

Council Meeting of  
December 12, 2006

Honorable Mayor and Members  
of the City Council  
City Hall  
Torrance, California

Members of the Council:

**SUBJECT: Public Works - Amendment No. 2 to Multi-Agency Memorandum of Agreement for Santa Monica Bay Beaches Bacteria Total Maximum Daily Load Implementation Plan Development Supplemental Report. Expenditure: \$12,443.**

**RECOMMENDATION:**

The Public Works Director recommends that the City Council approve Amendment No. 2 to the multi-agency Memorandum of Agreement (MOA) between the cities of Redondo Beach, Manhattan Beach, Hermosa Beach, Torrance, El Segundo, the County of Los Angeles, and Caltrans, to provide a supplemental report to the Implementation Plan required by storm water regulations.

Funding

Funding for Amendment No. 2 is available from FEAP-574.

**BACKGROUND/ANALYSIS**

The 1972 amendments to the Federal Water Pollution Control Act (referred to as the Clean Water Act) prohibit the discharge of any Pollutant to navigable waters of the United States unless the discharge is authorized by a permit issued pursuant to the National Pollutant Discharge Elimination System ("NPDES").

The Clean Water Act requires states to develop a list that identifies impaired (polluted) water bodies every two years. This list, referred to as the 303(d) list, is presented to and approved by the United States Environmental Protection Agency (EPA). The list specifies portions of the water bodies that are impaired and the pollutant causing the impairment.

The EPA is required to establish limits for each pollutant on the 303(d) list. The limits are referred to as Total Maximum Daily Loads (TMDL's). In 1999, litigation between the EPA and several environmental groups was settled with a consent decree that required the EPA to approve 58 TMDL's in Los Angeles County over 13 years. The Santa Monica Bay is listed on the 303(d) list as being impaired for coliform bacteria.

The Los Angeles Regional Water Quality Control Board (the Board) is the regulatory agency assigned to set the TMDLs. The coliform bacteria impairment is being addressed by the adoption of a TMDL for bacteria. The Board divided this TMDL into two parts addressing dry and wet weather conditions. These TMDL's became effective on July 15, 2003.

The Santa Monica Bay Beaches Bacteria TMDL grouped the responsible agencies into Jurisdictional Groups, divided roughly along watershed boundaries. The jurisdictional groups were responsible for preparing and submitting an Implementation Plan (Plan) by July 15, 2005 for meeting the bacteria TMDL. The Jurisdictional Groups 5 & 6 is made up of City of Manhattan Beach, El Segundo, Hermosa Beach, Redondo Beach, Torrance, County of Los Angeles and Caltrans.

On August 3, 2004 the City Council approved a multi-agency Memorandum of Agreement (MOA) amongst the agencies in Jurisdictional Groups 5 & 6 for the development of an Implementation Plan. The Plan was prepared and submitted to the Regional Water Quality Control Board by July 15, 2005. Please see Attachment C for a copy of the Executive Summary of the Implementation Plan. The Plan identifies a three phased integrated approach that uses Programmatic Solutions, Structural Best Management Practices (BMPs), and Source Identification & Control to comply with the bacteria TMDL. Structural BMPs are treatment systems that can be installed to either redirect storm water away from the beach for groundwater recharge or to treat the storm water before it reaches the beach. Programmatic Solutions are public education and regulation efforts. Source Identification and Control is inspecting storm drains to track down pollution sources and stopping them at the source. The Plan provides a fifteen year timeline to meet the bacteria TMDL.

In order to implement the Plan, the City set aside \$1,000,000 in the last Operations Budget for the bacteria TMDL and for other NPDES storm water permit requirements. In the current capital improvement budget the City has funded \$125,000 for Programmatic Solutions and Source Identification & Control for the bacteria TMDL Implementation Plan and \$250,000 for structural BMP selection to use the detention basin's tributary to Santa Monica Bay for groundwater infiltration and treatment. These funds are required to meet the City of Torrance financial obligations for the first two years of the first phase of the Implementation Plan.

On April 6, 2006 the Board approved Resolution No. 2006-007 requiring all the jurisdictional groups affected by the bacteria TMDL to submit a supplemental report to the Implementation Plans that demonstrate in a quantifiable way how the groups will meet the bacteria TMDL and how the proposed plans achieve multiple water quality benefits. These reports will show numerically how the Programmatic Solutions, Structural BMPs and Source Identification programs each contribute to meeting the bacteria TMDL in their groups.

On June 27, 2006 Your Honorable Body approved Amendment No. 1 to the MOA to extend the term of the MOA for two years. The groups were still soliciting proposals from consultants to prepare the supplemental report. The City of Redondo Beach contracted with CDM to prepare the supplemental report, using funds left over from their original contract for the Plan. The fee for the supplemental report is not to exceed \$44,000. Torrance's share, based on drainage area is \$12,443. The proposed Amendment No. 2 authorizes each agency in Jurisdictional Groups 5 and 6 to provide their share of the consultant fees to the City of Redondo Beach, who administers the contracts on behalf of all the agencies. The MOA amendment has been reviewed as to form by the City Attorney's office.

Respectfully Submitted,

ROBERT J. BESTE  
Public Works Director

  
By John Dettle  
Project Manager

CONCUR:

  
Robert J. Beste  
Public Works Director

  
LeRoy J. Jackson  
City Manager

- Attachment: A. Amendment No. 2 to Memorandum of Agreement, with original Memorandum of Agreement as Exhibit A and Board Resolution No. 2006-007 as Exhibit B  
B. Amendment No. 1 to Memorandum of Agreement  
C. Executive Summary of Implementation Plan



07-LA-1-PM 17.4/23.49  
Santa Monica Bay Beaches Bacteria  
TMDL Implementation Plan Development  
Groups 5 and 6  
District Agreement No. 07-4705/A2  
EA 910204

**AMENDMENT NO. 2 TO  
MEMORANDUM OF AGREEMENT**

**SANTA MONICA BAY BEACHES BACTERIA TMDL  
IMPLEMENTATION PLAN DEVELOPMENT  
JURISDICTIONAL GROUPS FIVE AND SIX**

This is Amendment No. 2 to the Memorandum of Agreement (“MOA”) effective July 1, 2004, entered into by and among the City of Redondo Beach (“Redondo Beach”), a chartered municipal corporation; the City of Manhattan Beach (“Manhattan Beach”), a general law city; the City of Torrance (“Torrance”), a municipal corporation; the City of Hermosa Beach (“Hermosa Beach”), a body corporate and politic; the City of El Segundo (El Segundo), a general law city; the County of Los Angeles (“County”), a political subdivision of the State of California and the California Department of Transportation (“Caltrans”) (individually “Party” and collectively, “Parties”). A fully executed copy of the MOA is attached hereto as Exhibit A. This Amendment No. 2 modifies the MOA with respect to the following:



implementation plan that is consistent with the provisions of the Bacteria TMDL and which shall include the development and submittal of an Implementation Plan, with any incidental documentation necessary to achieve the goals consistent with the Bacteria TMDL and 2) prepare a report as required by RWQCB Resolution No. 2006-007. The activities described in this Article I, Section 1, shall be referred to hereinafter as the ‘Work.’”

2. Article II, Section 8 of the MOA is modified as follows:

“8. Minutes – The Chair may select a secretary to draft and distribute written minutes of all Work and Special Meetings to the Party Representatives at the addresses designated below within five (5) work days after each Work or Special Meeting.”

3. Article III, Section 1 of the MOA is modified as follows:

“1. Funding Agreements – Any funds contributed for the Work, including contributions for consultants or other services as agreed upon by the Parties, shall be calculated using the cost-sharing formula described in Exhibit B. All funding shall apply to the Work, and shall not be used to implement any recommendation contained in the Implementation Plan or the report, as required by RWQCB Resolution No. 2006-07. The total contribution by all of the Parties shall not exceed \$229,000 unless otherwise agreed to by the Parties by written amendment of this MOA. Caltrans funding encumbered under this MOA is evidenced by the signature of its

District Budget Manager certifying as to funds in the maximum sum of \$1,866 having been allocated and encumbered to pay Caltrans share of the Work costs. Any cost to be invoiced above this sum will require an amendment to this MOA.”

4. Existing Exhibit B – Cost Sharing Formula table of the MOA is modified as follows:

Jurisdiction	Tributary Area (acres)	Contribution Percentage	Original Maximum Contribution Amount	Change in the Maximum Contribution Amount	Modified Maximum Contribution Amount
Manhattan Beach	2023	24.991%	\$46,233	\$10,996	\$57,229
Hermosa Beach	901	11.130%	\$20,591	\$4,897	\$25,488
Redondo Beach	2623	32.403%	\$59,946	\$14,257	\$74,203
Torrance	2289	28.277%	\$52,312	\$12,443	\$64,755
El Segundo	21	0.259%	\$479	\$114	\$593
County of Los Angeles	172	2.125%	\$3,931	\$935	\$4,866
Caltrans	66	0.815%	\$1,508	\$358	\$1,866
Total	8095	100.000%	\$185,000	\$44,000	\$229,000

5. All other terms or conditions of the MOA shall remain in full force and affect and are not modified by the Amendment No. 2.

**IN WITNESS WHEREOF**, the Parties hereto agree to sign this Amendment No. 2 to Memorandum of Agreement on the date afterwards indicated.

**City of Manhattan Beach**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Geoff Dolan, City Manager

Attest: \_\_\_\_\_ Approved as to Form:

By: \_\_\_\_\_ By: \_\_\_\_\_  
Liza Tamura, City Clerk Robert V. Wadden, City Attorney

Mailing Address: City of Manhattan Beach  
Public Works Department  
3621 Bell Ave.  
Manhattan Beach, CA 90266

**City of Hermosa Beach**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Sam Edgerton, Mayor

Attest: \_\_\_\_\_ Approved as to Form:

By: \_\_\_\_\_ By: \_\_\_\_\_  
Elaine Doerfling, City Clerk Michael Jenkins, City Attorney

Mailing Address: City of Hermosa Beach  
1315 Valley Dr  
Hermosa Beach, CA 90254

**City of Redondo Beach  
a Chartered Municipal Corporation**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mike Gin, Mayor

Attest: \_\_\_\_\_ Approved as to Form: \_\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
Sandy Forrest, City Clerk Michael W. Webb, City Attorney

Mailing Address: City of Redondo Beach  
Engineering and Building Services Department  
415 Diamond Street  
Redondo Beach, CA 90277

**City of Torrance  
a Municipal Corporation**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Frank Scotto, Mayor

Attest: \_\_\_\_\_ Approved as to Form: \_\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
Sue Herbers, City Clerk John L. Fellows, City Attorney

Mailing Address: City of Torrance  
Public Works Department – Engineering Division  
20500 Madrona  
Torrance, CA 90503

**City of El Segundo  
a General Law City**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Jeff Stewart, City Manager

Attest: \_\_\_\_\_ Approved as to Form:  
Mark D. Hensley, City Attorney

By: \_\_\_\_\_ By: \_\_\_\_\_  
Cindy Mortesen, City Clerk Karl H. Berger, Assistant City Attorney

Mailing Address: City of El Segundo  
Public Works Department  
350 Main Street  
El Segundo, CA 90245

**COUNTY OF LOS ANGELES Acting on behalf of itself and the LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**

By: \_\_\_\_\_  
Michael D. Antonovich  
Mayor, Los Angeles County

Date: \_\_\_\_\_

Attest:

SACHI A. HAMAI  
Executive Office of the  
Board of Supervisors of  
the County of Los Angeles

Approved as to Form:

RAYMOND G. FORTNER, Jr.  
County Counsel

By: \_\_\_\_\_  
Deputy

By: \_\_\_\_\_  
Deputy

Mailing Address: Los Angeles County  
Department of Public Works  
Watershed Management Division,  
11th Floor  
900 South Fremont Avenue  
Alhambra, CA 91803

**STATE OF CALIFORNIA  
Department of Transportation**

**Will Kempton  
Director of Transportation**

By: \_\_\_\_\_  
Douglas R. Failing  
District Director

Date: \_\_\_\_\_

Approved as to Form & procedure:

Certify as to funds:

By: \_\_\_\_\_  
William B. Bassett  
Attorney

By: \_\_\_\_\_  
District Budget Manager

Certify as to Financial Terms and Conditions:

By: \_\_\_\_\_  
Accounting Administrator

Address: California Department of Transportation  
District 07  
100 South Main Street, Suite 100, MS 13  
Los Angeles, California 90012  
Attention: Bob Wu

**Exhibit A**

**Copy of  
Memorandum of Agreement**

Santa Monica Bacteria TMDL  
Jurisdictional Groups 5 and 6  
Implementation Plan Implementation  
Amendment to Memorandum of Agreement

District Agreement No. 07-4705  
015843

07-LA-1-PM 17.4/23.49  
Santa Monica Bay Bacteria  
TMDL Implementation Plan Development  
Groups 5 and 6  
District Agreement No. 07-4705  
EA 910204

**MEMORANDUM OF AGREEMENT**

**COPY**

SANTA MONICA BAY BEACHES BACTERIA TMDL  
IMPLEMENTATION PLAN DEVELOPMENT  
JURISDICTIONAL GROUPS FIVE AND SIX

This Memorandum of Agreement ("MOA") is entered into, effective as of July 1, 2004 when fully executed, by and among the City of Redondo Beach ("Redondo Beach"), a chartered municipal corporation; the City of Manhattan Beach ("Manhattan Beach"), a body corporate and politic; the City of Torrance ("Torrance"), a municipal corporation; the City of Hermosa Beach ("Hermosa Beach"), a body corporate and politic; the City of El Segundo (El Segundo), a general law city; the County of Los Angeles ("County"), a political subdivision of the State of California and the California Department of Transportation ("Caltrans") (individually "Party" and collectively, "Parties"), with respect to the following:

