria compliance in order to mimic the scheduling adopted in TMDLs developed for other areas of the Basin, namely the Los Angeles River Bacteria TMDL. However, according to Permit requirements, the USGR EWMP Group must either propose a final compliance date within the 5-year term of the Permit, or initiate a stakeholder-proposed TMDL and incorporate the implementation schedule for that TMDL. Because the Regional Board recently approved a bacteria TMDL covering the SGR Watershed, at a minimum, the USGR EWMP schedule for bacteria should be consistent with the Regional Board-adopted TMDL, which proposes a 20-year schedule for compliance, as opposed to the currently proposed schedule of 25 years from the Los Angeles River Bacteria TMDL.	
III.B.iv	**B. Proposed Compliance Schedules are in Violation of State or Federal Law or are Otherwise**	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP.

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	Unreasonably Long **iv. Exceedances of RWLs Not Addressed by a TMDL** Lastly, for exceedances of RWLs not addressed by a TMDL, the EWMP must include milestones based on measurable criteria or indicators and a schedule for achieving the milestones, and demonstrate that the RWLs will be achieved "as soon as possible." (Id. at VI.C. 5.c. iii.) The time between interim dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint and dates shall relate to taking a specific action or meeting a milestone. (Id. at VI.C.2.a.iii(2)(c).) For the ULAR EWMP, interim and final wet weather Category 3 WBPCs milestones are January 11, 2024 and January 11, 2028, respectively. The ULAR EWMP defines Category 3 pollutants are defined as those "pollutants with observed exceedances that are too infrequent to be listed, and parameters that are not considered typical pollutants." Permittees of the ULAR EWMP do not provide any explanation for why and how this schedule meets the "as soon as possible" standard; at the very least, some level of analysis should be provided to show how Permittees arrived at this schedule. Furthermore, Permittees fail to provide interim milestones, in violation of Permit requirements. The USGR EWMP concludes that most of the WBPCs in Group C are of the same class as the SGR Metals TMDL WBPCs, therefore it is proposed that the Group C WBPCs be linked to compliance schedules established in the SGR Metals TMDL Implementation Plan. The final compliance deadline for SGR Metals	

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	TMDL is 2032. The USGR EWMP defines Group C pollutants as those "pollutants for which there are exceedances of RWLs, but for which the water body is not identified as impaired on the 303(d) List as of December 28, 2012." The Group C pollutants identified by the USGR EWMP are: sulfate, chloride, alpha-endosulfan, MBAS, and lindane. However, fate and transport characteristics of these pollutants are different from that of metals, and potential control measures may be different, therefore these should not be categorized as being in the same class of pollutants as those addressed in the SGR Metals TMDL. Therefore, Permittees' reliance on the implementation schedule for the SGR Metals TMDL for Group C pollutants is misplaced.	
III.C	**C. Permittees' Use of the Exceedance Volume Approach is Flawed** For the ULAR and USGR EWMPs, Permittees use a concept called "Exceedance Volume" to establish targets based on BMP capacity rather than strictly BMP load reduction. The Exceedance Volume was chosen based on an analysis of the 90th percentile 24-hour storm volume over a 10-year analysis period. The Exceedance Volume is the portion of the storm volume associated with concentrations exceeding WQBELs. Environmental Groups acknowledge that there are benefits to the Exceedance Volume metric, in particular with bacteria where concentrations are known to vary widely; however, this approach is nevertheless problematic for several reasons detailed below. First, in parts of the EWMPs, for example for the interim targets, load reductions are used as a measure	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP. The NSMBCW EWMP does not use an "Exceedance Volume" approach.

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	of progress. It is assumed that these load reductions are based on the load produced from the Exceedance Volume, but this is problematic because as the EWMPs acknowledge, concentrations of pollutants may vary significantly from one storm to another. In other words, the 90th percentile storm volume may not represent the 90th percentile load. This issue is of particular concern since the EWMPs define the compliance strategy in terms of volumes of stormwater and non-stormwater to be managed rather than by specific project lists, and thus allow for a tremendous amount of flexibility with regards to project location and project type. As the two EWMPs note, "the identified BMPs (and BMP preferences) will likely evolve over the course of adaptive management…." The EWMPs note that as projects change, the EWMP Groups will demonstrate equivalency between projects. While demonstrating this equivalency is critical to the success of the Exceedance Volume approach, the EWMPs fall short of providing precise details on how this will be accomplished. Of particular concern are situations where the actual BMP type is switched, for instance, from a retention-type BMP to a flow-through BMP. Establishing equivalency in this case necessitates some translation from volume managed to actual load reduced, but as noted above, it is not clear how this would be accomplished and whether the load associated with the Exceedance Volume is appropriate. Further, and importantly, the Exceedance Volume approach fails to take into account differences in loading from different land uses – load reductions from	

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	BMPs tributary to primarily low density residential areas will not be equivalent to load reductions from BMPs tributary to primarily industrial land uses, for instance, regardless of whether their actual volumetric capacities are identical. If specific projects in specific locations were outlined in the EWMPs, this may not be an issue; however, as noted above, both EWMPs instead set targets of Exceedance Volume managed rather than specific project lists. Finally, because the EWMPs use the Exceedance Volume approach to set metrics for compliance rather than detailing specific projects, it is impossible to evaluate error in the proposed compliance strategy and thereby establish the degree of confidence in the proposed plans to achieve compliance with water quality standards.	
III.D	**D. The Implementation Strategy Relies Too Heavily on the Adaptive Management Process, Which Itself Relies on Flawed and Inadequate Monitoring Programs** Due to the fact that the ULAR and USGR EWMPs use the Exceedance Volume approach to establish a "recipe for compliance" rather than name specific projects that will be implemented, the robustness of the adaptive management process is critical to success of the approach. As noted in the previous section, a detailed methodology must be developed to establish equivalency between projects selected and volume targets, particularly in cases where flow-through, rather than retention BMPs are proposed. The adaptive management sections in both EWMPs, however, do not come close to providing the level of detail necessary to achieve these goals. These sections merely describe the need to show equivalency, while failing to actually describe how this	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP. The NSMBCW EWMP Group does not use the "Exceedance Volume" approach, so the concerns expressed related to this approach are not applicable to this EWMP. Nevertheless, Part VI.C.8 of the Los Angeles County MS4 Permit specifies provisions for the Adaptive Management process. Adaptive management is an accepted process that is used in many fields, including watershed and stormwater management. The Los Angeles Water Board has also provided additional direction to EWMP groups on the adaptive management process and the Board's expectations for the scope of this periodic program review and updating process. The Board found that the level of reliance on adaptive management in the Group's EWMP is appropriate given the time span for program implementation. The comments on the CIMPs are outside the scope of the Los

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	would be accomplished. Another issue that is significantly related to the adaptive management process and critical to its success is the strength and adequacy of the Coordinated Integrated Monitoring Programs (CIMPs). In addition to the EWMPs, Permittees also develop CIMPs to collect water quality data and measure the effectiveness of the EWMPs. The CIMPs, therefore, is the ultimate driver for Permittees' decisions regarding future adaptive management of their EWMPs. However, as Environmental Groups have pointed out previously, the draft CIMPs developed by the EWMP Groups suffered from a litany of flaws. Unfortunately, Permittees' revised CIMPs failed to address most of the Environmental Groups' concerns. Despite the deficiencies that remain in the revised CIMPs, the Regional Board Executive Officer recently conditionally approved all of the revised monitoring programs; however, the conditions are themselves insufficient because they fail to address all of the CIMP inadequacies. While Environmental Groups have not seen the final draft CIMPs that were submitted by the EWMP Groups pursuant to the conditional approval letters (and we reserve the right to comment on those final CIMPs once they are issued to the public), the current state of the revised CIMPs is alarming because without an adequate CIMP in place, Permittees cannot engage in a meaningful adaptive management process. The State Board has stated that the adaptive management provisions of the 2012 Permit is one of the main reasons the EWMP process can ensure the necessary	Angeles Water Board's review of the EWMPs. The Environmental Groups' comments on the draft CIMPs (letter dated 9/16/2014), some of which are also raised in this comment letter (in Appendix A) were considered during the Board's review of the CIMPs and prior to the approval of each CIMP. The Los Angeles Water Board disagrees with the commenters that the NSMBCW Group's monitoring programs are flawed and inadequate. The approved NSMBCW CIMP adequately addresses requirements of Attachment E of the Los Angeles County MS4 Permit. Therefore, the NSMBCW Group's reliance on the CIMP as part of their adaptive management approach is appropriate and consistent with permit requirements.

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	rigor and accountability to effectively and timely achieve water quality standards. However, the success of the adaptive management process depends on the effectiveness of the CIMPs, therefore, at a minimum, the CIMPs must meet the substantive requirements of the Permit in order to ensure that Permittees can appropriately adapt the EWMP in response to monitoring results and make modifications only when necessary.	
III.E	**E. There is Insufficient Analysis to Back up the Claims About What can be Achieved Through Green Streets Implementation and Regional BMPs Implemented on Privately Owned Lands** The ULAR and USGR EWMPs rely on a tremendous amount of green streets implementation for compliance. While Environmental Groups are in favor of distributed projects conceptually, practically speaking, it is unclear whether the degree of implementation proposed is achievable. We do, however, commend the EWMP Groups for discussing the need for streamlining the process of green infrastructure project implementation, but more analysis is needed to demonstrate that the amount of proposed green street projects are actually feasible and achievable. In addition, the EWMPs also rely heavily on regional BMPs implemented on privately owned lands to achieve compliance, with this portion of the "recipe" accounting for around 30% of the total capacity. However, due to the uncertainty around the ability to acquire such lands as well as the associated costs of land acquisition, the practicality and achievability of this goal is questionable.	This comment was not raised for the NSMBCW EWMP.
III.F	**F. The EWMPs Lack Sufficient Detail to Achieve Load Reductions Assumed From Institutional**	As part of the Technical Advisory Committee (TAC) RAA subcommittee meetings, a 5% pollutant load reduction as a

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	BMPs In all of the EWMPs reviewed by Environmental Groups, institutional BMPs are assumed to account for between 5% and 10% of the load reduction with no data to support these assumptions. These goals may be achievable but require a structure dedicated to their attainment. However, there is little evidence of the development of an institutional framework and programs to reach these levels, either in the EWMPs or, apparently, anywhere else in the jurisdiction's organizations. The mechanisms are straightforward technologically but much more complex institutionally. Applying them successfully relies on a host of actions broadly spread through the affected communities, the participation of various jurisdictional agencies and numerous agency personnel, and cooperation by many private citizens. Lacking a structure to implement them makes the assumptions questionable and requires evaluation of the consequences of not meeting the goals. Further, the ULAR EWMP suggests that institutional controls will be sufficient to achieve compliance with Category 2 and 3 dry weather metals WBPCs, while the USGR EWMP states that these will be sufficient to control all dry weather metals. As stated above, there is little data and little structure built into the EWMPs to provide assurance that these load reductions will be achievable through these programs. In addition, it is not clear how it was determined that a 5% or 10% reduction would be what is required to achieve compliance with a number of the metals WBPCs since zinc, copper, and lead were the only metals that were modeled. The EWMPs state that this assumption is	result of implementing the additional requirements included in the provisions for Permittees' stormwater management programs/minimum control measures (MCMs) in the Los Angeles County MS4 Permit was determined to be reasonable. Section 5.2.3.1 of the NSMBCW revised EWMP addresses this: "A combined credit of 5 percent load reduction was applied for all pollutants to represent the cumulative benefit from all programmatic BMPs in addition to MCM enhancements the NSMBCW EWMP Group will implement." Stormwater management programs and MCMs have been implemented by Permittees in prior permit iterations. Hence, based on the reporting in Annual Reports, a reasonable assumption can be made that Permittees already have a structure to implement institutional control measures, including Enhanced MCMs. Requiring the NSMBCW Group to provide the baseline implementation structure beyond what is currently detailed in the EWMP is not required by the Permit.

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	made in part due to the infrequency of dry weather metals exceedances, but it seems that the ability for minimum control measures to address these exceedances should be more dependent on the actual magnitude of the exceedances rather than their frequency.	
III.G	**G. In at Least Two Instances, the RAA's Model Calibration Regularly Diverges From Observed Values at Higher Stream Flows** For the ULAR and USGR EWMPs, although the model calibration met the parameters specified in the RAA Guidelines, it seems to regularly diverge from observed values at higher stream flows. Both the ULAR and USGR EWMPs are designed around a relatively extreme condition (i.e., the 90th percentile storm), yet it is not clear whether an analysis was conducted to determine how the model would perform specifically at the stream flows expected from such a storm.	This comment was not raised for, nor is it applicable to, the NSMBCW EWMP.
III.H	**H. The Analysis for LID BMPs is Limited to the Consideration of Only Two Approaches: Biofiltration and Bioretention** In all of the draft EWMPs that Environmental Groups reviewed, the analyses assume low impact development (LID) BMPs would be a 50/50 split between biofiltration (underdrained) and bioretention (not underdrained). First, these two practices are not the only LID BMPs that might be chosen for the applications, yet others received zero consideration. Second, their capabilities differ considerably. Open-draining bioretention can infiltrate and evaporate a large fraction, even all, of the influent runoff, thus greatly or even fully diminishing pollutant loadings. The best evidence is that underdrained biofiltration, as	Comment considered. Given that the permit requires that Permittees utilize, in order of priority, bioretention and then biofiltration BMPs in the Planning and Land Development provisions, it is reasonable that the EWMP group similarly focuses its watershed analysis on these two broad categories of LID BMP approaches in its EWMP. In addition, biofiltration and bioretention BMPs are among the most effective for a wide range of pollutants based on data in the WERF/ASCE database. Further, choosing distributed LID BMPs to achieve the water quality requirements of the permit is at the discretion of Permittees. Apart from the RAA and other permit requirements, additional analysis of other LID BMP approaches is not required by the permit.

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	normally constructed, is limited to withholding through evaporation roughly 30% of the runoff received. Load reductions also benefit from pollutant concentration decreases but generally do not approach those achieved with open-draining bioretention. Furthermore, there was no examination in the EWMPs of the feasibility of reaching 50% bioretention capability, or, alternatively, of surpassing it and doing better with load reduction. While the best procedure would be to conduct that examination, as well as to consider other LID BMPs, a substitute in the absence of these steps is to conduct a sensitivity analysis to examine the implications of other arrangements (e.g., a 70/30 or 30/ 70 split) and see how the results change. The purpose in this case would be to add assurance that the LID BMPs proposed would actually reach the target load reductions (TLRs) if field conditions ultimately dictate a different scenario than represented by the primary model assumption.	
III.I	**I. The Assumptions Regarding Redevelopment are Inadequate** For the NSMBCW and Beach Cities EWMPs, achieving TLRs further relies on BMP installation during redevelopment: (1) from 2003 to the present – as prescribed by the 2001 MS4 Permit's Standard Urban Stormwater Management Program (SUSMP) provisions; and (2) from the present forward – according to the 2012 Permit's LID requirements. However, the Permittees did not conduct an examination of actual achievements of stormwater treatment BMPs in the past. For various reasons, regulatory requirements are usually not completely fulfilled. Furthermore, there was no particular attention	The RAA implicitly incorporates post-construction BMP implementation related to new development and significant redevelopment under the 2001 Los Angeles County MS4 Permit's SUSMP provisions. The RAA included validation of the modeling methodology; specifically, the Group verified the linkage between modeled pollutant loads and observed exceedance days using shoreline monitoring data at Topanga Canyon between 2005 and 2013. The period reflects the period during which the 2001 MS4 Permit's SUSMP provisions were in effect. The analysis showed a reasonable correlation between modeled loads and observed exceedance days. Additional analysis is not required by the permit. In its Review Letter, the Los Angeles Water Board commented

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	given to an enhanced institutional framework and programs to advance application of the present Permit requirements. As with the assumptions regarding programmatic BMPs and residential incentives, lacking verification of historical performance and a solid structure to advance future implementation makes the assumptions uncertain and requires appraisal of the repercussions of that uncertainty. Moreover, Permittees' reliance on the redevelopment rates used in the EWMPs lacks justification. For example, in the Beach Cities EWMP, BMPs added through redevelopment, in the past and projected in the future, were based on redevelopment rate data from the Cities of Hermosa Beach and Manhattan Beach and, otherwise, from the Los Angeles region. There is little explanation of how the specific city rates were obtained, and no explanation at all for the regional ones. On the presumption that they are statistical means over some period, they have some statistical variance, particularly because the period over which they were likely to be derived experienced substantial economic fluctuations inevitably affecting redevelopment. This variance is one more source lending uncertainty to predictions that should be quantified and incorporated in the overall potential error analysis. For the other three EWMPs that Environmental Groups reviewed, BMPs added through redevelopment, in the past and projected in the future, were based on redevelopment rate data from the Los Angeles region. Again, there is no explanation of how these rates were obtained, and as explained above, the statistic variance is problematic.	that the EWMP Group "[f]urther substantiate or reference redevelopment rates on pages 89-90 of the EWMP. Redevelopment rates should be tracked and evaluated via the adaptive management process, to confirm or adjust initial assumptions." As implementation progresses, the Group will be required to evaluate its assumptions regarding redevelopment rates and modify its EWMP, if necessary. The revised EWMP was responsive to this comment and commits to updating the values based on collected data, as necessary.
III.J	**J. In at Least Two Instances, There are Several**	Comment considered. Note that Figure 10 is presented as

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	Potential Sources of Error Associated with the Data Underlying the Model Calibration In the NSMBCW and Beach Cities EWMPs, there are several potential sources of error associated with the data underlying modeling, with no quantitative analysis of these sources and the associated level of certainty in the forecasts of load reductions and BMPs needed to accomplish them. Potential error sources include: • For the NSMBCW EWMP, the model flow calibration was rated as "very good" according to the Regional Board's RAA Guidance, but still has associated potential error, as evident in the deviation of points from the diagonal line in Figure 10. These dispersions should be quantified (in terms of confidence limits or some other statistical measure of the excursion of model predictions from measured data) and taken into account in an overall analysis of the level of certainty in the model predictions and compliance demonstration. • For the NSMBCW EWMP, the model water quality calibration is not as "good" as the flow calibration. Environmental Groups do not agree with the EWMP's conclusion that Figure 11 portrays "very good" agreement. The distributions of modeled versus measured fecal coliform measurements actually deviate fairly substantially, especially in the higher portion of the data range. Again, this dispersion should be quantified and included in the overall certainty analysis.	Figure 11 in the revised NSMBCW EWMP. An additional figure (Figure 12) was included in response to the Los Angeles Water Board's comments on the draft EWMP, which focuses on the frequency curve for the annual runoff volume. Board staff compared the model results against the observed results at the 90% level. Board staff found that the model results were higher, indicating that the model is a conservative one. In addition, visual examination of the graph alone cannot determine the quality of the calibration between predicted and actual runoff volume. The model performance with respect to hydrology based on the calibration is considered "very good" with an average relative prediction error of -0.24%. Regarding Figure 11 in the draft EWMP (which is Figure 13 in the revised EWMP), the data on fecal coliform that were used are limited (4 data points) and based on data collected from 2001-2004. The Group commits to reevaluating EMCs as more data become available. In addition to the model calibration in Section 4.5.2 of the revised EWMP, the Group also validated its model using recent shoreline bacteria monitoring results from Leo Carrillo Beach and Topanga Beach. These validation steps illustrated a reasonable correlation between the modeled results and observed water quality. Regarding Figure 12 in the draft EWMP (which is Figure 14 in the revised EWMP), each of the 7 data points represents *an annual number of exceedance days*; in other words, these 7 data points represent water quality conditions over 7 years. A R^2 (correlation coefficient) of 0.83 is considered good.[2] As noted above, the Group commits to reevaluating model inputs as more monitoring data are available.

[2] Any R^2 above 0.75 is considered good.

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	• Neither EWMP directly models expected compliance with the bacteria exceedance day limits in the TMDL. Instead, a relationship was developed between fecal coliform loadings and exceedance days, so that the latter can be estimated from a model prediction of the former variable. Figure 12 and Figure 2-10 present the relationship, a statistical regression equation, for the NSMBWC and Beach Cities EWMPs, respectively. The R2 value presented on the graphs indicates that loading explains 83% of the variance in exceedance days. While this represents a good relationship, it is not perfect and has potential error associated with it. It is also a product of only seven data points, and a relatively small data set itself spreads the confidence interval associated with a predictive relationship. As with the other potential error sources discussed, this one too should be quantified and brought into the overall certainty analysis. • When it was necessary to convert Escherichia coli (E. coli) measurements to fecal coliforms (FC), a ratio of E. coli/FC = 0.85 was assumed. A U.S. Geological Survey study found substantial variation in the ratio and quantified confidence limits. This is an additional potential source of error that should be taken into account in forecasting load reductions and specifying BMPs sufficient to provide a low risk of not meeting target reductions.	The USGS study found a strong correlation between E. coli and fecal coliform concentrations, but also notes that the ratio between E. coli and fecal coliform concentrations is often site-specific. The USGS study examined water quality data from sites in Ohio. The ratio of 0.85 was developed based on local water quality data from the Los Angeles Region, and has been accepted by the Los Angeles Water Board as a site-specific ratio for the Los Angeles Region.
III.K	**K. The Margins for Error in Reaching TLRs as a Result of BMP Implementation are Extremely Small** As explained above, for the NSMBCW and Beach	Comment considered. Based on its review of the draft EWMP, the Los Angeles Water Board concluded that the analysis demonstrated reasonable assurance that the TLR would be

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	Cities EWMPs in particular, there are a number of assumptions and potential error sources embedded in the analyses that create uncertainty in the predictions of load reductions achievable with the BMPs thought to be in place and proposed for future implementation. For NSMBCW, the Permittees did not make any attempt to quantify these uncertainties and their effects on the demonstration of compliance. Table 27 summarizes that demonstration. Its last two columns show cumulative fecal coliform load reductions (resulting from all BMPs) and TLRs. Comparison of the data in these two columns shows very small margins for error in reaching the TLRs forecast to result from their implementation. For non-zero TLRs, the difference between load reduction provided and TLRs for the various analysis regions averages only 1.98%. As discussed above and shown in the table, substantial contributions to load reductions are from assumed 5% accruing from programmatic BMPs, 10% participation in home downspout disconnection, and BMPs already installed during redevelopment. The fifth column of Table 27 shows the load reductions estimated to occur as a result of downspout disconnection and redevelopment BMPs. The overall average is 4.91%. Thus, the unexamined assumptions together are credited for about 10% loading reduction. From the perspective of averages, if they fall short by just 2%, the very small 1.98% compliance margin will vanish. Similarly, for Beach Cities, the Permittees made no attempt to quantify the uncertainties created by the EWMP's assumptions and potential error sources and	achieved. The margins of error in the draft EWMP are in addition to the existing margins of safety included in the TMDLs. The Los Angeles County MS4 Permit does not require the Group to provide error margins for TLRs. Note that as per Part VI.C.8.a.i.(5) of the Permit, adaptive management requires the Group to evaluate BMP effectiveness. Furthermore, see the response to Comment No. III.F for response on assumptions for institutional BMPs.

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	their effects on the wet weather RAA demonstration of compliance. Tables 2-16 and 3-12 summarize that demonstration for the SMB watershed and DC watershed, respectively. Columns toward the right side of each table show cumulative pollutant load reductions (resulting from all BMPs) and TLRs. Only two of 18 SMB watershed analysis regions were modeled to have fecal coliform TLRs. Comparison of the data for these two regions in Table 2-16 shows very small margins for error in reaching the TLRs forecast to result from BMP implementation – only 1% in one case and 4% in the other. As discussed above and shown in the table, substantial, and questionable, contributions to loading reductions are from assumptions: (1) 5% accruing from programmatic BMPs, (2) 10% participation in home downspout disconnection, (3) BMPs already installed during redevelopment, and (4) assumptions that Caltrans and industrial areas will achieve their permit requirements. In the case with only 1% margin between load reduction (46% of base load) and TLR (45% of base load), these highly uncertain sources of reduced pollutant loadings are assumed to account in total for 11% of the 46%. In the case with 4% margin between loading reduction (50% of base load) and TLR (46% of base load), these highly uncertain sources of reduced pollutant loadings are again assumed to account in total for 11% of the 50%. The DC watershed has zinc, copper, and fecal coliform WBPCs. Only the Redondo Beach and Manhattan Beach portions of the watershed were modeled for the wet weather RAA. The Torrance part was not appropriately modeled or subjected to an adequate	

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	RAA, because beyond some non-structural measures, Torrance has committed only to catch basin inserts in a fraction (less than one-third) of its drain inlets. Because estimated load reductions are associated only with individual inserts, the estimates cannot be applied to the entire analysis region. Failure to perform an adequate RAA for a significant part of the watershed is a violation of Permit requirements, and undermines the validity of the RAA and the EWMP. For the Redondo Beach and Manhattan Beach portions of the DC watershed, Table 3-12 indicates the final copper and fecal coliform TLRs to be met handily, but the final zinc and interim fecal coliform TLR achievements to be marginal (0-0.1% difference in estimated load reduction and the respective TLRs for interim fecal coliforms and 3% for zinc). The questionable assumptions regarding programmatic BMPs, home downspout disconnection, BMPs already installed during redevelopment, and the Caltrans and industrial permit compliance are credited for 20% of the 79% loading reduction forecast for zinc (against a TLR of 76%), with 6% from the latter exceptionably doubtful assumption. Thus, there is no real margin, the situation also existing for the interim fecal coliform requirements. The healthy margin for copper (23%) is heavily influenced by brake pad reduction, which is thus crucial to achieve. The margin for the final fecal coliform TLR is much greater (41%) and accounted for in large measure by new regional and distributed BMPs, the completion of which is thus also crucial. The larger point underlying all of the discussion in this section is that, as pointed out above, there are more	

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	potential sources of error (beyond the assumptions Environmental Groups have pointed out thus far). In the face of all this uncertainty, it is highly unlikely that the generally extremely slim margins allowed will lead to compliance. The responsible and essential procedure is to quantify all of these potential sources and determine what BMPs are necessary to give some set level of assurance (e.g., 90%) of achieving compliance.	
III.L	**L. In at Least Two Instances, Permittees Fail to Consider the Possible Intermingling of Privately Owned Stormwater Infrastructure Within the Full MS4 System** The analyses in the NSMBCW and Beach Cities EWMPs were based entirely on publically owned drainage outfalls, without consideration of intermingling of privately owned stormwater infrastructure with the MS4 system. The MS4 system is defined by the federal regulations as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)… [o]wned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district…" Comingled "public" and "private" stormwater, therefore, is regulated by the Permit, and is the responsibility of the municipal Permittees. Thus, the NSMBCW and Beach Cities EWMPs illegally exclude the analysis of a significant source of pollutant loads to receiving waters, and thereby limit the analysis of reductions required on that basis. Without inclusion of all MS4	Comment considered. Federal regulations at 40 CFR section 122.26(b)(8) define a MS4 as the following: *Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):* • *Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;* • *Designed or used for collecting or conveying storm water;* • *Which is not a combined sewer; and* • *Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.*

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	discharges, the EWMPs cannot ensure compliance with RWLs or TMDL-specific limitations, and therefore do not comply with the requirements of the 2012 Permit.	By its own terms, this definition does not include privately owned stormwater infrastructure. As such, privately owned stormwater infrastructure is not regulated by the Los Angeles County MS4 Permit. However, to the extent that there are discharges from privately owned infrastructure to the Permittees' MS4s, those discharged are regulated by the Los Angeles County MS4 Permit and the Permittees have provided documentation that they possess the legal authority to control such discharges through their MS4s, consistent with Part VI.A.2 of the permit. Further, the Los Angeles Water Board commented in its Review Letter that the Group "Address any intermingling of discharges from privately owned stormwater infrastructure into the MS4 in the appropriate elements of the revised EWMP." The revised NSMBCW EWMP included clarification responsive to this comment, stating that, "[t]he RAA was conducted based on land uses and was inclusive of private property/drains within the EWMP Area. As a result, the EWMP inherently addresses runoff from private property that enters the NSMBCW MS4."
III.M	**M. In at Least One Instance, No Analysis of Standards Applicable to Discharges to ASBS are Included, and Existing Data for Discharges to ASBS are Not Included in the Modeling Exercise or the EWMP** Beyond referencing the draft Compliance Plan and draft Pollution Prevention Plan (ASBS Plans), the NSMBCW EWMP ignores the standards applicable to the receiving waters, designated as Areas of Special Biological Significance (ASBS), as well as the data collected in the receiving waters pursuant to the State Board's ASBS program. The NSMBCW EWMP's approach to ASBS discharges is inadequate for at	This comment was considered and reflected in the Los Angeles Water Board's Review Letter, as appropriate. As an initial matter, the ASBS Pollution Prevention Plan is for non-point source discharges; therefore, it is not applicable to MS4 discharges. As a result, its adequacy is outside the scope of the Los Angeles Water Board's solicitation of public comments related to the draft EWMPs. The ASBS 24 Compliance Plan submitted by the County of Los Angeles and the City of Malibu is specifically geared toward addressing MS4 discharges from the area within the EWMP that drains to ASBS 24. In its Review Letter, the Los

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	least two reasons: 1) The draft ASBS Plans are inadequate and do not meet the requirement of either the ASBS Exception or the 2012 Permit; 2) The EWMP applies the wrong water quality standards, and ignores extensive available sampling data, rendering its analysis incomplete and inconsistent with Permit requirements. NRDC and Los Angeles Waterkeeper submitted comments on the draft ASBS Plans detailing their inadequacies in January 2015. In summary: • The ASBS Plans fail to address non-stormwater discharges, which are strictly prohibited into the ASBS. Dry weather discharges were observed by Permittees 73 times in 2012 and 2013, even with reconnaissance on only eight dates; yet, the ASBS Plans propose nothing beyond existing outreach and education programs. • The ASBS Plans improperly exempt pipes smaller than 18 inches diameter from meaningful pollution control. This arbitrary and illegal definition eliminates dozens of MS4 discharge pipes from control. • Receiving water sampling conducted pursuant to ASBS requirements demonstrate alteration of natural water quality concerning selenium, total polyaromatic hydrocarbon, and mercury. Although end-of-pipe sampling demonstrates exceedances of Ocean Plan Instantaneous Maximum limits for ammonia and a number of	Angeles Water Board made several comments to the NSMBCW EWMP Group regarding its consideration of the ASBS within the NSMBCW boundaries. The revised EWMP was responsive to these comments. Specifically, the Los Angeles Water Board made the following comments. Following each comment are the actions taken/Group's responses to these comments (indicated in italics). 1. As part of the EWMP, provide specificity on the number of MS4 outfalls and their ownership within the ASBS 24 area. Ensure consistency with "Area of Special Biological Significance 24, Compliance Plan for the County of Los Angeles and City of Malibu, September 20, 2015" (ASBS 24 Compliance Plan). *The number of outfalls has been added to the EWMP, and consistency with the ASBS Compliance Plan has been verified.* 2. Integrate the ASBS 24 Compliance Plan into the EWMP. a. Particular attention should be paid to integrating the actions in sections 3 and sections 6 into the appropriate elements of the EWMP. b. Ensure the actions in the EWMP are in alignment with the schedule (section 8) in the ASBS Compliance Plan. *The ASBS 24 Compliance Plan has been integrated by way of reference, and BMPs/MCMs between the EWMP and Compliance Plan have been verified to be consistent.* 3. Discuss in the EWMP any unique watershed control measures to address MS4 discharges of non-stormwater and stormwater that are being taken within the ASBS 24

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	metals, the ASBS Plans neither acknowledge these exceedances, nor propose to meet compliance, either by meeting Ocean Plan limits or reducing baseline pollutant discharges by at least 90%. Rather than relying on these flawed plans, the NSMBCW EWMP must conduct its own RAA, based on all available data, and the applicable standards. Because the ASBS was the focus of regulatory attention at the State Board level for a number of years, considerable data is available. The State Board collected outfall and receiving water data in developing the ASBS Exception. Under the terms of the Exception, Los Angeles County and Malibu collected outfall and receiving water data beginning in 2013. However, the NSMBCW EWMP nowhere references this data – data collected by the municipalities conducting the EWMP analysis – and apparently failed to include the data in the modeling exercise. Further, the ASBS Exception requires that dischargers develop plans to achieve either: 1) Ocean Plan Instantaneous Maximum limits at all discharges points, or 2) 90% reduction in pollutant loads based on an articulated baseline calculation. Compliance is required within six years, or 2019. Again, the NSMBCW EWMP fails completely to consider these applicable standards, or the compliance deadline, as set out in the ASBS Exception. Because the NSMBCW EWMP effectively eliminates consideration of ASBS data, or ASBS regulatory requirements, it fails to comply with state and federal law, and the requirements of the 2012 Permit.	that are not being taken in areas outside of the ASBS but still within the NSMB EWMP area. *There are no unique watershed control measures that are specific to the ASBS. Rather, the NSMBCW EWMP Group has proactively chosen to implement these BMPs throughout the entire EWMP Area, as applicable.* As noted above, the revised EWMP incorporates by reference the ASBS Compliance Plan. Regarding the ASBS Compliance Plan itself, the County of Los Angeles and the City of Malibu initially submitted a draft ASBS Compliance Plan in September 2014. The State Water Resources Control Board provided comments on the draft ASBS Compliance Plan on March 17, 2015. The County and City submitted a revised ASBS Compliance Plan in September 2015 and the State Water Board is in the process of reviewing the revised plan. Comments on the adequacy of the revised ASBS Compliance Plan submitted pursuant to the requirements of the Special Protections provisions of the California Ocean Plan are therefore outside the scope of the EWMP review process. However, if there are any inconsistencies between the ASBS Compliance Plan and the EWMP after the State Water Board's review, the Los Angeles Water Board will require the NSMBCW Group to update its EWMP through the adaptive management process to ensure consistency between the two documents. Such updates may include, but are not limited to, incorporation of additional category 3 pollutants based on an evaluation of monitoring data from the ASBS relative to applicable water quality objectives. Finally, based on review of the draft EWMP, the Los Angeles Water Board determined that applicable water quality

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		standards were referenced and appropriate monitoring data were reviewed, including those data presented in the ASBS Compliance Plan, which as noted above, is incorporated by reference into the revised EWMP. Regarding the compliance deadline of 2019 for implementation of the ASBS requirements of the California Ocean Plan, the analysis and conclusions in the ASBS 24 Compliance Plan submitted by the County of Los Angeles and City of Malibu indicate that no additional structural controls (BMPs) are required based on the guidance presented within the Special Protections provisions. As noted above, the revised ASBS Compliance Plan is still under review by the State Water Board.
III.N	**N. There is Insufficient Data to Demonstrate Reasonable Assurance of Compliance with Applicable Dry Weather Permit Limits** For NSMBCW, the EWMP assumes reasonable assurance is demonstrated for a compliance monitoring location (CML) if any one of four criteria is met, namely: • Diversion or infiltration eliminates all dry weather discharge, or disinfection is provided and is effective (claimed for two CMLs); • There are no jurisdictionally owned MS4 outfalls (claimed for eight CMLs); • If all bacteria exceedance day requirements are met in four of the past five years and in the last two years (claimed for one CML); and/or • If dry weather discharges have been eliminated (claimed for 18 CMLs). Two of these claims are very questionable. Given the	Comment considered. The Los Angeles Water Board reviewed the Group's RAA for dry weather related to the SMB Beaches Bacteria TMDL requirements and found it to be appropriate; note, however, that the RAA was not required since the final dry weather bacteria TMDL deadlines have passed. See also response to Comment No. III.L regarding possible intermingling of privately owned stormwater infrastructure within the MS4. The Los Angeles Water Board has required continued re-evaluation of the dry weather RAA as new data are collected. In its Review Letter, the Los Angeles Water Board commented: "Include in the EWMP a plan to reevaluate the dry weather RAA (analysis presented in Table 29, page 111) with updated data biennially per the adaptive management process where there are any MS4 outfalls (major and minor)." The revised EWMP was responsive to this comment.

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	EWMP's failure to consider the interrelationship between private and public drainage, the second criterion and the claims asserted regarding it are problematic. Concerning the fourth criterion and the extensive claims associated with it, outfalls were screened on only eight dates in 2014 and 2015 for the EWMP effort. There is no detail on the observations, only the inclusion of a note to Table 29 stating that the associated column entry of "yes" indicates that no dry weather flows were present. However, the data collected in the ASBS assessment and summarized above shows extensive dry weather discharges occurring in the ASBS portion of the study area.	
III.O	**O. In at Least Two Instances, There is Very Little to No Discussion on How Trash Reduction Requirements will be Met** Both the NSMBCW and Beach Cities EWMPs are very weak on specifying how trash reduction requirements will be met. The plans say no more than there will be phased catch basin retrofits to meet the 20% per year reduction targets. Moreover, the plans give no information, or any sign of thinking about, such subjects as: (1) what trash source controls might be brought to bear on the problem, (2) the equipment that will be used in the retrofits, (3) the rate at which it must be installed to meet the targets, (4) where and when it can be most strategically placed, and (5) what options there are if targets are not met.	Comment was considered and reflected in the Los Angeles Water Board's Review Letter, as appropriate. The Board made several comments pertaining to the discussion of trash controls in the draft EWMP. The NSMBCW Group made revisions to Sections 2.1.2 and 7.2.2 in the revised EWMP, which were responsive to the Board's comments.
III.P	**P. The Claims About Removal Efficiencies by Catch Basin Inserts are Questionable** Appendix B of the Beach Cities EWMP covers the RAA for the DC watershed within the city of Torrance. The central feature of Torrance's proposed	This comment was not raised for, nor applicable to, the NSMBCW EWMP. Catch basin inserts in the NSMBCW EWMP are for trash control, per the Santa Monica Bay Debris TMDL. Aside from trash control, the EWMP Group did not assume any other pollutant removal associated with these

Comment No.	NRDC, LA Waterkeeper, and Heal the Bay Comment	Los Angeles Water Board Response
	contribution to meeting TLRs is the installation of inserts in less than one-third of the catch basins in the subwatershed. The appendix cites insert manufacturers' literature, an unreliable gauge of performance without independent verification, and a few studies to claim questionably high catch basin insert removal efficiencies for the pollutants of interest. Appendix B presents what it terms a "literature review" in its own Appendix B. However, this latter appendix omits some studies cited in the text and contains only some manufacturers' "fact sheets" and one very long report of a study completely concerned with removal of oil and grease, not one of the WBPCs. The items are just pasted into the appendix with no assessment of their contents and no development and justification of conclusions used in the RAA. It is thus not a literature review at all. The review also omits studies not supporting its claims. A particular example is the Caltrans BMP Retrofit Pilot Program. This study found two different inserts to provide only 0-7% mass loading reduction efficiencies for copper, lead, and zinc. The inserts also needed substantial maintenance attention, including during storms; i.e., they did not operate passively and unattended. With this experience, Caltrans did not adopt inserts as an accepted BMP. An additional weakness of the Torrance RAA coverage of drain inlet inserts is citing performance in terms of pollutant concentration reduction efficiency, instead of mass loading reduction efficiency as used by Caltrans. As has been widely discussed in the literature, percentage concentration reduction efficiency is a misleading concept. This measure can be manipulated	devices.

Comment No.	NRDC, LA Waterkeeper, and Heal the Bay Comment	Los Angeles Water Board Response
	by feeding high concentrations into the unit and measuring a respectable percentage reductions but still having relatively high concentrations in the effluent.	

Exhibit F

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2012-0012

APPROVING EXCEPTIONS TO THE CALIFORNIA OCEAN PLAN FOR SELECTED DISCHARGES INTO AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE, INCLUDING SPECIAL PROTECTIONS FOR BENEFICIAL USES, AND CERTIFYING A PROGRAM ENVIRONMENTAL IMPACT REPORT

WHEREAS:

1. The State Water Resources Control Board (State Water Board) adopted the California Ocean Plan (Ocean Plan) on July 6, 1972 and revised the Ocean Plan in 1978, 1983, 1988, 1990, 1997, 2000, 2005, and 2009.

2. The Ocean Plan prohibits the discharge of waste to designated Areas of Special Biological Significance (ASBS).

3. ASBS are designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable.

4. Under the Marine Managed Areas Improvement Act, all ASBS are designated as a subset of state water quality protection areas and require special protection as determined by the State Water Board pursuant to the Ocean Plan and the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).

5. In state water quality protection areas, waste discharges must be prohibited or limited by special conditions, in accordance with the Porter-Cologne Water Quality Control Act, California Water Code §13000 et seq., and implementing regulations, including the Ocean Plan and Thermal Plan.

6. The Ocean Plan authorizes the State Water Board to grant an exception to Ocean Plan provisions where the board determines that the exception will not compromise protection of ocean waters for beneficial uses and the public interest will be served.

7. On October 18, 2004, the State Water Board notified a number of parties that they must cease the discharge of storm water and nonpoint source waste into ASBS or request an exception to the Ocean Plan.

8. The State Water Board has now received 27 applications for an exception to the Ocean Plan prohibition against waste discharges into an ASBS. The applicants, who are listed in Attachment A to this resolution, discharge storm water and nonpoint source waste into ASBS.

9. The State Water Board finds that granting the requested exceptions will not compromise protection of ocean waters for beneficial uses, provided that the applicants comply with the prohibitions and special conditions that comprise the Special Protections contained in this resolution. The prohibitions and special conditions in the Special Protections, contained in Attachment B to this resolution, are intended to ensure that storm water

and nonpoint source discharges are controlled to protect the beneficial uses of the affected ASBS, including marine aquatic life and habitat, and to maintain natural water quality within ASBS. The Special Protections are also intended to maintain the natural hydrologic cycle and coastal ecology by allowing the flow of clean precipitation runoff into the ocean, while preserving coastal slope stability and preventing anthropogenic erosion.

10. The State Water Board finds that granting the requested exceptions is in the public interest because the various discharges are essential for flood control, slope stability, erosion prevention, and maintenance of the natural hydrologic cycle between terrestrial and marine ecosystems, public health and safety, public recreation and coastal access, commercial and recreational fishing, navigation, and essential military operations (national security).

11. The State Water Board staff conducted scoping meetings on August 1, 8, and 15, 2006. The comment period for CEQA scoping closed August 15, 2006. The State Water Board heard a status report on ASBS at the April 1, 2008 meeting.

12. The State Water Board staff prepared and circulated a Program Environmental Impact Report for the proposed exceptions, in accordance with the California Environmental Quality Act (CEQA) and implementing regulations.

13. The State Water Board held a public hearing on May 18, 2011, to receive comments on the proposed exceptions and the Program Environmental Impact Report. The written comment period ended on May 20, 2011. The State Water Board staff has considered the comments and prepared written response. The State Water Board finds, based on the whole record, including the applications, Draft Program Environmental Impact Report, comments, and responses, that there is no substantial evidence that approval of the exceptions will have a significant effect on the environment because of the terms and conditions incorporated into the project. The Program Environmental Impact Report reflects the State Water Board's independent judgment and analysis.

14. Granting the exceptions is consistent with federal and state antidegradation policies, in 40 C.F.R. §131.12 and State Water Board Resolution No. 68-16, respectively. The terms, special conditions, and prohibitions that comprise these Special Protections will not authorize a lowering of water quality, but rather will improve water quality conditions in the affected ASBS.

15. This resolution only grants an exception from the Ocean Plan prohibition against waste discharges into ASBS to the applicants listed in Attachment A. It does not authorize waste discharges to state waters. In order to legally discharge waste into an ASBS, the applicants must have both coverage under this resolution and an appropriate authorization to discharge. Authorization to discharge for point source waste discharges to navigable waters consists of coverage under the National Pollutant Discharge Elimination System (NPDES) permit program. Nonpoint source discharges of waste must be regulated under waste discharge requirements, a conditional waiver, or a conditional prohibition.

16. The exceptions will be reviewed during the next triennial review of the Ocean Plan. If the State Water Board finds cause to revoke or re-open the exceptions, the board may do so during the triennial review or at any other time. During the next triennial review period staff will also evaluate those aspects of the exception that are successfully protecting beneficial uses, to make recommendations on a potential Ocean Plan amendment to address storm runoff into ASBS.

17. The State Water Board's record of proceedings in this matter is located at 1001 I Street, Sacramento, California, 95814 and the custodian is the Division of Water Quality.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. The State Water Board certifies that the Final EIR has been completed in compliance with CEQA. The State Water Board has reviewed and considered the information contained in these documents, which reflect the State Water Board's independent judgment and analysis.

2. Approves the exceptions to the Ocean Plan prohibition against waste discharges to ASBS for discharges of storm water and nonpoint source waste by the applicants listed in Attachment A to this resolution provided that:

    a. The discharges are covered under an appropriate authorization to discharge waste to the ASBS, such as an NPDES permit and/or waste discharge requirements;
    b. The authorization incorporates all of the Special Protections, contained in Attachment B to this resolution, which are applicable to the discharge; and
    c. Only storm water and nonpoint source waste discharges by the applicants listed in Attachment A to this resolution are covered by this resolution. All other waste discharges to ASBS are prohibited, unless they are covered by a separate, applicable Ocean Plan exception.

3. Authorizes the Executive Director or designee to file the Notice of Determination with the Governor's Office of Planning and Research.

4. Authorizes the Executive Director or designee to transmit the exceptions to the United States Environmental Agency (U.S. EPA) for concurrence.

5. Directs staff to consider development of, and make recommendations for, an Ocean Plan amendment to address storm runoff into ASBS, during the next triennial review period.

6. Directs staff to propose for Board consideration up to $1 million from the Proposition 50 Coastal Nonpoint Source (CNPS) program for additional ASBS Regional Monitoring, starting in the fall of 2012.

7. Directs staff, pending budget authority, to propose for Board consideration the use of CNPS funds (approximately $10 million) in conjunction with the remaining Proposition 84 ASBS funds ($3.6 million) for additional ASBS BMP projects.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 20, 2012.

AYE:	Chairman Charles R. Hoppin Vice Chair Frances Spivy-Weber Board Member Tam M. Doduc
NAY:	None
ABSENT:	None
ABSTAIN:	None

Jeanine Townsend
Clerk to the Board

Attachment A – Applicants

Applicant	ASBS
Carmel by the Sea, City of	Carmel Bay
Connolly-Pacific Company	Southeast Santa Catalina Island
Department of Parks and Recreation	Redwoods National Park, Trinidad Head, King Range, Jughandle Cove, Gerstle Cove, James V. Fitzgerald, Año Nuevo, Carmel Bay, Point Lobos, Julia Pfeiffer Burns, Laguna Point to Latigo Point, Irvine Coast
Department of Transportation (CalTrans)	Redwoods National Park, Saunders Reef,James V. Fitzgerald, Año Nuevo, Carmel Bay, Point Lobos, Julia Pfeiffer Burns, Salmon Creek Coast, Laguna Point to Latigo Point, Irvine Coast
Humboldt County	King Range
Humboldt Bay Harbor District	King Range
Irvine Company	Irvine Coast
Laguna Beach, City of	Heisler Park
Los Angeles County	Laguna Point to Latigo Point
Los Angeles County Flood Control District	Laguna Point to Latigo Point
Malibu, City of	Laguna Point to Latigo Point
Marin County	Duxbury Reef
Monterey, City of	Pacific Grove
Monterey, County of	Carmel Bay
Newport Beach, City of, and on behalf of the Pelican Point Homeowners	Robert E. Badham And Irvine Coast
Pacific Grove, City of	Pacific Grove
Pebble Beach Company, and on behalf of the Pebble Beach Stillwater Yacht Club	Carmel Bay
San Diego, City of	La Jolla
San Mateo County	James V. Fitzgerald
Santa Catalina Island Company, and on behalf of the Santa Catalina Island Conservancy	Northwest Santa Catalina Island And Western Santa Catalina Island
Sea Ranch Association	Del Mar Landing
Trinidad, City of	Trinidad Head
Trinidad Rancheria	Trinidad Head
U.S. Dept. of Interior, Point Reyes National Seashore	Point Reyes Headlands, Duxbury Reef
U.S. Dept. of Interior, Redwoods National and State Park	Redwoods National Park
U.S. Dept. of Defense, Air Force	James V. Fitzgerald
U.S. Dept. of Defense, Navy	San Nicolas Island & Begg Rock
U.S. Dept. of Defense, Navy	San Clemente Island

Attachment B - Special Protections for Areas of Special Biological Significance, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges

I. PROVISIONS FOR POINT SOURCE DISCHARGES OF STORM WATER AND NONPOINT SOURCE WASTE DISCHARGES

The following terms, prohibitions, and special conditions (hereafter collectively referred to as special conditions) are established as limitations on point source storm water and nonpoint source discharges. These special conditions provide Special Protections for marine aquatic life and natural water quality in Areas of Special Biological Significance (ASBS), as required for State Water Quality Protection Areas pursuant to California Public Resources Code Sections 36700(f) and 36710(f). These Special Protections are adopted by the State Water Board as part of the California Ocean Plan (Ocean Plan) General Exception.

The special conditions are organized by category of discharge. The State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) will determine categories and the means of regulation for those categories [e.g., Point Source Storm Water National Pollutant Discharge Elimination System (NPDES) or Nonpoint Source].

A. PERMITTED POINT SOURCE DISCHARGES OF STORM WATER

1. General Provisions for Permitted Point Source Discharges of Storm Water

   a. Existing storm water discharges into an ASBS are allowed only under the following conditions:

      (1) The discharges are authorized by an NPDES permit issued by the State Water Board or Regional Water Board;

      (2) The discharges comply with all of the applicable terms, prohibitions, and special conditions contained in these Special Protections; and

      (3) The discharges:

         (i) Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;

         (ii) Are designed to prevent soil erosion;

         (iii) Occur only during wet weather;

         (iv) Are composed of only storm water runoff.

   b. Discharges composed of storm water runoff shall not alter natural ocean water quality in an ASBS.

c. The discharge of trash is prohibited.

d. Only discharges from existing storm water outfalls are allowed. Any proposed or new storm water runoff discharge shall be routed to existing storm water discharge outfalls and shall not result in any new contribution of waste to an ASBS (i.e., no additional pollutant loading). "Existing storm water outfalls" are those that were constructed or under construction prior to January 1, 2005. "New contribution of waste" is defined as any addition of waste beyond what would have occurred as of January 1, 2005. A change to an existing storm water outfall, in terms of re-location or alteration, in order to comply with these special conditions, is allowed and does not constitute a new discharge.

e. Non-storm water discharges are prohibited except as provided below:

(1) The term "non-storm water discharges" means any waste discharges from a municipal separate storm sewer system (MS4) or other NPDES permitted storm drain system to an ASBS that are not composed entirely of storm water.

(2) (i) The following non-storm water discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, slope stability or occur naturally:

(a) Discharges associated with emergency fire fighting operations.

(b) Foundation and footing drains.

(c) Water from crawl space or basement pumps.

(d) Hillside dewatering.

(e) Naturally occurring groundwater seepage via a storm drain.

(f) Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

(ii) An NPDES permitting authority may authorize non-storm water discharges to an MS4 with a direct discharge to an ASBS only to the extent the NPDES permitting authority finds that the discharge does not alter natural ocean water quality in the ASBS.

(3) Authorized non-storm water discharges shall not cause or contribute to a violation of the water quality objectives in Chapter II of the Ocean Plan nor alter natural ocean water quality in an ASBS.

2. Compliance Plans for Inclusion in Storm Water Management Plans (SWMP) and Storm Water Pollution Prevention Plans (SWPPP).

The discharger shall specifically address the prohibition of non-storm water runoff and the requirement to maintain natural water quality for storm water discharges to an ASBS in an ASBS Compliance Plan to be included in its SWMP or a SWPPP, as appropriate to permit type. If a statewide permit includes a SWMP, then the discharger shall prepare a stand-alone

compliance plan for ASBS discharges. The ASBS Compliance Plan is subject to approval by the Executive Director of the State Water Board (statewide permits) or Executive Officer of the Regional Water Board (for permits issued by Regional Water Boards).

a. The Compliance Plan shall include a map of surface drainage of storm water runoff, showing areas of sheet runoff, prioritize discharges, and describe any structural Best Management Practices (BMPs) already employed and/or BMPs to be employed in the future. Priority discharges are those that pose the greatest water quality threat and which are identified to require installation of structural BMPs. The map shall also show the storm water conveyances in relation to other features such as service areas, sewage conveyances and treatment facilities, landslides, areas prone to erosion, and waste and hazardous material storage areas, if applicable. The SWMP or SWPPP shall also include a procedure for updating the map and plan when changes are made to the storm water conveyance facilities.

b. The ASBS Compliance Plan shall describe the measures by which all non-authorized non-storm water runoff (e.g., dry weather flows) has been eliminated, how these measures will be maintained over time, and how these measures are monitored and documented.

c. For Municipal Separate Storm Sewer System (MS4s), the ASBS Compliance Plan shall require minimum inspection frequencies as follows:

   (1) The minimum inspection frequency for construction sites shall be weekly during rainy season;

   (2) The minimum inspection frequency for industrial facilities shall be monthly during the rainy season;

   (3) The minimum inspection frequency for commercial facilities (e.g., restaurants) shall be twice during the rainy season; and

   (4) Storm water outfall drains equal to or greater than 18 inches (457 mm) in diameter or width shall be inspected once prior to the beginning of the rainy season and once during the rainy season and maintained to remove trash and other anthropogenic debris.

d. The ASBS Compliance Plan shall address storm water discharges (wet weather flows) and, in particular, describe how pollutant reductions in storm water runoff, that are necessary to comply with these special conditions, will be achieved through BMPs. Structural BMPs need not be installed if the discharger can document to the satisfaction of the State Water Board Executive Director (statewide permits) or Regional Water Board Executive Officer (Regional Water Board permits) that such installation would pose a threat to health or safety. BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm shall be designed to achieve on average the following target levels:

   (1) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or

(2) A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

The baseline for these determinations is the effective date of the Exception, except for those structural BMPs installed between January 1, 2005 and adoption of these Special Protections, and the reductions must be achieved and documented within four (4) years of the effective date.

e. The ASBS Compliance Plan shall address erosion control and the prevention of anthropogenic sedimentation in ASBS. The natural habitat conditions in the ASBS shall not be altered as a result of anthropogenic sedimentation.

f. The ASBS Compliance Plan shall describe the non-structural BMPs currently employed and planned in the future (including those for construction activities), and include an implementation schedule. The ASBS Compliance Plan shall include non-structural BMPs that address public education and outreach. Education and outreach efforts must adequately inform the public that direct discharges of pollutants from private property not entering an MS4 are prohibited. The ASBS Compliance Plan shall also describe the structural BMPs, including any low impact development (LID) measures, currently employed and planned for higher threat discharges and include an implementation schedule. To control storm water runoff discharges (at the end-of-pipe) during a design storm, permittees must first consider, and use where feasible, LID practices to infiltrate, use, or evapotranspirate storm water runoff on-site, if LID practices would be the most effective at reducing pollutants from entering the ASBS.

g. The BMPs and implementation schedule shall be designed to ensure that natural water quality conditions in the receiving water are achieved and maintained by either reducing flows from impervious surfaces or reducing pollutant loading, or some combination thereof.

h. If the results of the receiving water monitoring described in IV.B. of these special conditions indicate that the storm water runoff is causing or contributing to an alteration of natural ocean water quality in the ASBS, the discharger shall submit a report to the State Water Board and Regional Water Board within 30 days of receiving the results.

(1) The report shall identify the constituents in storm water runoff that alter natural ocean water quality and the sources of these constituents.

(2) The report shall describe BMPs that are currently being implemented, BMPs that are identified in the SWMP or SWPPP for future implementation, and any additional BMPs that may be added to the SWMP or SWPPP to address the alteration of natural water quality. The report shall include a new or modified implementation schedule for the BMPs.

(3) Within 30 days of the approval of the report by the State Water Board Executive Director (statewide permits) or Regional Water Board Executive Officer (Regional Water Board permits), the discharger shall revise its ASBS Compliance Plan to incorporate any new or modified BMPs that have been or will be implemented, the implementation schedule, and any additional monitoring required.

(4) As long as the discharger has complied with the procedures described above and is implementing the revised SWMP or SWPPP, the discharger does not have to repeat the same procedure for continuing or recurring exceedances of natural ocean water quality conditions due to the same constituent.

(5) The requirements of this section are in addition to the terms, prohibitions, and conditions contained in these Special Protections.

3. Compliance Schedule

a. On the effective date of the Exception, all non-authorized non-storm water discharges (e.g., dry weather flow) are effectively prohibited.

b. Within eighteen (18) months from the effective date of the Exception, the discharger shall submit a draft written ASBS Compliance Plan to the State Water Board Executive Director (statewide permits) or Regional Water Board Executive Officer (Regional Water Board permits) that describes its strategy to comply with these special conditions, including the requirement to maintain natural water quality in the affected ASBS. The ASBS Compliance Plan shall include a description of appropriate non-structural controls and a time schedule to implement structural controls (implementation schedule) to comply with these special conditions for inclusion in the discharger's SWMP or SWPPP, as appropriate to permit type. The final ASBS Compliance Plan, including a description and final schedule for structural controls based on the results of runoff and receiving water monitoring, must be submitted within thirty (30) months from the effective date of the Exception.

c. Within 18 months of the effective date of the Exception, any non-structural controls that are necessary to comply with these special conditions shall be implemented.

d. Within six (6) years of the effective date of the Exception, any structural controls identified in the ASBS Compliance Plan that are necessary to comply with these special conditions shall be operational.

e. Within six (6) years of the effective date of the Exception, all dischargers must comply with the requirement that their discharges into the affected ASBS maintain natural ocean water quality. If the initial results of post-storm receiving water quality testing indicate levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the discharger must re-sample the receiving water, pre- and post-storm. If after re-sampling the post-storm levels are still higher than the 85th percentile threshold of reference water quality data, and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded. See attached Flowchart.

f. The Executive Director of the State Water Board (statewide permits) or Executive Officer of the Regional Water Board (Regional Water Board permits) may only authorize additional time to comply with the special conditions d. and e., above if good cause exists to do so. Good cause means a physical impossibility or lack of funding.

If a discharger claims physical impossibility, it shall notify the Board in writing within thirty (30) days of the date that the discharger first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in d. or e. The notice shall describe

the reason for the noncompliance or anticipated noncompliance and specifically refer to this Section of this Exception. It shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The discharger shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality.

The discharger may request an extension of time for compliance based on lack of funding. The request for an extension shall require:

1. for municipalities, a demonstration of significant hardship to discharger ratepayers, by showing the relationship of storm water fees to annual household income for residents within the discharger's jurisdictional area, and the discharger has made timely and complete applications for all available bond and grant funding, and either no bond or grant funding is available, or bond and/or grant funding is inadequate; or

2. for other governmental agencies, a demonstration and documentation of a good faith effort to acquire funding through that agency's budgetary process, and a demonstration that funding was unavailable or inadequate.

B. NONPOINT SOURCE DISCHARGES

1. General Provisions for Nonpoint Sources

   a. Existing nonpoint source waste discharges are allowed into an ASBS only under the following conditions:

      (1) The discharges are authorized under waste discharge requirements, a conditional waiver of waste discharge requirements, or a conditional prohibition issued by the State Water Board or a Regional Water Board.

      (2) The discharges are in compliance with the applicable terms, prohibitions, and special conditions contained in these Special Protections.

      (3) The discharges:

         (i) Are essential for flood control or slope stability, including roof, landscape, road, and parking lot drainage;

         (ii) Are designed to prevent soil erosion;

         (iii) Occur only during wet weather;

         (iv) Are composed of only storm water runoff.

   b. Discharges composed of storm water runoff shall not alter natural ocean water quality in an ASBS.

c. The discharge of trash is prohibited.

d. Only existing nonpoint source waste discharges are allowed. "Existing nonpoint source waste discharges" are discharges that were ongoing prior to January 1, 2005. "New nonpoint source discharges" are defined as those that commenced on or after January 1, 2005. A change to an existing nonpoint source discharge, in terms of relocation or alteration, in order to comply with these special conditions, is allowed and does not constitute a new discharge.

e. Non-storm water discharges from nonpoint sources (those not subject to an NPDES Permit) are prohibited except as provided below:

(1) The term "non-storm water discharges" means any waste discharges that are not composed entirely of storm water.

(2) The following non-storm water discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, slope stability, or occur naturally:

(i) Discharges associated with emergency fire fighting operations.

(ii) Foundation and footing drains.

(iii) Water from crawl space or basement pumps.

(iv) Hillside dewatering.

(v) Naturally occurring groundwater seepage via a storm drain.

(vi) Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

(3) Authorized non-storm water discharges shall not cause or contribute to a violation of the water quality objectives in Chapter II of the Ocean Plan nor alter natural ocean water quality in an ASBS.

f. At the San Clemente Island ASBS, discharges incidental to military training and research, development, test, and evaluation operations are allowed. Discharges incidental to underwater demolition and other in-water explosions are not allowed in the two military closure areas in the vicinity of Wilson Cove and Castle Rock. Discharges must not result in a violation of the water quality objectives, including the protection of the marine aquatic life beneficial use, anywhere in the ASBS.

g. At the San Nicolas Island and Begg Rock ASBS, discharges incidental to military research, development, testing, and evaluation of, and training with, guided missile and other weapons systems, fleet training exercises, small-scale amphibious warfare training, and special warfare training are allowed. Discharges incidental to underwater demolition and other in-water explosions are not allowed. Discharges must not result in a violation of the water quality objectives, including the protection of the marine aquatic life beneficial use, anywhere in the ASBS.

h. All other nonpoint source discharges not specifically authorized above are prohibited.

2. Planning and Reporting

a. The nonpoint source discharger shall develop an ASBS Pollution Prevention Plan, including an implementation schedule, to address storm water runoff and any other nonpoint source discharges from its facilities. The ASBS Pollution Prevention Plan must be equivalent in contents to an ASBS Compliance Plan as described in I (A)(2) in this document. The ASBS Pollution Prevention Plan is subject to approval by the Executive Director of the State Water Board (statewide waivers or waste discharge requirements) or Executive Officer of the Regional Water Board (Regional Water Board waivers or waste discharge requirements).

b. The ASBS Pollution Prevention Plan shall address storm water discharges (wet weather flows) and, in particular, describe how pollutant reductions in storm water runoff that are necessary to comply with these special conditions, will be achieved through Management Measures and associated Management Practices (Management Measures/Practices). Structural BMPs need not be installed if the discharger can document to the satisfaction of the State Water Board Executive Director or Regional Water Board Executive Officer that such installation would pose a threat to health or safety. Management Measures to control storm water runoff during a design storm shall achieve on average the following target levels:

(1) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or

(2) A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

The baseline for these determinations is the effective date of the Exception, except for those structural BMPs installed between January 1, 2005 and adoption of these Special Protections, and the reductions must be achieved and documented within four (4) years of the effective date.

c. If the results of the receiving water monitoring described in IV.B. of these special conditions indicate that the storm water runoff or other nonpoint source pollution is causing or contributing to an alteration of natural ocean water quality in the ASBS, the discharger shall submit a report to the State Water Board and the Regional Water Board within 30 days of receiving the results.

(1) The report shall identify the constituents that alter natural water quality and the sources of these constituents.

(2) The report shall describe Management Measures/Practices that are currently being implemented, Management Measures/Practices that are identified in the ASBS Pollution Prevention Plan for future implementation, and any additional Management Measures/Practices that may be added to the Pollution Prevention Plan to address the alteration of natural water quality. The report shall include a new or modified implementation schedule for the Management Measures/Practices.

(3) Within 30 days of the approval of the report by the State Water Board Executive Director (statewide waivers or waste discharge requirements) or Executive Officer of the Regional Water Board (Regional Water Board waivers or waste discharge requirements), the discharger shall revise its ASBS Pollution Prevention Plan to incorporate any new or modified Management Measures/Practices that have been or will be implemented, the implementation schedule, and any additional monitoring required.

(4) As long as the discharger has complied with the procedures described above and is implementing the revised ASBS Pollution Prevention Plan, the discharger does not have to repeat the same procedure for continuing or recurring exceedances of natural water quality conditions due to the same constituent.

(5) The requirements of this section are in addition to the terms, prohibitions, and conditions contained in these Special Protections.