C2004-157

**RECITALS**

**A. WHEREAS**, on December 12, 2002, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) approved Resolution No. 2002-022, adopting a Total Maximum Daily Load for bacteria during wet weather for Santa

Monica Bay Beaches ("Bacteria TMDL"), a true and correct copy of which is attached as Exhibit A hereto and incorporated herein; and

**B. WHEREAS**, on June 19, 2003 the United States Environmental Protection Agency approved the TMDL, and on July 15, 2003 the RWQCB issued a letter stating that the "Effective Date" of the Bacteria TMDL July 15 , 2003; and

**C. WHEREAS**, the Bacteria TMDL identifies several "Jurisdictional Groups" within the Santa Monica Bay watershed, with each "Jurisdictional Group" having a "Primary Jurisdiction," defined to be the jurisdiction comprising greater than fifty percent (50%) of the Jurisdictional Group's watershed area; and

**D. WHEREAS**, the City of Manhattan Beach is the "Primary Jurisdiction" for Jurisdictional Group Five and El Segundo, Hermosa Beach, Los Angeles County and Caltrans are "additional responsible jurisdictions and agencies" in "Jurisdictional Group Five"; and

**E. WHEREAS**, the City of Redondo Beach is the "Primary Jurisdiction" for Jurisdictional Group Six and Hermosa Beach, Manhattan Beach, Torrance, County of Los Angeles, and Caltrans are "additional responsible jurisdictions and agencies" in "Jurisdictional Group Six"; and

**F. WHEREAS**, the Parties recognize that the Bacteria TMDL is not self executing and has not been incorporated into the National Pollution Discharge Elimination System ("NPDES") permit for Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, and the Incorporated Cities Therein Except the City of Long Beach dated December 13, 2001 ("NPDES Permit"), in the manner required by law to be enforceable; and

**G. WHEREAS**, the Parties, nonetheless, desire to enter into a cooperative agreement to voluntarily develop and submit to the RWQCB a draft written report by 20 (twenty) months after the Effective Date of the Bacteria TMDL, and a final written report (collectively "Implementation Plan") by two (2) years after the Effective Date of the Bacteria TMDL outlining how each Party intends to cooperatively achieve the goals of the Bacteria TMDL.

**H. WHEREAS**, the Parties desire to submit an Implementation Plan that may adopt the "integrated water resources approach" ("IWR Approach") identified in the Bacteria TMDL or an "end of pipe" ("EOP") approach, wherever technically, economically, and politically feasible, which will provide for final compliance within no more than 18 (eighteen) years after the effective date of the Bacteria TMDL; and

**I. WHEREAS**, the Parties desire to enter into this MOA voluntarily to, among other things: 1) set forth their intent to develop and submit an Implementation Plan that is consistent with the provisions of the Bacteria TMDL; 2) establish the roles of the Parties to prepare and submit an Implementation Plan; and 3) establish a formula to calculate the respective financial share of the costs to be contributed by each Party hereinto develop and prepare the Implementation Plan.

**NOW, THEREFORE**, in consideration of the mutual benefits and representations made herein, the Parties hereby agree as follows:

## **AGREEMENT**

### **ARTICLE I – Purpose of MOA**

1. Purpose of MOA – The Parties voluntarily enter this MOA to cooperatively and voluntarily devise and jointly fund an implementation plan that is consistent with the provisions of the Bacteria TMDL and which shall include the development and submittal of an Implementation Plan, with any incidental documentation necessary to achieve the goals consistent with the Bacteria TMDL. The activities described in this Article I, Section 1, shall be referred to hereinafter as the “Work.”

2. “Maximum Extent Practicable” Standard – Nothing in this MOA, nor the described Work, nor any activity approved or carried out by the Parties hereunder shall be interpreted as a waiver of the position that the maximum effort to be undertaken by the Parties is subject to the “Maximum Extent Practicable” standard set forth in the Clean Water Act.

**ARTICLE II – Organization**

1. Meetings – The Parties agree that their respective Representatives (as defined below) shall meet, at minimum, once per month to discuss the development, preparation and submittal of the Work (“Work Meetings”). The Parties at Work Meetings shall meet in person, although teleconference meetings may be held upon agreement of the Representatives. The Chair, as defined below, shall prepare and distribute a draft written agenda for each Work Meeting to all Representatives for comments. The Parties shall mutually agree upon a final agenda for each Work Meeting. The agenda shall be distributed at least four (4) business days prior to the date of each Work Meeting to the Representatives, except in the case of a Special Meeting wherein the agenda shall be distributed 24 hours before the Special Meeting. The Chair or any three (3) Parties may call a Special Meeting to discuss urgent issues that require immediate attention or action by the Parties prior to the date of the next Work Meeting. Special Meetings may be held in person or by teleconference. The Parties must be given two (2) days written notice of the Special Meetings as provided by this MOA

2. Quorum – A quorum shall exist if a Work Meeting or Special Meeting is attended in person or via teleconference by at least five (5) Representatives; except however, no quorum shall exist unless one of the Primary Jurisdictions, Manhattan Beach or Redondo Beach, is present. No official or binding action may be taken at any meetings without a quorum

3. Representatives – Each Party shall appoint one or more representative(s) (“Representative”) authorized to vote that party’s single vote at the Work Meetings or Special Meetings, although other individuals of Party may also attend the meeting the name(s) of the Representative(s) shall be submitted at least two (2) days before the first scheduled Work Meeting. A Party may designate a new Representative(s) to act on its behalf by providing written or electronic mail notice to both Primary Jurisdiction Representatives at anytime thereafter but at least two (2) days before the next Work Meeting. A Representative from each Party shall make every effort to attend every Work Meeting and Special Meeting. If a Party Representative will be absent from a Work Meeting or Special Meeting that Party may appoint another Party’s Representative to act as its proxy, with full power to vote as directed by the absent Party. Any such proxy arrangement shall be memorialized in writing or by electronic mail transmitted to both Primary Jurisdictions at least 24 hours before the date of the Work or Special Meeting. Proxy representation shall be counted in determining a quorum.

4. Chair – The two (2) Primary Jurisdictions shall act as Co-chairs, with the position of Chair rotating among the two Co-chairs on a month to month basis. In the event the Chair, for any particular month, is unable to perform its responsibilities, the Co-chair shall become Chair. The Primary Jurisdictions shall jointly sign all written communications made on behalf of all Parties. All written communications shall be copied to all Parties to this MOA.

5. Information Sharing – The Parties mutually agree to share, to the extent not otherwise prohibited by law or by legal or trade secret privilege, all information required to develop, prepare and submit documents required for the Work, including monitoring data, CADD and GIS or other electronic data. Such sharing shall be subject to any applicable license agreements or other restrictions. All data shared among the Parties shall be provided “as is” and without warranties as to accuracy or as to any other characteristic, whether express or implied. The intent of this data-sharing provision is to facilitate the Work. The Parties agree not to use such data for tasks not related to the Work.

6. Voting – Any action taken at any Work Meeting or Special Meeting shall be approved by a 2/3 majority vote of the Representatives attending the meeting or properly noticed proxy, and each said approval vote must include an affirmative vote by one (1) of the Primary Jurisdictions to be effective and binding. Each Party shall be bound by any action approved by the Parties at a Work Meeting or Special Meeting, whether that Party was present or absent from the Work Meeting or Special Meeting. Each party shall have one vote.

7. Subcommittees – The Representatives acting in a Work Meeting or Special Meeting may appoint such subcommittees as they believe appropriate and useful to conduct the work set forth in this MOA.

8. Minutes – The Chair shall select a secretary to draft and distribute written minutes of all Work and Special Meetings to the Party Representatives at the addresses designated below within five (5) work days after each Work or Special Meeting.

**ARTICLE III – FUNDING AND CONTRACTING**

1. Funding Agreements – Any funds contributed for the Work, including contributions for consultants or other services as agreed upon by the Parties, shall be calculated using the cost-sharing formula described in Exhibit B. All funding shall apply to the Work, and shall not be used to implement the Work. The total contribution by all of the Parties shall not exceed \$185,000 unless otherwise agreed to by the Parties by written amendment of this MOA. Caltrans funding encumbered under this MOA is evidenced by the signature of its District Budget Manager certifying as to funds in the maximum sum of \$1,508 having been allocated and encumbered to pay Caltrans' share of the Work costs. Any cost to be invoiced above this sum will require an amendment to this MOA.

2. Contracting – Should the Parties agree to obtain goods or services from a Third Party for the development, preparation and submittal of the Work, the Parties shall agree upon one Party to enter into an agreement with the Third Party. Said Party will be the "Contracting Agency." The Parties agree that Redondo Beach be the Contracting Agency. The Third Party contract shall incorporate the contracting requirements and policies of Redondo Beach that may be attached to the Request for Proposal (RFP). The Third Party contract shall recite, however, that it is for the benefit of the Parties, and the Third Party shall be paid solely from the contributions from the Parties in the amounts set forth in Exhibit B. The Third Party contract shall require the Third Party to look solely to Redondo Beach for payment of the funds contributed by the Parties and look solely to Redondo Beach to resolve any issues regarding that contract. The

015843

Scope of Work of Third Party contract shall be presented to the Representatives for review and approval prior to execution of the contract. The Third Party contract shall also provide that it may be terminated upon sixty (60) days written notice by Redondo Beach, and shall otherwise be in compliance with Redondo Beach's regulations, ordinances and policies. No Party shall be obligated hereunder to bring any action against the Third Party for breach of its obligations under the contract.

3. Supervision of Third Party – Redondo Beach shall be responsible for coordinating the activities of Third Party, including coordinating the scope of work to be performed by the Third Party. Redondo Beach shall forward all invoices submitted by the Third Party to the Representatives for review and comment.

4. Payment – Upon contract execution with a Third Party, Redondo Beach shall invoice each Party for its respective share of the contracts total costs based on the formula described in Exhibit B. Each Party shall pay that invoice within sixty (60) days of receipt. Any change orders costs will be invoiced separately up to the maximum amount shown in Exhibit B.

5. Caltrans Budget Contingency – All obligations of Caltrans under the terms of this Agreement are subject to the appropriation of the resources by the Legislature and the allocation of resources by the California Transportation Commission. This MOA has been signed by Caltrans before ascertaining the availability of federal or state legislative appropriation of funds, for the mutual

benefit of the Parties in order to avoid program and fiscal delays that would occur if the MOA was executed after that determination was made.

This MOA is valid and enforceable as to Caltrans, as if sufficient funds have been made available to Caltrans by the United States Government or California State Legislature for the purposes set forth in this MOA. If the United States Government or the California State Legislature does not appropriate sufficient funds for Caltrans to participate in this MOA, this MOA may be amended in writing by the Parties to reflect any agreed upon reduction in the percentage of funds contributed by Caltrans to continue its participation in this MOA. Caltrans however has the option to withdraw from this MOA in the event sufficient funds are not appropriated for Caltrans.

should Caltrans exercise its option to withdraw from this MOA, Caltrans shall remain responsible for its share of liability, if any, incurred while participating in this MOA.

#### **ARTICLE IV – GENERAL PROVISIONS**

1. Term of MOA – This MOA shall continue in effect until the earlier of July 1, 2006 or six (6) months after the Implementation Plan is approved in writing by the RWQCB, unless earlier terminated or extended by agreement of all Parties to the MOA. A Party may withdraw from this MOA ("Withdrawing Party") by sending a letter to each Party, including the Primary Jurisdictions stating that Party's decision to withdraw from this MOA. However, prior to withdrawing, the Withdrawing Party must be current on all financial obligations resulting from this MOA. Once the Party withdraws from the MOA it will no longer be a participant

in the Work prepared under this MOA. Further, the Withdrawing Party forfeits any funds contributed prior to withdrawal from the MOA. Withdrawal is effective sixty (60) days after the date of written notice to the Primary Jurisdictions. If, however, the Withdrawing Party is Redondo Beach, withdrawal is effective sixty (60) days after executing an assignment of the Third Party contract to another Party to the MOA to serve as the new Contracting Agency.

2. Amendment – This MOA may be amended in writing in the same manner the MOA was entered.

3. Authority – Each of the persons signing below on behalf of a Party represents and warrants that they are authorized to sign this MOA on behalf of such Party.

4. Counterparts - This MOA may be signed in counterparts, and each counterpart shall be deemed an original, but all of which shall constitute one and the same instrument. A copy of all signature pages is attached hereto as Exhibit C and made a part of this Agreement.

5. Indemnification- Each Party shall indemnify, defend, and hold harmless each of the other Parties, including their Special Districts, elected and appointed officers, agents and employees, from and against any and all liability, including but not limited to demands, claims, actions, fees, costs, and expenses (including attorney and expert witness fees), arising from or connected with the acts arising from and/or relating to this MOA.

6. Mutual Grant of Entry- During the term of this MOA, each Party hereby grants to every other Party the right of access and entry to all storm

drains, creeks, beaches, and existing monitoring stations at beaches subject to this MOA (the "Property") to achieve the purposes of this MOA. Prior to exercising said right of entry, the entering Party shall provide written notice to the Party who owns and/or retains jurisdiction over the Property. For the purposes of this provision, written notice shall be delivered to the Party Representative at least 48 hours in advance of entry and the Party seeking entry must receive confirmation to proceed from the Party that owns and/or retains jurisdiction over the Property before entering the Property. The Parties shall indemnify, defend and hold harmless each other Party, their Special Districts, elected and appointed officers, employees, and agents, from and against any and all liability, including but not limited to demands, claims, actions, fees, costs, and expenses (including attorney and expert fees), arising from or connected with the entry onto the Property. This indemnification is in addition to the other indemnities made herein.