3. Compliance Schedule

a. On the effective date of the Exception, all non-authorized non-storm water discharges (e.g., dry weather flow) are effectively prohibited.

b. Within eighteen (18) months from the effective date of the Exception, the dischargers shall submit a draft written ASBS Pollution Prevention Plan to the State Water Board Executive Director (statewide waivers or waste discharge requirements) or Executive Officer of the Regional Water Board (Regional Water Board waivers or waste discharge requirements) that describes its strategy to comply with these special conditions, including the requirement to maintain natural ocean water quality in the affected ASBS. The Pollution Prevention Plan shall include a description of appropriate non-structural controls and a time schedule to implement structural controls to comply with these special conditions for inclusion in the discharger's Pollution Prevention Plan. The final ASBS Pollution Prevention Plan, including a description and final schedule for structural controls based on the results of runoff and receiving water monitoring, must be submitted within thirty (30) months from the effective date of the Exception.

c. Within 18 months of the effective date of the Exception, any non-structural controls that are necessary to comply with these Special Protections shall be implemented.

d. Within six (6) years of the effective date of the Exception, any structural controls identified in the ASBS Pollution Prevention Plan that are necessary to comply with these special conditions shall be operational.

e. Within six (6) years of the effective date of the Exception, all dischargers must comply with the requirement that their discharges into the affected ASBS maintain natural ocean water quality. If the initial results of post-storm receiving water quality testing indicate levels higher than the 85^{th} percentile threshold of reference water quality data and the pre-storm receiving water levels, then the discharger must re-sample the receiving water pre- and post-storm. If after re-sampling the post-storm levels are still higher than the 85^{th} percentile threshold of reference water quality data and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded. See attached Flowchart.

f. The Executive Director of the State Water Board (statewide waivers or waste discharge requirements) or Executive Officer of the Regional Water Board (Regional Water Board waivers or waste discharge requirements) may only authorize additional time to comply with the special conditions d. and e., above if good cause exists to do so. Good cause means a physical impossibility or lack of funding.

If a discharger claims physical impossibility, it shall notify the Board in writing within thirty (30) days of the date that the discharger first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in d. or e. The notice shall describe the reason for the noncompliance or anticipated noncompliance and specifically refer to this Section of this Exception. It shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The discharger shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality.

The discharger may request an extension of time for compliance based on lack of funding. The request for an extension shall require:

1. a demonstration that the discharger has made timely and complete applications for all available bond and grant funding, and either no bond or grant funding is available, or bond and/or grant funding is inadequate; or

2. for governmental agencies, a demonstration and documentation of a good faith effort to acquire funding through that agency's budgetary process, and a demonstration that funding was unavailable or inadequate.

II. ADDITIONAL REQUIREMENTS FOR PARKS AND RECREATION FACILITIES

In addition to the provisions in Section I (A) or I (B), respectively, a discharger with parks and recreation facilities shall comply with the following:

A. The discharger shall include a section in an ASBS Compliance Plan (for NPDES dischargers) or an ASBS Pollution Prevention Plan (for nonpoint source dischargers) to address storm water runoff from parks and recreation facilities.

1. The plan shall identify all pollutant sources, including sediment sources, which may result in waste entering storm water runoff. Pollutant sources include, but are not limited to, roadside rest areas and vistas, picnic areas, campgrounds, trash receptacles, maintenance facilities, park personnel housing, portable toilets, leach fields, fuel tanks, roads, piers, and boat launch facilities.

2. The plan shall describe BMPs or Management Measures/Practices that will be implemented to control soil erosion (both temporary and permanent erosion controls) and reduce or eliminate pollutants in storm water runoff in order to achieve and maintain natural water quality conditions in the affected ASBS. The plan shall include BMPs or

Management Measures/Practices to ensure that trails and culverts are maintained to prevent erosion and minimize waste discharges to ASBS.

3. The plan shall include BMPs or Management Measures/Practices to prevent the discharge of pesticides or other chemicals, including agricultural chemicals, in storm water runoff to the affected ASBS.

4. The plan shall include BMPs or Management Measures/Practices that address public education and outreach. The goal of these BMPs or Management Measures/Practices is to ensure that the public is adequately informed that waste discharges to the affected ASBS are prohibited or limited by special conditions in these Special Protections. The BMPs or Management Measures/Practices shall include signage at camping, picnicking, beach and roadside parking areas, and visitor centers, or other appropriate measures, which notify the public of any applicable requirements of these Special Protections and identify the ASBS boundaries.

5. The plan shall include BMPs or Management Measures/Practices that address the prohibition against the discharge of trash to ASBS. The BMPs or Management Measures/Practices shall include measures to ensure that adequate trash receptacles are available for public use at visitor facilities, including parking areas, and that the receptacles are adequately maintained to prevent trash discharges into the ASBS. Appropriate measures include covering trash receptacles to prevent trash from being wind blown and periodically emptying the receptacles to prevent overflows.

6. The plan shall include BMPs or Management Measures/Practices to address runoff from parking areas and other developed features to ensure that the runoff does not alter natural water quality in the affected ASBS. BMPs or Management Measures/Practices shall include measures to reduce pollutant loading in runoff to the ASBS through installation of natural area buffers (LID), treatment, or other appropriate measures.

B. Maintenance and repair of park and recreation facilities must not result in waste discharges to the ASBS. The practice of road oiling must be minimized or eliminated, and must not result in waste discharges to the ASBS.

III. ADDITIONAL REQUIREMENTS – WATERFRONT AND MARINE OPERATIONS

In addition to the provisions in Section I (A) or I (B), respectively, a discharger with waterfront and marine operations shall comply with the following:

A. For discharges related to waterfront and marine operations, the discharger shall develop a Waterfront and Marine Operations Management Plan (Waterfront Plan). This plan shall contain appropriate Management Measures/Practices to address nonpoint source pollutant discharges to the affected ASBS.

1. The Waterfront Plan shall contain appropriate Management Measures/Practices for any waste discharges associated with the operation and maintenance of vessels, moorings, piers, launch ramps, and cleaning stations in order to ensure that beneficial uses are protected and natural water quality is maintained in the affected ASBS.

2. For discharges from marinas and recreational boating activities, the Waterfront Plan shall include appropriate Management Measures, described in The Plan for California's Nonpoint Source Pollution Control Program, for marinas and recreational boating, or equivalent practices, to ensure that nonpoint source pollutant discharges do not alter natural water quality in the affected ASBS.

3. The Waterfront Plan shall include Management Practices to address public education and outreach to ensure that the public is adequately informed that waste discharges to the affected ASBS are prohibited or limited by special conditions in these Special Protections. The management practices shall include appropriate signage, or similar measures, to inform the public of the ASBS restrictions and to identify the ASBS boundaries.

4. The Waterfront Plan shall include Management Practices to address the prohibition against trash discharges to ASBS. The Management Practices shall include the provision of adequate trash receptacles for marine recreation areas, including parking areas, launch ramps, and docks. The plan shall also include appropriate Management Practices to ensure that the receptacles are adequately maintained and secured in order to prevent trash discharges into the ASBS. Appropriate Management Practices include covering the trash receptacles to prevent trash from being windblown, staking or securing the trash receptacles so they don't tip over, and periodically emptying the receptacles to prevent overflow.

5. The discharger shall submit its Waterfront Plan to the by the State Water Board Executive Director (statewide waivers or waste discharge requirements) or Executive Officer of the Regional Water Board (Regional Water Board waivers or waste discharge requirements) within six months of the effective date of these special conditions. The Waterfront Plan is subject to approval by the State Water Board Executive Director or the Regional Water Board Executive Officer, as appropriate. The plan must be fully implemented within 18 months of the effective date of the Exception.

B. The discharge of chlorine, soaps, petroleum, other chemical contaminants, trash, fish offal, or human sewage to ASBS is prohibited. Sinks and fish cleaning stations are point source discharges of wastes and are prohibited from discharging into ASBS. Anthropogenic accumulations of discarded fouling organisms on the sea floor must be minimized.

C. Limited-term activities, such as the repair, renovation, or maintenance of waterfront facilities, including, but not limited to, piers, docks, moorings, and breakwaters, are authorized only in accordance with Chapter III.E.2 of the Ocean Plan.

D. If the discharger anticipates that the discharger will fail to fully implement the approved Waterfront Plan within the 18 month deadline, the discharger shall submit a technical report as soon as practicable to the State Water Board Executive Director or the Regional Water Board Executive Officer, as appropriate. The technical report shall contain reasons for failing to meet the deadline and propose a revised schedule to fully implement the plan.

E. The State Water Board or the Regional Water Board may, for good cause, authorize additional time to comply with the Waterfront Plan. Good cause means a physical impossibility or lack of funding.

If a discharger claims physical impossibility, it shall notify the Board in writing within thirty (30) days of the date that the discharger first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in Section III.A.5. The notice shall describe the reason for the noncompliance or anticipated noncompliance and specifically refer to this Section of this Exception. It shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The discharger shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality. The discharger may request an extension of time for compliance based on lack of funding. The request for an extension shall require:

1. a demonstration of significant hardship by showing that the discharger has made timely and complete applications for all available bond and grant funding, and either no bond or grant funding is available, or bond and/or grant funding is inadequate.

2. for governmental agencies, a demonstration and documentation of a good faith effort to acquire funding through that agency's budgetary process, and a demonstration that funding was unavailable or inadequate.

IV. MONITORING REQUIREMENTS

Monitoring is mandatory for all dischargers to assure compliance with the Ocean Plan. Monitoring requirements include both: (A) core discharge monitoring, and (B) ocean receiving water monitoring. The State and Regional Water Boards must approve sampling site locations and any adjustments to the monitoring programs. All ocean receiving water and reference area monitoring must be comparable with the Water Boards' Surface Water Ambient Monitoring Program (SWAMP).

Safety concerns: Sample locations and sampling periods must be determined considering safety issues. Sampling may be postponed upon notification to the State and Regional Water Boards if hazardous conditions prevail.

Analytical Chemistry Methods: All constituents must be analyzed using the lowest minimum detection limits comparable to the Ocean Plan water quality objectives. For metal analysis, all samples, including storm water effluent, reference samples, and ocean receiving water samples, must be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/Mass Spectrometry) described in the Ocean Plan.

A. CORE DISCHARGE MONITORING PROGRAM

1. General sampling requirements for timing and storm size:

   Runoff must be collected during a storm event that is greater than 0.1 inch and generates runoff, and at least 72 hours from the previously measurable storm event. Runoff samples shall be collected during the same storm and at approximately the same time when post-

storm receiving water is sampled, and analyzed for the same constituents as receiving water and reference site samples (see section IV B) as described below.

2. Runoff flow measurements

   a. For municipal/industrial storm water outfalls in existence as of December 31, 2007, 18 inches (457mm) or greater in diameter/width (including multiple outfall pipes in combination having a width of 18 inches, runoff flows must be measured or calculated, using a method acceptable to and approved by the State and Regional Water Boards.

   b. This will be reported annually for each precipitation season to the State and Regional Water Boards.

3. Runoff samples – storm events

   a. For outfalls equal to or greater than 18 inches (0.46m) in diameter or width:

      (1) samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination; and

      (2) samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.

      (3) If an applicant has no outfall greater than 36 inches, then storm water runoff from the applicant's largest outfall shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates).

   b. For outfalls equal to or greater than 36 inches (0.91m) in diameter or width:

      (1) samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination; and

      (2) samples of storm water runoff shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates); and

      (3) samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.

b. For an applicant not participating in a regional monitoring program [see below in Section IV (B)] in addition to (a.) and (b.) above, a minimum of the two largest outfalls or 20 percent of the larger outfalls, whichever is greater, shall be sampled (flow weighted composite samples) at least three times annually during wet weather (storm event) and analyzed for all Ocean Plan Table A constituents, Table B constituents for marine aquatic life protection (except for toxicity, only chronic toxicity for three species shall be required), DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, and Ocean Plan indicator bacteria. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one (the largest) such discharge shall be sampled annually in each Region.

4. The Executive Director of the State Water Board (statewide permits) or Executive Officer of the Regional Water Board (Regional Water Board permits) may reduce or suspend core monitoring once the storm runoff is fully characterized. This determination may be made at any point after the discharge is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

B. Ocean Receiving Water and Reference Area Monitoring Program

In addition to performing the Core Discharge Monitoring Program in Section II.A above, all applicants having authorized discharges must perform ocean receiving water monitoring. In order to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS, dischargers may choose either (1) an individual monitoring program, or (2) participation in a regional integrated monitoring program.

1. Individual Monitoring Program: The requirements listed below are for those dischargers who elect to perform an individual monitoring program to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within the affected ASBS. In addition to Core Discharge Monitoring, the following additional monitoring requirements shall be met:

   a. Three times annually, during wet weather (storm events), the receiving water at the point of discharge from the outfalls described in section (IV)(A)(3)(c) above shall be sampled and analyzed for Ocean Plan Table A constituents, Table B constituents for marine aquatic life, DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, salinity, chronic toxicity (three species), and Ocean Plan indicator bacteria.

      The sample location for the ocean receiving water shall be in the surf zone at the point of discharges; this must be at the same location where storm water runoff is sampled. Receiving water shall be sampled prior to (pre-storm) and during (or immediately after) the same storm (post storm). Post storm sampling shall be during the same storm and at approximately the same time as when the runoff is sampled. Reference water quality shall also be sampled three times annually and analyzed for the same constituents pre-storm and post-storm, during the same storm seasons when receiving water is sampled. Reference stations will be determined by the State Water Board's Division of Water Quality and the applicable Regional Water Board(s).

   b. Sediment sampling shall occur at least three times during every five (5) year period. The subtidal sediment (sand or finer, if present) at the discharge shall be sampled and analyzed for Ocean Plan Table B constituents for marine aquatic life, DDT, PCBs, PAHs,

pyrethroids, and OP pesticides. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed.

c. A quantitative survey of intertidal benthic marine life shall be performed at the discharge and at a reference site. The survey shall be performed at least once every five (5) year period. The survey design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The results of the survey shall be completed and submitted to the State Water Board and Regional Water Board at least six months prior to the end of the permit cycle.

d. Once during each five (5) year period, a bioaccumulation study shall be conducted to determine the concentrations of metals and synthetic organic pollutants at representative discharge sites and at representative reference sites. The study design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The bioaccumulation study may include California mussels (*Mytilus californianus*) and/or sand crabs (*Emerita analoga* or *Blepharipoda occidentalis*). Based on the study results, the Regional Water Board and the State Water Board's Division of Water Quality, may adjust the study design in subsequent permits, or add or modify additional test organisms (such as shore crabs or fish), or modify the study design appropriate for the area and best available sensitive measures of contaminant exposure.

e. Marine Debris: Representative quantitative observations for trash by type and source shall be performed along the coast of the ASBS within the influence of the discharger's outfalls. The design, including locations and frequency, of the marine debris observations is subject to approval by the Regional Water Board and State Water Board's Division of Water Quality.

f. The monitoring requirements of the Individual Monitoring Program in this section are minimum requirements. After a minimum of one (1) year of continuous water quality monitoring of the discharges and ocean receiving waters, the Executive Director of the State Water Board (statewide permits) or Executive Officer of the Regional Water Board (Regional Water Board permits) may require additional monitoring, or adjust, reduce or suspend receiving water and reference station monitoring. This determination may be made at any point after the discharge and receiving water is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

2. Regional Integrated Monitoring Program: Dischargers may elect to participate in a regional integrated monitoring program, in lieu of an individual monitoring program, to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS. This regional approach shall characterize natural water quality, pre- and post-storm, in ocean reference areas near the mouths of identified open space watersheds and the effects of the discharges on natural water quality (physical, chemical, and toxicity) in the ASBS receiving waters, and should include benthic marine aquatic life and bioaccumulation components. The design of the ASBS stratum of a regional integrated monitoring program may deviate from the otherwise prescribed individual monitoring approach (in Section IV.B.1) if approved by the State Water Board's Division of Water Quality and the Regional Water Boards.

   a. Ocean reference areas shall be located at the drainages of flowing watersheds with minimal development (in no instance more than 10% development), and shall not be located in CWA Section 303(d) listed waterbodies or have tributaries that are 303(d)

listed. Reference areas shall be free of wastewater discharges and anthropogenic non-storm water runoff. A minimum of low threat storm runoff discharges (e.g. stream highway overpasses and campgrounds) may be allowed on a case-by-case basis. Reference areas shall be located in the same region as the ASBS receiving water monitoring occurs. The reference areas for each Region are subject to approval by the participants in the regional monitoring program and the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean reference water samples must be collected from each station, each from a separate storm during the same storm season that receiving water is sampled. A minimum of one reference location shall be sampled for each ASBS receiving water site sampled per responsible party. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.

b. ASBS ocean receiving water must be sampled in the surf zone at the location where the runoff makes contact with ocean water (i.e. at "point zero"). Ocean receiving water stations must be representative of worst-case discharge conditions (i.e. co-located at a large drain greater than 36 inches, or if drains greater than 36 inches are not present in the ASBS then the largest drain greater than18 inches.) Ocean receiving water stations are subject to approval by the participants in the regional monitoring program and the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean receiving water samples must be collected during each storm season from each station, each from a separate storm. A minimum of one receiving water location shall be sampled in each ASBS per responsible party in that ASBS. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.

c. Reference and receiving water sampling shall commence during the first full storm season following the adoption of these special conditions, and post-storm samples shall be collected during the same storm event when storm water runoff is sampled. Sampling shall occur in a minimum of two storm seasons. For those ASBS dischargers that have already participated in the Southern California Bight 2008 ASBS regional monitoring effort, sampling may be limited to only one storm season.

d. Receiving water and reference samples shall be analyzed for the same constituents as storm water runoff samples. At a minimum, constituents to be sampled and analyzed in reference and discharge receiving waters must include oil and grease, total suspended solids, Ocean Plan Table B metals for protection of marine life, Ocean Plan PAHs, pyrethroids, OP pesticides, ammonia, nitrate, phosphates, and critical life stage chronic toxicity for three species. In addition, within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination shall be analyzed.

3. Waterfront and Marine Operations: In addition to the above requirements for ocean receiving water monitoring, additional monitoring must be performed for marinas and boat launch and pier facilities:

   a. For all marina or mooring field operators, in mooring fields with 10 or more occupied moorings, the ocean receiving water must be sampled for Ocean Plan indicator bacteria, residual chlorine, copper, zinc, grease and oil, methylene blue active substances (MBAS), and ammonia nitrogen.

(1) For mooring field operators opting for an individual monitoring program (Section IV.B.1 above), this sampling must occur weekly (on the weekend) from May through October.

(2) For mooring field operators opting to participate in a regional integrated monitoring program (Section IV.B.2 above), this sampling must occur monthly from May through October on a high use weekend in each month. The Water Boards may allow a reduction in the frequency of sampling, through the regional monitoring program, after the first year of monitoring.

b. For all mooring field operators, the subtidal sediment (sand or finer, if present) within mooring fields and below piers shall be sampled and analyzed for Ocean Plan Table B metals (for marine aquatic life beneficial use), acute toxicity, PAHs, and tributyltin. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed. This sampling shall occur at least three times during a five (5) year period. For mooring field operators opting to participate in a regional integrated monitoring program, the Water Boards may allow a reduction in the frequency of sampling after the first sampling effort's results are assessed.

Glossary

At the point of discharge(s) – Means in the surf zone immediately where runoff from an outfall meets the ocean water (a.k.a., at point zero).

Areas of Special Biological Significance (ASBS) – Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of State Water Quality Protection Areas.

Design storm – For purposes of these Special Protections, a design storm is defined as the volume of runoff produced from one inch of precipitation per day or, if this definition is inconsistent with the discharger's applicable storm water permit, then the design storm shall be the definition included in the discharger's applicable storm water permit.

Development – Relevant to reference monitoring sites, means urban, industrial, agricultural, grazing, mining, and timber harvesting land uses.

Higher threat discharges - Permitted storm drains discharging equal to or greater than 18 inches, industrial storm drains, agricultural runoff discharged through an MS4, discharges associated with waterfront and marina operations (e.g., piers, launch ramps, mooring fields, and associated vessel support activities, except for passive discharges defined below), and direct discharges associated with commercial or industrial activities to ASBS.

Low Impact Development (LID) – A sustainable practice that benefits water supply and contributes to water quality protection. Unlike traditional storm water management, which entails collecting and conveying storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility, LID focuses on using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Marine Operations – Marinas or mooring fields that contain slips or mooring locations for 10 or more vessels.

Management Measure (MM) - Economically achievable measures for the control of the addition of pollutants from various classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives. For example, in the "marinas and recreational boating" land-use category specified in the Plan for California's Nonpoint Source Pollution Control Program (NPS Program Plan) (SWRCB, 1999), "boat cleaning and maintenance" is considered a MM or the source of a specific class or type of NPS pollution.

Management Practice (MP) - The practices (e.g., structural, non-structural, operational, or other alternatives) that can be used either individually or in combination to address a specific MM class or classes of NPS pollution. For example, for the "boat cleaning and maintenance" MM, specific MPs can include, but are not limited to, methods for the selection of environmentally sensitive hull paints or methods for cleaning/removal of hull copper anti-fouling paints.

Municipal Separate Storm Sewer System (MS4) – A municipally-owned storm sewer system regulated under the Phase I or Phase II storm water program implemented in compliance with Clean Water Act section 402(p). Note that an MS4 program's boundaries are not necessarily congruent with the permittee's political boundaries.

Natural Ocean Water Quality - The water quality (based on selected physical, chemical and biological characteristics) that is required to sustain marine ecosystems, and which is without apparent human influence, *i.e.*, an absence of significant amounts of: (a) man-made constituents (*e.g.,* DDT); (b) other chemical (*e.g.,* trace metals), physical (temperature/thermal pollution, sediment burial), and biological (*e.g.*, bacteria) constituents at concentrations that have been elevated due to man's activities above those resulting from the naturally occurring processes that affect the area in question; and (c) non-indigenous biota (*e.g.,* invasive algal bloom species) that have been introduced either deliberately or accidentally by man. Discharges "*shall not alter natural ocean water quality*" as determined by a comparison to the range of constituent concentrations in reference areas agreed upon via the regional monitoring program(s). If monitoring information indicates that *natural ocean water quality* is not maintained, but there is sufficient evidence that a discharge is not contributing to the alteration of natural water quality, then the Regional Water Board may make that determination. In this case, sufficient information must include runoff sample data that has equal or lower concentrations for the range of constituents at the applicable reference area(s).

Nonpoint source – Nonpoint pollution sources generally are sources that do not meet the definition of a point source. Nonpoint source pollution typically results from land runoff, precipitation, atmospheric deposition, agricultural drainage, marine/boating operations or hydrologic modification. Nonpoint sources, for purposes of these Special Protections, include discharges that are not required to be regulated under an NPDES permit.

Non-storm water discharge – Any runoff that is not the result of a precipitation event. This is often referred to as "dry weather flow."

Non-structural control – A Best Management Practice that involves operational, maintenance, regulatory (e.g., ordinances) or educational activities designed to reduce or eliminate pollutants in runoff, and that are not structural controls (i.e. there are no physical structures involved).

Physical impossibility - Means any act of God, war, fire, earthquake, windstorm, flood or natural catastrophe; unexpected and unintended accidents not caused by discharger or its employees' negligence; civil disturbance, vandalism, sabotage or terrorism; restrain by court order or public authority or agency; or action or non-action by, or inability to obtain the necessary authorizations or approvals from any governmental agency other than the permittee.

Representative sites and monitoring procedures – Are to be proposed by the discharger, with appropriate rationale, and subject to approval by Water Board staff.

Sheet-flow – Runoff that flows across land surfaces at a shallow depth relative to the cross-sectional width of the flow. These types of flow may or may not enter a storm drain system before discharge to receiving waters.

Storm Season – Also referred to as rainy season, means the months of the year from the onset of rainfall during autumn until the cessation of rainfall in the spring.

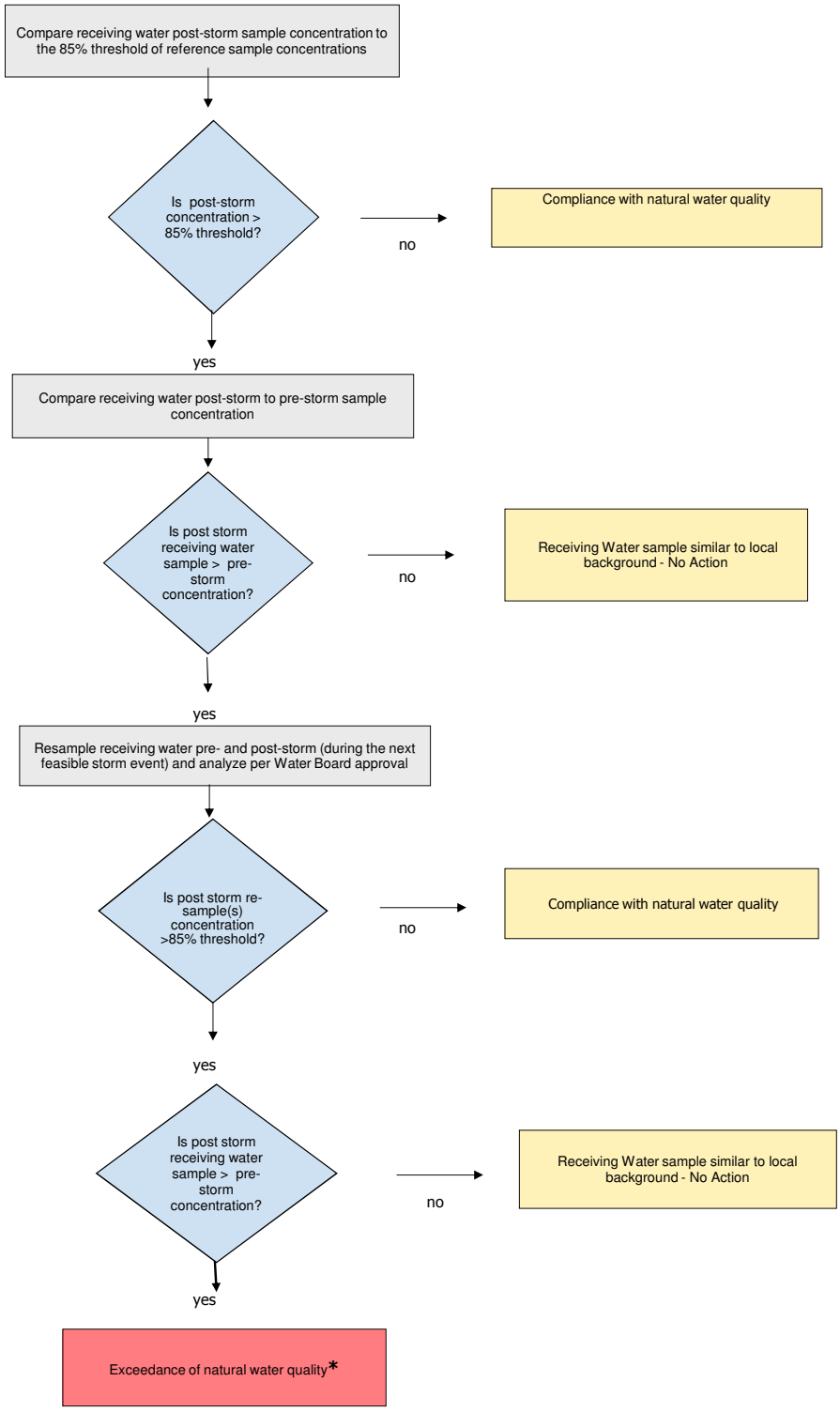
Structural control – A Best Management Practice that involves the installation of engineering solutions to the physical treatment or infiltration of runoff.

Surf Zone - The surf zone is defined as the submerged area between the breaking waves and the shoreline at any one time.

Surface Water Ambient Monitoring Program (SWAMP) comparable – Means that the monitoring program must 1) meet or exceed 2008 SWAMP Quality Assurance Program Management Plan (QAPP) Measurement Quality Objectives, or 2) have a Quality Assurance Project Plan that has been approved by SWAMP; in addition data must be formatted to match the database requirements of the SWAMP Information Management System. Adherence to the measurement quality objectives in the Southern California Bight 2008 ASBS Regional Monitoring Program QAPP and data base management comprises being SWAMP comparable.

Waterfront Operations - Piers, launch ramps, and cleaning stations in the water or on the adjacent shoreline.

Attachment 1
Special Protections Sections I(A)(3)(e) and I(B)(3)(e)
Flowchart to Determine Compliance with Natural Water Quality



*** When an exceedance of natural water quality occurs, the discharger must comply with section I.A.2.h (for permitted storm water) or section I.B.2.c (for nonpoint sources). Note, when sampling data is available, end-of-pipe effluent concentrations will be considered by the Water Boards in making this determination.**

Exhibit G

Area of Special Biological Significance 24
Draft Compliance Plan For
The County of Los Angeles and City of Malibu

Submitted to:

State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, California 95812-0100

Submitted by:

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September 20, 2014

Wet weather monitoring was performed by LACDPW at two receiving water locations: 1) S01, located off Zuma Beach directly out from ASBS-016, a 60-inch storm drain; and 2) S02, located off Escondido Beach directly out from ASBS-028, a 36-inch storm drain. The City performed monitoring at receiving water Site 24-BB-03R. For safety reasons this site was only sampled once. Therefore, the assessment of compliance with natural water quality was primarily performed for receiving water station S02, which had samples collected during three wet weather events. Receiving water station S02 is associated with ASBS-028, which is a 36-inch outfall that drains a mixture of developed and vacant land. Receiving water station S02 is considered to be representative of the typical to worst case scenario of the potential impact that storm water runoff may have on the water quality within the ASBS. The receiving water quality assessment is presented in Section 4.0, and a summary of the assessment is presented below.

In samples collected in the receiving water (Site S02), selenium, mercury, and total polynuclear aromatic hydrocarbons (PAHs) concentrations were above the 85th percentile reference threshold and had post-storm concentrations that exceeded those of the pre-storm samples collected during two consecutive monitored storm events. Based on the guidance found in Attachment 1 of the General Exception, this indicates an exceedance of natural water quality in the ASBS for these constituents.

Receiving water samples collected (Site S02) during one event, but not in subsequent events, that had concentrations above both the 85th percentile threshold and pre-storm concentrations include pyrethroids, nitrate as N, copper, lead, and zinc. These constituents do not meet the guidance criteria and are not considered an exceedance of the natural water quality in the ASBS.

During the three monitored events flow from ASBS-016 only reach the receiving water once at Site S01 and thus, receiving water chemistry data was only obtained once at S01 as part of the General Exception monitoring. Mercury, silver, zinc, and total PAHs concentrations in the receiving water were greater than both the 85th percentile threshold and pre-storm concentrations for Site S01. Receiving water concentrations above both the 85th percentile thresholds and pre-storm concentrations occurring during only one event is not considered to be an exceedance of natural water quality.

Pre-storm and post-storm samples were collected and analyzed at Site 24-BB-03R for only one event. The selenium concentration in the receiving water was greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-3). The concentration of selenium being above the 85th percentile threshold and pre-storm concentrations in one event is not considered an exceedance of natural water quality at Site 24-BB-03R. However, the selenium result at Site 24-BB-03R is consistent with the results at Site S02 where selenium is considered to be an exceedance of natural water quality based on first and second event results.

Pollution Loading Reduction Assessment

The General Exception states that the ASBS Compliance Plan shall describe how the necessary pollutant reductions in storm water runoff will be achieved through prioritization of outfalls and implementation of BMPs to achieve end-of-pipe pollutant concentrations targets during a design storm to below either the Table 1 Instantaneous Maximum Water Quality Objectives (WQOs) in Chapter II of the Ocean Plan or a 90% reduction in pollutant loading during storm events for the applicant's total discharge. Constituents that are currently in exceedance of the natural water

3.2.4 Dry Weather Monitoring

3.2.4.1 City of Malibu ASBS Focused Outreach Program

As part of the City of Malibu ASBS Focused Outreach Program the ASBS 24 was regularly patrolled by the CPS who looked for dry-weather runoff and other pollution threats in the coastal and inland areas. The CPS was funded by a Proposition 84 grant that continued through July 2014. Even though the grant-funded outreach project that included the CPS is complete, the City recently added a new position which will assume the outreach and inspections duties previously performed by the CPS. When individual properties are identified as being out of compliance with the Special Provisions and City policies, such as through over-irrigation, they are mailed educational materials and a cease-and-desist letter (see Section 3.2.3.1). Each of these property owners were personally engaged to correct the issue by providing education on the potential impact to the ASBS and tailoring solutions (e.g., water conservation techniques, available rebate programs) to the property. There were eighty-three illicit discharge cases over the study period covered by the grant (November 2011 – March 2014) with a 96% success rate abating the runoff with "cease and desist discharge" letters followed by additional outreach, assistance, and sometimes site visits. Site visits were conducted at twenty-five properties to understand and mitigate runoff. Of the eighty-three cases over the project period, only three remain open. Two of the illicit discharge cases (2%) required assistance from code enforcement to gain compliance. Seventeen of the eighty-three properties were beachfront properties (20%), and only one illicit discharge from a low priority nonpoint source over the two and a half year project period actually reached the receiving water (1%). The patrol program coupled with outreach efforts to correct the observed issues is successful, but labor intensive.

3.2.4.2 County Dry Weather Outfall Inspections

County staff has been regularly performing inspections of outfalls along the ASBS to document the presence or absence of flow and where needed, take action to eliminate prohibited discharges. A summary of these outfall inspections for 2012 and 2013 is provided on Table 3-3 and Table 3-4, respectively. Of the inspected outfalls, only ASBS-002 had flows reaching the surf. Flow from this outfall was noted reaching the surf once out of the 13 times visited in 2012 and once out of the three times visited in 2013. In both cases these flows reaching the surf were observed in the first month that inspections occurred (January and February for 2012 and 2013, respectively). The suspected source of the flow was over-irrigation in 2012; outreach to residents has been performed as detailed Section 3.2.1. It is anticipated that this outreach effort has addressed the potential source of the non-storm water flows. In 2013 the suspected source of the flow was from a nearby construction site, and City staff visited that construction site to ensure that appropriated BMPs were in place to prevent future discharges. Inspections performed March and May of 2013 at ASBS-002 indicated that flow was not present. Several other outfalls were observed with flows or ponded water; however, due to the distance between the outfall and the surf zone, these minor flows did not reach the receiving water. Inspections will continue to ensure that discharges of non-storm, non-authorized runoff do not occur.

Table 3-3. 2012 Outfall Dry Weather Inspections Summary

Outfall	Beach	January, 2012			February, 2012			March, 2012			April, 2012			Source / Notes
		No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	
ASBS-001	Broad Beach	1	1		4	2		4	2		3	1		Undetermined
ASBS-002	Broad Beach				6	3	1	4	2		3	1		Over irrigation
ASBS-003	Broad Beach	1			6			4			3			
ASBS-004	Zuma Beach	1			5	4		4	4		2	1		Over irrigation
ASBS-005	Zuma Beach	1			5			4			2			
ASBS-006	Zuma Beach				5	1		4			2			Undetermined low flow
ASBS-007	Zuma Beach				5	4		4	4		2	2		Hillside dewatering
ASBS-008	Zuma Beach													
ASBS-009	Zuma Beach				5			4			2			
ASBS-010	Zuma Beach													
ASBS-011	Zuma Beach				5	2		4	4		2	1		Hillside dewatering
ASBS-012	Zuma Beach													
ASBS-013	Zuma Beach													
ASBS-014	Zuma Beach													
ASBS-015	Zuma Beach													
ASBS-016	Zuma Beach													
ASBS-017	Zuma Beach													
ASBS-018	Zuma Beach													
ASBS-019	Zuma Beach													
ASBS-020	Zuma Beach													
ASBS-021	Westward Beach													
ASBS-022	Westward Beach													
ASBS-023	Westward Beach				2	1		3			2	1		Undetermined low flow
ASBS-024	Westward Beach													
ASBS-025	Escondido Beach													
ASBS-026	Escondido Beach													
ASBS-027	Escondido Beach	1	1		3	3		5	4		1	1		Hillside dewatering
ASBS-028	Escondido Beach													
ASBS-029	Escondido Beach				3	3		5	4		1	1		Hillside dewatering
ASBS-030	Escondido Beach				3	1		5			1			Sudsy water
ASBS-031	Nicholas Beach													

Table 3-4. 2013 Outfall Dry Weather Inspections Summary

Outfall	Beach	February, 2013			March, 2013			May, 2013			July, 2013			Source / Notes
		No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	No. of Visits	No. of Flow	No. Flow to Surf	
ASBS-001	Broad Beach	1			1			1						
ASBS-002	Broad Beach	1	1	1	1			1						Construction site. Corrected.
ASBS-003	Broad Beach	1			1			1						
ASBS-004	Zuma Beach	1	1		1	1		1	1		1			Over irrigation
ASBS-005	Zuma Beach	1			1			1			1			
ASBS-006	Zuma Beach	1			1			1			1			
ASBS-007	Zuma Beach	1	1		1	1		1	1		1			Hillside dewatering
ASBS-008	Zuma Beach	1			1			1			1			
ASBS-009	Zuma Beach	1			1			1			1			
ASBS-010	Zuma Beach	1			1			1			1			
ASBS-011	Zuma Beach	1	1		1	1		1	1		1	1		Natural stream north of PCH
ASBS-012	Zuma Beach	1			1			1			1			
ASBS-013	Zuma Beach	1			1			1			1			
ASBS-014	Zuma Beach	1			1			1			1			
ASBS-015	Zuma Beach	1			1			1			1			
ASBS-016	Zuma Beach	1			1			1			1			
ASBS-017	Zuma Beach	1			1			1			1			
ASBS-018	Zuma Beach	1			1			1			1			
ASBS-019	Zuma Beach	1			1			1			1			
ASBS-020	Zuma Beach	1			1			1			1			
ASBS-021	Westward Beach	1			1			1			1			
ASBS-022	Westward Beach	1			1			1			1	1		Trickle of water drops observed
ASBS-023	Westward Beach	1			1			1			1			
ASBS-024	Westward Beach	1			1			1			1			
ASBS-025	Escondido Beach	1			1									
ASBS-026	Escondido Beach	1			1									
ASBS-027	Escondido Beach	1			1									
ASBS-028	Escondido Beach	1			1									
ASBS-029	Escondido Beach	1	1		1	1								Hillside dewatering
ASBS-030	Escondido Beach	1			1									
ASBS-031	Nicholas Beach	1			1			1			1			

3.3 Inspection Program Assessment

Section I.A.2.c of the General Exception states that for MS4s, the ASBS Compliance Plan requires the following minimum inspection frequencies:

1. Weekly during the rainy season for construction sites.
2. Monthly during rainy season for industrial facilities.
3. Twice during the rainy season for commercial facilities.

In addition, the General Exception states that storm water drain outfalls equal to or greater than 18 inches in diameter or width will be inspected once prior to the beginning of the rainy season and once during the rainy season, and maintained to remove trash and other anthropogenic debris (SWRCB, 2012b).

Section 3.3.1 outlines the Parties' existing inspection programs and Section 3.3.2 outlines the recommended inspection program enhancements that would meet the requirements of the General Exception.

3.3.1 Existing Inspection Programs

The following sections outline the Parties' inspection programs that are currently in place. Discussions of specific LACDPW, District, and City inspections, where available, are limited to those areas draining to ASBS 24.

3.3.1.1 Commercial and Industrial Inspection Programs

Existing inspection programs for commercial and industrial facilities (e.g., restaurants, retail gasoline outlets (RGOs), automotive service facilities, United States Environmental Protection Agency (EPA) Phase I facilities, landfills) were conducted in accordance with the requirements of the 2001 NPDES permit (Order No. 01-182) (LARWQCB, 2001). The Permit included requirements for tracking, inspecting, and ensuring compliance for those facilities that are critical sources of storm water pollutants. The 2012 NPDES permit (Order No. R4-2012-0175) inspection frequencies are unchanged from the 2001 Permit requirements, although the minimum interval between inspections is reduced from 12 months to 6 months. The 2012 Permit also includes the requirement that commercial and industrial facility operators be notified of BMP requirements applicable to their site at least once during the 5-year permit cycle.

Commercial facility inspections are required by the NPDES Permit at a minimum of twice during the 5-year permit cycle. In 2008, the City began inspecting food-service related commercial businesses annually, exceeding the permit requirements. For industrial facilities, one industrial facility inspection is required within the first 2 years of the 2012 Permit and a second inspection is only required if an industrial facility has not filed a No Exposure Certification with the SWRCB. The City inspects RGOs and auto service facilities at least every other year, exceeding the permit requirement. The 2012 Permit requires follow-up inspections to be completed within 4 weeks of an infraction, and a minimum of two follow-up inspections and two enforcement letters must be issued to demonstrate a permittee's good faith effort to encourage a business to comply with the NPDES requirements.

Overall, the General Exception requires more frequent inspections than the NPDES permits. Commercial facility inspections are required at a minimum of twice per year during the rainy season. Industrial facility inspections are required a minimum of monthly, also during the rainy season. A summary of the seasonal minimum inspection frequencies required by the two NPDES permits and the General Exception for commercial and industrial facilities are presented on Table 3-5.

Table 3-5. Minimum Inspection Frequencies for Commercial and Industrial Facilities

Inspection Program	Inspection Frequency Required in ASBS 24	Historic Inspection Frequency, NPDES Permit Order R4-2012-0175	Historic Inspection Frequency, NPDES Permit Order No. 01-182
Commercial	Twice/year (rainy season)	Twice/5-year permit cycle, with at least 6 months between inspections	Twice/5-year Permit cycle, with at least one year between inspections[3]
Industrial[1]	Monthly (rainy season)	Twice/5-year permit cycle, with at least 6 months between inspections[2]	

[1]Industrial inspections frequencies will be implemented, if applicable to the ASBS 24 watershed.
[2] First inspection is required within 2 years of permit effective date. Second inspection (with at least 6 months between) is required before permit expiration if a No Exposure Certification has not been filed. Second inspections will also be performed at a minimum of 25% of facilities with No Exposure Certifications.
[3] No second inspection required at Phase I Tier II facilities determined to have no risk of exposure of industrial activities to storm water.

3.3.1.2 County Industrial and Commercial Inspection Program

The land use under the LACDPW's jurisdiction within the area draining to ASBS 24 is primarily undeveloped open space. There are no industrial facilities or commercial facilities within the area draining to ASBS 24 that must comply with the inspection frequencies outlined in the General Exception.

3.3.1.3 District Industrial and Commercial Inspection Program

Aside from its own properties and facilities, the District has no planning, zoning, development, permitting, or other land use authority over industrial or commercial facilities within its service area. As such, the District has no qualifying industrial or commercial facilities within the area draining to ASBS 24 that must comply with the inspection frequencies outlined in the General Exception.

3.3.1.4 City Industrial/Commercial Facilities Inspection Program

The goals of the City's commercial and industrial (should an industrial facility begin operating; there are currently no industrial facilities in the City) inspection program include compliance verification, enforcement as needed, and education regarding storm water and runoff issues, recycling, and City environmental quality ordinances.

The City's commercial and industrial inspection program is overseen by Environmental Programs staff. During an inspection, educational materials that may be provided include surface cleaning techniques, waste management, waste minimization, and recycling options; storm water pollution prevention tips; and potential BMPs tailored to the inspected business. Businesses may

call City staff with any storm water- or inspection-related questions. City Environmental Programs staff also coordinates interdepartmentally with other City staff including the code enforcement officer ,Public Works and the Building Safety inspectors, who have been trained to watch for storm water BMP infractions and are authorized to issue correction notices in the field. Code Enforcement and the Environmental Programs staff work together to issue cease-and-desist letters if violations have not been corrected. Repeat offenses are subject to increased enforcement procedures and may be subject to Malibu's administrative citation ordinance, exposing the violator to civil penalties as well as traditional enforcement remedies.

The City conducts annual inspections of food-service commercial facilities and at least every other year on automotive related service facilities, going above and beyond the historic requirements of the NPDES Permit. There is not an extensive base of commercial businesses operating within the City. As reported in the 2011-2012 Annual Report (City, 2012), the City inspected 60 restaurants/food service-related businesses, three grocers,[1] six RGOs, and three automotive services[2] during the reporting year. Only a subset of these commercial businesses is located within the ASBS 24 watershed. Based on a review of available data, the area draining to ASBS 24 contains approximately 15 businesses that sell or serve food, three inns/motels/hotels, a couple of other stores, and one service station.

In conjunction with the annual commercial inspection program, the City implements the Clean Bay Restaurant Certification program of the Bay Foundation in partnership with several other agencies in the south Santa Monica Bay area specifically for food-service related businesses. Through the program, restaurants and other food management businesses are inspected and certified for proper handling of waste, managing wash water, and implementing environmental policies that protect the storm drain system and ultimately the ocean receiving waters. The program certifies businesses as either 100% compliant with all program criteria or as non-compliant and therefore not certified under the Clean Bay Restaurant program. The program's primary success stems from brand recognition. It is a benefit to the partner agencies to work together in a larger regional and more recognized certification program so they may share resources such as promotional items and marketing materials, the advantage of Bay Foundation staff helping to promote the program at special events, and a standardized protocol; in essence, taking advantage of strength in numbers. As popularity and name recognition increases, there is a greater incentive to be certified in the program and more businesses will want to participate and take the extra steps to ensure they maintain certification. If a participant is found to not meet criteria or have a violation during the year that they are certified, they are subject to a strict rescinding policy and may have the certification revoked until the next period. The City's 2011-2012 Annual Report indicated that 93% of relevant businesses under the City's jurisdiction were currently certified under the program (City, 2012).

The City has complied with requirements to conduct inspections of industrial facilities when applicable. Industrial land use is very limited within the City's jurisdiction; in the 2011-2012 Annual Report, only one facility had active coverage under the State Industrial Activities Storm

[1] During the 2012-2013 annual reporting year, the Hughes Market grocery closed for business. The business will be replaced with a new organic grocer.
[2] All four RGOs that formerly housed automotive bays no longer offer these services. Two of the automotive service facilities are primarily RGOs.

Water General Permit and was in the process of terminating coverage. This business is under new ownership and is now a hardware store. Additionally, this industrial facility was in the Malibu Creek Watershed, not in a watershed draining to ASBS 24.

The City is exploring protocols to more readily identify any new commercial and industrial facilities located within the area draining to ASBS 24 and ensure that inspections are implemented in accordance with the General Exception requirements. All current commercial facilities have been identified. There are no industrial facilities.

3.3.1.5 Construction Site Inspection Programs

In accordance with the Los Angeles County Municipal NPDES Permit, permittees are required to develop, implement, and enforce a construction program that prevents illicit construction-related discharges of pollutants into the MS4 and receiving waters; implements and maintains structural and nonstructural BMPs to reduce pollutants in storm water runoff from construction sites; reduces construction site discharges of pollutants to the MS4 to the maximum extent practicable; and prevents construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

Existing construction site inspection programs were implemented in accordance with the requirements of the 2001 NPDES permit. The Permit requires permittees to inspect all construction sites (1 acre and greater) a minimum of once during the wet season and requires implementation of BMPs such as inspection of graded areas during rain events to control erosion from slopes and channels. For all construction sites where a Storm Water Pollution Prevention Plan (SWPPP) is not adequately implemented, permittees are required to conduct a follow-up inspection within 2 weeks of the initial inspection. In addition, proof of a Waste Discharger Identification (WDID) number for filing a Notice of Intent (NOI) for coverage under the General Construction Storm Water Permit and certification that a SWPPP has been prepared is required prior to issuance of a grading permit. Permittees are also required to use a database or other effective system to track grading permits for construction sites totaling 5 acres or greater. In the case of violations, two follow-up inspections within 3 months and two enforcement letters must be issued to demonstrate a permittee's good faith effort to encourage a business to comply with the NPDES requirements.

The 2012 NPDES Permit outlines the new, more stringent requirements for construction site frequency that became effective on December 28, 2012. According to the 2012 NPDES Permit, construction sites with a minimum of 1 acre of soil disturbance must be inspected by permittees a minimum of three times (e.g., prior to land disturbance, during active construction, and at the conclusion of the project) and at least monthly during the rainy season. Additionally, sites that discharge to a water body listed on the Section 303(d) List as impaired for sediment or turbidity, or determined to be a "significant threat to water quality," will be inspected by permittees at least once every 2 weeks during the rainy season. All sites will be inspected prior to a forecasted storm event[3] and within 48 hours after a recorded storm event.[4] The 2012 NPDES Permit

[3] A forecast storm event is defined by the NPDES permit as two or more consecutive days with a greater than 50% chance of rainfall that has been predicted by the National Oceanic and Atmospheric Administration (NOAA). This definition is in agreement with the definition of a storm event in the Construction General Permit.

requires construction sites consisting of less than 1 acre of soil disturbance to be managed through the permittees' erosion and sediment control ordinances and building permit requirements. These smaller construction sites shall be inspected on an as-needed basis. The inspection requirements of the 2012 NPDES Permit are in addition to the visual inspection programs implemented by the construction contractor's Qualified SWPPP Practitioner in accordance with the requirements of the Construction General Permit.[5] Under the 2012 NPDES Permit, permittees are required to use an electronic system to inventory permits for all construction sites.

The General Exception requires more frequent inspections than the 2012 NPDES Permit in areas draining to ASBS 24. Construction sites, defined as sites with 1 acre or more of disturbance (SWRCB, 2010), must be inspected weekly during the rainy season. A summary of the seasonal minimum inspection frequencies required by the two NPDES permits and the General Exception are presented on Table 3-6.

Table 3-6. Minimum Inspection Frequencies for Construction Sites (1 Acre or Greater)

Inspection Program	Inspection Frequency Required in ASBS 24	Historic Inspection Frequency, NPDES Permit Order R4-2012-0175	Historic Inspection Frequency, NPDES Permit Order No. 01-182
Construction	Weekly (rainy season)	Three times (before, during, and following construction) and: Monthly (rainy season) or Once every two weeks (rainy season)*	Once/year, following rain event

*For construction sites tributary to a water body on the Section 303(d) List due to sediment or turbidity.

3.3.1.6 County Construction Site Inspection Program

The LACDPW Architectural Engineering, Construction, and Building and Safety Divisions, along with applicable County departments, are responsible for County construction inspections. The LACDPW's construction program requires all construction projects to develop and implement erosion and sediment control BMP plans prior to the start of construction (i.e., Wet Weather Erosion Control Plan [WWECP] for sites less than one acre of disturbed land, Local Storm Water Pollution Prevention Plan [LSWPPP] and a WWECP for sites greater than 1 acre of disturbed land). The LSWPPP must include year-round BMPs to control pollutants that originate from the construction site due to construction activities.

[4] A recorded storm event is defined in the NPDES permit as a ½-inch rain event. This definition is in agreement with the definition of a storm event in the Construction General Permit.

[5] In accordance with the Construction General Permit, non-storm water visual inspections are required weekly for Risk Level 1, 2, and 3 projects. These inspections are recorded quarterly and performed daily for LUP Type 1, 2, and 3 projects. Inspections are also required before forecasted storm events and within 48 hours of a recorded storm event.

In addition to filing an LSWPPP, for projects greater than 1 acre, the applicant must file a NOI per the State General Construction Storm Water Permit and obtain a WDID number from the State Water Resources Control Board (SWRCB, 2010). Prior to grading plan approvals, the LACDPW requires the applicant to submit copies of the NOI, WDID, and SWPPP. Projects are notified of any required changes to the SWPPP and BMPs prior to the start of the rainy season. Inspections occur thereafter, and also after each significant rainfall event. Post-construction structural BMPs are inspected annually as part of the permit renewal process. In the event that enforcement actions are taken, they occur in the order listed: warnings, stop-work notices, office meetings, notices of violation, referrals to the Regional Board, and fines or non-payment of general contractor's invoices until the violation is corrected.

The LACDPW has begun implementing new protocols to identify and track active construction sites located within the area draining to outfalls that discharge to the ASBS 24 in order to ensure that inspections are implemented in accordance with the General Exception schedule requirements, where applicable.

3.3.1.7 District Construction Site Inspection Program

Aside from its own properties and facilities, the District has no planning, zoning, development, permitting, or other land use authority over new developments or redevelopment projects, or development construction sites within its service area. Under the 2012 NPDES Permit, the District is subject to the minimum control measures of a Public Agency Activities Program, which differ from the minimum control measures imposed on other permittees. Only the Public Construction Activities Management Program, a component of the Public Agency Activities Program, could potentially be applicable to District facilities within the area draining to ASBS 24. When active construction sites under the jurisdiction of District are located within the area draining to ASBS 24, internal construction site inspections would be implemented in accordance with the existing inspection criteria defined by the LACDPW, as discussed in Section 3.3.1.6.

3.3.1.8 City Construction Site Inspection Program

Grading within the City is limited to single-lot development. The area of disturbance is restricted due to development constraints implemented by the City of Malibu Local Coastal Plan and the Municipal Code. The Development Construction Inspection Program is implemented by the Environmental Sustainability Department and the Public Works Department. Applicants are notified if an NOI for coverage under the State General Construction Storm Water Permit is required, and plans are not approved until proof of a WDID has been submitted.

The City's construction inspection program for all sediment-disturbing projects begins with a pre-grading meeting with the general contractor, deputy building official, and building safety inspector (occasionally the LACDPW inspector). At the pre-grading meeting, the SWPPP is reviewed and appropriate BMPs, including sediment and erosion controls, are discussed, and the implementation schedule is developed by construction phase. During the meeting, it is stressed to all contractors that the job site will be shut down until the required measures are in place if the contractor fails to comply. The SWPPP is discussed with the general contractor at commencement of building construction activities, with a reminder of the repercussions (i.e., tiered enforcement actions, up to and including site closure) of failing to comply. Project sites

are visited regularly during the grading phase. During the construction phase, the building inspector routinely conducts on-site inspections. The implementation and maintenance of the appropriate BMPs are checked at each inspection.

Violations are addressed immediately. All issues receive an Initial Notice of Violation/Warning and corrective actions are required with strict compliance deadlines (24 hours during rainy weather and up to 72 hours during non-critical times). Sites are then re-inspected to verify compliance and a stop-work order may be issued until compliance is verified (City, 2012).

In accordance the General Construction Permit construction projects of 1 acre or greater are inspected at least twice during the rainy season The City currently inspects all construction sites monthly, and higher risk construction sites before/during rain events as of the 2013-2014 winter. The City has begun implementing new protocols to identify and track active single-lot construction sites located within the area draining to outfalls that discharge to the ASBS 24 to ensure that construction site inspections are implemented weekly during the rainy season, in accordance with the General Exception requirements (summarized on Table 3-6).

3.3.1.9 Storm Drain Outfall Inspection and Cleaning Programs

Existing storm drain inspection programs were implemented in accordance with the requirements of the 2001 NPDES Permit . Each permittee was required to implement a Public Agency Activities Program to minimize storm water pollution impacts and to identify opportunities to reduce these impacts from areas of existing development. One of the activities covered under the Public Agency Activities Program is storm drain operation and maintenance, which includes visual monitoring of open-channels and other drainage structures for trash and debris at least annually; removal of trash and debris from open channels at least once annually prior to the wet season; elimination of the discharge of contaminants during MS4 maintenance; and proper disposal of debris and trash removed during storm drain maintenance. The storm drain inspection frequency was not modified in the 2012 NPDES Permit .

In addition to the annual inspection required by the NPDES Permits, the General Exception requires an additional inspection during the rainy season. A summary of the minimum inspection frequencies required by the two NPDES Permits and the General Exception is presented on Table 3-7.

Table 3-7. Minimum Inspection Frequencies for Storm Drain Outfalls

Inspection Program	Inspection Frequency Required in ASBS 24	Historic Inspection Frequency, NPDES Permit Order R4-2012-0175	Historic Inspection Frequency, NPDES Permit Order No. 01-182
MS4 outfalls	Once prior to rainy season; once during rainy season	Once/year, before the rainy season	Once/year, before the rainy season

3.3.1.10 County MS4 Outfall Inspection Program

Systems within the area draining to ASBS 24 that are at least 18 inches in diameter are generally located in the parking lots along County beaches. Beach sand frequently piles up in the outlet of these systems. These outfalls are cleared by DBH prior to the rainy season and catch basin systems are cleaned out in late summer or early fall, prior to the rainy season and again during

the rainy season, as part of the LACDPW's Road Maintenance Division annual drainage inspection program.

The LACDPW has begun implementing new protocols to identify applicable outfalls that discharge to ASBS 24 to ensure that inspections are implemented in accordance with the General Exception schedule requirements (i.e., in addition to prior to the rainy season, second inspection to be performed during the rainy season).

3.3.1.11 City MS4 Outfall Inspection and Cleaning Program

The City's Storm Drain/Culvert Facilities Maintenance program is in place for annual and post-storm inspection and cleaning of storm drain facilities. All storm drain inlets are cleaned annually, and priority storm drains are cleaned at a minimum of twice annually. This program ensures that litter, debris, and pollutants are removed to prevent them from getting into the local waterways and impacting beneficial uses. In collaboration with LACDPW, the City will be conducting similar protocols to identify outfalls that discharge to ASBS 24. In general, citywide outlets are inspected when accessible. No applicable ASBS outlets are owned by the City. A contract service provider conducts the culvert cleaning and maintenance work on behalf of the City.

3.3.2 Inspection Program Enhancements to Comply with ASBS Special Protection Requirements

As the Parties modify their inspection programs to comply with the requirements of the current 2012 NPDES Permit, the Parties will need to include enhanced protocols for inspection programs implemented for sites within the area draining to outfalls that discharge to the ASBS 24. The inspection program requirements of the 2012 NPDES Permit and the General Exception are presented in Section 3.3.1 and the details of the required program enhancements are discussed in the following sections.

3.3.2.1 County Inspection Program Enhancements

The recommended enhancements to the LACDPW's existing inspection program are presented on Table 3-8 and include:

- During the rainy season, increase the inspection frequency to once per week for construction sites (at least 1 acre) under the LACDPW's jurisdiction that are located within the applicable area draining to ASBS 24.
- Conduct inspection and cleaning of storm drain outfalls measuring at least 18 inches in diameter or width catch basins that are located within the area draining to ASBS 24 once prior to the rainy season and once during the rainy season, at a minimum.

Table 3-8. County Inspection Program Enhancements

Program	Enhancement	Frequency
Commercial	Not applicable	-
Industrial	Not applicable	-
Construction (at least 1 acre)	Increase inspection frequency	Once/week (rainy season)
Storm Drain Outfalls	Coordinate inspections with	Once/dry season (prior to rainy season)

	ASBS criteria	and once/rainy season/year

3.3.2.2 District Inspection Program Enhancements

The recommendations for the DPW's inspection program are presented on Table 3-9 and include the following:

- When the District's active construction sites (at least 1 acre) are located within the applicable area draining to ASBS 24, District will implement inspections once per week during the rainy season in accordance with Special Protections and during the dry season in accordance with the requirements of the 2012 NPDES Permit.
- Conduct inspection and cleaning of storm drain outfalls measuring at least 18 inches in diameter or width catch basins which are located within the area draining to ASBS 24 once prior to the rainy season and once during the rainy season, at a minimum.

Table 3-9. District Inspection Program Enhancements

Program	Enhancement	Frequency
Commercial	Not applicable	-
Industrial	Not applicable	-
Construction (at least 1 acre)	Increase inspection frequency	Once/week (rainy season)
Storm Drain Outfalls	Coordinate inspections with ASBS criteria	Once/dry season (prior to rainy season) and once/rainy season/year

3.3.2.3 City Inspection Program Enhancements

The recommended enhancements to the City's existing inspection program are presented on Table 3-10 and include the following:

- During the wet season, increase the inspection frequency for construction sites (at least 1 acre) within the City's jurisdiction that are located within the applicable area draining to ASBS 24 to once per week.
- The outfalls associated with City maintained inlets are located on private properties and considered private. The City does not own or maintain outfalls that discharge to ASBS 24. As such, no enhancements are currently proposed for the City to inspect and clean outfalls.

Table 3-10. City Inspection Program Enhancements

Program	Enhancement	Frequency
Commercial	Increase inspection frequency	Twice/year (rainy season)
Industrial	Currently not applicable based on existing land uses	-
Construction (at least 1 acre)	Increase inspection frequency	Once/week (rainy season)

4.0 RECEIVING WATER ASSESSMENT

A determination of whether there is currently an exceedance of the natural water quality of the ASBS is the first step in the process of assessing the potential pollutant load reductions targets required to enhance the water quality of the ASBS. Wet weather receiving water quality monitoring data results were evaluated in comparison to data for reference monitoring sites, in accordance with the flowchart provided as Attachment 1 to the General Exception, to determine if an exceedance of the natural water quality currently exists.

4.1 Determination of Compliance with Natural Water Quality

In 2008, a study was conducted as part of Bight 2008 to assess water quality in southern California ASBS (Schiff et al., 2011). The study was designed to evaluate the range of natural water quality near reference drainage locations and to compare water quality near ASBS discharges to these natural water quality conditions. Additional reference monitoring was performed under the Regional Monitoring Program. During the development of this draft Compliance Plan, compliance with natural water quality was determined by comparing receiving water data from wet weather monitoring recently conducted for ASBS 24 to the 85th percentile threshold of reference sample concentrations measured during Bight 2008 and Bight 2013.

Concentrations of pollutants in post-storm receiving water were compared to those in pre-storm receiving water and to the 85th percentile threshold of reference sample concentrations. When post-storm receiving water concentrations are greater than the 85th percentile threshold and are greater than pre-storm concentrations for two or more storm events, results from the next storm are analyzed. If post-storm receiving water concentrations are again greater than the 85th percentile threshold and pre-storm concentrations, the constituent(s) are classified as exceedances of natural water quality. Concentrations of TSS, ammonia, nitrate, total orthophosphate, and total metals were compared to the 85th percentile thresholds.

Wet weather monitoring was performed by LACDPW at two receiving water locations: 1) S01, located off Zuma Beach directly out from ASBS-016, a 60-inch storm drain; and 2) S02, located off Escondido Beach, directly out from ASBS-028, a 36-inch storm drain. Monitoring was conducted during storm events occurring on February 19 and March 8, 2013, and February 28, 2014. Wet weather flows from ASBS-016 only reached the ocean receiving water at S01 during the February 28, 2014, monitored event. The City performed monitoring at receiving water Site 24-BB-03R. For safety reasons, this site was only sampled during the February 28, 2014, event. Therefore, the assessment of compliance with natural water quality was primarily performed for receiving water station S02, which had samples collected during three wet weather events. Receiving water station S02 is associated with ASBS-028, which is a 36-inch outfall that drains a mixture of developed and vacant land. There are additional identified point source clustered west and east of this site with three (ASBS-025, ASBS-026, and ASBS-027) located to the west (within 0.25 miles) and two (ASBS-029 and ASBS-030) located to the east (within 0.1 miles). Therefore, receiving water station S02 is considered to be representative of the typical to worst case scenario of the potential impact that storm water runoff may have on the water quality within the ASBS. Figure 4-1 shows the locations of the receiving water stations monitored in support of the preparation of this Plan.

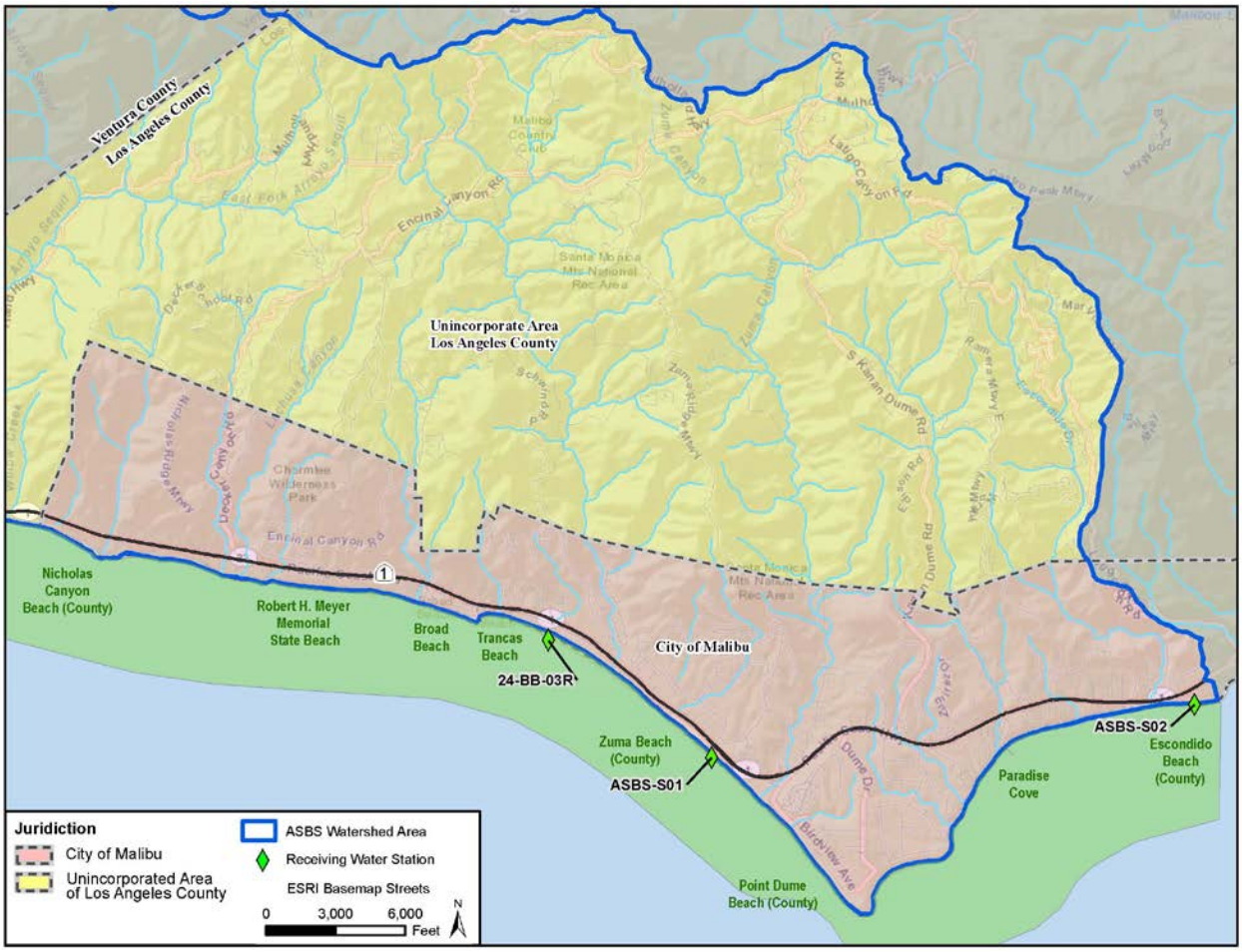

Figure 4-1. ASBS 24 Receiving Water Monitoring Locations

4.1.1 February 19, 2013, Storm Event Receiving Water Monitoring

The February 2013 storm event resulted in approximately 0.12 inches of rainfall based on rain gauge data obtained from County Fire Station 70 located at 3970 Carbon Canyon Road in Malibu, CA. Receiving water results were compared to the available list of constituents of reference site 85th percentile values. Post-storm concentrations of nitrate as nitrogen (N), selenium, total PAHs, and total pyrethroids were greater than the 85th percentile threshold (see Table 4-1). However, the nitrate as N post-storm concentration was less than the pre-storm concentration; therefore, the nitrate as N concentration is considered to be similar to background concentrations and is not classified as an exceedance. Since the selenium, total PAHs, and total pyrethroids concentrations were greater than the 85th percentile threshold and were greater than pre-storm concentrations, results from the proceeding storm event were analyzed to determine whether the natural water quality has been exceeded.