7. Access to Caltrans Facilities- Any Party intending to enter onto a Caltrans right of way shall first make a written request to the Caltrans party listed in Exhibit B; identifying the site location, extent of access by persons (and equipment if any), dates and times of entry, as well as an explanation of the purpose of that entry. Caltrans will thereafter determine, within ten (10) working days, if that entry will be allowed without a formal encroachment permit issued by the District Permit Engineer as an authorized presence of non-Caltrans parties not interfering with or threatening the safety of the traveling public or the integrity of the Caltrans' infrastructure. In such case, Caltrans will condition that right of

entry on the accompaniment of a Caltrans representative who shall be empowered to restrict or limit the access of those permittees as deemed necessary, in the sole discretion of Caltrans. Where adverse impacts to traffic or the traveled way can be anticipated by Caltrans, Caltrans may require the applicant Party to submit a formal encroachment permit application, to be filed and completed together with Traffic Control Plans when necessary (which must be prepared by or under the supervision of a traffic engineer licensed in the State of California) with the District Permit Engineer. An encroachment permit may require as much as six (6) weeks to be issued depending upon the extent of coordination and development of traffic controls required for that access.

8. Notices– Any notices, bills, invoices, or reports relating to this MOA, and any request, demand, statement or other communication required or permitted hereunder shall be in writing and shall be delivered to the Representative of the Party at the addresses set forth herein below. Written notice shall include notice delivered via email. A notice shall be deemed to have been received on (a) the day of delivery, if delivered by hand during regular business hours or by confirmed facsimile or by confirmed email; or (b) on the third business day following deposit in the United States mail, postage prepaid to the addresses set forth herein.

9. Relationship of the Parties- The Parties are, and shall at all times remain as to each other, wholly independent entities. No Party to this MOA shall have power to incur any debt, obligation, or liability on behalf of any other Party except as expressly provided by this MOA. No employee, agent, or officer of a

015843

Party shall be deemed for any purpose whatsoever to be an agent, employee or officer of another Party.

10. Governing Law – This MOA shall be governed, interpreted, construed and enforced in accordance with the law of the State of California.

11. Severability- If any provision of this MOA shall be determined by any court to be invalid, illegal or unenforceable to any extent, the remainder of this MOA shall not be affected and this MOA shall be construed as if the invalid, illegal or unenforceable provision had never been contained in this MOA.

IN WITNESS WHEREOF, the Parties hereto have signed this MOA on the date afterwards indicated.

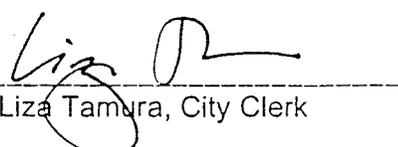
**City of Manhattan Beach**

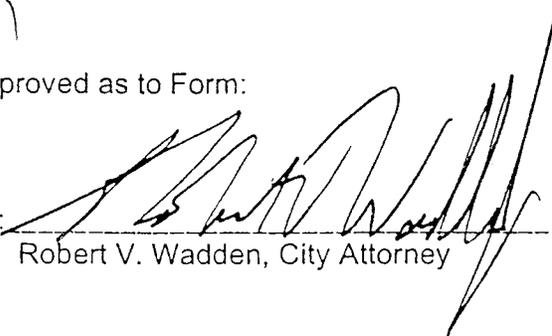
By:   
Geoff Dolan, City Manager

Date: 7-20-04

Attest:

Approved as to Form:

By:   
Liza Tamura, City Clerk

By:   
Robert V. Wadden, City Attorney

Mailing Address: City of Manhattan Beach  
Public Works Department  
3621 Bell Ave.  
Manhattan Beach, CA 90266

**City of Hermosa Beach**

By: \_\_\_\_\_  
Art Yoon, Mayor

Date: \_\_\_\_\_

Attest:

Approved as to Form:

By: \_\_\_\_\_  
Elaine Doerfling, City Clerk

By: \_\_\_\_\_  
Michael Jenkins, City Attorney

Mailing Address: City of Hermosa Beach  
1315 Valley Dr  
Hermosa Beach, CA 90254

IN WITNESS WHEREOF, the Parties hereto have signed this MOA on the date afterwards indicated.

**City of Manhattan Beach**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Geoff Dolan, City Manager

Attest: \_\_\_\_\_ Approved as to Form:

By: \_\_\_\_\_ By: \_\_\_\_\_  
Liza Tamura, City Clerk Robert V. Wadden, City Attorney

Mailing Address: City of Manhattan Beach  
Public Works Department  
3621 Bell Ave.  
Manhattan Beach, CA 90266

**City of Hermosa Beach**

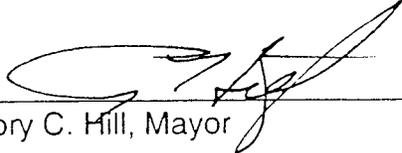
By: \_\_\_\_\_ Date: 7-27-04  
Art Yoon, Mayor

Attest: \_\_\_\_\_ Approved as to Form:

By: Elaine Doerfling By: Michael Jenkins  
Elaine Doerfling, City Clerk Michael Jenkins, City Attorney

Mailing Address: City of Hermosa Beach  
1315 Valley Dr  
Hermosa Beach, CA 90254

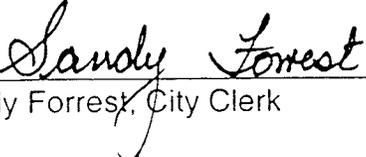
**City of Redondo Beach, (number of originals 2)  
a Chartered Municipal Corporation**

By:   
Gregory C. Hill, Mayor

Date: 7/6/04

Attest:

Approved as to Form:

By:   
Sandy Forrest, City Clerk

By:   
John Eastman, Assistant City Attorney

Mailing Address: City of Redondo Beach  
Engineering and Building Services Department  
415 Diamond Street  
Redondo Beach, CA 90277

**City of Torrance  
a Municipal Corporation**

By: \_\_\_\_\_  
Dan Walker, Mayor

Date: \_\_\_\_\_

Attest:

Approved as to Form:

By: \_\_\_\_\_  
Sue Herbers, City Clerk

By: \_\_\_\_\_  
John L. Fellows, City Attorney

Mailing Address: City of Torrance  
Public Works Department – Engineering Division  
20500 Madrona  
Torrance, CA 90503

City of Redondo Beach  
a Chartered Municipal Corporation

By: \_\_\_\_\_  
Gregory C. Hill, Mayor

Date: \_\_\_\_\_

Attest:

Approved as to Form:

By: \_\_\_\_\_  
Sandy Forrest, City Clerk

By: \_\_\_\_\_  
John Eastman, Assistant City Attorney

Mailing Address: City of Redondo Beach  
Engineering and Building Services Department  
415 Diamond Street  
Redondo Beach, CA 90277

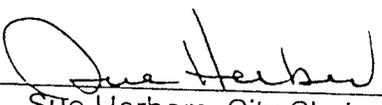
City of Torrance  
a Municipal Corporation

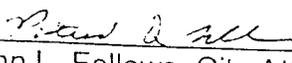
By:  \_\_\_\_\_  
Dan Walker, Mayor

Date: AUGUST 10, 2004

Attest:

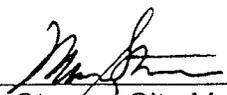
Approved as to Form:

By:  \_\_\_\_\_  
Sue Herbers, City Clerk

By:  \_\_\_\_\_  
John L. Fellows, City Attorney

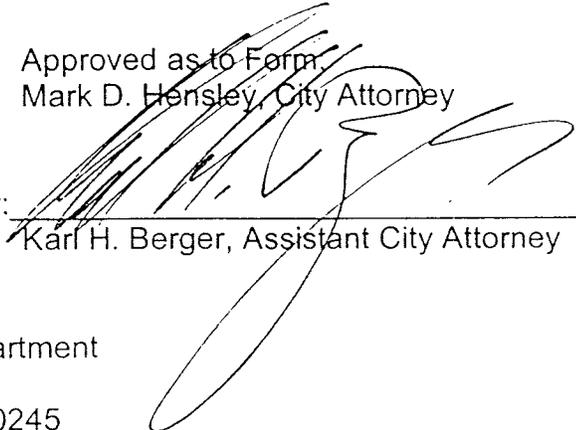
Mailing Address: City of Torrance  
Public Works Department – Engineering Division  
20500 Madrona  
Torrance, CA 90503

City of El Segundo  
a General Law City

By:  Date: 9/9/07  
Mary Stream, City Manager

Attest:

Approved as to Form  
Mark D. Hensley, City Attorney

By:  By:   
Cindy Mortesen, City Clerk Karl H. Berger, Assistant City Attorney

Mailing Address: City of El Segundo  
Public Works Department  
350 Main Street  
El Segundo, CA 90245

COUNTY OF LOS ANGELES  
Acting for itself and on behalf of the  
Los Angeles County Flood Control District

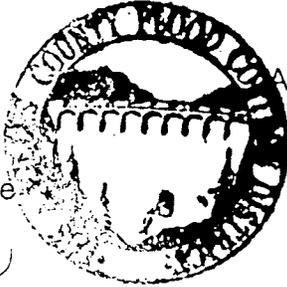
By: *Don Knabe*  
Chair, Board of Supervisors  
**DON KNABE**

Date: NOVEMBER 9 2004

Attest:

VIOLET VARONA-LUKENS  
Executive Officer-Clerk of the  
Board of Supervisors

By: *[Signature]*  
Deputy



Approved as to Form:

OFFICE OF THE COUNTY COUNSEL

By: *[Signature]*  
Deputy

Mailing Address: Los Angeles County  
Department of Public Works  
Watershed Management Division,  
11th Floor  
900 South Fremont St.  
Alhambra, CA 91803



**ADOPTED**  
BOARD OF SUPERVISORS  
COUNTY OF LOS ANGELES

30

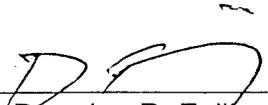
NOV 9 2004

*Violet Varona-Lukens*  
VIOLET VARONA-LUKENS  
EXECUTIVE OFFICER

015843

STATE OF CALIFORNIA  
Department of Transportation

Tony V. Harris  
Director of Transportation, Acting

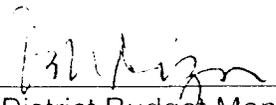
By:   
Douglas R. Failing  
District Director

Date: June 10, 2004

Approved as to Form & Procedure:

Certified as to funds:

By:   
William B. Bassett  
Attorney

By:   
District Budget Manager

Certified as to Financial Terms and Conditions:

By:   
Accounting Administrator

Address: California Department of Transportation  
District 07  
120 South Spring Street, MS 13  
Los Angeles, California 90012  
Attention: Bob Wu

**Exhibit A**

**Copy of  
Santa Monica Bay Beaches Bacterial  
Total Maximum Daily Load**

**Resolution No. 2002-022 (6 pages)  
Attachment A (17 pages)  
Attachment B (1 page)**

State of California  
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. 2002-022  
December 12, 2002

**Amendment to the Water Quality Control Plan (Basin Plan) for the Los Angeles Region to Incorporate Implementation Provisions for the Region's Bacteria Objectives and to Incorporate a Wet-Weather Total Maximum Daily Load for Bacteria at Santa Monica Bay Beaches**

**WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:**

1. The federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to develop water quality standards which include beneficial use designations and criteria to protect beneficial uses for each water body found within its region.
2. The Regional Board carries out its CWA responsibilities through California's Porter-Cologne Water Quality Control Act and establishes water quality objectives designed to protect beneficial uses contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan).
3. Section 303(d) of the CWA requires states to identify and to prepare a list of water bodies that do not meet water quality standards and then to establish load and waste load allocations, or a total maximum daily load (TMDL), for each water body that will ensure attainment of water quality standards and then to incorporate those allocations into their water quality control plans.
4. Many of the beaches along Santa Monica Bay were listed on California's 1998 section 303(d) list, due to impairments for coliform or for beach closures associated with bacteria generally. The beaches appeared on the 303(d) list because the elevated bacteria and beach closures prevented full support of the beaches' designated use for water contact recreation (REC-1).
5. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc. and BayKeeper, Inc. was approved on March 22, 1999. This court order directs the USEPA to complete TMDLs for all the Los Angeles Region's impaired waters within 13 years. A schedule was established in the consent decree for the completion of 29 TMDLs within 7 years, including completion of a TMDL to reduce bacteria at Santa Monica Bay beaches by March 2002. The remaining TMDLs will be scheduled by Regional Board staff within the 13-year period.
6. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d) of the CWA, as well as in USEPA guidance documents (e.g., USEPA, 1991). A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2). Regulations further stipulate that TMDLs must be set at "levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations

and water quality" (40 CFR 130.7(c)(1)). The provisions in 40 CFR 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters.