For constituents that are summed to get total values for comparison to 85th percentile total values (e.g., all OP pesticides, total PAHs, total pyrethroids), half of the method detection limits (MDL) were used for non-detect values. In the case of total pyrethroids for example, the reference sampling resulted in all non-detect values, and therefore the summation of the MDLs for the 10

selected pyrethroids is 6.75 µg/L. Following this process to determine total pyrethroids for the ASBS 24 receiving water stations results in an exceedance of 85th percentile threshold value anytime a pyrethroid included in the assessment has a measurable result (i.e., 85th percentile threshold in reality is zero). In actuality, the individual pyrethroid values may be less than half the MDL values (undetermined currently based on laboratory limitations) resulting in the possibility that the total pyrethroid value is less than the 85th percentile threshold. The same is true for both all OP pesticides and total PAHs assessments.

Table 4-1. February 2013 Receiving Water Results

Parameter	Units	85th Percentile of Reference Data	S01-PRE 2/18/2013	S02-PRE 2/18/2013	S02-POST 2/19/2013
General Chemistry					
Ammonia as N	mg/L	0.015	0.09	0.04J	<0.02
Nitrate as N	mg/L	0.374	0.51	0.38	0.25
Oil & Grease	mg/L	0.5	14.1	<1	<1
Total Orthophosphate as P	mg/L	0.114	0.02	0.02	0.03
Total Suspended Solids	mg/L	55.4	5.2	7.9	40.5
Total Metals					
Arsenic (As)	µg/L	`	1.718	1.471	1.393
Cadmium (Cd)	µg/L	0.16	0.0229	0.0601	0.058
Chromium (Cr)	µg/L	2.6	0.3192	0.5437	0.6366
Copper (Cu)	µg/L	1.9	0.149	0.321	0.454
Lead (Pb)	µg/L	0.72	0.0513	0.102	0.1867
Mercury (Hg)	µg/L	0.0006	<0.0012	<0.0012	<0.0012
Nickel (Ni)	µg/L	2.2	0.2724	0.509	0.7661
Selenium (Se)	µg/L	0.017	0.007J	0.015	0.031
Silver (Ag)	µg/L	0.08	0.03	0.01J	<0.01
Zinc (Zn)	µg/L	19	1.0376	1.2033	12.2809
Organophosphorus Pesticides					
*All OP Pesticides	ng/L	6	6	6	6
Polynuclear Aromatic Hydrocarbons					
*Total PAHs	ng/L	12.5	12.5	12.5	41.1
Pyrethroids					
Bifenthrin	ng/L		<0.5	<0.5	<0.5
Deltamethrin/Tralomethrin	ng/L		<0.5	<0.5	<0.5
Esfenvalerate	ng/L		1.1J	<0.5	0.8J
All Other Pyrethroids	ng/L		ND	ND	ND
*Total Pyrethroids	ng/L	6.75	8.6	6.75	7.3

< - result less than the MDL.
ND - results less than the MDLs (multiple MDL values)
J - Analyte was detected at a concentration below the reporting limit and above the method detection limit. Reported value is estimated.

Red outline – Post-storm receiving water concentration is greater than 85th percentile of Reference Data AND greater than pre-storm concentration.

*Totals calculated using result values when if detected and half the MDL when results were <MDL.

4.1.2 March 8, 2013, Storm Event Receiving Water Monitoring

The March 2013 storm event resulted in approximately 0.74 inches of rainfall based on rain gauge data obtained from County Fire Station 70. The selenium and total PAHs concentrations in the receiving water were again greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-2). As a result, the concentrations of both constituents are considered to be exceedances of natural water quality and may be contributing to alterations in natural ocean water quality within ASBS 24. In addition, concentrations of nitrate as N, copper, lead, mercury, zinc, and total PAHs were greater than both the 85th percentile threshold and pre-storm concentrations. Results from the subsequent monitored wet weather event (February 2014) were used to evaluate whether the listed constituents in storm water runoff were considered to be contributing to an exceedance of natural water quality.

The receiving water Site S02 results for the first monitored event (February 2013 event) included a concentration total pyrethroid that was greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-1). The February 2014 receiving water Site S02 concentration for total pyrethroid was not greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-2).

Table 4-2. March 2013 Receiving Water Results

Parameter	Units	85th Percentile of Reference Data	S01-PRE 3/6/2013	S02-PRE 3/6/2013	S02-POST 3/8/2013
General Chemistry					
Ammonia as N	mg/L	0.015	0.04J	0.03J	<0.02
Nitrate as N	mg/L	0.374	0.48	0.49	0.54
Oil & Grease	mg/L	0.5	<1	<1	<1
Total Orthophosphate as P	mg/L	0.114	0.03	0.03	0.06
Total Suspended Solids	mg/L	55.4	3.8	14.9	33.3
Total Metals					
Arsenic (As)	µg/L	1.72	1.558	1.563	1.577
Cadmium (Cd)	µg/L	0.16	0.0281	0.0587	0.1396
Chromium (Cr)	µg/L	2.6	0.2422	0.6549	2.5224
Copper (Cu)	µg/L	1.9	0.157	0.378	2.924
Lead (Pb)	µg/L	0.72	0.0288	0.1558	1.0434
Mercury (Hg)	µg/L	0.0006	<0.0012	<0.0012	0.0046J
Nickel (Ni)	µg/L	2.2	0.2849	0.625	1.8595
Selenium (Se)	µg/L	0.017	0.008J	0.017	0.052
Silver (Ag)	µg/L	0.08	<0.01	0.01J	<0.01
Zinc (Zn)	µg/L	19	2.6986	37.8762	54.1039
Organophosphorus Pesticides					
*All OP Pesticides	ng/L	6	6	6	6
Polynuclear Aromatic Hydrocarbons					
*Total PAHs	ng/L	12.5	12.5	12.5	25.5
Pyrethroids					
Bifenthrin	ng/L		<0.5	<0.5	8.4
Deltamethrin/Tralomethrin	ng/L		10.6	26.6	<0.5
Esfenvalerate	ng/L		<0.5	<0.5	<0.5
All Other Pyrethroids	ng/L		ND	ND	ND
*Total Pyrethroids	ng/L	6.75	19.85	35.85	17.65

< - result less than the MDL.
ND - results less than the MDLs (multiple MDL values)
J - Analyte was detected at a concentration below the reporting limit and above the method detection limit. Reported value is estimated.
Red outline – Post-storm receiving water concentration is greater than 85th percentile of Reference Data AND greater than pre-storm concentration.
Orange fill – Analyte concentration has exceeded 85th percentile of Reference Data during 1st and 2nd monitoring event.
*Totals calculated using result values if above the MDL and half the MDL when results were less than the MDL.

4.1.3 February 28, 2014, Storm Event Receiving Water Monitoring

The February 2014 storm event resulted in a total event rainfall of approximately 2.26 inches of rainfall based on rain gauge data obtained from County Fire Station 70. Pre- and post-storm samples were collected at Sites S01, S02, and 24-BB-03R.

The concentrations of total orthophosphate as P, TSS, mercury, selenium, silver, total PAHs, and total pyrethroids in receiving water at Site S02 were greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-3). Based on the results from the first and second monitored events in accordance with the General Exception, selenium and total PAHs are considered to be exceedances of natural water quality. The selenium and total PAHs results at Site S02 from the February 2014 event are consistent with those previous data. The mercury result being higher than both the 85th percentile threshold and pre-storm concentration for the second consecutive monitored event is considered to be exceedance of the natural water quality and may be contributing to alterations in natural ocean water quality within ASBS 24. Of the three storms monitored, the February 2014 events results for Site S02 are the only one where orthophosphate as P, TSS, or silver were above both the 85th percentile threshold and pre-storm concentrations. Therefore, the receiving water Site S02 measured concentrations of total orthophosphate as P, TSS, and silver being above both the 85th percentile threshold and pre-storm concentrations during one event are not considered to be exceedances of natural water quality.

The receiving water Site S02 results for the second monitored event (March 2013 event) included concentrations of nitrate as N, copper, lead and zinc that were greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-2). The February 2014 receiving water Site S02 concentrations for nitrate as N, copper, lead, and zinc were not greater than both the 85th percentile threshold and pre-storm concentrations (see Table 4-3), and therefore these constituents are not considered to be exceedances of the natural water quality.

Mercury, silver, zinc, and total PAHs concentrations in receiving water were greater than both the 85th percentile threshold and pre-storm concentrations for Site S01 (see Table 4-3). This monitored event was the only one of three in which flow from ASBS-016 reached the receiving water at Site S01, and thus, was the only time receiving water chemistry data were obtained at S01 as part of the General Exception monitoring. Based on first and second event results for Site S02, total PAHs is considered to be an exceedances of natural water quality. Based on second and third event results for Site S02, mercury is considered to be an exceedance of natural water quality. The receiving water Site S01 measured concentrations of silver and zinc being above both the 85th percentile threshold and pre-storm concentrations during one event is not considered to be an exceedance of natural water quality.

Pre-storm and post-storm samples were collected and analyzed at Site 24-BB-03R. For safety reasons, this site was not sampled previous to this event. The selenium concentration in the receiving water was greater than both the 85th percentile threshold and pre-storm concentrations for Site 24-BB-03R (see Table 4-3). The concentration of selenium being above the 85th percentile threshold and pre-storm concentrations is not considered an exceedance of natural water quality at Site 24-BB-03R. The selenium result at Site 24-BB-03R above the 85th percentile threshold and pre-storm concentrations are consist with the results for Site S02 where

selenium is considered to be an exceedance of natural water quality based on the first and second event results.

Table 4-3. February 2014 Receiving Water Results

Parameter	Units	85th Percentile of Reference Data	S01-PRE	S01-POST	S02-PRE	S02-POST	24-BB-03R-PRE	24-BB-03R-POST
			2/25/2014	2/28/2014	2/25/2014	2/28/2014	2/25/2014	2/28/2014
General Chemistry								
Ammonia as N	mg/L	0.015	<0.02	<0.02	<0.02	<0.02	ND	ND
Nitrate as N	mg/L	0.374	0.03J	0.02J	0.02J	<0.01	0.04	ND
Oil & Grease	mg/L	0.5	<1	<1	<1	<1	ND	ND
Total Orthophosphate as P	mg/L	0.114	0.02	0.02	0.02	0.18	0.02	0.02
Total Suspended Solids	mg/L	55.4	19.5	25.2	87.7	150	10.8	7.1
Total Metals								
Arsenic (As)	µg/L	1.72	1.472	1.283	6.604	4.122	1.388	1.322
Cadmium (Cd)	µg/L	0.16	0.0249	0.0228	0.5099	0.2623	0.0152	0.022
Chromium (Cr)	µg/L	2.6	1.1131	0.3893	26.0119	4.9578	1.4705	0.6962
Copper (Cu)	µg/L	1.9	0.676	0.221	6.001	2.289	0.167	0.646
Lead (Pb)	µg/L	0.72	0.2367	0.0584	7.265	1.5477	ND	0.2159
Mercury (Hg)	µg/L	0.0006	<0.0012J	0.014	<0.0012	0.0261	ND	ND
Nickel (Ni)	µg/L	2.2	0.8679	0.3565	21.5664	4.2441	0.2951	0.4901
Selenium (Se)	µg/L	0.017	0.016	0.011J	0.083	0.155	0.012	0.026
Silver (Ag)	µg/L	0.08	0.09	0.18	0.03	0.14	0.14	0.12
Zinc (Zn)	µg/L	19	5.3515	21.0509	41.7076	12.0229	2.9144	17.3532
Organophosphorus Pesticides								
*All OP Pesticides	ng/L	6	6	6	6	6	6	6
Polynuclear Aromatic Hydrocarbons								
*Total PAHs	ng/L	12.5	17.4	18.5	29.6	84.1	19.2	18.8
Pyrethroids								
Bifenthrin	ng/L		<0.5	<0.5	<0.5	2.5	<0.5	<0.5
Deltamethrin/Tralomethrin	ng/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Esfenvalerate	ng/L		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
All Other Pyrethroids	ng/L		ND	ND	ND	ND	ND	ND
*Total Pyrethroids	ng/L	6.75	6.75	6.75	6.75	9	6.75	6.75

< - result less than the MDL.
ND - results less than the MDLs (multiple MDL values)
J - Analyte was detected at a concentration below the reporting limit and above the method detection limit. Reported value is estimated.
Red outline – Post-storm receiving water concentration is greater than 85th percentile of Reference Data AND greater than pre-storm concentration.
Orange fill – Analyte concentration has exceeded 85th percentile of Reference Data during 1st and 2nd monitoring event.
*Totals calculated using result values if above the MDL and half the MDL when results were less than the MDL.

4.1.4 Receiving Water Monitoring Conclusions

In post-storm samples collected in the receiving water (Site S02), selenium and total PAHs concentrations were above the 85th percentile reference threshold and had post-storm concentrations that exceeded those of the pre-storm samples collected during three consecutive monitored storm events (February and March 2013 and February 2014)Mercury results at Site S02 were above 85th percentile reference threshold and pre-storm concentrations for two consecutive events (March 2013 and February 2014). Based on the guidance found in

Attachment 1 of the General Exception, this indicates an exceedance of natural water of the ASBS for these constituents.

Receiving water samples (Site S02) collected during the second monitored event had concentrations of nitrate as N, copper, lead, and zinc above the 85th percentile reference thresholds and were above the pre-storm concentrations. Based on Attachment 1 of the General Exception, if these constituents are above the 85th percentile reference thresholds in post-storm receiving water samples collected during the next monitoring event, then there would be an exceedance in the natural water quality of the ASBS for these additional constituents. February 2014 receiving water (Site S02) concentrations for nitrate as N, copper, lead, and nickel were not greater than both the 85th percentile threshold and pre-storm concentrations, and these constituents are not considered an exceedance of natural water quality.

Of the three storms monitored, the only event in which flow from ASBS-016 reached the receiving water at Site S01 was during the February 28, 2014, storm (third monitored event), and thus, was the only time receiving water chemistry data were obtained at S01 as part of the General Exception monitoring. Mercury, silver, zinc and total PAHs concentrations in receiving water were greater than both the 85th percentile threshold and pre-storm concentrations for Site S01. Based on the Site S02 results from the first and second events total PAHs is considered to be exceedance of natural water quality. Based on the Site S02 results from the second and third events mercury is considered to be exceedance of natural water quality. The receiving water Site S01 measured concentrations of silver and zinc being above both the 85th percentile thresholds and pre-storm concentrations during one event is not considered to be exceedances of natural water quality.

Pre-storm and post-storm samples were collected and analyzed at Site 24-BB-03R. For safety reasons, this site was not sampled previous to this event. The selenium concentration in receiving water was greater than both the 85th percentile threshold and pre-storm concentration for Site 24-BB-03R (see Table 4-3). The concentration of selenium being above the 85th percentile threshold and pre-storm concentrations is not considered an exceedance of natural water quality at Site 24-BB-03R. The selenium results at Site 24-BB-03R above the 85th percentile threshold and pre-storm concentrations are consistent with the results for Site S02 where selenium is considered to be an exceedance of natural water quality based on the first and second event results

4.2 Bight 2008 Data for ASBS 24

A review of Bight 2008 ASBS 24 data was conducted, and a summary of the review is provided for reference and for comparison to the determination made in this Compliance Plan. Bight 2008 constituent concentrations values were obtained from a series of graphs provided as an appendix to the Bight 2008 report and are approximate (tabular data not currently available). The Bight 2008 effort included collecting and analyzing both reference and discharge receiving water samples. The Bight 2008 report showed the comparison between the reference 85th percentile threshold values and discharge samples (Schiff et al., 2011).

4.2.1 Metals

For total chromium, the Bight 2008 85th percentile threshold of reference conditions was 1.6 µg/L (revised by Bight 2013 data to 2.6 µg/L). Of the five ASBS 24 post-storm samples assessed for total chromium during Bight 2008, four had concentrations below the threshold (ranging from approximately 0.5 to 1.0 µg/L) and one was above the threshold (approximately 3.4 µg/L)(Schiff et al., 2011).

For total copper, the Bight 2008 85th percentile threshold was 2.2 µg/L (revised by Bight 2013 data to 1.9 µg/L). Of the three ASBS 24 post-storm samples assessed for total copper during Bight 2008, two had concentrations below the threshold (approximately 0.4 and 0.5 µg/L) and one was slightly above the threshold (approximately 2.3 µg/L)(Schiff et al., 2011).

For total nickel, the Bight 2008 85th percentile threshold was 1.5 µg/L (revised by Bight 2013 data to 2.2 µg/L). For the three ASBS 24 post-storm samples assessed during Bight 2008, two had concentrations below the threshold (approximately 0.5 and 0.7 µg/L) and one was above the threshold (approximately 4.2 µg/L)(Schiff et al., 2011).

For total zinc, the Bight 2008 85th percentile threshold was 8.6 µg/L (revised by Bight 2013 data to 19 µg/L). Of the five ASBS 24 post-storm samples assessed for total zinc during Bight 2008, three had concentrations below the threshold (ranging from 0 to approximately 2.1 µg/L) and two were above the threshold (approximately 10.5 and 11.0 µg/L)(Schiff et al., 2011).

Samples collected as part of the Bight 2008 efforts were not analyzed for mercury or selenium, and thus no Bight 85th percentile thresholds were established for these constituents.

4.2.2 Total Suspended Solids

For TSS, the Bight 2008 85th percentile threshold was 16.5 mg/L(revised by Bight 2013 data to 55.4 µg/). Of the five ASBS 24 post-storm samples assessed for TSS during the Bight 2008, two had concentrations below the threshold (approximately 8.0 and 10.0 µg/L) and three were above the threshold (ranging from approximately 50 to 130 µg/L)(Schiff et al., 2011).

4.2.3 Total PAHs

For total PAHs, the Bight 2008 85th percentile threshold was 19.6 ng/L (revised by Bight 2013 data to 12.5 ng/L). Of the four ASBS 24 post-storm samples assessed for total PAHs during the Bight 2008, all four samples had concentrations below the threshold (approximately 0, 5, 8, and 11 ng/L)(Schiff et al., 2011).

4.2.4 Organophosphorus Pesticides and Pyrethroids

Samples collected as part of the Bight 2008 efforts were not analyzed for organophosphorus pesticides or pyrethroids, and thus no Bight 85th percentile thresholds were established for these constituents.

5.0 OUTFALL ASSESSMENT OF POLLUTANT LOAD REDUCTION TARGETS

An assessment of the potential pollutant load reductions targets was performed to determine the magnitude of controls required to be implemented in order to enhance the water quality of the ASBS. The first step in the assessment process was to evaluate wet weather receiving water quality monitoring data in comparison to data for reference monitoring sites, in accordance with the flowchart provided as Attachment 1 to the General Exception, to determine if an exceedance of the natural water quality currently exists (see Section 4.0). This evaluation determined that an exceedance of natural water exists for three constituents at receiving water Site S02 and discussed in more detail in Section 4.0. Water quality results from outfall monitoring were evaluated for the applicable constituent to identify discharge locations that have a potential to be contributing to the exceedance of natural water quality. More specifically, the assessment evaluated where BMPs may be required to achieve outfall design storm discharge concentrations, on average, by either: 1) end-of-pipe concentrations below the Table B Instantaneous Maximum Water Quality Objectives (WQOs) in Chapter II of the Ocean Plan, or 2) achieving a 90% reduction in pollutant loading during storm events for the responsible applicant's total discharge. The Ocean Plan was updated subsequent to the General Exception adoption. The updated Ocean Plan now refers to Table B as Table 1 (formerly Table B), and this Plan utilized the updated table title.

5.1 Outfall Wet Weather Monitoring Results

The General Exception states that the ASBS Compliance Plan shall describe how the necessary pollutant reductions in storm water runoff will be achieved through prioritization of outfalls and implementation of BMPs to reduce end-of-pipe pollutant concentrations during a design storm to below either the Table 1 Instantaneous Maximum WQOs in Chapter II of the Ocean Plan or a 90% reduction in pollutant loading during storm events for the applicant's total discharge. For the constituents that are currently in exceedance of the natural water quality of the ASBS (mercury, selenium, and total PAHs), this draft ASBS Compliance Plan evaluates outfall discharges in comparison to the Table 1 Instantaneous Maximum WQOs as the pollutant load targets in order to be in compliance with the General Exception.

Chemistry results obtained from outfalls to ASBS 24 during the February 2013, March 2013, and February 2014 storm events are presented on Table 5-1 through Table 5-3, respectively. Site ASBS-008 was not added to the monitoring list until after the February 19, 2013, storm event, so no data were collected during the first monitoring event. Site ASBS-008 was inadvertently not monitored during the third storm event. Sites ASBS-013, ASBS-016, and ASBS-031 did not flow during the February 19, 2013, storm event, and Sites ASBS-013 and ASBS-031 did not flow during the March 8, 2013, storm event. Site ASBS-031 did not flow during the February 2014 storm event. Outfalls that were less than 36 inches in diameter were evaluated for oil and grease and TSS only, while outfalls that were 36 inches or greater in diameter were evaluated for ammonia, nitrate, oil and grease, TSS, total orthophosphate, total metals, PAHs, organophosphorus pesticides, and pyrethroids. Table 5-1 through Table 5-3

Table 5-3 include both PAHs (based on 13 constituents listed in the Ocean Plan) and total PAHs (based on the 25 constituents analyzed by the laboratory based on guidance from the Bight 2013 Committee). These tables also list the more commonly detected individual pyrethroids as well as the total pyrethroids.

Table 5-1. February 2013 Outfall Chemistry Results

Parameter	Units	CA Ocean Plan	001	002	003	004	005	008	011	013	016[1]	018	021	022	023	024	025	026	027	028[2]	029	030	031
		Instantaneous Maximum	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013	2/19/2013
General Chemistry																							
Ammonia as N	mg/L	6			1.47		1.12	Not sampled		Not sampled	Not sampled		0.78	1	0.68					0.64			Not sampled
Nitrate as N	mg/L				10.15		5.57						4.48	8.24	12.45					7.02			
Oil & Grease	mg/L		1.3	1.4	1.6	4	1.6		<1			<1	<1	1.9	2.3	6	3.7	7	3.1	<1	<1	30.9	
Total Orthophosphate as P	mg/L				0.53		0.6						0.22	0.35	0.63					0.28			
Total Suspended Solids	mg/L		270.7	53.8	584	284	186.5		1.8			75.5	22.5	38.7	63.2	453	90.5	870	218	16.3	133	61.3	
Total Metals																							
Arsenic (As)	µg/L	80			2.129		1.664	Not sampled		Not sampled	Not sampled		1.15	0.949	2.231					0.876			Not sampled
Cadmium (Cd)	µg/L	10			0.3074		0.3482						0.0953	0.1168	0.201					0.269			
Chromium (Cr)	µg/L	20			10.1209		7.9002						1.393	3.1286	3.2046					1.8548			
Copper (Cu)	µg/L	30			63.557		30.469						11.434	84.928	266.162					13.136			
Lead (Pb)	µg/L	20			13.9921		5.8034						1.317	4.3272	4.8762					2.0076			
Mercury (Hg)	µg/L	0.4			0.1611		0.0505						<0.0012	<0.0012	<0.0012					<0.0012			
Nickel (Ni)	µg/L	50			11.5741		10.4739						2.7542	3.1307	7.007					5.2478			
Selenium (Se)	µg/L	150			0.794		0.102						0.138	0.151	0.355					0.435			
Silver (Ag)	µg/L	7			<0.01		<0.01						<0.01	<0.01	<0.01					<0.01			
Zinc (Zn)	µg/L	200			141.3834		128.8537						60.3801	135.3146	269.0515					38.9739			
Organophosphorus Pesticides																							
*All OP Pesticides	ng/L				ND		ND	N.S.		N.S.	N.S.		ND	ND	2868.9					ND			N.S.
Polynuclear Aromatic Hydrocarbons																							
Fluoranthene	ng/L				59.2		122	Not Sampled		Not Sampled	Not Sampled		26.9	70.9	101.2					<1			Not Sampled
PAHs[3]	ng/L				102		208.4						42	103.7	255.6					<1			
Total PAHs[4]	ng/L				161.2		341.4						68.9	174.6	380.2					6.1			
Pyrethroids																							
Bifenthrin	ng/L				700.8		<0.5	Not Sampled		Not Sampled	Not Sampled		<0.5	320.9	1184.5					<0.5			Not Sampled
Deltamethrin/Tralomethrin	ng/L				<0.5		<0.5						<0.5	<0.5	<0.5					<0.5			
Esfenvalerate	ng/L				152.4		<0.5						<0.5	<0.5	<0.5					<0.5			
All Other Pyrethroids	ng/L				29.3		ND						ND	ND	344.4					ND			
*Total Pyethroids	ng/L				882.5		ND						ND	320.9	1528.9					ND			

< - results less than the method detection limit (MDL).

ND - results less than the MDLs (multiple results)

Green fill- concentration is greater than California Ocean Plan Imax criteria

Note 1 - Site associated with Receiving Water Station S01

Note 2 - Site associated with Receiving Water Station S02

Note 3 - PAHs based on constituents listed in Ocean Plan

Note 4 - Total PAHs based on constituents listed in Bight 2013 Work Plan.

Table 5-2. March 2013 Outfall Chemistry Results

Parameter	Units	CA Ocean Plan	001	002	003	004	005	008	011	013	016[1]	018	021	022	023	024	025	026	027	028[2]	029	030	031
		Instantaneous Maximum	3/8/2013	3/8/2013	3/8/2013	3/7/2013	3/7/2013	3/8/2013	3/7/2013	3/7/2013	3/8/2013	3/8/2013	3/8/2013	3/7/2013	3/8/2013	3/8/2013	3/8/2013	3/7/2013	3/7/2013	3/8/2013	3/7/2013	3/7/2013	3/7/2013
General Chemistry																							
Ammonia as N	mg/L	6			2.1		4.75			Not Sampled	4.8		0.57	1.32	0.66					7.8			Not Sampled
Nitrate as N	mg/L				3.78		3.51				10.2		3.24	4.84	5.15					5.29			
Oil & Grease	mg/L		221.1	<1	1.1	83.4	<1	<1	<1		<1	<1	<1	<1	1.3	1.2	1.5	4.8	1.7	6.7	<1	1.2	
Total Orthophosphate as P	mg/L				0.5		0.34				0.79		0.51	0.16	0.51					0.75			
Total Suspended Solids	mg/L		531	52.7	315.7	17.5	37.1	115.4	<0.5		782	58.1	64.1	10.7	33	63.6	64.3	660	17.9	616	29.7	32.4	
Total Metals																							
Arsenic (As)	µg/L	80			2.505		1.43			Not Sampled	3.738		2.13	2.257	2.158					7.287			Not Sampled
Cadmium (Cd)	µg/L	10			0.6881		0.0848				1.2527		0.5355	0.0901	0.0767					10.9524			
Chromium (Cr)	µg/L	20			23.8781		2.5783				39.2081		7.1327	1.9708	1.8344					32.3596			
Copper (Cu)	µg/L	30			41.556		27.149				33.872		20.484	35.044	116.98					198.495			
Lead (Pb)	µg/L	20			19.8277		1.7097				10.1402		3.9416	1.0592	3.6519					46.2982			
Mercury (Hg)	µg/L	0.4			0.0238		0.0158				0.0236		0.0148	0.007J	<0.0012					0.0596			
Nickel (Ni)	µg/L	50			22.3039		4.5323				47.8272		10.479	2.0729	3.4917					77.0818			
Selenium (Se)	µg/L	150			0.363		0.115				0.176		0.076J	0.521	0.151					1.004			
Silver (Ag)	µg/L	7			<0.01		0.06				<0.01		0.08	0.06	0.04					0.06			
Zinc (Zn)	µg/L	200			142.7101		104.6536				125.2092		88.1959	41.841	157.6642					800.687			
Organophosphorus Pesticides																							
*All OP Pesticides	ng/L				ND		ND			N.S.	ND		ND	ND	4128.6					ND			N.S.
Polynuclear Aromatic Hydrocarbons																							
Fluoranthene	ng/L				199.3		29.4			Not Sampled	70		51.8	9.8	83.8					476			Not Sampled
PAHs[3]	ng/L				665.2		53				231.3		131.8	18.5	251.4					1145.6			
Total PAHs[4]	ng/L				1036.2		101.4				340.2		205.2	31.3	473.9					1754.2			
Pyrethroids																							
Bifenthrin	ng/L				214		<0.5			Not Sampled	<0.5		<0.5	74.6	167.5					203.9			Not Sampled
Deltamethrin/Tralomethrin	ng/L				<0.5		50.3				<0.5		<0.5	<0.5	<0.5					<0.5			
Esfenvalerate	ng/L				<0.5		<0.5				<0.5		<0.5	<0.5	<0.5					<0.5			
All Other Pyrethroids	ng/L				ND		37.8				ND		ND	ND	268.6					ND			
*Total Pyethroids	ng/L				214		88.1				ND		ND	74.6	436.1					203.9			

< - results less than the method detection limit (MDL).

ND - results less than the MDLs (multiple results)

Green fill- concentration is greater than California Ocean Plan Imax criteria

Note 1 - Site associated with Receiving Water Station S01

Note 2 - Site associated with Receiving Water Station S02

Note 3 - PAHs based on constituents listed in Ocean Plan

Note 4 - Total PAHs based on constituents listed in Bight 2013 Work Plan.

Table 5-3. February 2014 Outfall Chemistry Results

Parameter	Units	CA Ocean Plan	001	002	003	004	005	008	011	013	016[1]	018	021	022	023	024	025	026	027	028[2]	029	030	031	24-BB-02Z	24-BB-03Z
		Instantaneous Maximum	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014	2/28/2014
General Chemistry																									
Ammonia as N	mg/L	6			4.95		0.37	Not Sampled			0.68		0.43	1.51	<0.02					0.21			Not Sampled		0.47
Nitrate as N	mg/L				0.63		0.54				0.72		0.86	1.53	24.54					0.27					0.2
Oil & Grease	mg/L		<1	<1	2.5	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	2.5	1.3	1J	<1	1.3		ND	ND
Total Orthophosphate as P	mg/L				1.08		0.2				0.86		0.83	0.84	0.94					0.27					0.34
Total Suspended Solids	mg/L		79.2	296	5095	593	497		70.4	119	803	55.3	148	7.9	4.8	27.5	18.2	103.2	78.8	40.3	1.9	42.6		82.8	393
Total Metals																									
Arsenic (As)	µg/L	80			9.083		1.792	Not Sampled			2.748		3.523	3.733	4.731					0.656			Not Sampled		2.598
Cadmium (Cd)	µg/L	10			3.8221		0.5467				1.4084		0.5483	0.1789	0.2771					0.1864					0.5776
Chromium (Cr)	µg/L	20			75.3533		20.632				23.607		5.9767	2.1554	1.7879					1.2621					22.7594
Copper (Cu)	µg/L	30			109.663		27.954				29.906		25.054	56.105	84.921					26.219					28.435
Lead (Pb)	µg/L	20			71.7821		6.1139				8.1312		5.7255	2.1098	0.5393					17.5522					16.3304
Mercury (Hg)	µg/L	0.4			<0.0012		<0.0012				<0.0012		<0.0012	<0.0012	<0.0012					<0.0012					<0.0012
Nickel (Ni)	µg/L	50			91.1114		25.8248				38.049		9.1185	4.7738	8.8064					2.9016					11.9473
Selenium (Se)	µg/L	150			0.331		0.221				0.226		0.319	1.22	5.101					0.334					0.099
Silver (Ag)	µg/L	7			0.17		0.08				0.1		0.07	0.21	0.06					0.01J					0.02
Zinc (Zn)	µg/L	200			454.8282		98.3671				151.1528		93.2702	97.0057	199.0364					87.6536					177.7661
Organophosphorus Pesticides																									
*All OP Pesticides	ng/L				ND		ND	N.S.			ND		ND	ND	ND					ND			N.S.		ND
Polynuclear Aromatic Hydrocarbons																									
Fluoranthene	ng/L				753.3		243	Not Sampled			92.6		105.8	14.2	612.6					204.7			Not Sampled		210.7
PAHs[3]	ng/L				7159.2		906.4				778		570.3	54.7	1982.1					812.2					1633.1
Total PAHs[4]	ng/L				9115.8		1341.8				1087.2		773.6	130.2	3195.6					1178.8					2187.2
Pyrethroids																									
Bifenthrin	ng/L				694.4		43.4	Not Sampled			5.4		80.3	16.9	188.7					1673.6			Not Sampled		31.6
Deltamethrin/Tralomethrin	ng/L				<0.5		<0.5				<0.5		<0.5	<0.5	<0.5					<0.5					<0.5
Esfenvalerate	ng/L				15.6		<0.5				<0.5		1.5J	0.6J	<0.5					<0.5					<0.5
All Other Pyrethroids	ng/L				3979.8		1.6				132.4		7.6	86.6	19.9					2.2					44.6
*Total Pyethroids	ng/L				4689.8		45				137.8		89.4	104.1	208.6					1675.8					76.2

< - results less than the method detection limit (MDL).

ND - results less than the MDLs (multiple results)

Green fill- concentration is greater than California Ocean Plan Imax criteria

Note 1 - Site associated with Receiving Water Station S01

Note 2 - Site associated with Receiving Water Station S02

Note 3 - PAHs based on constituents listed in Ocean Plan

Note 4 - Total PAHs based on constituents listed in Bight 2013 Work Plan.

The Ocean Plan Table 1 Instantaneous Maximum WQOs for mercury and selenium are 0.4 µg/L and 150 µg/L, respectively. Table 1 does not list Instantaneous Maximum WQOs for PAHs. This Plan focused on mercury and selenium in this assessment of pollutant load reduction targets. During the three monitored events the sampling results were all below these Ocean Plan Table 1 Instantaneous Maximum values. During the first storm monitored in 2013 (February 8, 2013), the highest measured values mercury and selenium were 0.16 µg/L and 0.79 µg/L, respectively, at ASBS-003. Outfall ASBS-028 had measured mercury and selenium concentrations of 0.06 µg/L and 1.0 µg/L, respectively, during the second monitored storm, which occurred in March 2013. During the third monitored storm, which occurred in February 2014, the measured selenium concentration at Outfall ASBS-023 was the highest value measured at 5.1 µg/L. All outfall samples collected and analyzed for mercury had results of non-detect during the third event. The summary of the highest measured values in comparison with the Ocean Plan Table 1 Instantaneous Maximum values as well as other Ocean Plan Table 1 limiting concentrations is provided on Table 5-4.

Table 5-4. Ocean Plan Comparison to Summary of Maximum Outfall Results

	Ocean Plan Table 1 Values (Receiving Water Mixing Zone)			Maximum Measured Value (in Outfall Prior to Mixing Zone)		
Parameter	6-Month Median	Daily Maximum	Instantaneous Maximum	February 2013, Event 1	March 2013, Event 2	February 2014, Event 3
Mercury	0.04	0.16	0.4	0.16	0.06	<0.0012
Selenium	15	60	150	0.79	1.0	5.1

The summary table of maximum outfall results values for mercury and selenium indicate that the pollutant loading storm water discharges from outfalls for these constituents is far below the Ocean Plan Table 1 Instantaneous Maximum values. The highest mercury value measured is equal to the Ocean Plan Table 1 Daily Maximum values. The highest selenium value measured is below the Ocean Plan Table 1 Instantaneous Maximum with over an order of magnitude difference between the two. The highest selenium value measured is also below the most limiting concentration of the Ocean Plan Table 1, which the 6-Month Median value. The measured values of mercury and selenium, besides those presented in the summary table above, were significantly less than the maximum measured.

Common major sources of mercury include scrap metal piles, deteriorating metal and paint, and airborne emissions from burning coal, oil or municipal waste (UWE, 1997). Selenium is a naturally occurring element that persists in soils and aquatic sediments and may be leached from sediments as a result of modifications in the natural hydrologic regime (LARWQCB, 2002).

5.2 Outfall Assessment Conclusions

Following the guidance found in the Special Protections an assessment of outfalls was performed to determine where structural controls may be required to achieve the specified pollutant loading limitations on point source discharges into ASBS 24. Preceding the outfall assessment was the receiving water assessment that indicated, also based on the guidance found in the Special Protections, that there are exceedances of natural water in the receiving water during wet weather events for mercury, selenium, and total PAHs where samples were available for this assessment. The outfall assessment included comparing the monitoring data for mercury and selenium to

Exhibit H

Program Final Environmental Impact Report
SCH# 2011012042

Exception to the California Ocean Plan for Areas of Special Biological Significance Waste Discharge Prohibition for Storm Water and Nonpoint Source Discharges, with Special Protections

California 40 years of WATER LEADERSHIP
WATER BOARDS

February 21, 2012

RB-AR 6201

ASBS	Applicant	Pesticide/Herbicide Use
		Rodeo and Roundup applied prior to street resurfacing
30	Laguna Beach City	Fertilizers: Turf Supreme, Gro Power Plus, Grow More
		Pesticides/Herbicides: Roundup Pro, Fusilade II, Metaldyhyde 7.5,

5.8.1 – Exception Application Water Chemistry Data

Applicants applying for an exception to the Ocean Plan supplied sampling data from various waterbody types. This data, along with pertinent data from other sources (e.g., data from other storm water discharges already operating under an exception or samples collected by State Water Board staff) were assessed. Data for Ammonia (NH_3), Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Selenium (Se), Silver (Ag), Zinc (Zn), and Polynuclear Aromatic Hydrocarbons (PAH) are provided in Appendix 2 for discharges, receiving water, ocean waters away from discharges (i.e., background) and coastal streams draining in to ASBS. These data may be compared to the objectives for metals and ammonia in the California Ocean Plan Table B, shown in Table 5.8.2 (below). The Ocean Plan Table B 30 day average objective for PAHs is 0.0088 µg/L. In addition, a separate PAH, fluoranthene, has an individual 30 day average objective of 15 µg/L. However, the PAH objectives are provided in the Ocean Plan for human health (bioaccumulation/seafood consumption) and not for marine aquatic life protection.

Table 5.8.2. California Ocean Plan Table B Objectives

Constituent	Inst. Max.	Daily Max.	6 Mo. Median
Arsenic	80 µg/L	32 ug/L	8 ug/L
Cadmium	10 µg/L	4 ug/L	1 ug/L
Chromium	20 µg/L	8 ug/L	2 ug/L
Copper	30 µg/L	12 ug/L	3 ug/L
Lead	20 µg/L	8 ug/L	2 ug/L
Mercury	0.4 µg/L	0.16 ug/L	0.04 ug/L
Nickel	50 µg/L	20 ug/L	5 ug/L
Selenium	150 µg/L	60 ug/L	15 ug/L
Silver	7 µg/L	2.8 ug/L	0.7 ug/L
Zinc	200 µg/L	80 ug/L	20 ug/L
NH_3N	6,000 µg/L	2400 ug/L	600 ug/L

Ammonia nitrogen concentrations in receiving water and discharges ranged from 0.01 to190 mg/L (10 to 190,000 µg/L), with a median of 0.2 mg/L (200 µg/L). The highest concentration was from storm runoff from a roof at the Monterey Bay Aquarium (which is not addressed as a party in this exception but has applied for an individual exception.)

This high concentration may be due to gull and other bird droppings. The next highest concentration was 81.9 mg/L (81,900 µg/L) at the Pillar Point Air Force Base, which is a facility to be covered under this exception.

Table 5.8.3 provides the number of samples for copper, lead, nickel, zinc, and PAH for each sample category. It is important to note that while most of the data represented grab samples, a few data points represent composite sampling.

Table 5.8.3. Number of Samples Collected by Category and Constituent

Constituent	Waterbody Category	Number (n)
Copper	*Stream*	16
	Ocean Background Water	9
	Discharges	154
	Ocean Receiving Water	58
Lead	*Stream*	15
	Ocean Background Water	9
	Discharges	144
	Ocean Receiving Water	61
Nickel	*Stream*	15
	Ocean Background Water	9
	Discharges	128
	Ocean Receiving Water	58
Zinc	*Stream*	15
	Ocean Background Water	9
	Discharges	143
	Ocean Receiving Water	58
PAH	*Stream*	12
	Ocean Background Water	10
	Discharges	43
	Ocean Receiving Water	23

The data was assessed using SYSTAT software. Non-detects in the data set were converted to the numeric values of the detection limits in order to perform the statistical analysis. Generally, most of the baseline data was not normally distributed and exhibited high variability for most constituents and categories.

The following figure displays the data distributions for copper, lead, nickel, and zinc.

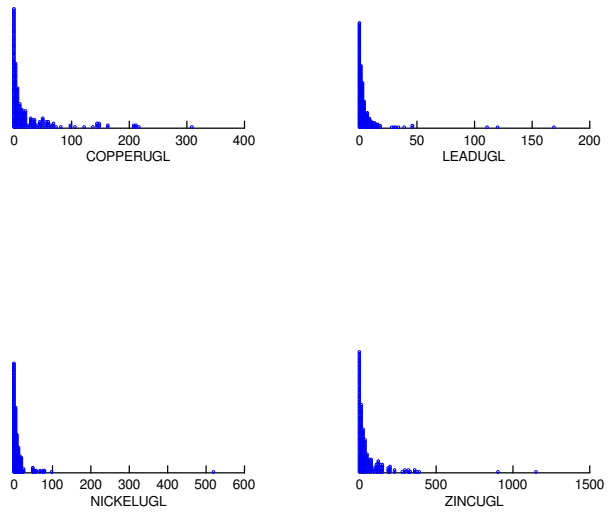

Figure 5.8.1. Data Distributions for Copper, Lead, Nickel, and Zinc.

Based on the skewed nature of the data, a log transformation was performed and "box and whiskers" graphs are provided below to present the data.

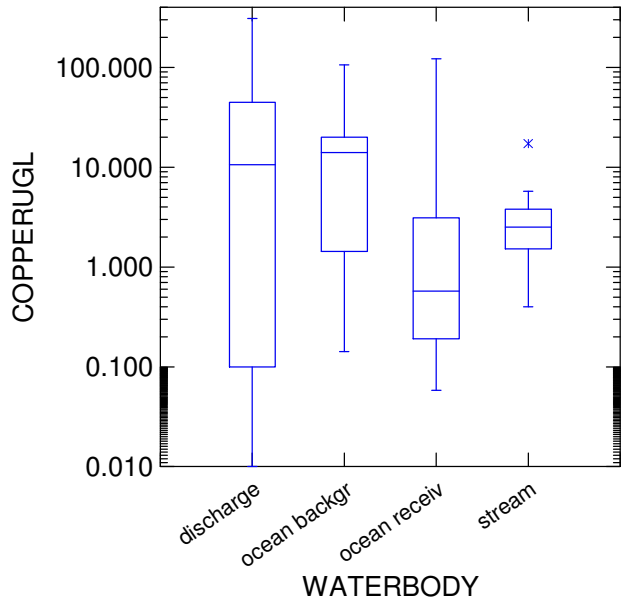

Figure 5.8.2. Copper

The median copper concentration for discharges was 10.6 µg/L and the maximum concentration was 309 µg/L. Seventy-five percent (75%) of the discharge results for copper were below 44.7 µg/L.

Ocean receiving water had a median value of 0.57 µg/L and the maximum concentration was 122 µg/L. Seventy-five percent (75%) of the copper results in the samples were below 3.1 µg/L and 90% are below 26.81 µg/L. The Ocean Plan six-month median is 3.0 µg/L for copper, and the instantaneous maximum is 30 µg/L.

Although based on only nine samples, copper data for ocean waters away from the discharge ("background") was elevated and variable. The median copper concentration in background waters was 14.0 µg/L. This indicates the possibility that ASBS waters may have elevated copper concentrations from sources other than direct discharges such as developed watersheds, even those outside of the ASBS boundaries. Streams draining to ASBS had a median copper concentration of 2.5 µg/L, which is lower than the median copper level in discharges.

Copper is a common constituent in urban runoff and is leached from anti-fouling coatings on vessel hulls. Copper at high levels (above the Ocean Plan standards) is toxic to critical life stages of marine life including the brown alga *Macrocystis pyrifera,* and echinoderms. According to a review by Saiz (1996) the mean no effects concentration (NOEC) for giant kelp gametophyte growth is 16.7 µg/L, and for sea urchin fertilization it is 9.1 µg/L (see Table 5.8.4.).

Table 5.8.4. Data derived from a Comparison of Critical Life Stage Bioassays Performed by Several Different Laboratories

Test Species	Mean NOEC µg/L	st. dev.
Giant Kelp (*Macrocystis pyrifera* gametophyte growth)	16.7	3.4
Giant Kelp (*Macrocystis pyrifera* gametophyte fertilization)	36.2	14.7
Sand Dollar (*Dendraster excentricus* fertilization	11.6	3.4
Purple Sea Urchin *Strongylocentrotus purpuratus* fertilization)	9.1	4.0

In abalone, copper accumulates in the gill, digestive gland, and foot muscle. The gill is the primary site of copper accumulation and toxicity, while the foot and adductor muscles are secondarily impacted. Mucus accumulation or cytological damage at the gill from the accumulation of copper inhibits sufficient oxygen delivery to the muscles. Since their survival is dependent on adherence to rock surfaces, a reduction of muscle

function could be fatal. In addition, abalone exposed to copper may develop asphyxial hypoxia (Viant, Walton, TenBrook, Tjeerdema 2001). Giant kelp, abalone, and echinoderms are present in ASBS.

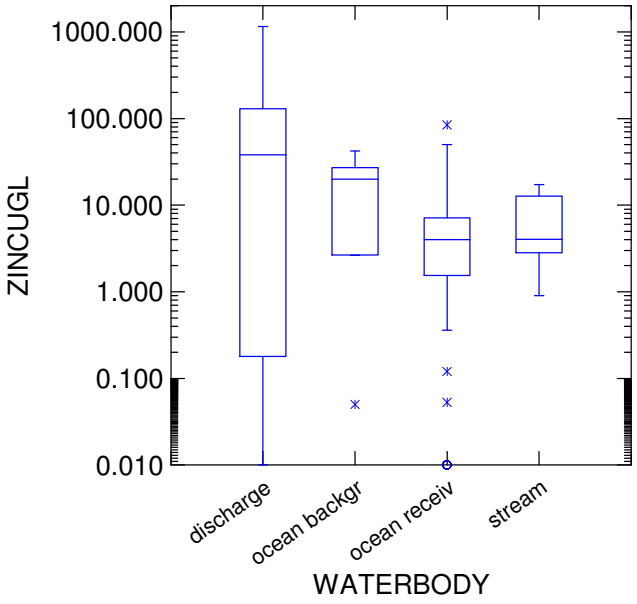

Figure 5.8.3. Zinc

Zinc is another common constituent in urban runoff and is also discharged from vessel hulls (zinc sacrificial anodes). Zinc concentrations were higher in discharges than in the other categories. The median zinc concentration for discharges was 38.0 µg/L and the maximum concentration was 1,150 µg/L. Seventy-five percent (75%) of the discharge results for zinc in the discharges category were below 129.75 µg/L.

Ocean receiving water had a median concentration value of 4.009 µg/L and the maximum concentration was 84.2 µg/L. Seventy-five percent (75%) of the zinc results in the samples were below 7.1 µg/L and 90% were below 30.62 µg/L. The Ocean Plan six-month median is 20 µg/L and the instantaneous maximum is 200 µg/L.

Although based on only nine samples, zinc data for background waters were somewhat elevated. The median zinc concentration in background waters was 20.0 µg/L and the maximum concentration was 42 µg/L. This again indicates the possibility that ASBS waters may have elevated zinc concentrations from sources other than direct discharges. Streams draining into ASBS had a median zinc concentration of 4.046 µg/L, which is lower than the median zinc level in discharges.

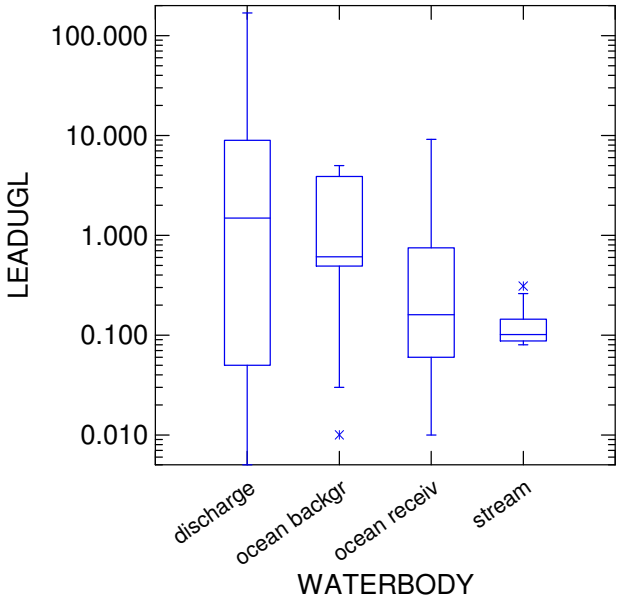

Figure 5.8.4. Lead

Lead concentrations were again higher in discharges category. The median lead concentration for discharges was 1.495 µg/L and the maximum concentration was 169 µg/L. Seventy-five percent (75%) of the discharge results for lead in discharges were below 8.95 µg/L.

Ocean receiving water had a median concentration value of 0.16 µg/L and the maximum concentration was 9.14 µg/L. Seventy-five percent (75%) of the lead results in samples were below 0.751 µg/L and 90% were below 5.0 µg/L. The Ocean Plan six-month median is 2 µg/L and the instantaneous maximum is 20 µg/L.

Although based on only nine samples, lead data for background waters were slightly elevated. The median lead concentration in background waters was 0.607 µg/L and the maximum concentration was 5.0 µg/L. This again indicates the possibility that ASBS waters may have elevated lead concentrations from sources other than direct discharges, such as developed watersheds, even those outside of the ASBS boundaries. Streams draining into ASBS had a median lead concentration of 0.101 µg/L, which is lower than the median lead level in discharges.

One source of lead toxicity found in the environment is anthropogenic activity, including old plumbing found in houses built before 1986. However, even new homes that claim to have “lead-free” plumbing may still contain up to eight percent lead (EPA, 2006). Lead may also be found naturally in the environment. Lead binds to sediment particles

in aquatic environments and does not accumulate in fish, but does in some shellfish and mussels (EPA, 2006).

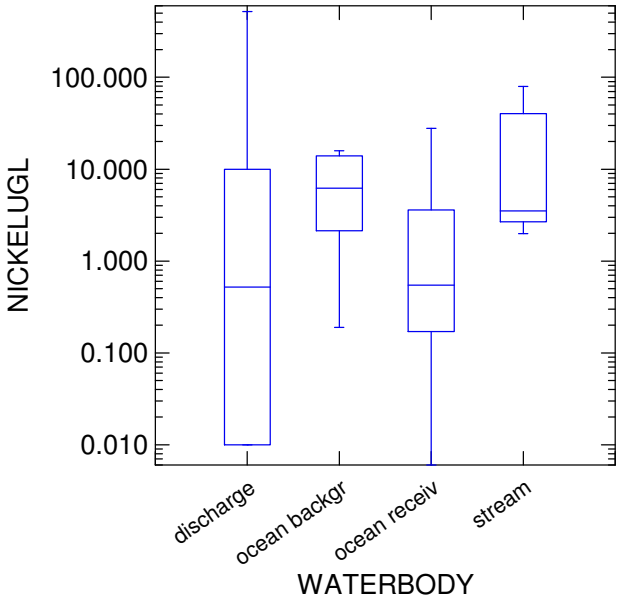

Figure 5.8.5. Nickel

Nickel concentrations were again higher in the discharges category. The median nickel concentration for discharges was 0.52 µg/L, but the maximum concentration was 520 µg/L. Still, 75% of the discharge results for nickel in discharges were below 9.94 µg/L.

Ocean receiving water had a median concentration value of 0.547 µg/L and the maximum concentration was 27.9 µg/L. Seventy-five percent (75%) of the nickel results in samples were below 3.6 µg/L and 90% were below 14.26 µg/L. The Ocean Plan six-month median is 5 µg/L and the instantaneous maximum is 50 µg/L.

Although based on only nine samples, nickel data for background waters were slightly elevated. The median nickel concentration in background waters was 6.2 µg/L and the maximum concentration was 15.9 µg/L. This again indicates the possibility that ASBS waters may have elevated nickel concentrations from sources other than direct discharges, such as developed watersheds, even those outside of the ASBS boundaries.

Streams draining into ASBS had a median nickel concentration of 3.5 µg/L, which is higher than the median nickel level in discharges. Therefore, some component of the nickel in the discharges may be from natural geologic sources.

Nickel has adverse effects on aquatic life such as bacteria, protozoans, mollusks, crustaceans, echinoderms, fishes, amphibians, etc. (Eisler, 1998). Nickel is sometimes found in anthropogenic discharges from mining, industrial, and urban areas. Natural sources of nickel primarily stem from certain minerals (e.g., chalcopyrite, pyrrhotite, pentlandite, garnierite, niccolite, zaratite, and millerite) (EPA nickel, 2006).

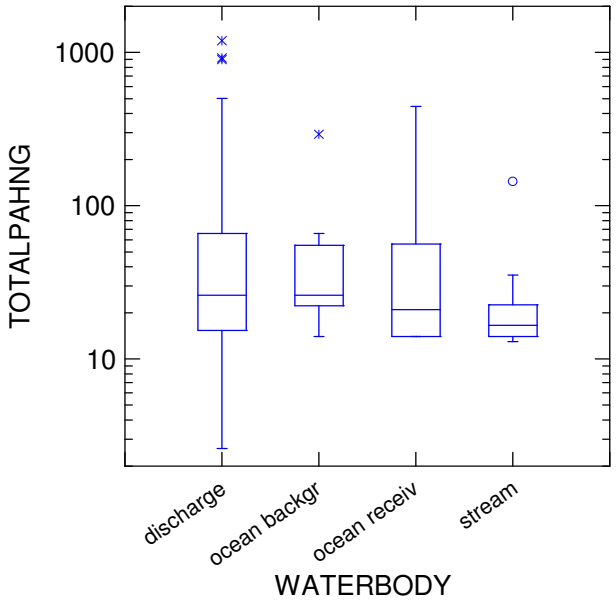

Figure 5.8.6. Ocean Plan PAH

For purposes of recording and assessing PAH data, fluoranthene was combined with the other Ocean Plan PAH compounds. Median and 75th percentile PAH values for discharges, receiving water, and background waters were all somewhat similar. Streams had a similar median level, but a lower 75th percentile value. The discharge PAH concentrations displayed the most variability, with many outliers. Maximum values were much higher for discharges. (It should be noted that the City of San Diego's PAH data was not included in the graph because their Method Detection Limit was measured in micrograms per liter rather than nanograms per liter, thus making all reported levels "Non-Detect" without actual reported levels.)

PAHs may be found in crude oil and petroleum products, and also as a result from the combustion of hydrocarbons. PAHs are known constituents in storm water discharges. The sealcoat found on the surfaces of asphalt, especially parking lots, are a huge source of PAHs found in the environment (USGS PAHs, 2007). The sealcoat can flake off from cars driving on it and then be washed away by rain or erosion into natural bodies of water. Other sources of PAHs include dyes, plastics, and pesticides (EPA PAHs, 2006). PAHs can also bind to sediments in aquatic environments; this leads to

problems in these ecosystems that include: inhibited reproduction, delayed emergence, sediment avoidance, and mortality in aquatic invertebrates (USGS PAHs, 2007).

Based on the available results, 11 ASBS did not have metal concentrations in receiving water or discharges above the instantaneous maximum objectives. However, seven did have receiving water or discharge levels above the instantaneous maximum objectives. At the Heisler Park ASBS, the City of Laguna Beach reported elevated levels of copper at a storm drain flow (high reading of 36 µg/L). At the La Jolla ASBS, the City of San Diego reported five elevated levels of copper (high reading of 81.2 µg/L) in storm drain samples taken. At Laguna Point to Latigo Point, the County of Los Angeles reported elevated levels of chromium at four locations (high reading of 97 µg/L) and copper at four locations (high reading of 81.2 µg/L) in storm drain samples taken.

The City of Pacific Grove and Hopkins Marine Laboratory reported elevated levels of zinc at one location (high reading of 201µg/L), copper at two locations (high reading of 69.2 µg/L), mercury at one storm drain was 0.72 µg/L. (While mercury was elevated, the sampling procedures might not have been adequate to avoid sample contamination. Therefore, the mercury results may or may not be relevant, but are reported anyway.)

At SCI, the Department of Defense, US Navy, reported elevated levels of arsenic at two locations (high reading of 87 µg/L), chromium at seven locations (high reading of 1,010 µg/L), copper at fifteen locations (high reading of 309 µg/L), lead at six locations (high reading of 169 µg/L), nickel at five locations (high reading of 520 µg/L), zinc at six locations (high reading of 1150 µg/L), and mercury at one location (high reading of 0.6 µg/L) in storm drain samples taken. (Again, while reported here, there is some question regarding the adequacy of sampling techniques for mercury.)

At Northwest Santa Catalina Island, the Santa Catalina Island Company reported elevated levels of chromium at two locations with a high reading of 43.8 µg/L in storm water runoff. At Southeast Santa Catalina Island, the Connelly-Pacific Company reported elevated levels of copper at three locations (high reading of 40.5 µg/L), and nickel at one location (high reading of 54.00 µg/L) in storm water runoff.

Sea otters and other marine wildlife inhabit certain ASBS. Recently sea otters, which inhabit the ASBS along the Central Coast, have been affected by disease and contaminants. Disease is responsible for roughly 40 percent of the deaths; a rate that is relatively high when compared to disease-caused deaths in other wild predators (USGS 1999). The most frequent infectious disease identified has been toxoplasmosis. *Toxoplasma gondii*, a protozoan disease spread by cat feces, causes inflammation of the brain. Other disease-causing agents have also been identified. The sources of *T. gondii* are terrestrial and may be linked to wastewater treatment plant discharges and/or storm water discharges (SWRCB 2006). Coliform and *Enterococcus* bacteria provide

an indication of the presence of fecal contamination, and some part of that fecal contamination may be from domestic animals. For some ASBS, discharge samples were analyzed for indicator bacteria (fecal coliform, total coliform, and enterococci). For fecal coliform, there was a minimum concentration of 1.1 MPN/100 mL, a median of 1,600 MPN/100 mL, and a maximum of 72,699 MPN/100 mL. For total coliform, there was a minimum concentration of 1.1 MPN/100 mL, a median of 4,673 MPN/100 mL, and a maximum of 160,000 MPN/100 mL. For enterococci, there was a minimum concentration of 1.1 MPN/100 mL, a median of 1,702 MPN/100 mL, and a maximum of 92,080 MPN/100 mL.

5.8.2 – Exception Application Toxicity Data

Toxicity tests evaluate the biological response of organisms to the effluent and measure the acceptability of waters for supporting a healthy marine biota. Acute aquatic toxicity tests result in endpoint referred to as a "lethal dose 50" (LC50). The LC50 is the dose that produces mortality in 50% of the test organisms. A high LC50 value indicates low acute toxicity and a low LC50 indicates high toxicity. "Toxicity Units Acute" (TUa) are inverses of the LC50s and are calculated by dividing 100 by the LC50 resulting from a 96-hour toxicity test. High TUa values indicate high toxicity. The Ocean Plan daily maximum objective is 0.3 TUa for acute toxicity.

Samples at various ASBS were measured for acute toxicity in storm water runoff. Eleven samples of storm water runoff were tested for acute toxicity to fish, and many exhibited acute toxic at only moderate levels at or below 1.0 TUa; the most toxic was at the James V. Fitzgerald ASBS with a TUa for two discharge samples of 1.0. Most storm water runoff was not acutely toxic to crustaceans (mysids). However, eight out of 18 samples did exhibit moderate levels of acute toxicity to mysids. The highest acute toxicity to mysids was found in two samples from the City of Pacific Grove runoff discharges into Pacific Grove ASBS, with both samples having a TUa of 1.0.

Thirty six (36) samples of ocean receiving water near storm runoff were also measured for acute toxicity to fish and/or mysids. Half of these samples exhibited no acute toxicity, with the other half exhibiting only slight or moderate acute toxicity. Of these receiving water samples the most toxic of these were at La Jolla ASBS, where two samples had an LC50 for mysids of >75% (95% survival in 65% concentration, 1.33 TUa). One sample of ocean background water offshore of the La Jolla ASBS also displayed slight acute toxicity, with an LC50 for mysids of >75% (1.33 TUa).

Regarding chronic toxicity, the "No Observed Effect Level" (NOEL) is the highest concentration of effluent or receiving water that causes no observable adverse effects on the test organisms in a critical life stage bioassay. NOELs of 100 percent indicate that there was no observed toxicity; NOELs less than 100 percent indicate increasing toxicity with decreasing percent concentration. "Toxicity Units Chronic" (TUc) are

inverses of the NOELs and are calculated by dividing 100 by the NOEL resulting from a critical life stage toxicity test. High TUc values indicate high chronic toxicity. The Ocean Plan daily maximum objective is 1.0 TUc for chronic toxicity. The results of chronic toxicity tests on critical life stages of marine life are more sensitive than acute toxicity results and are therefore more informative for purposes of evaluating ASBS discharges.

Samples at various ASBS were tested for chronic toxicity in storm water runoff. Only one (1) of the 35 runoff samples exhibited slight chronic toxicity to fish. However, invertebrates and kelp displayed more sensitivity to runoff samples. Twenty one (21) out of 29 samples exhibited chronic toxicity to giant kelp greater than the Ocean Plan objective of 1.0 TUc, with the highest values of $\geq$16 TUc at Trinidad Head, Carmel Bay, Laguna Point to Latigo Point, and La Jolla ASBS. Twelve (12) out of 15 samples exhibited some chronic toxicity to mysids greater than the Ocean Plan objective of 1.0 Tuc, with the highest chronic toxicity (>16 TUc) at Heisler Park ASBS. Twelve (12) out of 12 samples exhibited chronic toxicity to sea urchins greater than the Ocean Plan objective of 1.0 TUc, with seven samples exhibiting the highest chronic toxicity of 32.0 TUc. Mollusks appeared to have sensitivity to runoff, with five (5) out of six (6) runoff samples tested with bivalves having TUc > 1.0 and the two (2) samples of runoff tested with abalone both had TUc > 1.0, (2.0 and 4.0, TUc, both Carmel Bay ASBS).
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Thirty nine (39) samples at various ASBS were also tested for chronic toxicity to various species in ocean receiving water. Only two (2) 0out of 38 samples exhibited chronic toxicity to fish greater than the Ocean Plan objective of 1.0 TUc, with the highest chronic toxicity (4.0TUc) at Northwest Santa Catalina Island ASBS at the Isthmus Cove. Ten (10) out of 33 samples exhibited chronic toxicity to giant kelp greater than the Ocean Plan objective of 1.0 TUc, with the highest values of 8.0 TUc at Carmel Bay ASBS (Stillwater Cove Pier) and 16.0 TUc at La Jolla ASBS. Only two (2) out of nine (9) samples exhibited slight chronic toxicity to mysids just above the Ocean Plan objective of 1.0 Tuc. Five (5) out of eleven (11) samples exhibited chronic toxicity to sea urchin fertilization greater than the Ocean Plan objective of 1.0 TUc; notably two samples, at Northwest Santa Catalina Island ASBS at Isthmus Cove were very toxic with $\geq$16.0 TUc. Two (2) out of nine (9) receiving water samples tested with bivalves had TUc > 1.0, and none of the two samples of receiving water tested with abalone exhibited chronic toxicity.