7. Upon establishment of TMDLs by the State or USEPA, the State is required to incorporate the TMDLs along with appropriate implementation measures into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.
8. Santa Monica Bay is located in Los Angeles County, California. The proposed TMDL addresses documented bacteriological water quality impairments at 44 beaches from the Los Angeles/Ventura County line, to the northwest, to Outer Cabrillo Beach, just south of the Palos Verdes Peninsula.
9. The Regional Board is establishing the above-mentioned TMDL to preserve and enhance the water quality at Santa Monica Bay beaches and for the benefit of the 55 million beachgoers, on average, that visit these beaches each year. At stake is the health of swimmers and surfers and associated health costs as well as sizeable revenues to the local and state economy. Estimates are that visitors to Santa Monica Bay beaches spend approximately \$1.7 billion annually.
10. The Regional Board's goal in establishing the above-mentioned TMDL is to reduce the risk of illness associated with swimming in marine waters contaminated with bacteria. Local and national epidemiological studies compel the conclusion that there is a causal relationship between adverse health effects, such as gastroenteritis and upper respiratory illness, and recreational water quality, as measured by bacteria indicator densities. The water quality objectives on which the TMDL numeric targets are based will ensure that the risk of illness to the public from swimming at Santa Monica Bay beaches generally will be no greater than 19 illnesses per 1,000 swimmers, which is defined by the US EPA as an "acceptable health risk" in marine recreational waters.
11. Interested persons and the public have had reasonable opportunity to participate in review of the amendment to the Basin Plan. Efforts to solicit public review and comment include staff presentations to the Santa Monica Bay Restoration Project's Bay Watershed Council and Technical Advisory Committee between May 1999 and October 2001 and creation of a Steering Committee in July 1999 to provide input on scientific and technical components of the TMDL with participation by the Southern California Coastal Water Research Project, City of Los Angeles, County of Los Angeles Department of Public Works, County Sanitation Districts of Los Angeles County, Heal the Bay, and Santa Monica Bay Restoration Project.
12. A first draft of the TMDL for bacteria at Santa Monica Bay beaches was released for public comment on November 9, 2001; an interim draft TMDL covering wet weather only was released on June 21, 2002, for discussion at a public workshop; and a public workshop on the draft Wet-Weather TMDL was held on June 27, 2002 at a regularly scheduled Regional Board meeting.
13. A final draft of the Wet-Weather TMDL along with a Notice of Hearing and Notice of Filing were published and circulated 45 days preceding Board action; Regional Board staff responded to oral and written comments received from the public; and the Regional Board

held a public hearing on September 26, 2002 to consider adoption of the Wet-Weather TMDL.

14. The Regional Board continued the item from the September 26, 2002 Board meeting to the December 12, 2002 Board meeting to give staff time to make revisions based on public comments and Board discussion at the September 26, 2002 Board meeting. Specifically, the Board wanted an implementation program that was reasonable and as short as practicable given the testimony on impairments to the REC-1 beneficial use.
15. The Regional Board recognizes that there are two broad approaches to implementing the TMDL. One approach is an integrated water resources approach that takes a holistic view of regional water resources management by integrating planning for future wastewater, storm water, recycled water, and potable water needs and systems; focuses on beneficial re-use of storm water, including groundwater infiltration, at multiple points throughout a watershed; and addresses multiple pollutants for which Santa Monica Bay or its watershed are listed on the CWA section 303(d) List as impaired. The other approach is a non-integrated water resources approach.

Some responsible jurisdictions and agencies have indicated a preference to take an integrated water resources approach to realize the benefits of re-using storm water to preserve local groundwater resources and to reduce reliance on imported water. The Regional Board recognizes that an integrated water resources approach not only provides water quality benefits to the people of the Los Angeles Region, but also recognizes that the responsible jurisdictions implementing this TMDL can serve a variety of public purposes by adopting an integrated water resources approach. An integrated water resources approach will address multiple pollutants, and as a result, responsible jurisdictions can recognize cost-savings because capital expenses for the integrated approach will implement several TMDLs that address pollutants in storm water. In addition, jurisdictions serve multiple roles for their citizenry, and an integrated approach allows for the incorporation and enhancement of other public goals such as water supply, recycling and storage; environmental justice; parks, greenways and open space; and active and passive recreational and environmental education opportunities.

The Regional Board acknowledges that a longer timeframe is reasonable for an integrated water resources approach because it requires more complicated planning and implementation such as identifying markets for the water and efficiently siting storage and transmission infrastructure within the watershed(s) to realize the multiple benefits of such an approach.

16. Therefore, after considering testimony, the Regional Board directed staff to adjust the implementation provisions of the TMDL to allow for a longer implementation schedule (up to 18 years) only when the responsible jurisdictions and agencies clearly demonstrate their intention to undertake an integrated water resources approach and justify the need for a longer implementation schedule. In contrast, testimony indicated that a shorter implementation schedule (up to 10 years) is reasonable and practicable for non-integrated approaches because the level of planning is not as complicated.
17. A revised draft of the Basin Plan amendment and Tentative Resolution were circulated 45 days preceding Board action. Regional Board staff responded to oral and written comments received from the public on the revised draft. The Regional Board held a second public hearing on December 12, 2002 to consider adoption of the Wet-Weather TMDL.

18. On October 25, 2001, the Regional Board adopted Resolution 2001-018 establishing revised bacteriological water quality objectives for the Water Contact Recreation (REC-1) beneficial use, and the TMDL is intended to accompany and to implement the revised water quality objectives. The State Water Resources Control Board approved the Regional Board's Basin Plan amendment on July 18, 2002 in State Board Resolution 2002-0142, the Office of Administrative Law approved it on September 19, 2002 in OAL File No. 02-0807-01-S, and the US EPA approved it on September 25, 2002.
19. Under certain circumstances and through the TMDL development process, the Regional Board proposes to implement the aforementioned revised bacteria objectives using either a 'reference system/anti-degradation approach' or a 'natural sources exclusion approach.' As required by the CWA and Porter-Cologne Water Quality Control Act, the Basin Plan includes beneficial uses of waters, water quality objectives to protect those uses, an anti-degradation policy, collectively referred to as water quality standards, and other plans and policies necessary to implement water quality standards. This TMDL and its associated waste load allocations, which will be incorporated into relevant permits, are the vehicles for implementation of the bacteria standards as required under Water Code section 13242.
20. Both the 'reference system/anti-degradation approach' and the 'natural sources exclusion approach' recognize that there are natural sources of bacteria that may cause or contribute to exceedances of the single sample objectives.
21. The Regional Board's intent in implementing the bacteria objectives using a 'reference system/anti-degradation approach' is to ensure that bacteriological water quality is at least as good as that of a reference site and that no degradation of existing bacteriological water quality is permitted where existing bacteriological water quality is better than that of a reference site. The Regional Board's intent in implementing the bacteria objectives using a 'natural sources exclusion approach' is to ensure that all anthropogenic sources of bacteria are controlled such that they do not cause an exceedance of the single sample objectives. These approaches are consistent with state and federal anti-degradation policies (State Board Resolution No. 68-16 and 40 C.F.R. 131.12), while acknowledging that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas. While treatment and diversion of natural sources may fully address the impairment of the water contact recreation beneficial use, such an approach may adversely affect valuable aquatic life and wildlife beneficial uses in the Region.
22. For the Wet-Weather and Dry-Weather Bacteria TMDLs at Santa Monica Bay beaches, Leo Carrillo Beach and its associated drainage area, Arroyo Sequit Canyon, were selected as the local reference system until other reference sites or approaches are evaluated and the necessary data collected to support the use of alternative reference sites or approaches when the TMDL is revised four years after the effective date. Leo Carrillo Beach was selected as the interim reference site because it best met the three criteria for selection of a reference system. Specifically, its drainage is the most undeveloped subwatershed in the larger Santa Monica Bay watershed, the subwatershed has a freshwater outlet (i.e., creek) to the beach, and adequate historical shoreline monitoring data were available. It is the intent of the Regional Board to re-evaluate the use of Leo Carrillo Beach due to potential problems arising from the heavy recreational use of the beach and the close proximity of two campgrounds.
23. Northern Bay beach monitoring sites are fewer in number and provide less comprehensive data than the extensive shoreline monitoring network elsewhere in Santa Monica Bay.

24. The numeric targets in this TMDL are not water quality objectives and do not create new bases for enforcement against dischargers apart from the water quality objectives they translate. The targets merely establish the bases through which load allocations and wasteload allocations (WLAs) are calculated. WLAs are only enforced for a discharger's own discharges, and then only in the context of its National Pollutant Discharge Elimination System (NPDES) permit, which must be consistent with the assumptions and requirements of the WLA. The Regional Board will develop permit requirements through a subsequent permit action that will allow all interested persons, including but not limited to municipal storm water dischargers, to provide comments on how the waste load allocations will be translated into permit requirements.
25. The Regional Board has the authority to authorize compliance schedules through the basin planning process. In this Basin Plan amendment, the Regional Board establishes a schedule for implementation that affords the responsible jurisdictions and agencies up to ten or eighteen years, depending on the implementation approaches pursued, to implement this Wet-Weather Bacteria TMDL.
26. Previously, the Regional Board adopted a Dry-Weather Bacteria TMDL for the Santa Monica Bay Beaches. The Dry-Weather TMDL includes implementation provisions contained in Table 7-4.3 of the Basin Plan, including a provision to reconsider two years after the effective date the Dry-Weather TMDL and specifically the reference beach(es) used. Because that effort overlaps with reconsideration of the reference beach(es) anticipated by this Wet-Weather TMDL, the Regional Board proposes to coordinate the reconsiderations of the reference beach approach to assure efficiency and consistency in implementing the two Santa Monica Beaches TMDLs.
27. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act requirements for preparing environmental documents (Public Resources Code, Section 21000 et seq.) and as such, the required environmental documentation and CEQA environmental checklist have been prepared.
28. The proposed amendment results in no potential for adverse effect (de minimis finding), either individually or cumulatively, on wildlife.
29. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
30. The Basin Plan amendment incorporating a TMDL for bacteria at Santa Monica Bay beaches must be submitted for review and approval by the State Water Resources Control Board (State Board), the State Office of Administrative Law (OAL), and the USEPA. The Basin Plan amendment will become effective upon approval by OAL and USEPA. A Notice of Decision will be filed.

**THEREFORE, be it resolved that pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan as follows:**

1. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendments to Chapters 3 and 7 of the Water Quality Control Plan for the Los Angeles Region, as set forth in Attachment A hereto, to incorporate the elements of the Santa Monica

Bay Beaches Bacteria TMDL for wet weather and to implement the water quality objectives for bacteria set to protect the water contact recreation beneficial use.

2. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendments to Chapter 7 of the Water Quality Control Plan for the Los Angeles Region, as set forth in Attachment B hereto, to amend Table 7-4.3 of the Santa Monica Bay Beaches Bacteria TMDL for dry weather to change the date for revision of the TMDL from two years after the effective date to four years after the effective date [of the Wet-Weather TMDL] to achieve consistency in scheduling between the Dry-Weather and Wet-Weather TMDLs.
3. The Executive Officer is directed to exercise authority under Water Code section 13267, or other applicable law, to require additional monitoring data in the northern Bay beach regions to ensure that wet weather bacteria exposure is adequately quantified before the TMDL is reconsidered in four years.
4. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
5. The Regional Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the USEPA.
6. If during its approval process the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
7. The Executive Officer is authorized to sign a Certificate of Fee Exemption.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 12, 2002.

ORIGINAL SIGNED BY

Dennis A. Dickerson  
Executive Officer

**Attachment A to Resolution No. 2002-022**  
**Amendment to the Water Quality Control Plan – Los Angeles Region to incorporate**  
**Implementation Provisions for the Region's Bacteria Objectives and to incorporate the**  
**Santa Monica Bay Beaches Wet-Weather Bacteria TMDL**

Adopted by the California Regional Water Quality Control Board, Los Angeles Region on December 12, 2002.

**Amendments:**

**List of Figures, Tables and Inserts**

Add under Chapter 7, Section 7-4 (Santa Monica Bay Beaches Bacteria TMDL):

Tables

- 7-4.4. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Elements
- 7-4.5. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Final Allowable Exceedance Days by Beach Location
- 7-4.6. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Interim Compliance Targets by Jurisdictional Groups
- 7-4.7. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Significant Dates

**Chapter 3. Water Quality Objectives, "Bacteria, Coliform"**

Add under "Implementation Provisions for Water Contact Recreation Bacteria Objectives"

The single sample bacteriological objectives shall be strictly applied except when provided for in a Total Maximum Daily Load (TMDL). In all circumstances, including in the context of a TMDL, the geometric mean objectives shall be strictly applied. In the context of a TMDL, the Regional Board may implement the single sample objectives in fresh and marine waters by using a 'reference system/antidegradation approach' or 'natural sources exclusion approach' as discussed below. A reference system is defined as an area and associated monitoring point that is not impacted by human activities that potentially affect bacteria densities in the receiving water body.

These approaches recognize that there are natural sources of bacteria, which may cause or contribute to exceedances of the single sample objectives for bacterial indicators. They also acknowledge that it is not the intent of the Regional Board to require treatment or diversion of natural water bodies or to require treatment of natural sources of bacteria from undeveloped areas. Such requirements, if imposed by the Regional Board, could adversely affect valuable aquatic life and wildlife beneficial uses supported by natural water bodies in the Region.

Under the reference system/antidegradation implementation procedure, a certain frequency of exceedance of the single sample objectives above shall be permitted on the basis of the observed exceedance frequency in the selected reference system or the targeted water body, whichever is less. The reference system/anti-degradation approach ensures that bacteriological water quality is at least as good as that of a reference system and that no degradation of existing bacteriological water quality is permitted where existing bacteriological water quality is better than that of the selected reference system.

Under the natural sources exclusion implementation procedure, after all anthropogenic sources of bacteria have been controlled such that they do not cause or contribute to an exceedance of the single sample objectives and natural sources have been identified and quantified, a certain frequency of exceedance of the single sample objectives shall be permitted based on the residual exceedance frequency in the specific water body. The residual exceedance frequency shall define the background level of exceedance due to natural sources. The 'natural sources exclusion' approach may be used if an appropriate reference system cannot be identified due to unique characteristics of the target water body. These approaches are

### **Attachment A to Resolution No. 2002-022**

consistent with the State Antidegradation Policy (State Board Resolution No. 68-16) and with federal antidegradation requirements (40 CFR 131.12).