5.8.3 - ASBS Application Water Quality Data – Staff Conclusions

It is clear that ASBS discharges generally contain some concentrations of anthropogenic waste. However, it appears that a majority of the ASBS waste discharges exhibited metal concentrations below instantaneous maximum objectives, and a majority of ASBS receiving waters had concentrations of ocean plan metals below

the six-month median objective for the protection of marine aquatic life. While most of the discharge samples exhibited chronic toxicity to marine life, the majority of the receiving water samples met the daily maximum chronic toxicity objective. Based on its review of the above baseline chemistry and toxicity data, there is ample evidence to support an Ocean Plan exception for nonpoint source and storm water discharges, but only if such discharges are properly controlled to better maintain natural water quality in ASBS.

Still, a number of discharges had elevated metals and PAH concentrations, and exhibited toxicity, and a few receiving water samples were in violation of Ocean Plan objectives. The testing described above generally had very little replication. This indicates that current waste concentrations are temporally and/or spatially variable. In other words, a given waste discharge may meet objectives at least some of the time, but not necessarily all of the time; some other waste discharges definitely do not have adequate BMPs to prevent violation of objectives all of the time, as displayed by some of the minority samples described above. Therefore, BMPs should be designed and implemented to insure maintenance of natural water quality in ASBS receiving water during design storms. The adoption of Special Protections will reduce wastes in discharges to achieve and maintain natural water quality in ASBS. In addition, discharges and receiving water must be adequately monitored to insure compliance with the Special Protections, based on the range of natural water quality conditions at approved reference stations.

The background (away from the direct discharges) ocean water quality data indicated a majority of samples exhibited concentrations of certain metals above the Ocean Plan six month medians. This may be due to the small sample size, but some of the results may be inaccurate due to inadequate methods. Another possibility is that these elevated levels are real and represent pollution from indirect and possibly distant watershed sources. It is important to remember that these “background” ocean water samples were not approved reference sites (SCCWRP 2010) and therefore do not represent “natural water quality. ”Should post-exception sampling indicate that some ASBS have background water quality at levels above natural water quality, then further assessment should be performed to identify and control the sources where feasible.

As noted above there was a large variance in the data set. Some part of these large data ranges may represent true variability in the environment. However, staff believes that there was also a fair amount of inconsistency in the applicants’ sampling and analysis methodology, which may have contributed somewhat to the variance of the exception application results as well. Regional monitoring programs, with consistent methodology and statewide compatibility, were therefore employed to improve data quality and utility.

5.8.4 - ASBS Regional Monitoring

As described above, a better approach for future ASBS monitoring would be to take a collaborative and coordinated regional approach. Therefore, staff requested the Southern California Coastal Water Research Project to assist, with stakeholder participation, in developing a scientifically sound regional monitoring approach. The goal of this monitoring program is to answer three questions:

- What is the range of natural water quality at reference locations?
- How does water quality along ASBS coastline compare to the natural water quality at reference locations?
- How does the extent of natural quality compare among ASBS with or without discharges?

It was agreed that the regional programs would focus on ASBS ocean water quality. Marine samples would also be collected at reference watershed conditions to answer question number one. Reference conditions were determined as follows:

- At the mouth of a watershed with limited anthropogenic influences and with no offshore discharges in the vicinity.
- Limited anthropogenic influence is defined as a minimum of 95% open space. Preferably, the few anthropogenic sources in a reference watershed will be well attenuated (e.g., natural space buffers between a highway and the high tide line).
- There should be no 303(d) listed waterbodies either in the reference watershed or in the coastal zone.

In the 2007-2008 winter season, a pilot study (SCCWRP 2009) was performed on potential reference sites. Table 5.8.5 provides average results and data ranges for all potential reference site samples:

Table 5.8.5. Statewide Pilot Study Potential Reference Sites Average Results and Data Ranges for All Samples Winter Season 2007-2008

Constituent	Units	All Sites n = 8
TSS	mg/L	40.8 (2.3 - 180)
Ammonia	mg/L	0.02 (ND - 0.04)
Nitrate	mg/L	0.02 (ND - 0.06)
Nitrite	mg/L	0.005 (ND - 0.01)
Phosphorus	mg/L	0.19 (ND - 1.13)
Chromium	µg/L	0.87 (0.1 - 3.17)
Copper	µg/L	0.86 (ND - 2.76)
Lead	µg/L	0.98 (ND - 4.65)
Nickel	µg/L	1.53 (ND - 4.58)
Zinc	µg/L	2.13 (ND - 9.37)
Total PAH	µg/L	0.081 (0.001 - 0.444)
Total DDT	µg/L	ND
Total PCB	µg/L	ND
Toxicity Assay	% fertilization	96.8 (92 - 99)

It is clear from the above information (Table 5.8.5.) that the mean values for ammonia and metals were below Ocean Plan six-month medians objectives. The only constituents with maximum values slightly above the six month medians were chromium and lead; in the case of chromium the objective is based on hexavalent chromium, and the chromium value presented above was for total chromium. PAHs were present but are known to be naturally present in watersheds and submarine geological features. Most importantly there were no detectable levels of the synthetic pollutants DDT and PCB in the samples. Although there was a small sample size, and this work only represents one winter season, this first year pilot study may give us a good picture of nearshore ocean natural water quality.

Not all of the eight samples were collected when surface stream runoff entered ocean waters. However when comparing samples with surface drainage influence and with samples when no drainage was occurring, the average values for metals and PAH was slightly higher when there was no drainage. This indicates a likelihood that stream runoff provides some reduction of metal and PAH concentration due to natural dilution.

Table 5.8.6. Statewide Pilot Study Potential Reference Sites Regional Comparison of Potential Reference Stations

Constituent	Units	North Coast n = 1	Central Coast n = 2	South Coast n = 2
TSS	mg/L	12.3	5.35 (2.3 - 8.4)	34.5 (21.7 - 47.2)
Ammonia	mg/L	0.03	0.02 (ND - 0.04)	0.015 (ND - 0.03)
Nitrate	mg/L	0.06	0.01	0.005 (ND - 0.01)
Nitrite	mg/L	0.01	ND	0.005 (ND - 0.01)
Phosphorus	mg/L	ND	ND	0.016 (ND - 0.032)
Chromium	µg/L	1.12	0.11 (0.1 - 0.12)	0.76 (0.6 - 0.92)
Copper	µg/L	1.07	0.31 (ND - 0.62)	0.91 (0.28 - 1.54)
Lead	µg/L	0.15	0.20 (ND - 0.39)	1.11 (0.51 - 1.71)
Nickel	µg/L	1.56	0.66 (ND - 1.31)	1.88 (0.53 - 3.23)
Zinc	µg/L	ND	0.77 (0.1 - 1.45)	2.56 (2.44 - 2.69)
Total PAH	µg/L	0.003	0.003 (0.001 - 0.004)	0.018 (0.012 - 0.024)
Total DDT	µg/L	ND	ND	ND
Total PCB	µg/L	ND	ND	ND
Toxicity Assay	% fertilization	98	96.5 (96 - 97)	95.5 (92 - 99)

One concern voiced by stakeholders is that there may be differences in natural water quality in different regions of the state. Table 5.8.6. represents a regional comparison of the potential reference station results. There were only slight differences between regions with regard to individual constituents, but there are no clear trends overall. This may be due to the small sample size, so additional work should be performed regionally.

The State Water Board funded a statewide monitoring program during the winter of 2008-09 to assess water quality in ASBS near and far from direct discharges. Over 100 chemical constituents and toxicity were measured from 62 sites using a probabilistic study design; roughly half of sites were sampled in the ocean directly in front of a direct discharge into an ASBS and the other half were located in the ocean greater than 500 m from a direct discharge. Sample sites greater than 500 m from direct discharges may be influenced by other watershed drainages either into or outside of the ASBS, and therefore may represent background but not necessarily natural conditions. Samples at each site were collected less than 24 hr before rainfall and again less than 24 hr after rainfall. Ocean receiving water sites were sampled at most mainland ASBS in California.

The statewide survey illustrated generally good chemical water quality in mainland ASBS sites (Table 5.8.6). None of the constituents exceeded the instantaneous maximum objective in the California Ocean Plan. Seven constituents did not exceed the Ocean Plan's six month median or 30 day average (depending on the specific constituent) including strictly synthetic anthropogenic chemicals such as DDTs or PCBs.

Six constituents (arsenic, cadmium, copper, lead, nickel and zinc) exceeded the six month median but only for relatively small (< 15%) portions of mainland ASBS shoreline. Many of these constituents are common in urban stormwater, but also have natural sources. The lack of excessive chemical contamination in ASBS receiving waters was supported by infrequent (<5% of ASBS shoreline) chronic toxicity to a California endemic species (the purple sea urchin, *Strongylocentrotus purpuratus*).

There were two constituents, chromium and polycyclic aromatic hydrocarbons (PAHs), that exceeded Ocean Plan objectives over relatively large proportions of ASBS shoreline. Chromium exceeded objectives over 50% of ASBS mainland shoreline miles and PAHs exceeded objectives over 87% (Table 5.8.7.). The extent of Ocean Plan exceedence for these two constituents was similar near and far from discharges following storm events, and exceedances of the standards was similar between pre-storm and post-storm conditions near discharges. [9]

Both chromium and PAHs have natural and anthropogenic sources. The chromium objective is based on the more toxic form, hexavalent chromium, but total chromium was analyzed for the statewide probabilistic study. Chromium is a natural product of erosion including that from metamorphic rock, and there is no reason to believe that natural rock erosion products contain significant hexavalent chromium. Also, as mentioned previously, there are natural sources of PAHs (including hydrocarbon seeps, wildfires and plants) and direct atmospheric is another possible source. Furthermore, the objective for PAH is based on human health through bioaccumulation in seafood, and not on the protection of marine aquatic life. Since exceedences were similar between pre-storm and post-storm conditions near discharges, the sources of elevated PAHs may not only be storm related, and may include coastal and beach sediment.

[9] Report to the State Water Resources Control Board, Summation of Findings, Natural Water Quality Committee, 2006-2009, September 1, 2010.

Table 5.8.7. Statewide Probabilistic Study Percent of ASBS shoreline that exceeded State Water Board Ocean Plan objectives following storm events.

	Ocean Plan Objective	% Shoreline Greater Than OP Objective		
		All ASBS	<500 m from Discharge	>500 m from Discharge
Ammonia-N[1]	0.6 mg/L	--	--	--
Arsenic[1]	8 ug/L	1.6	2.7	--
Cadmium[1]	1 ug/L	2.1	3.6	--
Chromium[1]	2 ug/L	50	61	35
Copper[1]	3 ug/L	6.9	4.8	9.8
Lead[1]	2 ug/L	4.8	--	11.5
Nickel[1]	5 ug/L	15	24	3
Silver[1]	0.7 ug/L	--	--	--
Zinc[1]	20 ug/L	3.8	6.5	--
HCH-lindanes[2]	8.0 ng/L	--	--	--
Chlordane[2]	0.023 ng/L	--	--	--
DDTs[2]	0.17 ng/L	--	--	--
Dieldrin[2]	0.04 ng/L	--	--	--
PAHs[2]	8.8 ng/L	87	85	89
PCBs[2]	0.019 ng/L	--	--	--

[1] 6-month median
[2] 30-day average

A collaborative ASBS effort was formed between several exception applicants, the State and Regional Water Boards, and SCCWRP in southern California as part of the Southern California Bight regional monitoring program (Bight'08). This study identified and sampled reference sites to measure natural water quality. Stakeholders agreed on reference site criteria that avoided anthropogenic sources by sampling in the surf zone at the mouth of streams located in watersheds having less than 90 % development. Reference site concentrations were then compared to concentrations measured near ASBS direct discharges. Similar to the statewide probabilistic survey described above, Bight'08 focused on wet weather.

Regional reference results had generally low concentrations of Ocean Plan constituents (Table 5.8.8) and a lack of chronic toxicity to sea urchin fertilization. Results were somewhat similar to the pilot reference study for most constituents, with the exception of total suspended solids (which was much higher in the Bight 08 study); this difference was likely due to the larger number of samples and different storm conditions in Bight 08. In the Bight 08 monitoring study, following storms, mean reference site concentrations for six out of eight Ocean Plan metals were at or below the six month median objective, with cadmium and lead having mean concentrations only slightly higher (less than 1.0 ug/L greater) than the objective. The maximum concentration for

reference sites exceeded Ocean Plan objectives for seven metals (cadmium, chromium, copper, lead, nickel, silver and zinc). Maximum concentrations for four of these metals (cadmium, chromium, lead and silver) exceeded the daily maximum following storms, but none exceeded the instantaneous maximum. The mean concentration for PAHs at reference sites was also greater than the 30 day average objective. [10]

Table 5.8.8. Southern California Bight Study Minimum, maximum, median, and mean (± 95% confidence interval) of post-storm chemical concentrations at reference sites in the southern California Bight during 2009.

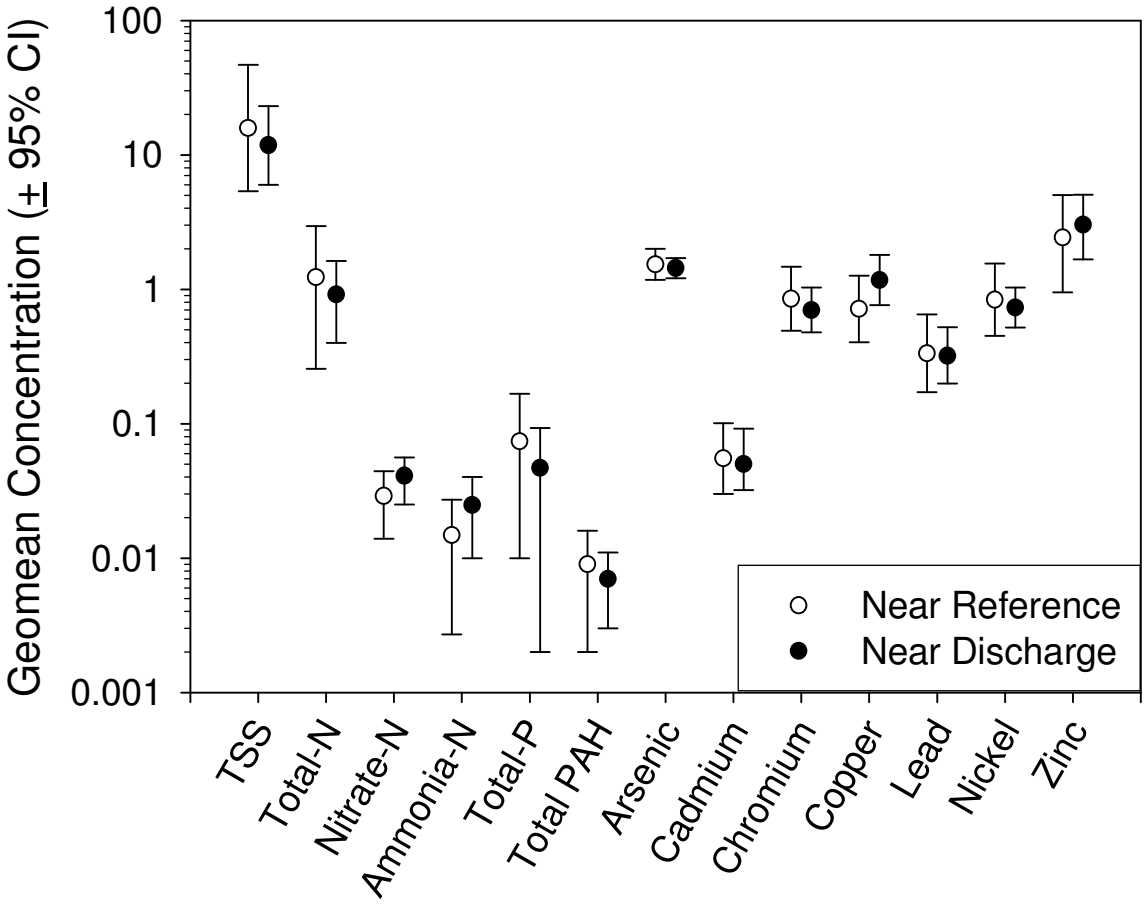
Parameter	Reference Site Concentrations							Ocean Plan Objective
	Units	%ND	Min	Median	Max	Mean	(±)95% CI	
TSS	mg/L	8	Nd	7.7	1692	140	171	-
Ammonia-N	mg/L	64	Nd	nd	0.05	0.01	0.01	0.6
Nitrate-N	mg/L	24	Nd	0.04	0.10	0.05	0.01	-
Nitrite-N	mg/L	88	Nd	nd	0.010	0.002	0.002	-
Total-P	mg/L	44	nd	0.05	0.59	0.08	0.05	-
Total-N	mg/L	65	nd	nd	7.0	0.9	0.7	-
Arsenic	ug/L	0	0.5	1.5	5.0	1.8	0.4	8
Cadmium	ug/L	4	nd	1.5	4.5	1.8	0.5	1
Chromium	ug/L	0	0.2	0.5	16.9	1.9	1.4	2
Copper	ug/L	0	0.05	0.5	6.1	1.1	0.6	3
Lead	ug/L	0	0.1	0.6	9.5	2.4	1.2	2
Nickel	ug/L	0	0.2	0.5	19	2.0	1.8	5
Silver	ug/L	76	nd	nd	6.0	0.7	0.8	0.7
Zinc	ug/L	24	nd	3.3	29	5.2	2.6	20
Total PAH	ng/L	16	nd	6.5	318	22	24	8.8

nd = not detected
95% CI = confidence interval
- = no objectives exist for this parameter

The results for ASBS discharge sites as a whole were generally similar to reference sites (Figure 5.8.7.) Mean concentrations at ASBS discharge sites following storm events were not significantly different from mean reference site concentrations for all constituents; however many for copper results at discharge sites were above the maximum reference site concentrations. In addition there were individual direct discharges with concentrations of certain other constituents that exceeded reference concentrations. For comparing discharge sites to a measure of natural water quality, a threshold level equivalent to the 85th percentile of the reference site post-storm concentrations was used. This 85th percentile level was chosen to represent natural water quality to eliminate uncertainty associated with outliers, thereby being protective of water quality.

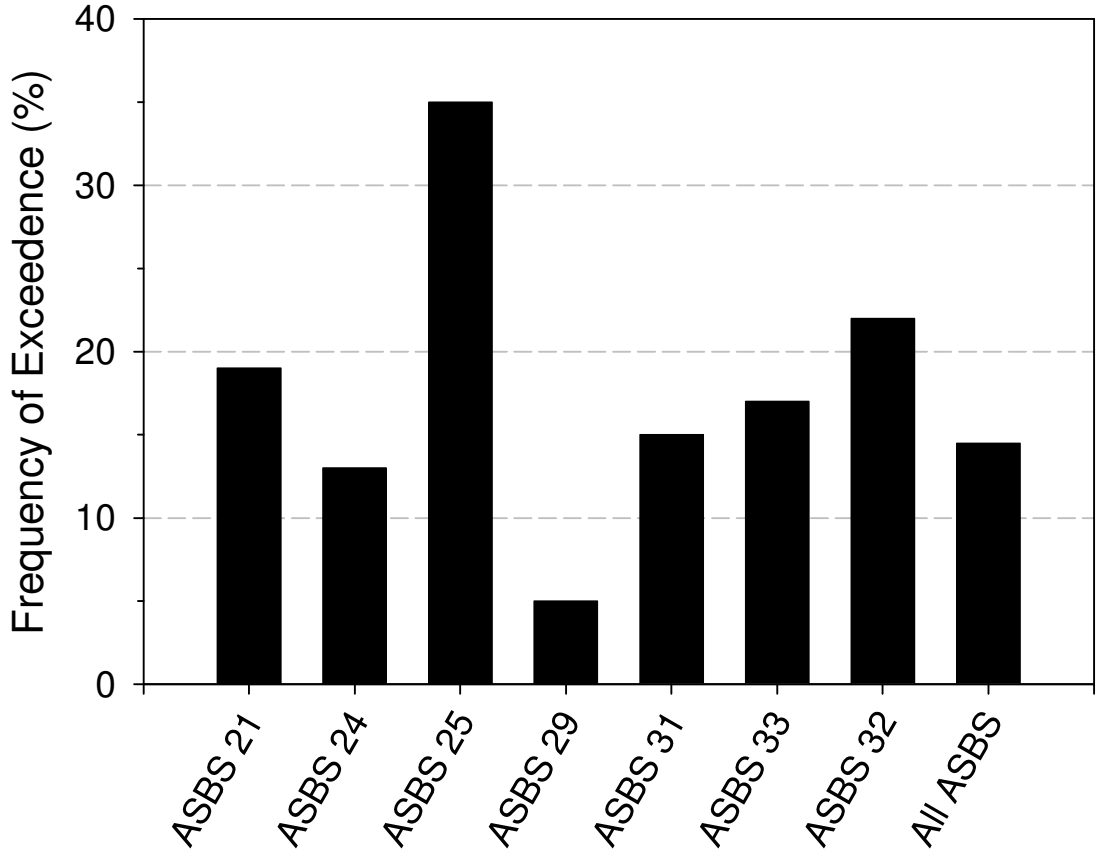
[10] Report to the State Water Resources Control Board, Summation of Findings, Natural Water Quality Committee, 2006-2009, September 1, 2010.

Figure 5.8.7. Southern California Bight Study Comparison of geometric mean (± 95% confidence interval) concentrations in ambient near-shore receiving waters following storm events at reference drainage and ASBS discharge sites. Total suspended solids (TSS) and nutrients in mg/L; Total Polycyclic Aromatic Hydrocarbons (Total PAHs) and total trace metals in µg/L



Exceedences of natural water quality were relatively infrequent at ASBS discharge sites (Figure 5.8.8.). Seven out of eight ASBS in southern California having exceedence rates of less than 25% for all constituents; Northwest Santa Catalina Island ASBS (ASBS 25) had the highest exceedence rate of 35%.

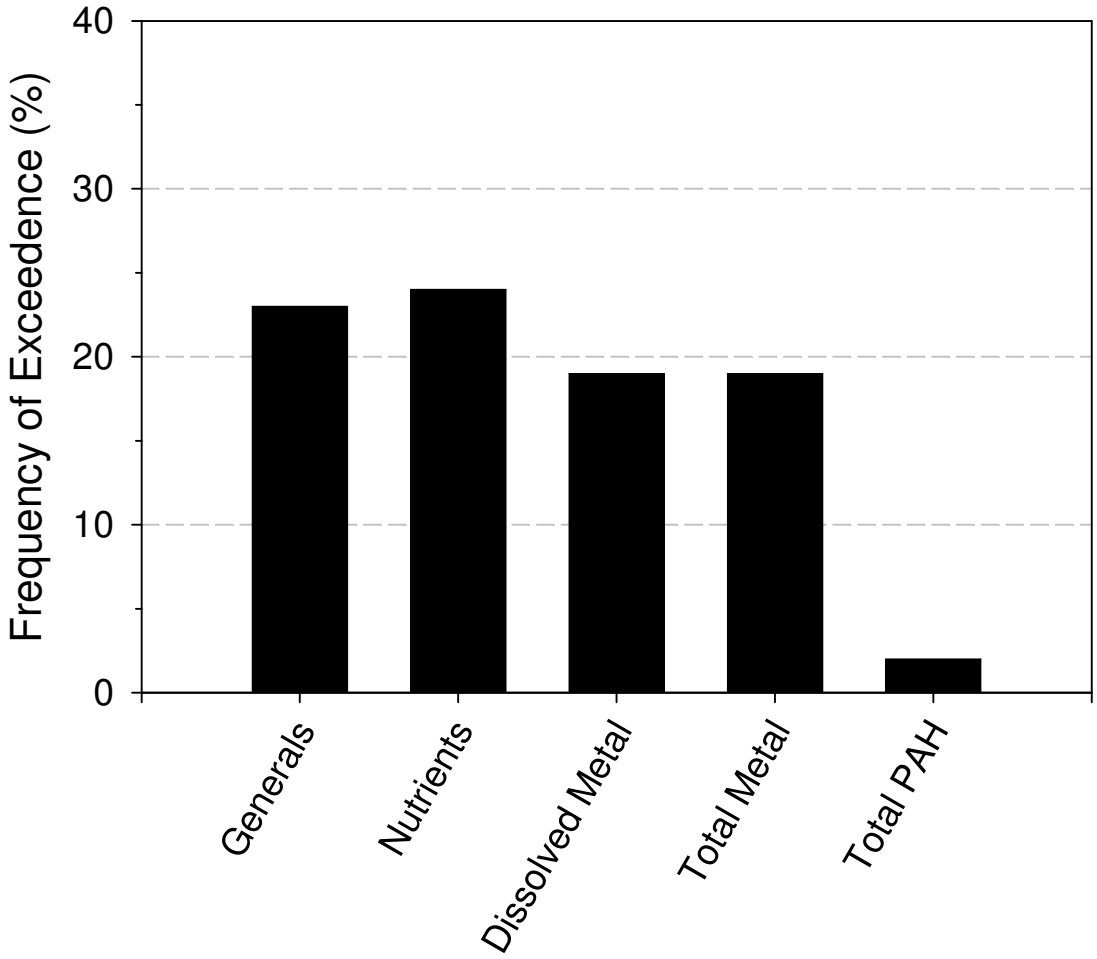
Figure 5.8.8. Frequency of natural water quality exceedences for all parameters during all storm events at each Area of Special Biological Significance (ASBS) in southern California



Where natural water quality was exceeded, general constituents (e.g. total suspended solids), nutrients and trace metals were the most frequent groups to exceed (Figure 5.8.9.). Total and dissolved metals had the same exceedence rate of 19% over the natural water quality thresholds identified in this study. PAHs exceeded the natural water quality threshold in only 2% of the samples. [11]

[11] Final Draft Report , Defining Natural Water Quality In Southern California's Areas Of Special Biological Significance, Kenneth Schiff, Brenda Luk, Dominic Gregorio, and Steve Gruber, 2010

Figure 5.8.9. Frequency of natural water quality exceedences by parameter group for all storm events and all Areas of Special Biological Significance (ASBS) in southern California



Regional and statewide monitoring in ASBS to date has proven very successful in providing scientific evidence of water quality conditions and indications of locations and certain constituents that require additional focus. The Bight'08 study represents the first comprehensive effort to determine natural water quality characteristics in the nearshore following storm events. The Natural Water Quality Committee stated that the Bight'08 program has provided sufficient information for the State Water Board to move forward, but prudent management should seek additional information. For example, Bight'08 quantified intra-annual (storm-to-storm) variability, but lacked inter-annual known to produce natural alterations in ocean water quality. Similarly, additional reference sites in central and northern California are necessary to quantify regional variability. However, in some instances, the reference site approach may be problematic, such as cases of widespread anthropogenic influence (i.e., PAHs and TCDDs) or where distant sources impinge on reference site water quality. (i.e., transport of large stormwater plumes from outside the ASBS). All of these causes of natural variability, and impacts from unanticipated anthropogenic contributions, should be investigated. Therefore staff recommends that where possible the regional approach to ASBS monitoring be designed and implemented to provide comparable and consistent information to manage ASBS discharges.

5.8.5 - Bioaccumulation

As part of their monitoring program for their ASBS exception and NPDES Permit, Scripps Institution of Oceanography (SIO), who performed a bioaccumulation study in receiving waters. This monitoring, which used both transplanted mussels and resident sand crabs, occurred in the vicinity of localized reference and ASBS discharge sites in the San Diego-Scripps ASBS and the La Jolla ASBS. SIO results indicated that:

1) most organic constituents were present at statistically nonsignificant levels relative to a reference sites during the study period;
2) certain pollutants were elevated in transplanted mussels near the SIO pier in the San Diego-Scripps ASBS (Cr, Ni, Fe, and Mn) and at the south end of the adjoining La Jolla ASBS (As) where the City of San Diego storm outfalls are located relative to other sites within the study area;
3) certain pollutants were elevated in transplanted mussels near the SIO pier (Cr and Ni) relative to historical statewide Mussel Watch results; and
4) large relative variability in tissue concentrations from sand crabs due to age/reproductive status precluded an assessment of spatial scale gradients and an evaluation of potential effects. [12]

Statewide mussel watch monitoring is an important tool in assessing bioaccumulation and water quality. Data collected by the National Ocean and Atmospheric Administration (NOAA) National Status and Trends (NS&T), and by the State Water Board Mussel Watch Program (SMWP) are provided below to assess spatial distributions and temporal trends in chemical contamination in or near certain ASBS.

5.8.5.1 State Mussel Watch Program Data

The SMWP was initiated in 1977 by the State Water Board to provide a uniform statewide approach to the detection and evaluation of toxic substances in California coastal waters, bays, harbors, and estuaries. The SMWP conducted a monitoring program using transplanted bivalve (*Mytilus californianus*) for trace elements and organic contaminants. The tissue samples were analyzed for the presence of trace elements and legacy pesticides.

An Elevated Data Level (EDL) is defined for the purposes of the SMWP as that concentration of a toxic substance in mussels or clams that equals or exceeds a specified percentile (such as 85 or 95 percent) of all measurements of the toxic substance in the same species and exposure condition (resident or transplant). Historical information on SMWP sites at ASBS are provided in Appendix 3)

[12] Report to the State Water Resources Control Board, Summation of Findings, Natural Water Quality Committee, 2006-2009, September 1, 2010.

The SMWP program has suffered from a lack of funding since 2000. The Department of Fish and Game at Moss Landing Laboratories collected and analyzed mussel samples since 2001 from a limited list of sites. Only 18 sites are currently being monitored for the Water Boards by the California Department of Fish and Game. SMWP primary targets areas with known or suspected impaired water quality. For this report, data from the following sites in or near ASBS have been reviewed: Pacific Grove ASBS, James V. Fitzgerald ASBS, Bodega Head (near but not within the ASBS), and Trinidad Head ASBS.

The available data for trace elements and organic constituents from 2001 to 2005 were reviewed and compared to the EDL 85 and EDL 95. Most trace elements were present at low concentration in all ASBS. However none of the elements exceeded the EDL 85 or EDL 95 in transplanted mussels at any of the ASBS during 2001-2005 sampling periods.

Certain synthetic chlorinated hydrocarbon compounds were elevated at some ASBS sites. Pesticide compounds including cis-chlordane, trans-chlordane, total chlordane, heptachlor epoxide, and dieldrine exceeded the EDL 85 in Trinidad Head, James V. Fitzgerald and Pacific Grove ASBS, and at Bodega Head, during one or more sampling events in 2001 to 2004. Data from James V. Fitzgerald and Pacific Grove ASBS also show exceedences of the EDL 95 for DDD, DDE, and PCB 1254.

Appendix 3 provides State Mussel Watch data at or near ASBS from 2001 to 2005.

5.8.5.2 NOAA NS&T Mussel Watch Program Data

To characterize the spatial distributions and trends in contaminant levels in the coastal ocean, NOAA NS&T Program was formed in 1986. The NOAA NS&T Mussel Watch Program measures the presence of concentrations of a broad suite of trace metals and organic chemicals in resident bivalves. The NS&T Mussel Watch Program is national in scale and the sampling sites are representative of a large area.

The NOAA NS&T Program analyzes bivalve tissue samples from the mussels *M. edulis and M. californianus* for trace metals, synthetic organic constituents, and histopathology. The NOAA NS&T sampling is conducted every two years.

There are several pre-2007 historical sites in the NOAA NS&T data base that are in or near ASBS. These were:

- Klamath River Flint Rock Head (Redwood National Park ASBS)
- Point Delgada Shelter Cove (King Range ASBS)

- Bodega Head (near Bodega ASBS)
- Farallon Islands East Landing (Farallon Islands ASBS)
- Pacific Grove Lovers Point (Pacific Grove ASBS)
- San Miguel Island Otter Harbor (San Miguel, Santa Rosa and Santa Cruz Islands ASBS)
- Santa Cruz Island Fraser Point (San Miguel, Santa Rosa and Santa Cruz Islands ASBS)
- Point Dume (Laguna Point to Latigo Point ASBS)
- Catalina Island Bird Rock (NW Santa Catalina Island ASBS)
- Newport Beach West Jetty (near Robert Badham ASBS)
- La Jolla (near the La Jolla ASBS).

Beginning in 2007, SCCWRP and the State Water Board entered into a partnership with the NOAA Status and Trends Mussel Watch Program. SCCWRP agreed to sample in southern California and the State Water Board staff agreed to sample in central and northern California. Samples are sent to NOAA contracted laboratories for analysis at no cost to the State. In exchange for providing sampling at existing NOAA sites several additional sampling sites were sampled and analyzed, many at ASBS. During the sampling period 2007-2009 the following sites were added in or near ASBS:

- Sea Ranch (near Del Mar Landing ASBS)
- Gerstle Cove (Gerstle Cove ASBS)
- Duxbury Reef (Duxbury Reef ASBS)
- Point Reyes (near Point Reyes Headlands ASBS)
- Ano Nuevo (Ano Nuevo ASBS)
- Partington Point (Julia Pfeiffer Burns ASBS)
- Anacapa (North Middle) Island (Santa Barbara and Anacapa Islands ASBS)
- Mugu Lagoon (adjacent to Laguna Point to Latigo Point ASBS)
- Old Stairs (Laguna Point to Latigo Point ASBS)
- San Nicolas Island (San Nicolas Island and Begg Rock ASBS)
- San Clemente Island (San Clemente Island ASBS)
- Crystal Cove State Park (Irvine Coast ASBS)
- Scripps Reef (San Diego-Scripps ASBS)

Concentrations of ten constituents (including trace metals and PAHs) in samples from 2007 to 2009 were assessed at all mussel watch sites statewide and at ASBS sites. It is important to mention that all of these constituents have both anthropogenic (e.g., polluted runoff) and natural sources. Natural sources for trace metals include natural background in seawater, sometimes accentuated by upwelling and coastal erosion. In fact, certain metals, including copper and zinc, are essential micronutrients that when present at naturally low concentrations are essential for marine life. Hydrocarbon seeps

are an important potential source for PAHs. The following information is provided to give a general status of these constituents in mussel tissue in ASBS.

Arsenic
Mean and median arsenic concentrations for all mussel watch sites statewide were 10.53 µg/ dry g and 9.45 µg/ dry g, respectively. Mean and median arsenic concentrations for all ASBS sites were 13.35 µg/ dry g and 10.8 µg/ dry g, respectively. San Clemente Island ASBS has the highest concentration of arsenic in mussels (39.9 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide.

Cadmium
Mean and median cadmium concentrations for all mussel watch sites statewide were 5.163 µg/ dry g and 5.01µg/ dry g, respectively. Mean and median cadmium concentrations for all ASBS sites were 7.522 µg/ dry g and 6.825 µg/ dry g, respectively. The Carmel Bay ASBS at Arrowhead Point has the highest concentration of cadmium in mussels (14.4 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide.

Chromium
Mean and median chromium concentrations for all mussel watch sites statewide were 1.753 µg/ dry g and 1.46 µg/ dry g, respectively. Mean and median chromium concentrations for all ASBS sites were 1.76 µg/ dry g and 1.6 µg/ dry g, respectively. Bodega Head, near the Bodega Head ASBS, has the highest concentration of chromium in mussels (4.61 µg/ dry g) among all sites in or near ASBS.

Copper
Mean and median copper concentrations for all mussel watch sites statewide were 9.28 µg/ dry g and 8.36 µg/ dry g, respectively. Mean and median copper concentrations for all ASBS sites were 9.335 µg/ dry g and 8.195 µg/ dry g, respectively. The King Range ASBS, at Point Delgada (Shelter Cove) has the highest concentration of copper in mussels (15.5 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide (see Figure 5.8.10.).

Lead
Mean and median lead concentrations for all mussel watch sites statewide were 1.948 µg/ dry g and 1.36 µg/ dry g, respectively. Mean and median lead concentrations for all ASBS sites were 2.279 µg/ dry g and 1.345 µg/ dry g, respectively. The Farallon Islands ASBS, at East Landing, has the highest concentration of lead in mussels (17.8 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide.

Mercury
Mean and median mercury concentrations for all mussel watch sites statewide were 0.116 µg/ dry g and 0.074µg/ dry g, respectively. Mean and median mercury concentrations for all ASBS sites were 0.144 µg/ dry g and 0.106 µg/ dry g, respectively.

San Miguel Island (ASBS 17), at Otter Harbor, has the highest concentration of mercury in mussels (0.69 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide.

Nickel
Mean and median nickel concentrations for all mussel watch sites statewide were 2.913 µg/ dry g and 2.18 µg/ dry g, respectively. Mean and median nickel concentrations for all ASBS sites were 2.973 µg/ dry g and 2.5 µg/ dry g, respectively. The Redwoods National Park ASBS at the mouth of the Klamath River has the highest concentration of nickel in mussels (9.23 µg/ dry g) among all ASBS sites, and also had the highest concentration of all mussel watch stations statewide.

Silver
Mean and median silver concentrations for all mussel watch sites statewide were 0.166 µg/ dry g and 0.061µg/ dry g, respectively. Mean and median silver concentrations for all ASBS sites were 0.131µg/ dry g and 0.084µg/ dry g, respectively. The Laguna Point to Latigo Point ASBS, at Point Dume in Malibu, has the highest concentration of silver (0.842 µg/ dry g) among all the ASBS sites.

Zinc
Mean and median zinc concentrations for all mussel watch sites statewide were 144.98 µg/ dry g and 138 µg/ dry g, respectively. Mean and median zinc concentrations for all ASBS sites were 156.8 µg/ dry g and 160.5 µg/ dry g, respectively. San Miguel Island (ASBS 17), at Otter Harbor has the highest concentration of zinc in mussels (232 µg/ dry g) among all ASBS sites.

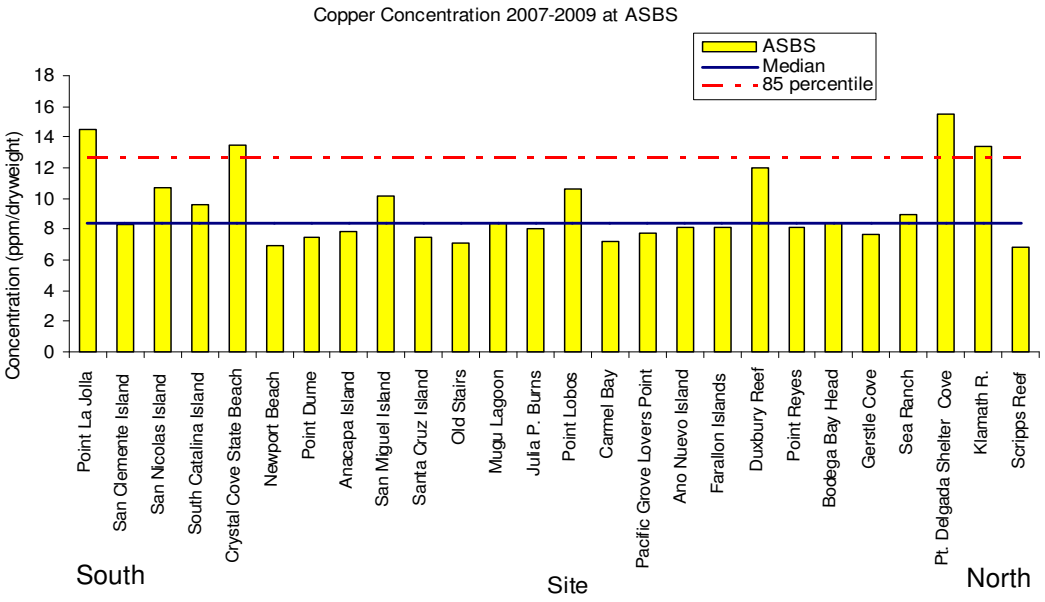
Total PAHs
Mean and median total PAH concentrations for all mussel watch sites statewide were 1139.17ng/ dry g and 122.2ng/ dry g, respectively. Mean and median total PAH concentrations for all ASBS sites were 128.68 ng/ dry g and 100.1 ng/ dry g, respectively. Ano Nuevo ASBS has the highest concentration of total PAHs in mussels (688.7ng/ dry g) among all the ASBS sites.

Trends for historical data (1986 – 2009) at several mussel watch sites at or near ASBS were assessed. Most organic pollutants are either staying the same or showing significant decreases in mussel tissues. Chlordane concentrations show a significant decrease at King Range ASBS, Laguna Point to Latigo Point ASBS, NW Catalina Island ASBS, and La Jolla ASBS. Butyltin concentrations show a significant decrease near the Robert Badham ASBS and in the Laguna Point to Latigo Point ASBS. DDT is also decreasing significantly at Laguna Point to Latigo Point ASBS.

Most trace metals are either staying the same or showing significant decreases in mussel tissues. Arsenic concentrations show a significant decrease at the Pacific Grove ASBS, NW Catalina Island ASBS and La Jolla ASBS. Lead concentrations show a significant decrease near in the Robert Badham ASBS and in the La Jolla ASBS.

Mercury concentrations show a significant decrease near in the Laguna Point to Latigo Point ASBS. Selenium concentrations are decreasing at Laguna Point to Latigo Point ASBS. Silver concentrations show a significant decrease near the Robert E. Badham ASBS and in the La Jolla ASBS. Tin concentrations are decreasing at the King Range ASBS, Pacific Grove ASBS, Laguna Point to Latigo Point ASBS, NW Catalina Island ASBS, and near the Robert Badham ASBS. However there were a few metals that were increasing at certain ASBS. Copper concentrations are increasing at the King Range ASBS; this increase in copper in mussels at the King Range ASBS is of concern because that site has the highest copper concentrations in resident mussels of any mussel watch site (Figure 5.8.10). Cadmium concentrations are increasing at the Pacific Grove ASBS and Laguna Point to Latigo Point ASBS. Mercury concentrations are increasing near the Robert Badham ASBS and in the La Jolla ASBS.

Appendix 3 provides the NOAA Mussel Watch data for ASBS.



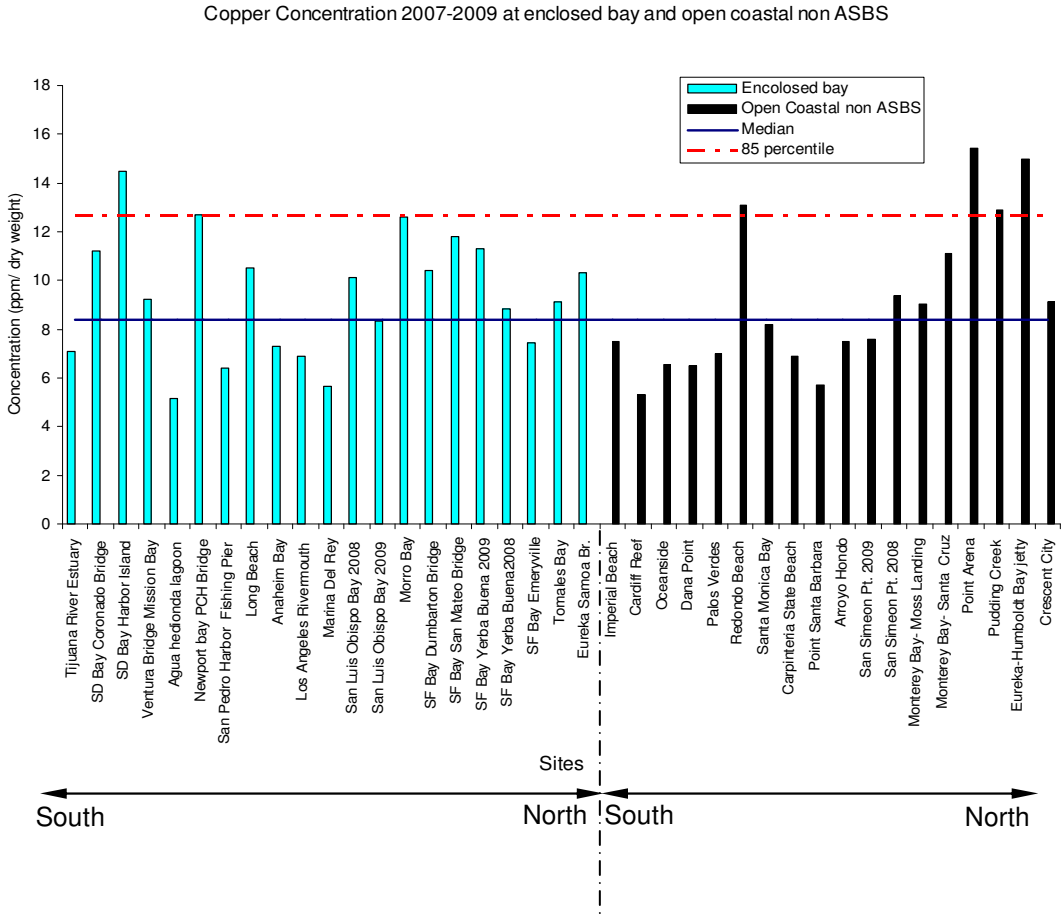


Figure 5.8.10. Mussel watch copper concentrations in ASBS and at other sites statewide.

Exhibit I

Dr. Maria de la Paz Carpio-Obeso
Chief, Standards Unit
California State Water Resources Control Board
Division of Water Quality
Watersheds, Oceans, and Wetlands Unit
P.O. Box 100
Sacramento, CA, 95812-0100
MarielaPaz.Carpio-Obeso@waterboards.ca.gov

Re: Los Angeles Waterkeeper and
Natural Resources Defense Council Comments;
ASBS 24 Draft Los Angeles County Compliance Plan,
Pollution Prevention Plan

Dear Dr. Carpio-Obeso,

In September of 2014, consistent with a one-year extension granted by State Board staff, Los Angeles County ("County") and the Los Angeles County Flood Control District ("Flood District") submitted a draft Compliance Plan ("CP") and a draft Pollution Prevention Plan ("PPP") pursuant to the requirements of the ASBS Exception, Resolution Number 2012-0012 as amended by 2012-0031 ("Exception").

Los Angeles Waterkeeper ("Waterkeeper") and Natural Resources Defense Council ("NRDC") have had an opportunity to review the draft plans. Unfortunately, the plans fail to comply with the requirements of the Exception in numerous basic ways that prevent them from providing a means of eliminating the discharge of Waste to the ASBS. In summary, while the plans identify 1) non-stormwater discharges to the ASBS; 2) alterations of natural water quality caused by storm water discharges; and 3) storm water discharges above Ocean Plan objectives, the plans fail to propose measures to address them.

Given these failures, the plans do not comply with the requirements of the Exception and cannot serve as a basis for the County and the Flood District's implementation of the Exception's other substantive provisions. Waterkeeper and NRDC request that the State Board reject the draft plans, with direction to the County and Flood District to correct the plans' deficiencies. Given that a Final CP is due in September of 2015 at the latest, Waterkeeper and NRDC request that State Board Staff act on this request promptly.

Waterkeeper and NRDC's detailed comments follow.

I. The CP and PPP Fail to Address Non-Stormwater Discharges

The Exception allows the discharge of Waste to the ASBS only when in compliance with the terms and conditions of the Exception. Exception Att. B at I.A.1.a-d. Further, the Exception does not cover non-stormwater discharges, except for six limited categories of dry weather discharges:

(a) Discharges associated with emergency fire fighting operations.
(b) Foundation and footing drains.
(c) Water from crawl space or basement pumps.
(d) Hillside dewatering.
(e) Naturally occurring groundwater seepage via a storm drain.
(f) Non-anthropogenic flows from naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

Exception Att. B at I.A.1.e. And in all events these authorized non-stormwater discharges cannot cause or contribute to violations of Ocean Plan objectives or contribute to alterations of natural water quality. Id.

Pursuant to the Exception requirements, a Compliance Plan must "describe the measures by which all non-authorized non-storm water runoff (e.g., dry weather flows) has been eliminated." Id. at I.A.2.b. The County and the Flood District's CP reports dry weather outfall inspections during January, February, March and April of 2012, and February, March, May and July of 2013. CP at 50-51, Table 3-3 and 3-4. The County observed dry weather discharges on 73[1] occasions on these inspections, many of them repeat observations. Some of these discharges are characterized as "Hillside dewatering," or "Natural stream," but the plan provides no data to support these characterizations, nor does it categorize any of the discharges as permitted or unpermitted. The CP also distinguishes, without basis, between discharges that land on the beach in the ASBS, and those that flow to the surf line. CP at 49. The CP proposes no measures beyond existing outreach programs to address these continuing violations of the Exception and Ocean Plan standards—particularly the numerous dry weather flows that the plan reports as not reaching the "surf."

The PPP reports no dry weather inspections, and as with the CP, proposes no additional measures to address non-storm water discharges.

Given the unabated dry weather discharges from the County and Flood District's outfalls to the ASBS, continuing the existing failed outreach and education programs will not achieve compliance with the Exception, the LA County MS4 Permit, and the Clean Water Act. The County must propose in the CP and PPP, and immediately implement, appropriate structural BMPs, such as infiltration swales, trenches, or basins, to stop dry weather discharges.

[1] This total includes non-stormwater discharges from 10 outfalls that the CP identifies as "ownership unknown." CP at 19.

II. The CP and PPP Fail to Address the County and Flood District's Contribution to Alteration of Natural Water Quality

The Exception prohibits discharges that alter natural water quality in an ASBS. Exception Att. B. at I.A.1.b; I.A.1.e.3. The Exception provides 6 years to achieve compliance with these prohibitions. Exception Att. B. at I.A.3.e. However, the draft CP must include a strategy to comply with all special conditions, including maintaining natural water quality. Exception Att. B. at I.A.3.b; *id.* at I.A.2, 2.d., and 2.g. The draft CP must describe a time schedule to implement structural controls to meet the special conditions, and ultimately be included in the County and Flood Districts' SWMP submitted pursuant to the County MS4 Permit. Id. at I.A.3.b.

Further, where receiving water monitoring indicates that storm water runoff is causing or contributing to alteration of natural water quality, the County and Flood District are required to submit an additional report within 30 days of receiving the results. Exception Att. B. at I.A.2.h. The report must:

1) identify the constituents in storm water altering natural water quality and the source of the constituents;
2) describe BMPs in place, proposed in SWMPs for future implementation, and any additional BMPs to prevent alteration of natural water quality; and
3) provide an implementation schedule. Id.

Based on safety limitations and lack of discharge to receiving waters, the CP and PPP report receiving water sampling primarily at one location, S02, at a 36 inch storm drain at Escondido Beach. A single sample was collected at S01, a 60 inch storm drain at Zuma Beach. S02 was sampled during storm events on 19 February and 8 March 2013, and 28 February 2014. S01 was also sampled on 28 February 2014. CP at 61-70.[2]

Using the analysis required by the Exception, the CP reports that stormwater discharges from S01 and S02 contributed to alteration of natural water quality for selenium, total PAH, and mercury. CP at 67-69.

Despite this admission by the County and the Flood District that discharges from their outfalls are causing or contributing to alteration of natural water quality, neither the CP nor the PPP propose any strategy to address this violation, let alone a time schedule to implement structural controls identified by that strategy, in violation of the Exception. Exception Att. B at I.A.1.b, I.A.2, I.A.3.b and e. The CP and PPP fail to address in any way this core requirement of the Exception. The County and Flood District seem to conflate two independent requirements of the Exception. One is not to alter natural water quality. *See id.* Another is to implement BMPs to

[2] This sampling scheme itself violates the Exception's monitoring requirement that three samples must be collected during "each storm season." *See* Exception Att. B. at IV.B.2.b. February 2013 and February 2014 are different storm seasons.

achieve Ocean Plan limits or a 90% pollutant load reduction. *See id.* at I.A.2.d. The County and Flood District instead assume that *if* natural water quality is exceeded, then *only* the constituents that exceed natural water quality must achieve Ocean Plan limits. *See* CP at 71, 76-77. That is a misreading of the Exception.

Further, information currently available to Waterkeeper and NRDC indicates that the County and Flood District have failed to submit to the State Board the report required by Exception section I.A.2.h, due within 30 days of receiving results indicating the alteration of natural water quality. At the latest the County and Flood District received the S01 and S02 sampling results 30 days after the February 2014 sampling event, or March of 2014. All documents relating to ASBS Exception compliance for the County and Flood District in the possession of the State Board were produced to Waterkeeper in September 2014 and no such report was included. Therefore the County and Flood District have not complied with this additional reporting requirement.

III. The CP and PPP Fail to Propose BMPs to Achieve Either Ocean Plan Limits or 90% Pollutant Reduction

The Exception requires that the CP include:

> BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm [that] shall be designed to achieve on average the following target levels:
>
> 1) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or
> 2) A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

Exception Att. B at I.A.2.d. The County and the Flood District conducted end of pipe monitoring in 2013 and early 2014 at between 17 and 21 outfalls to the ASBS, with smaller outfall samples analyzed for a limited range of constituents. CP at 71-75. In these samples the County and the Flood District report repeated exceedances of Ocean Plan Instantaneous Maximum limits, including ammonia, cadmium, chromium, copper, lead, nickel, zinc, and high concentrations of PAH, pyrethroids, and TSS. Id. The County had previously reported elevated concentrations of copper, chromium, and PAH in its exception application, and the State Board documented exceedances of Ocean Plan standards of these parameters, as well as acute and chronic toxicity, in County discharges to the ASBS. *See Program Final Environmental Impact Report, Exception to the California Ocean Plan for ASBS Discharge Prohibition for Storm Water and Non-Point Source Discharges, with Special Protections* (SWRCB, 21 Feb 2012) at 212-228.

Despite reporting sampling results documenting ongoing and alarming levels of toxic and conventional pollutants discharging to the ASBS, the CP and PPP propose no strategy either to

reduce baseline pollutant loads by 90%, or to meet Ocean Plan limits. Instead, the CP argues that because discharges from S01 and S02, the only two of the County's 57 outfalls to ASBS 24 analyzed, were determined to contribute to alteration of natural water quality for selenium, total PAH, and mercury, only those pollutants need to be addressed by comparing them to Ocean Plan limits. CP at 77. This cramped and erroneous interpretation is contrary to the plain language of the Exception, which makes no link between the design standard for BMPs in the CP, and the parameters identified in the natural water quality analysis.

Because the CP and PPP fail to include a BMP strategy designed to comply with the requirements of Section I.A.2.d of the Exception, they are inadequate and must be revised.

IV. The CP and PPP Attempt to Exempt Pipes Less than 18 Inches from NPDES Permit Requirements

Under the heading *Pollution Prevention Plan Objective and Scope,* the PPP states:

> This Plan focuses on source discharges not regulated under the National Pollutant Discharge Elimination System (NPDES) permit (SWRCB, 2012a). The Parties have prepared a Compliance Plan, under a separate cover, to evaluate sources regulated under the NPDES permit that include outfalls that have associated storm networks that drain significant areas and entirely or partially maintained by an agency. These NPDES permit regulated sources coincide with conveyances that are equal to or greater than 18 inches in size that discharge directly to the ASBS shoreline.

PPP at 1. The CP contains a similar statement. CP at 1 ("point sources identified in this document coincide with conveyances that are equal to or greater than 18 inches in size").

Based on this novel definition of point source discharge and an MS4 system under the Clean Water Act, the PPP includes storm water pipes or other man made conveyances (point sources) (see, e.g., PPP at 35)—a plan limited under the terms of the Exception to Nonpoint Source Discharges. Exception at Att. B at I.B.2.

Neither the LA County MS4 Permit (NPDES Permit No. CAS004001), nor the Clean Water Act definition of Point Source Discharges include an exemption for storm water pipes of 18 inches or less, or that drain "insignificant areas." *See* MS4 Permit, Attachment A (Definitions); 40 CFR 122.2; 40 CFR 122.26(b)(8)-(9). In fact 18 inch storm water pipes discharging to the Pacific Ocean are without question man made conveyances discharging to waters of the United States, and MS4 pipes covered by the LA County MS4 Permit. Similarly, gutters and drains are man-made conveyances of storm water. Further, any point source discharges not covered by the MS4 Permit are not eligible for coverage under the Exception. *See* Exception Att. B at I.A.1.a(1).

Because the PPP improperly includes point source discharges in a planning document limited to non-point source discharges, and the CP improperly excludes certain point source discharges, both the CP and the PPP are inconsistent with the requirements of the Exception.

V. Conclusion

The County and Flood District's draft Exception compliance documents are inconsistent with the requirements of the Exception, and as a result fail to achieve compliance with the immediate requirement for elimination of non-storm water discharges, and will fail to prevent alteration of natural water quality within the timeline set out in the Exception compliance schedule. Therefore Waterkeeper and NRDC request that State Board staff reject the plans, and direct the County and Flood District to redraft the plans to include:

1) An immediate plan to implement a comprehensive inspection program to identify all County and Flood District non-storm water discharges to ASBS 24;
2) An immediate plan to implement structural BMPs to eliminate non-storm water discharges to ASBS 24, including an implementation schedule not to exceed 12 months;
3) A plan to implement structural BMPs, including an implementation schedule, to achieve natural ocean water quality by 2018;
4) Submission of reports in accordance with Exception Att. B at I.A.2.h;
5) A plan to implement structural BMPs, including an implementation schedule, to achieve either compliance with Ocean Plan Objectives, or 90% reduction from baseline, on or before 2018, from *all* outfalls to the ASBS and for *all* parameters;
6) Proper inclusion of all point source discharges that are part of the County/Flood District MS4 in the CP, with only non-point source discharges in the PPP;
7) All revisions to be submitted within 120 days, to ensure approval of a compliance Final CP and PPP by September 2015.

Thank you again for your anticipated attention to this matter. Please call Liz Crosson, Executive Director of Los Angeles Waterkeeper at (310) 394-6162 x100 with questions about any of the above.

Regards,

Liz Crosson
Los Angeles Waterkeeper

Exhibit J

MAR 17 2015

Ms. Gail Farber
Director of Public Works
County of Los Angeles
900 South Fremont Avenue
Alhambra, CA 91803

Dear Ms. Farber:

COMMENTS ON DRAFT COMPLIANCE PLAN FOR LAGUNA POINT TO LATIGO POINT (NO. 24) AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE FROM THE COUNTY OF LOS ANGELES, THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, AND THE CITY OF MALIBU

The State Water Resources Control Board (State Water Board) received the Areas of Special Biological Significance (ASBS) draft Compliance Plan and draft Pollution Prevention Plan from the County of Los Angeles, the Los Angeles County Flood Control District, and the City of Malibu dated September 20, 2014. A draft compliance plan and draft pollution prevention plan are required under sections I.A.3.b and I.B.2.a of Attachment B of the State Water Board's Resolution No. 2012-0012 *Approving Exceptions to the California Ocean Plan for Selected Discharges into ASBS, Including Special Protections for Beneficial Uses, and Certifying a Program Environmental Impact Report* (General Exception). Attachment B in the General Exception contains the *Special Protections for ASBS, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges* (Special Protections), which describes special conditions required of the discharger.

State Water Board staff has reviewed the draft Compliance Plan and draft Pollution Prevention Plan and provides the following comments:

1. **Map of storm water runoff**: Section I.A.2.a. of the Special Protections requires a map of storm water runoff that highlights the prioritized discharges and a description of any structural Best Management Practices (BMPs) already employed or to be employed. Priority discharges are those that pose the greatest water quality threat and which are identified to require installation of structural BMPs. Section I.A.2.f. states that the ASBS Compliance Plan shall describe structural BMPs, including any low impact development (LID) measures, currently employed and planned for higher threat discharges and shall include an implementation schedule. Higher threat discharges include permitted storm drains equal to or greater than 18 inches in diameter or width.

   Appendix A in the draft Compliance Plan includes a map of storm water runoff and the planned structural BMP at Broad Beach Road. However, the draft Compliance Plan does not identify priority discharges, stating that none of the evaluated outfalls fall into

this category, since receiving water monitoring results met the Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan, and consequently that additional structural BMPs are not necessary. To clarify, in determining exceedances of the natural water quality and identifying priority discharge locations, receiving water monitoring data is compared to the 85th percentile of the threshold of reference water quality data, not to Ocean Plan Table B Instantaneous Maximum Water Quality Objectives. In the draft Compliance Plan, the receiving water monitoring results show levels of constituents higher than the 85th percentile threshold of reference water quality data, indicating that additional structural BMPs are required. Staff noted similarities in elevated levels of constituents at core discharge ASBS-028 and its associated receiving water site ASBS-S02. Therefore, core discharge ASBS-028 should be identified as a priority discharge location. In the final Compliance Plan, please identify priority discharges on the map, describe additional structural BMPs and explain how they will reduce pollutants in storm water runoff, and update the implementation schedule accordingly.

2. **Non-authorized non-storm water runoff**: Section I.A.2.b. of the Special Protections requires a description of the measures by which all non-authorized non-storm water runoff has been eliminated, how the measures will be maintained over time, and how these measures are monitored and documented.

   The draft Compliance Plan describes actions being taken to eliminate flows that reach the surf. Although dry weather flows that did not reach the surf were observed during dry weather inspections of outfalls, there is no explanation of how these flows will be eliminated. In the final Compliance Plan, please address how dry weather flows will be eliminated as well as how these measures will be maintained over time and how they will be monitored and documented.

3. **Implementation schedule**: Section I.A.3.d. of the Special Protections stipulates that any structural controls identified in the final Compliance Plan be operational within six years of the effective date. Section I.A.3.e. specifies that all dischargers must comply with the requirement that their discharges into the affected ASBS maintain natural ocean water quality within six years of the effective date.

   The draft Compliance Plan lists March 20, 2019 as the date by which necessary structural controls shall be operational and by which all discharges must be in compliance with the General Exception requirements. The 12-month extension that was granted by the State Water Board applies to the deadlines for the draft and final Compliance Plans. This extension does not apply to the March 20, 2018 deadline for necessary structural controls or compliance with the General Exception requirements. Please be aware that the correct date is March 20, 2018 and that this is the date that should be listed in the implementation schedule.

4. **Exceedances in natural water quality**: Section I.A.3.e. of the Special Protections requires that, if initial results of post-storm receiving water quality testing indicate levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the discharger must re-sample the receiving water pre- and post-storm.

   The results for receiving water site ASBS-S02 indicate that exceedances in water quality were detected for multiple constituents during receiving water monitoring. Therefore,

ASBS-S02 must be re-sampled pre- and post-storm for an additional storm event. If after re-sampling the post-storm levels are still higher than the 85th percentile threshold of reference water quality data and pre-storm receiving water levels for any constituent, then natural ocean water quality is exceeded, and consequently an exceedance report must be submitted as stipulated in Section I.A.2.h of the Special Protections.

5. **Ocean receiving water monitoring**: Section IV.B.2.b. of the Special Protections requires that a minimum of three ocean receiving water samples must be collected during each storm season from each station, each from a separate storm. It further specifies that a minimum of one receiving water location shall be sampled in each ASBS per responsible party in that ASBS.

   Due to participation in the Southern California Bight 2008 regional monitoring effort, monitoring requirements for the County of Los Angeles, the Los Angeles County Flood Control District, and the City of Malibu were limited to only one storm season. The data from the remaining storm season were included in the draft Compliance Plan and indicate that only one receiving water site (ASBS-S02) was sampled successfully for three storm events. The remaining two sites (ASBS-S01 and 24-BB-03R) were only successfully sampled pre- and post-storm during one storm event. Staff understands that the City of Malibu will continue wet weather monitoring into the 2014-2015 wet season and that this sampling may be performed before submittal of the final Compliance Plan. Additionally, receiving water site ASBS-S01 and its associated core discharge ASBS-016 must be sampled for two additional storm events, to account for the incomplete previous monitoring events.

   Also, staff noticed that outfall 24-BB-01Z is included on the map and the outfall descriptions, yet there were no results presented for this outfall, even though the draft Compliance Plan states that it was successfully sampled during the February 28, 2014 storm event. Please include results from that sampling event in the final Compliance Plan.

Staff appreciates the efforts of the County of Los Angeles, the Los Angeles County Flood District, and the City of Malibu on the draft Compliance Plan and will continue to collaborate to resolve the comments mentioned in this letter as needed. Please submit the final Compliance Plan addressing these comments for approval by the State Water Board Executive Director by September 20, 2015.

For further questions pertaining to this subject matter, please contact Dr. Kimberly Tenggardjaja at (916) 341-5473 or Kimberly.Tenggardjaja@waterboards.ca.gov or Dr. Maria de la Paz Carpio-Obeso, Ocean Unit Chief, at (916) 341-5858 or MarielaPaz.Carpio-Obeso@waterboards.ca.gov.

Sincerely,

Victoria A. Whitney

Victoria A. Whitney, Deputy Director
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cc: Mr. Jonathan Bishop

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