The appropriateness of these approaches and the specific exceedance frequencies to be permitted under each will be evaluated within the context of TMDL development for a specific water body, at which time the Regional Board may select one of these approaches, if appropriate.

These implementation procedures may only be implemented within the context of a TMDL addressing municipal storm water, including the municipal storm water requirements of the Statewide Permit for Storm Water Discharges from the State of California Department of Transportation (Caltrans), and non-point sources discharges. These implementation provisions do not apply to NPDES discharges other than MS4 discharges.<sup>1</sup>

#### **Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries, Section 7-4 (Santa Monica Bay Beaches Bacteria TMDL)**

##### **Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only)\***

This TMDL was adopted by the Regional Water Quality Control Board on December 12, 2002.

This TMDL was approved by:

The State Water Resources Control Board on [Insert Date].

The Office of Administrative Law on [Insert Date].

The U.S. Environmental Protection Agency on [Insert Date].

The following table summarizes the key elements of this TMDL.

---

<sup>1</sup> Municipal storm water discharges in the Los Angeles Region are those with permits under the Municipal Separate Storm Sewer System (MS4) NPDES Program. For example, the MS4 permits at the time of this amendment are the Los Angeles County Municipal Storm Water NPDES Permit, Ventura County Municipal Storm Water NPDES Permit, City of Long Beach Municipal Storm Water NPDES Permit, and elements of the statewide storm water permit for the California Department of Transportation (Caltrans).

## Attachment A to Resolution No. 2002-022

Table 7-4.4. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Elements

Element	Key Findings and Regulatory Provisions
<i>Problem Statement</i>	Elevated bacterial indicator densities are causing impairment of the water contact recreation (REC-1) beneficial use at many Santa Monica Bay (SMB) beaches. Swimming in waters with elevated bacterial indicator densities has long been associated with adverse health effects. Specifically, local and national epidemiological studies compel the conclusion that there is a causal relationship between adverse health effects and recreational water quality, as measured by bacterial indicator densities.
<i>Numeric Target (Interpretation of the numeric water quality objective, used to calculate the waste load allocations)</i>	<p>The TMDL has a multi-part numeric target based on the bacteriological water quality objectives for marine water to protect the water contact recreation (REC-1) use. These targets are the most appropriate indicators of public health risk in recreational waters.</p> <p>These bacteriological objectives are set forth in Chapter 3 of the Basin Plan, as amended by the Regional Board on October 25, 2001. The objectives are based on four bacterial indicators and include both geometric mean limits and single sample limits. The Basin Plan objectives that serve as numeric targets for this TMDL are:</p> <ol style="list-style-type: none"> <li>1. <u>Rolling 30-day Geometric Mean Limits</u> <ol style="list-style-type: none"> <li>a. Total coliform density shall not exceed 1,000/100 ml.</li> <li>b. Fecal coliform density shall not exceed 200/100 ml.</li> <li>c. Enterococcus density shall not exceed 35/100 ml.</li> </ol> </li> <li>2. <u>Single Sample Limits</u> <ol style="list-style-type: none"> <li>a. Total coliform density shall not exceed 10,000/100 ml.</li> <li>b. Fecal coliform density shall not exceed 400/100 ml.</li> <li>c. Enterococcus density shall not exceed 104/100 ml.</li> <li>d. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.</li> </ol> </li> </ol> <p>These objectives are generally based on an acceptable health risk for marine recreational waters of 19 illnesses per 1,000 exposed individuals as set by the US EPA (US EPA, 1986). The targets apply throughout the year. The final compliance point for the targets is the wave wash<sup>2</sup> where there is a freshwater outlet (i.e., publicly-owned storm drain or natural creek) to the beach, or at ankle depth at beaches without a freshwater outlet.</p> <p>Implementation of the above bacteria objectives and the associated TMDL numeric targets is achieved using a 'reference system/anti-degradation approach' rather than the alternative 'natural sources exclusion approach' or strict application of the single sample objectives. As required by the CWA and Porter-Cologne Water Quality Control Act, Basin Plans include beneficial uses of waters, water quality objectives to protect those uses, an anti-degradation policy, collectively referred to as water quality standards, and other plans and policies necessary to implement water quality standards. This TMDL and its associated waste load allocations, which shall be incorporated into relevant permits, are the vehicles for implementation of the Region's</p>

<sup>2</sup> The wave wash is defined as the point at which the storm drain or creek empties and the effluent from the storm drain initially mixes with the receiving ocean water.

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
	<p>standards.</p> <p>The 'reference system/anti-degradation approach' means that on the basis of historical exceedance levels at existing shoreline monitoring locations, including a local reference beach within Santa Monica Bay, a certain number of daily exceedances of the single sample bacteria objectives are permitted. The allowable number of exceedance days is set such that (1) bacteriological water quality at any site is at least as good as at a designated reference site within the watershed and (2) there is no degradation of existing shoreline bacteriological water quality. This approach recognizes that there are natural sources of bacteria that may cause or contribute to exceedances of the single sample objectives and that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas.</p> <p>The geometric mean targets may not be exceeded at any time. The rolling 30-day geometric means will be calculated on each day. If weekly sampling is conducted, the weekly sample result will be assigned to the remaining days of the week in order to calculate the daily rolling 30-day geometric mean. For the single sample targets, each existing shoreline monitoring site is assigned an allowable number of exceedance days during wet weather, defined as days with 0.1 inch of rain or greater and the three days following the rain event. (A separate amendment incorporating the Santa Monica Bay Beaches Dry-Weather Bacteria TMDL addressed the allowable number of summer and winter dry-weather exceedance days.)</p>
<i>Source Analysis</i>	<p>With the exception of isolated sewage spills, storm water runoff conveyed by storm drains and creeks is the primary source of elevated bacterial indicator densities to SMB beaches during wet weather. Because the bacterial indicators used as targets in the TMDL are not specific to human sewage, storm water runoff from undeveloped areas may also be a source of elevated bacterial indicator densities. For example, storm water runoff from natural areas may convey fecal matter from wildlife and birds or bacteria from soil. This is supported by the finding that, at the reference beach, the probability of exceedance of the single sample targets during wet weather is 0.22.</p>
<i>Loading Capacity</i>	<p>Studies show that bacterial degradation and dilution during transport from the watershed to the beach do not significantly affect bacterial indicator densities at SMB beaches. Therefore, the loading capacity is defined in terms of bacterial indicator densities, which is the most appropriate for addressing public health risk, and is equivalent to the numeric targets, listed above. As the numeric targets must be met in the wave wash and throughout the day, no degradation allowance is provided.</p>
<i>Waste Load Allocations (for point sources)</i>	<p>Waste load allocations are expressed as the number of sample days at a shoreline monitoring site that may exceed the single sample targets identified under "Numeric Target." Waste load allocations are expressed as allowable exceedance days because the bacterial density and frequency of single sample exceedances are the most relevant to public health protection.</p>

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
	<p>For each shoreline monitoring site and corresponding subwatershed, an allowable number of exceedance days is set for wet weather.</p> <p>The allowable number of exceedance days for a shoreline monitoring site for each time period is based on the lesser of two criteria (1) exceedance days in the designated reference system and (2) exceedance days based on historical bacteriological data at the monitoring site. This ensures that shoreline bacteriological water quality is at least as good as that of a largely undeveloped system and that there is no degradation of existing shoreline bacteriological water quality.</p> <p>All responsible jurisdictions and responsible agencies<sup>3</sup> within a subwatershed are jointly responsible for complying with the allowable number of exceedance days for each associated shoreline monitoring site identified in Table 7-4.5 below.</p> <p>The three Publicly Owned Treatment Works (POTWs), the City of Los Angeles' Hyperion Wastewater Treatment Plant, Los Angeles County Sanitation Districts' Joint Water Pollution Control Plant, and the Las Virgenes Municipal Water Districts' Tapia Wastewater Reclamation Facility, discharging to Santa Monica Bay are each given individual WLAs of zero (0) days of exceedance during wet weather.</p>

<sup>3</sup> For the purposes of this TMDL, "responsible jurisdictions and responsible agencies" are defined as: (1) local agencies that are responsible for discharges from a publicly owned treatment works to the Santa Monica Bay watershed or directly to the Bay, (2) local agencies that are permittees or co-permittees on a municipal storm water permit, (3) local or state agencies that have jurisdiction over a beach adjacent to Santa Monica Bay, and (4) the California Department of Transportation pursuant to its storm water permit.

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
<i>Load Allocations (for nonpoint sources)</i>	Because all storm water runoff to SMB beaches is regulated as a point source, load allocations of zero days of exceedance are set in this TMDL. If a nonpoint source is directly impacting shoreline bacteriological quality and causing an exceedance of the numeric target(s), the permittee(s) under the Municipal Storm Water NPDES Permits are not responsible through these permits. However, the jurisdiction or agency adjacent to the shoreline monitoring location may have further obligations as described under "Compliance Monitoring" below.
<i>Implementation</i>	<p>The regulatory mechanisms used to implement the TMDL will include primarily the Los Angeles County Municipal Storm Water NPDES Permit (MS4 Permit), the Caltrans Storm Water Permit, the three NPDES permits for the POTWs, the authority contained in sections 13267 and 13263 of the Water Code, and regulations to be adopted pursuant to section 13291 of the Water Code. Each NPDES permit assigned a waste load allocation shall be reopened or amended at reissuance, in accordance with applicable laws, to incorporate the applicable waste load allocation(s) as a permit requirement.</p> <p>The implementation schedule will be determined on the basis of the implementation plan(s), which must be submitted to the Regional Board by responsible jurisdictions and agencies within two years of the effective date of the TMDL (see Table 7-4.7). After considering the implementation plan(s), the Regional Board shall amend the TMDL at a public hearing and, in doing so, will adopt an individual implementation schedule for each jurisdictional group (described in paragraph 3 below) that is as short as possible taking into account the implementation approach being undertaken. Responsible jurisdictions and agencies must clearly demonstrate in the above-mentioned plan whether they intend to pursue an integrated water resources approach.<sup>4</sup> If an integrated water resources approach is pursued, responsible jurisdictions and agencies may be allotted up to an 18-year implementation timeframe, based on a clear demonstration of the need for a longer schedule in the implementation plan, in recognition of the additional planning and time needed to achieve the multiple benefits of this approach. Otherwise, at most a 10-year implementation timeframe will be allotted, depending upon a clear demonstration of the time needed in the implementation plan.</p> <p>The subwatersheds associated with each beach monitoring location may</p>

<sup>4</sup> An integrated water resources approach is one that takes a holistic view of regional water resources management by integrating planning for future wastewater, storm water, recycled water, and potable water needs and systems; focuses on beneficial re-use of storm water, including groundwater infiltration, at multiple points throughout a watershed; and addresses multiple pollutants for which Santa Monica Bay or its watershed are listed on the CWA section 303(d) List as impaired. Because an integrated water resources approach will address multiple pollutants, responsible jurisdictions can recognize cost-savings because capital expenses for the integrated approach will implement several TMDLs that address pollutants in storm water. An integrated water resources approach shall not only provide water quality benefits to the people of the Los Angeles Region, but it is also anticipated that an integrated approach will incorporate and enhance other public goals. These may include, but are not limited to, water supply, recycling and storage; environmental justice; parks, greenways and open space; and active and passive recreational and environmental education opportunities.

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
	<p>include multiple responsible jurisdictions and responsible agencies. Therefore, a "primary jurisdiction," defined as the jurisdiction comprising greater than fifty percent of the subwatershed land area, is identified for each subwatershed (see Table 7-4.6).<sup>5</sup> Seven primary jurisdictions are identified within the Santa Monica Bay watershed, each with a group of associated subwatersheds and beach monitoring locations. These are identified as "jurisdictional groups" (see Table 7-4.6). The primary jurisdiction of each "jurisdictional group" shall be responsible for submitting the implementation plan described above, which will determine the implementation timeframe for the subwatershed. A jurisdictional group may change its primary jurisdiction by submitting a joint, written request, submitted by the current primary jurisdiction and the proposed primary jurisdiction, to the Executive Officer requesting a reassignment of primary responsibility. Two jurisdictional groups may also choose to change the assignment of monitoring locations between the two groups by submitting a joint, written request, submitted by the current primary jurisdiction and the proposed primary jurisdiction, to the Executive Officer requesting a reassignment of the monitoring location.</p> <p>If an integrated water resources approach is pursued, the jurisdictional group(s) must achieve a 10% cumulative percentage reduction from the total exceedance-day reduction required for the group of beach monitoring locations within 6 years, a 25% reduction within 10 years, and a 50% reduction within 15 years of the effective date of the TMDL. These interim milestones for the jurisdictional group(s) will be re-evaluated, considering planning, engineering and construction tasks, based on the written implementation plan submitted to the Regional Board two years after the effective date of the TMDL (see Table 7-4.7).</p> <p>If an integrated water resources approach is not pursued, the jurisdictional group(s) must achieve a 25% cumulative percentage reduction from the total exceedance-day reduction required for the group of beach monitoring locations within 6 years, and a 50% reduction within 8 years of the effective date of the TMDL (see Table 7-4.7).</p> <p>For those beach monitoring locations subject to the antidegradation provision, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table 7-4.5.</p> <p>The final implementation targets in terms of allowable wet-weather exceedance days must be achieved at each individual beach location no later than 18 years after the TMDL's effective date if an integrated water resources approach is pursued, or no later than 10 years after the TMDL's effective date if an integrated water resources approach is not pursued. In addition, the geometric mean targets must be achieved for each individual beach location no later than 18 years or 10 years after the effective date, respectively, depending on whether a integrated</p>

<sup>5</sup> Primary jurisdictions are not defined for the Ballona Creek subwatershed or the Malibu Creek subwatershed, since separate bacteria TMDLs are being developed for these subwatersheds.

**Attachment A to Resolution No. 2002-022**

Element	Key Findings and Regulatory Provisions
	water resources approach is pursued or not.

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
<i>Margin of Safety</i>	<p>The TMDL is set at levels that are exactly equivalent to the applicable water quality standards along with the proposed reference system/antidegradation implementation procedure.</p> <p>An implicit margin of safety is included in the supporting water quality model by assuming no dilution between the storm drain and the wave wash, the point of compliance. This is a conservative assumption since studies have shown that there is a high degree of variability in the amount of dilution between the storm drain and wave wash temporally, spatially and among indicators, ranging from 100% to 0%.</p>
<i>Seasonal Variations and Critical Conditions</i>	<p>Seasonal variations are addressed by developing separate waste load allocations for three time periods (wet weather, summer dry weather and winter dry weather) based on public health concerns and observed natural background levels of exceedance of bacterial indicators. (The two dry-weather periods are addressed in the Santa Monica Bay Beaches Dry-Weather Bacteria TMDL.)</p> <p>The critical condition for this bacteria TMDL is wet weather generally, when historic shoreline monitoring data for the reference beach indicate that the single sample bacteria objectives are exceeded on 22% of the wet-weather days sampled. To more specifically identify a critical condition within wet weather in order to set the allowable exceedance days shown in Tables 7-4.5 and 7-4.6, the 90<sup>th</sup> percentile 'storm year'<sup>6</sup> in terms of wet days is used as the reference year. Selecting the 90<sup>th</sup> percentile year avoids a situation where the reference beach is frequently out of compliance. It is expected that because responsible jurisdictions and agencies will be planning for this 'worst-case' scenario, there will be fewer exceedance days than the maximum allowed in drier years. Conversely, in the 10% of wetter years, it is expected that there may be more than the allowable number of exceedance days.</p>
<i>Compliance Monitoring</i>	<p>Responsible jurisdictions and agencies as defined in Footnote 2 shall conduct daily or systematic weekly sampling in the wave wash at all major drains<sup>7</sup> and creeks or at existing monitoring stations at beaches without storm drains or freshwater outlets to determine compliance.<sup>8</sup> At all locations, samples shall be taken at ankle depth and on an incoming wave. At locations where there is a freshwater outlet, during wet weather, samples should be taken as close as possible to the wave wash, and no further away than 10 meters down current of the storm drain or outlet.<sup>9</sup> At locations where there is a freshwater outlet, samples shall be taken when the freshwater outlet is flowing into the surf zone.</p> <p>If the number of exceedance days is greater than the allowable number of exceedance days for any jurisdictional group at the interim implementation milestones the responsible jurisdictions and agencies</p>

<sup>6</sup> For purposes of this TMDL, a 'storm year' means November 1 to October 31. The 90<sup>th</sup> percentile storm year was 1993 with 75 wet days at the LAX meteorological station.

<sup>7</sup> Major drains are those that are publicly owned and have measurable flow to the beach during dry weather.

<sup>8</sup> The frequency of sampling (i.e., daily versus weekly) will be at the discretion of the implementing agencies. However, the number of sample days that may exceed the objectives will be scaled accordingly.

<sup>9</sup> Safety considerations during wet weather may preclude taking a sample in the wave wash.

## Attachment A to Resolution No. 2002-022

Element	Key Findings and Regulatory Provisions
	<p>shall be considered out-of-compliance with the TMDL. If the number of exceedance days exceeds the allowable number of exceedance days for a target beach at the final implementation deadline, the responsible jurisdictions and agencies within the contributing subwatershed shall be considered out-of-compliance with the TMDL. Responsible jurisdictions or agencies shall not be deemed out of compliance with the TMDL if the investigation described in the paragraph below demonstrates that bacterial sources originating within the jurisdiction of the responsible agency have not caused or contributed to the exceedance.</p> <p>If a single sample shows the discharge or contributing area to be out of compliance, the Regional Board may require, through permit requirements or the authority contained in Water Code section 13267, daily sampling in the wave wash or at the existing open shoreline monitoring location (if it is not already) until all single sample events meet bacteria water quality objectives. Furthermore, if a beach location is out-of-compliance as determined in the previous paragraph, the Regional Board shall require responsible agencies to initiate an investigation, which at a minimum shall include daily sampling in the wave wash or at the existing open shoreline monitoring location until all single sample events meet bacteria water quality objectives. If bacteriological water quality objectives are exceeded in any three weeks of a four-week period when weekly sampling is performed, or, for areas where testing is done more than once a week, 75% of testing days produce an exceedence of bacteria water quality objectives, the responsible agencies shall conduct a source investigation of the subwatershed(s) pursuant to protocols established under Water Code 13178. If a beach location without a freshwater outlet is out-of-compliance or if the outlet is diverted or being treated, the adjacent municipality, County agency(s), or State or federal agency(s) shall be responsible for conducting the investigation and shall submit its findings to the Regional Board to facilitate the Regional Board exercising further authority to regulate the source of the exceedance in conformance with the Porter-Cologne Water Quality Control Act.</p>

Note: The complete staff report for the TMDL is available for review upon request.

## Attachment A to Resolution No. 2002-022

Table 7-4.5. Final Allowable Wet-Weather Exceedance Days by Beach Location

Beach Monitoring Location	Estimated no. of wet weather exceedance days in critical year (90 <sup>th</sup> percentile)*	Final allowable no. of wet weather exceedance days (daily sampling)*
DHS 010 - Leo Carrillo Beach, at 35000 PCH	17	17
DHS 009 - Nicholas Beach- 100 feet west of lifeguard tower	14	14
DHS 010a - Broad Beach	15	15
DHS 008 - Trancas Beach entrance, 50 yards east of Trancas Bridge	19	17
DHS 007 - Westward Beach, east of Zuma Creek	17	17
DHS 006 - Paradise Cove, adjacent to west side of Pier	23	17
DHS 005 - Latigo Canyon Creek entrance	33	17
DHS 005a - Corral State Beach	17	17
DHS 001a - Las Flores Beach	29	17
DHS 001 - Big Rock Beach, at 19900 PCH	30	17
DHS 003 - Malibu Point	18	17
DHS 003a - Surfrider Beach (second point)- weekly	45	17
S1 - Surfrider Beach (breach point)- daily	47	17
DHS 002 - Malibu Pier- 50 yards east	45	17
S2 - Topanga State Beach	26	17
DHS 101 - PCH and Sunset Bl - 400 yards east	25	17
DHS 102 - 16801 Pacific Coast Highway, Bel Air Bay Club (chain fence)	28	17
S3 - Pulga Canyon storm drain- 50 yards east	23	17
DHS 103 - Will Rogers State Beach- Temescal Canyon (25 yrds. so. of drain)	31	17
S4 - Santa Monica Canyon, Will Rogers State Beach	25	17
DHS 104a - Santa Monica Beach at San Vicente Bl.	34	17
DHS 104 - Santa Monica at Montana Av. (25 yrds. so. of drain)	31	17
DHS 105 - Santa Monica at Arizona (in front of the drain)	31	17
S5 - Santa Monica Municipal Pier- 50 yards southeast	35	17
S6 - Santa Monica Beach at Pico/Kenter storm drain	42	17
DHS 106 - Santa Monica Beach at Strand St. (in front of the restrooms)	36	17
DHS 106a - Ashland Av. storm drain- 50 yards north	39	17
S7 - Ashland Av. storm drain- 50 yards south	22	17
DHS 107 - Venice City Beach at Brooks Av (in front of the drain)	40	17

## Attachment A to Resolution No. 2002-022

Beach Monitoring Location	Estimated no. of wet weather exceedance days in critical year (90 <sup>th</sup> percentile)*	Final allowable no. of wet weather exceedance days (daily sampling)*
S8 - Venice City Beach at Windward Av.- 50 yards north	13	13
DHS 108 - Venice Fishing Pier- 50 yards south	17	17
DHS 109 - Venice City Beach at Topsail St.	38	17
S11 - Dockweiler State Beach at Culver Bl.	23	17
DHS 110 - Dockweiler State Beach- south of D&W jetty	30	17
S12 - Imperial HWY storm drain- 50 yards north	17	17
DHS 111 - Hyperion Treatment Plant One Mile Outfall	18	17
DHS 112 - Dockweiler State Beach at Grand Av. (in front of the drain)	25	17
S10 - Ballona Creek entrance- 50 yards south	34	17
S13 - Manhattan State Beach at 40th Street	4	4
S14 - Manhattan Beach Pier- 50 yards south	5	5
DHS 114 - Hermosa City Beach at 26th St.	12	12
S15 - Hermosa Beach Pier- 50 yards south	8	8
DHS 115 - Herondo Street storm drain- (in front of the drain)	19	17
S16 - Redondo Municipal Pier- 50 yards south	14	14
DHS 116 - Redondo State Beach at Topaz St - north of jetty	10	17
S17 - Redondo State Beach at Avenue I	6	6
S18 - Malaga Cove, Palos Verdes Estates-daily	3	3
LACSDM - Malaga Cove, Palos Verdes Estates-weekly	14	14
LACSDB - Palos Verdes (Bluff) Cove, Palos Verdes Estates	0	0
LACSD1 - Long Point, Rancho Palos Verdes	5	5
LACSD2 - Abalone Cove Shoreline Park	1	1
LACSD3 - Portuguese Bend Cove, Rancho Palos Verdes	2	2
LACSD5 - Royal Palms State Beach	6	6
LACSD6 - Wilder Annex, San Pedro	2	2
LACSD7 - Cabrillo Beach, oceanside	3	3

Notes: \* The compliance targets are based on existing shoreline monitoring data and assume daily sampling. If systematic weekly sampling is conducted, the compliance targets will be scaled accordingly. These are the compliance targets until additional shoreline monitoring data are collected prior to revision of the TMDL. Once additional shoreline monitoring data are available, the following will be re-evaluated when the TMDL is revised 1) estimated number of wet-weather exceedance days in the critical year at all beach locations, including the reference system(s) and 2) final allowable wet-weather exceedance days for each beach location.

Attachment A to Resolution No. 2002-022

Table 7-4.6. Interim Compliance Targets by Jurisdictional Group

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)**	Interim Compliance Targets as Maximum Allowable Exceedance Days during Wet Weather***		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
1	County of Los Angeles	Caltrans Malibu City of Los Angeles (Topanga only) Calabasas (Topanga only)	Arroyo Sequit	DHS 010	221	212	197
			Carbon Canyon	none			
			Corral Canyon	DHS 005a			
			Encinal Canyon	DHS 010a*			
			Escondido Canyon	none			
			Las Flores Canyon	DHS 001a			
			Latigo Canyon	DHS 005			
			Los Alisos Canyon	none			
			Pena Canyon	none			
			Piedra Gorda Canyon	DHS 001			
			Ramirez Canyon	DHS 006			
			Solstice Canyon	none			
			Topanga Canyon	S2			
			Trancas Canyon	DHS 008			
Tuna Canyon	none						
Zuma Canyon	DHS 007						
2	City of Los Angeles	Caltrans County of Los Angeles El Segundo (DW only) Manhattan Beach (DW only) Culver City (MDR only) Santa Monica	Castlerock	none	342	324	294
			Dockweiler	S11, DHS 110, S12, DHS 111, DHS 112			
			Marina del Rey	DHS 107, S8*, DHS 108, DHS 109			
			Pulga Canyon	S3, DHS 103			
			Santa Monica Canyon	S4			
			Santa Ynez Canyon	DHS 101, DHS 102			

Attachment A to Resolution No. 2002-022

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)**	Interim Compliance Targets as Maximum Allowable Exceedance Days during Wet Weather***		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
3	Santa Monica	Caltrans City of Los Angeles County of Los Angeles	Santa Monica	DHS 104a, DHS 104, DHS 105, S5, S6, DHS 106, DHS 106a, S7	257	237	203
4	Malibu	Caltrans County of Los Angeles	Nicholas Canyon	DHS 009#	14	14	14
5	Manhattan Beach	Caltrans El Segundo Hermosa Beach Redondo Beach	Hermosa	S13# , S14# , DHS 114# , S15#	29	29	29
6	Redondo Beach	Caltrans Hermosa Beach Manhattan Beach Torrance County of Los Angeles	Redondo	DHS 115, S16# , DHS 116, S17#	58	57	56

015843

Attachment A to Resolution No. 2002-022

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)**	Interim Compliance Targets as Maximum Allowable Exceedance Days during Wet Weather***		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
7	Rancho Palos Verdes	Caltrans City of Los Angeles Palos Verdes Estates Redondo Beach Rolling Hills Rolling Hills Estates Torrance County of Los Angeles	Palos Verdes Peninsula	S18 <sup>#</sup> , LACSDM <sup>#</sup> , LACSDB <sup>#</sup> , LACSD1 <sup>#</sup> , LACSD2 <sup>#</sup> , LACSD3 <sup>#</sup> , LACSD5 <sup>#</sup> , LACSD6 <sup>#</sup> , LACSD7 <sup>#</sup>	36	36	36

Notes: \*Interim milestones will be re-calculated during the revision of the TMDL based on shoreline monitoring data collected from the wave wash and a re-evaluation of the most appropriate reference system and reference year. Furthermore, if an integrated water resources approach is pursued, as demonstrated by the implementation plans to be submitted to the Regional Board by the primary jurisdictions within two years of the effective date of the TMDL, the interim milestones will be re-evaluated on the basis of the implementation plan, considering planning, engineering and construction tasks. \*\*Interim milestones for the Malibu and Ballona shoreline monitoring locations will be identified in subsequent bacteria TMDLs to be developed for these two watersheds. \*\*\*Monitoring sites are those shoreline locations currently monitored by the City of Los Angeles, County Sanitation Districts of Los Angeles County, and the Los Angeles County Department of Health Services at the time of adoption of this TMDL by the Regional Board. This list does not preclude the establishment of additional monitoring stations. For those subwatersheds without an existing shoreline monitoring site, responsible jurisdictions and agencies must establish a shoreline monitoring site if there is measurable flow from a creek or publicly owned storm drain to the beach during dry weather. \* For those beach monitoring locations subject to the anti-degradation provision, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table 7-4.5.

## Attachment A to Resolution No. 2002-022

Table 7-4.7. Santa Monica Bay Beaches Bacteria TMDL (Wet Weather Only): Significant Dates

Date	Action
120 days after the effective date of the TMDL	Pursuant to a request from the Regional Board, responsible jurisdictions and responsible agencies must submit coordinated shoreline monitoring plan(s) to be approved by the Executive Officer, including a list of new sites* and/or sites relocated to the wave wash at which time responsible jurisdictions and responsible agencies shall select between daily or systematic weekly shoreline sampling.
20 months after the effective date of the TMDL	Responsible jurisdictions and agencies shall provide a draft written report to the Regional Board outlining how each intends to cooperatively (through Jurisdictional Groups) achieve compliance with the TMDL. The report shall include implementation methods, an implementation schedule, and proposed milestones.
Two years after effective date of TMDL	Responsible jurisdictions and agencies shall provide a written report to the Regional Board outlining how each intends to cooperatively (through Jurisdictional Groups) achieve compliance with the TMDL. The report shall include implementation methods, an implementation schedule, and proposed milestones. Under no circumstances shall final compliance dates exceed 10 years for non-integrated approaches or 18 years for integrated water resources approaches. Regional Board staff shall bring to the Regional Board the aforementioned plans as soon as possible for consideration.
4 years after effective date of TMDL	<p>The Regional Board shall reconsider the TMDL to:</p> <ol style="list-style-type: none"> <li data-bbox="662 1220 1347 1346">(1) refine allowable wet weather exceedance days based on additional data on bacterial indicator densities in the wave wash and an evaluation of site-specific variability in exceedance levels.</li> <li data-bbox="662 1377 1347 1598">(2) re-evaluate the reference system selected to set allowable exceedance levels, including a reconsideration of whether the allowable number of exceedance days should be adjusted annually dependent on the rainfall conditions and an evaluation of natural variability in exceedance levels in the reference system(s).</li> <li data-bbox="662 1629 1347 1692">(3) re-evaluate the reference year used in the calculation of allowable exceedance days, and</li> <li data-bbox="662 1724 1347 1829">(4) re-evaluate whether there is a need for further clarification or revision of the geometric mean implementation provision.</li> </ol>

## Attachment A to Resolution No. 2002-022

Date	Action
<b>Significant Dates for Responsible Jurisdictions and Agencies <i>Not</i> Pursuing an Integrated Water Resources Approach</b>	
6 years after effective date of the TMDL	Each defined jurisdictional group must achieve a 25% cumulative percentage reduction from the total exceedance-day reductions required for that jurisdictional group as identified in Table 7-4.6.
8 years after effective date of the TMDL	Each defined jurisdictional group must achieve a 50% cumulative percentage reduction from the total exceedance-day reductions required for that jurisdictional group as identified in Table 7-4.6.
10 years after effective date of the TMDL	Final implementation targets in terms of allowable wet-weather exceedance days must be achieved at each individual beach as identified in Table 7-4.5. In addition, the geometric mean targets must be achieved for each individual beach location.
<b>Significant Dates for Responsible Jurisdictions and Agencies Pursuing an Integrated Water Resources Approach to Implementation</b>	
6 years after effective date of the TMDL	Each defined jurisdictional group must achieve a 10% cumulative percentage reduction from the total exceedance-day reductions required for that jurisdictional group as identified in Table 7-4.6.
10 years after effective date of the TMDL	Each defined jurisdictional group must achieve a 25% cumulative percentage reduction from the total exceedance-day reductions required for that jurisdictional group as identified in Table 7-4.6.
15 years after effective date of the TMDL	Each defined jurisdictional group must achieve a 50% cumulative percentage reduction from the total exceedance-day reductions required for that jurisdictional group as identified in Table 7-4.6.
18 years after effective date of the TMDL	Final implementation targets in terms of allowable wet-weather exceedance days must be achieved at each individual beach as identified in Table 7-4.5. In addition, the geometric mean targets must be achieved for each individual beach location.

Notes: \*For those subwatersheds without an existing shoreline monitoring site, responsible jurisdictions and agencies must establish a shoreline monitoring site if there is measurable flow from a creek or publicly owned storm drain to the beach during dry weather.

## Attachment B to Resolution No. 2002-022

### Amendment to the Water Quality Control Plan – Los Angeles Region to Revise the Santa Monica Bay Beaches Dry-Weather Bacteria TMDL

Adopted by the California Regional Water Quality Control Board, Los Angeles Region on December 12, 2002.

#### Amendments:

#### Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only)\*

**Table 7-4.3. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Significant Dates**

Date	Action
120 days after the effective date of the TMDL	Responsible jurisdictions and responsible agencies must submit coordinated shoreline monitoring plan(s), including a list of new sites or sites relocated to the wave wash at which time responsible jurisdictions and responsible agencies will select between daily and weekly shoreline sampling.
120 days after the effective date of the TMDL	<p>Responsible jurisdictions and responsible agencies must identify and provide documentation on 342 potential discharges to Santa Monica Bay beaches listed in Appendix C of the TMDL Staff Report dated January 11, 2002. Documentation must include a Report of Waste Discharge (ROWD) where necessary.</p> <p>Responsible jurisdictions and responsible agencies must identify and provide documentation on potential discharges to the Area of Special Biological Significance (ASBS) in northern Santa Monica Bay from Latigo Point to the County line.</p> <p>Cessation of the discharges into the ASBS shall be required in conformance with the California Ocean Plan.</p>
<del>2</del> 1 years after effective date of TMDL	Re-open TMDL to re-evaluate allowable winter dry weather exceedance days based on additional data on bacterial indicator densities in the wave wash, a re-evaluation of the reference system selected to set allowable exceedance levels, and a re-evaluation of the reference year used in the calculation of allowable exceedance days.
3 years after effective date of the TMDL	Achieve compliance with allowable exceedance days as set forth in Table 7-4.2a and rolling 30-day geometric mean targets during summer dry weather (April 1 to October 31).
6 years after effective date of the TMDL	Achieve compliance with allowable exceedance days as set forth in Table 7-4.2a and rolling 30-day geometric mean targets during winter dry weather (November 1 to March 31).

## Exhibit B Cost Sharing Formula

All Parties agree to share the cost of preparing the draft and final implementation plan for Jurisdictional Groups 5 & 6 on a tributary area basis.

The following table shows cost sharing distribution and maximum contribution amount:

Jurisdiction	Tributary Area (acres)	Contribution Percentage	Maximum Contribution Amount
Manhattan Beach	2023	24.991%	\$46,233
Hermosa Beach	901	11.130%	\$20,591
Redondo Beach	2623	32.403%	\$59,946
Torrance	2289	28.277%	\$52,312
El Segundo	21	0.259%	\$479
County of Los Angeles	172	2.125%	\$3,931
Caltrans	66	0.815%	\$1,508
Total	8095	100.000%	\$185,000

**Exhibit B**

**Copy of RWQCB Resolution No. 2006-007**

Santa Monica Bacteria TMDL  
Jurisdictional Groups 5 and 6  
Implementation Plan Implementation  
Amendment to Memorandum of Agreement

State of California  
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. 2006-007

April 6, 2006

Statement of support for the efforts of responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 to utilize an integrated water resources approach to achieve full compliance with the Santa Monica Bay Beaches Bacteria Wet Weather TMDL in the shortest possible timeframe and no later than 2021

**WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:**

1. The federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to develop water quality standards which include beneficial use designations and criteria to protect beneficial uses for each water body found within its region.
2. The Regional Board carries out its CWA responsibilities through California's Porter-Cologne Water Quality Control Act and establishes water quality objectives designed to protect beneficial uses contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan).
3. Section 303(d) of the CWA requires states to identify and to prepare a list of water bodies that do not meet water quality standards and then to establish load and waste load allocations, or a total maximum daily load (TMDL), for each water body that will ensure attainment of water quality standards and then to incorporate those allocations into their water quality control plans.
4. Many of the beaches along Santa Monica Bay were listed on California's 1998 section 303(d) List, due to impairments for coliform or for beach closures associated with bacteria generally. The beaches appeared on the 303(d) List because the elevated bacteria and beach closures prevented full support of the beaches' designated use for water contact recreation (REC-1).
5. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc. and Santa Monica BayKeeper, Inc. was approved on March 22, 1999. This court order required completion of a TMDL to reduce bacteria at Santa Monica Bay beaches by March 2002.
6. The Regional Board adopted two TMDLs to address bacteriological water quality impairments for 44 beaches along Santa Monica Bay located in Los Angeles County, California. The Regional Board adopted a TMDL to address water quality impairments during dry weather on January 24, 2002 and a TMDL to address wet weather impairments on December 12, 2002 (Resolutions 2002-004 and 2002-022, respectively).
7. The Regional Board incorporated the dry weather and wet weather TMDLs along with appropriate implementation measures into its Basin Plan as required (40 CFR 130.6(c)(1)).

- 130.7). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.
8. The Regional Board established the above-mentioned TMDLs to preserve and enhance the water quality at Santa Monica Bay beaches and for the benefit of the 55 million beachgoers, on average, that visit these beaches each year. At stake is the health of swimmers and surfers and associated health costs as well as sizeable revenues to the local and state economy. Estimates are that visitors to Santa Monica Bay beaches spend approximately \$1.7 billion annually.
  9. The Regional Board's goal in establishing the above-mentioned TMDLs is to reduce the risk of illness associated with swimming in marine waters contaminated with bacteria. Local and national epidemiological studies compel the conclusion that there is a causal relationship between adverse health effects, such as gastroenteritis and upper respiratory illness, and recreational water quality, as measured by bacteria indicator densities. The water quality objectives on which the TMDL numeric targets are based will ensure that the risk of illness to the public from swimming at Santa Monica Bay beaches generally will be no greater than 19 illnesses per 1,000 swimmers, which is defined by the USEPA as an "acceptable health risk" in marine recreational waters.
  10. The Dry Weather and Wet Weather Santa Monica Bay Beaches Bacteria TMDLs cover 44 beaches and 29 subwatersheds, with multiple jurisdictions and agencies that are responsible for compliance. Therefore, in the Wet Weather TMDL for implementation planning the Regional Board grouped the subwatersheds into Jurisdictional Groups. Each Jurisdictional Group is comprised of one or more subwatersheds, the beach(es) associated with these subwatersheds, and all responsible jurisdictions and agencies within the subwatershed(s). Each Jurisdictional Group is assigned a primary jurisdiction. A primary jurisdiction is that jurisdiction comprising greater than fifty percent of the subwatershed land area. The primary jurisdiction is responsible for submitting an implementation plan for the Jurisdictional Group per the requirements of the Wet Weather TMDL.
  11. Jurisdictional Group 5 is responsible for one subwatershed, referred to as the Hermosa subwatershed. The primary jurisdiction is the City of Manhattan Beach. Other participating responsible jurisdictions and agencies in Jurisdictional Group 5 include the Cities of El Segundo and Hermosa Beach, County of Los Angeles and California Department of Transportation (Caltrans).
  12. Jurisdictional Group 6 is responsible for one subwatershed, referred to as the Redondo subwatershed. The primary jurisdiction is the City of Redondo Beach. Other participating responsible jurisdictions and agencies in Jurisdictional Group 6 include the Cities of Hermosa Beach, Manhattan Beach and Torrance, County of Los Angeles and Caltrans.
  13. During the adoption of the wet weather TMDL, the Regional Board recognized two broad approaches to implementing the TMDL. One possible approach is an integrated water resources approach that takes a holistic view of regional water resources management by integrating planning for future wastewater, storm water, recycled water, and potable water needs and systems; focuses on beneficial re-use of storm water, including groundwater infiltration, at multiple points throughout a watershed; and addresses multiple pollutants for which Santa Monica Bay or its watershed are listed on the CWA section 303(d) List as impaired. The other possible approach is a non-integrated water resources approach in which

implementation is achieved by focusing on narrowly tailored, end-of-the-pipe solutions to improve bacteriological water quality without incorporating other environmental and public goals.

14. The Regional Board recognized that an integrated water resources approach not only provides water quality benefits to the people of the Los Angeles Region, but also that the responsible jurisdictions implementing this TMDL can serve a variety of public purposes by adopting an integrated water resources approach. An integrated water resources approach will address multiple pollutants, and as a result, responsible jurisdictions can recognize cost-savings because capital expenses for the integrated approach will implement several TMDLs that address pollutants in storm water. In addition, jurisdictions serve multiple roles for their citizenry, and an integrated approach allows for the incorporation and enhancement of other public goals such as water supply, recycling and storage; environmental justice; parks, greenways and open space; and active and passive recreational and environmental education opportunities.
15. The Regional Board acknowledged that a longer timeframe is reasonable for an integrated water resources approach because it requires more complicated planning and implementation such as identifying markets for the water and efficiently siting storage and transmission infrastructure within the watershed(s) to realize the multiple benefits of such an approach. Therefore, after considering testimony, the Regional Board revised the implementation provisions of the TMDL to allow for a longer implementation schedule (*up to* 18 years) if the responsible jurisdictions and agencies clearly demonstrate their intention to undertake an integrated water resources approach and justify the need for a longer implementation schedule. In contrast, the Regional Board required a shorter implementation schedule (*up to* 10 years) for non-integrated approaches because the level of planning is not as complicated.
16. The Regional Board has the authority to provide compliance schedules through the basin planning process. In the wet weather TMDL, adopted by the Regional Board, the Regional Board established dual schedules for implementation that afford the responsible jurisdictions and agencies up to ten or eighteen years, depending on the implementation approaches pursued, to implement the wet weather TMDL.
17. The implementation provisions in Table 7-4.4 of the wet weather TMDL state that, "the implementation schedule will be determined on the basis of the implementation plan(s), which must be submitted to the Regional Board by responsible jurisdictions and agencies within two years of the effective date of the TMDL." (Resolution 2002-022, Attachment A).
18. The implementation provisions in Table 7-4.4 further state that, "responsible jurisdictions and agencies must clearly demonstrate in the above-mentioned plan whether they intend to pursue an integrated water resources approach." If the responsible jurisdictions and agencies prefer an integrated approach, there must be a clear demonstration of need for the longer implementation schedule in the implementation plan. Otherwise, at most a 10-year implementation timeframe will be allotted by the Regional Board, depending upon a clear demonstration of the time needed in the implementation plan.
19. Per the requirements set forth in the wet weather TMDL, responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 jointly submitted a draft Implementation Plan to the Regional Board on March 15, 2005. Regional Board staff met with the responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 to review and provide comments on the draft Implementation Plan. Regional Board staff also provided written comments to

the responsible jurisdictions and agencies in a letter dated May 26, 2005. The responsible jurisdictions and agencies submitted a final Implementation Plan to the Regional Board on July 15, 2005.

20. The Implementation Plan submitted by Jurisdictional Groups 5 and 6 is an iterative, adaptive implementation plan designed to address wet- and dry-weather TMDL issues. The Implementation Plan incorporates the principles of an integrated water resources approach by addressing additional pollutants, integrating water conservation methods, and identifying beneficial reuse opportunities as detailed in section 4.4 of the Plan.
21. The Implementation Plan lays out three management approaches within an iterative framework that is designed to identify and implement those implementation actions that are found to be most effective in achieving compliance with the TMDL. The three broad management approaches are programmatic solutions, structural best management practices (BMPs), and source identification and control.
22. The implementation schedule proposed by Jurisdictional Groups 5 and 6 is phased over 16 years with a final compliance date of 2021 (18 years after the effective date of the TMDL). The implementation plan is divided into three phases. Jurisdictional Groups 5 and 6 will begin Phase I of the three management approaches described in (22) simultaneously.
23. At the first interim milestone in July 2009 (10% wet-weather reduction in exceedance days), Phase I of programmatic solutions will have been implemented and Phase I source identification investigations will be complete. Phase II of these two management approaches will be underway. At the second interim milestone in July 2013 (25% wet-weather reduction), one entire cycle of all three phases of programmatic solutions and source control measures will be complete. Additionally the pilot phase and final assessment of site-specific structural BMPs will be complete (Phase II). The combined effect of source controls implemented in high priority drainage areas with appropriate expansion into other drainage areas, and all three phases of programmatic solutions implemented throughout Jurisdictional Groups 5 and 6 is expected to achieve the first two interim milestones of a 10% and 25% reduction in wet weather exceedances.
24. Regional solutions are a secondary resort in managing runoff and reducing bacteria loading at the beaches. However, due to scientific uncertainties it is not possible to guarantee that the implementation actions outlined in the Implementation Plan for Jurisdictional Groups 5 and 6 will achieve the necessary reductions in exceedance days as required by the TMDL. Therefore, it is essential to start the feasibility and conceptual analyses for regional solutions early in the implementation schedule (prior to 2013) in order to identify potential land requirements, physical limitations, and implementation issues. Because these regional solutions require a significant amount of time to plan and implement, beginning the feasibility analyses early will provide the responsible jurisdictions and agencies sufficient time to make changes and other arrangements and still keep to the implementation schedule.
25. Interested persons and the public have had reasonable opportunity to participate in the development and review of the Implementation Plan for Jurisdictional Groups 5 and 6. The responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 held two half-day stakeholder workshops during the development of the Implementation Plan. These were held on October 19, 2004 and January 18, 2005.

26. The final Implementation Plan for Jurisdictional Groups 5 and 6 submitted by the responsible jurisdictions and agencies to the Regional Board was posted on the Regional Board's website in advance of the April 6, 2006 Board hearing. A Notice of Hearing was published and circulated 30 days preceding Board action; Regional Board staff responded to oral and written comments received from the public; and the Regional Board held a public hearing on April 6, 2006 to consider the Implementation Plan for Jurisdictional Groups 5 and 6.

**THEREFORE, be it resolved that pursuant to Regional Board Resolution 2002-022, Attachment A, Amendment to the Water Quality Control Plan – Los Angeles Region to incorporate Implementation Provisions for the Region's Bacteria Objectives and to incorporate the Santa Monica Bay Beaches Wet Weather Bacteria TMDL, Table 7-4.4, "Implementation", adopted by the Regional Board on December 12, 2002 and effective on July 15, 2003:**

1. The Regional Board hereby acknowledges the submission of a draft Implementation Plan and final Implementation Plan dated July 15, 2005 by responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6, including the Cities of Redondo Beach, Hermosa Beach, Manhattan Beach, El Segundo and Torrance, County of Los Angeles and Caltrans, per requirements of the Santa Monica Bay Beaches Bacteria Wet Weather TMDL as set forth in Resolution 2002-022, Attachment A, Table 7-4.7.
2. The Regional Board hereby determines that the responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 as identified in (1) have demonstrated at a conceptual level in the Implementation Plan that they intend to pursue an integrated water resources approach as defined in the Santa Monica Bay Beaches Bacteria Wet Weather TMDL, Table 7-4.4.
3. The Regional Board hereby determines that assuming the responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 as identified in (1) adequately comply with the terms of this resolution, they will have demonstrated based on their conceptual plan the need for the longer implementation schedule as outlined in the final Implementation Plan dated July 15, 2005, which commits to a final compliance date of July 2021.
4. Given the conceptual commitment to an integrated water resources approach and to achieving final compliance by July 2021 outlined in the Implementation Plan for Jurisdictional Groups 5 and 6, the Regional Board strongly supports and encourages the efforts of the responsible jurisdictions and agencies to (1) aggressively implement early actions as outlined in the Implementation Plan and (2) make timely adjustments and refinements to the Implementation Plan to ensure that bacteriological water quality impairments at Santa Monica Bay beaches are resolved in the shortest possible timeframe.
5. The Regional Board encourages an integrated water resources approach and recognizes that additional time may be necessary to pursue such an approach to TMDL implementation. In order to clearly justify an extended implementation schedule beyond 10 years and up to 18 years from the effective date of the TMDL, the responsible jurisdictions and agencies are required to submit additional quantifiable analyses as described below to demonstrate (1) the proposed plans will meet the interim and final WLAs and (2) the proposed implementation actions will achieve multiple water quality benefits and other public goals.

The Regional Board strongly encourages responsible jurisdictions and agencies pursuing an integrated water resources approach to employ natural methods as opposed to end-of-pipe, whenever it would be effective and feasible.

6. Per the provisions of the TMDL, the Regional Board will determine, when the TMDL is reconsidered in 2007, if a longer implementation schedule (up to 18 years from the TMDL effective date) shall be granted if there is a clear demonstration that an integrated water resources approach will be pursued.

The types of approaches proposed coupled with quantifiable estimates of the integrated water resources benefits of the proposed structural and non-structural BMPs included in the Implementation Plan would provide the obligatory demonstration that an integrated water resources approach is being pursued. This demonstration shall provide numeric estimates of the benefits, including reductions in other pollutants, groundwater recharged, acres of multi-use projects and water (e.g. stormwater, runoff, wastewater) beneficially reused among other integrated water resources criteria outlined in the Santa Monica Bay Beaches Wet Weather Bacteria TMDL. Responsible jurisdictions and agencies should submit to the Regional Board technically defensible quantifiable estimates of integrated benefits for actions to meet the first and second interim compliance deadlines (6 and 10 years after the effective date of the TMDL, respectively). This information must be submitted within 9 months to allow sufficient time for staff analyses prior to the Board's reassessment of the TMDL, scheduled for July 2007.

7. The Regional Board recognizes that it is critical to establish a technically defensible quantitative linkage to the interim and final waste load allocations (WLAs) to measure progress toward achieving the WLAs. The linkage should include target reductions in stormwater runoff and/or total coliform, fecal coliform and enterococcus using the 90<sup>th</sup> percentile year for the jurisdictional group and each individual subwatershed.

The Regional Board also recognizes that it is essential to establish quantitative estimates of the water quality benefits provided by the proposed structural and non-structural BMPs to meet the first interim compliance deadline (6 years after the effective date of the TMDL), and preliminary estimates of the benefits provided by the proposed BMPs to meet the second interim compliance deadline (10 years after the effective date of the TMDL). These estimates, including a quantitative analysis of their linkage to the interim WLAs, are necessary to provide assurance that interim compliance deadlines will be achieved given the uncertainties involved in an integrated water resources approach. Estimates should address reductions in exceedance days, bacteria concentration and loading, and flow in the drain and at each beach compliance monitoring location. Responsible jurisdictions and agencies should submit such information to the Regional Board within nine months so that the Regional Board staff will have time to assess the information in time for the reconsideration of the TMDL.

8. The Regional Board directs staff to develop draft language for Board consideration that incorporates into the Los Angeles County Municipal Separate Storm Sewer System (MS4) NPDES permit at reissuance explicit requirements for responsible jurisdictions and agencies in Jurisdictional Groups 5 and 6 to submit single coordinated regular reports to the Board on progress toward achieving the required reductions set forth in the TMDLs. These single coordinated regular reports may be submitted as part of the Los Angeles County MS4 Annual Program and Annual Monitoring reports. Reports on progress toward compliance with the TMDL shall include data and information on (1) water quality improvements in the receiving water; (2) the effectiveness of BMPs implemented as part of the Implementation Plan for

Jurisdictional Groups 5 and 6 measured in terms of water quality improvement and quantity of wet weather runoff reduced, captured, treated, or infiltrated; and (3) the performance of other programmatic solutions, source identification activities and source control measures. Data on water quality improvements may include for example reductions in exceedance days compared to historical data and interim milestones, where appropriate; the proportion of wet weather days that exceed the water quality objectives by storm year as defined in the TMDLs; and corresponding rainfall data as set forth in the Santa Monica Bay Beaches Bacteria TMDLs Coordinated Shoreline Monitoring Plan submitted by responsible jurisdictions and agencies.

Given the iterative approach outlined in the Implementation Plan for Jurisdictional Groups 5 and 6, reports shall also include documentation on changes and refinements to the Implementation Plan based on the results of shoreline monitoring data, data on BMP effectiveness, and evaluations of pilot projects and other implementation actions under consideration. Such updates to the Implementation Plan shall include revised quantitative estimates of the water quality benefits of the proposed BMPs and the linkage to the waste load allocations identified pursuant to (7) above.

9. The Regional Board further directs staff to develop draft language for Board consideration that incorporates into the Los Angeles County MS4 NPDES permit at reissuance specific provisions to reopen the TMDL section of the permit and incorporate, after providing the opportunity for public comment, TMDL-related provisions as well as additional implementation actions, including but not limited to institutional controls, source identification and control, and structural and treatment controls if adequate progress is not being made to achieve compliance with Santa Monica Bay Beaches Bacteria TMDLs.
10. The Regional Board anticipates the California Department of Transportation (Caltrans) as a responsible agency to work cooperatively with the responsible jurisdictions and agencies under the Los Angeles County MS4 NPDES permit to achieve compliance with the Santa Monica Bay Beaches Bacteria TMDL, including requirements as set forth pursuant to (8) and (9) above. In the event that Caltrans decides to proceed independently to address compliance with the TMDL, Caltrans will be required to meet the applicable significant dates for responsible jurisdictions and agencies as contained in Attachment A to Resolution No. 2002-022, Table 7-4.7.
11. The Regional Board encourages responsible jurisdictions and agencies to begin feasibility studies and planning for regional solutions to managing wet weather runoff and bacteria loading early in the implementation schedule (prior to 2013) to ensure sufficient time to redirect implementation activities if necessary to include regional solutions and still achieve the final compliance deadline.

I, Jonathan Bishop, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 6, 2006.

  
Jonathan S. Bishop  
Executive Officer

07-LA-1-PM 17.4/23.49  
Santa Monica Bay Beaches Bacteria  
TMDL Implementation Plan Development  
Groups 5 and 6  
District Agreement No. 07-4705/A1  
EA 910204

**AMENDMENT NO. 1 TO  
MEMORANDUM OF AGREEMENT**

**SANTA MONICA BAY BEACHES BACTERIA TMDL  
IMPLEMENTATION PLAN DEVELOPMENT  
JURISDICTIONAL GROUPS FIVE AND SIX**

This is an Amendment No. 1 to the Memorandum of Agreement (“MOA”) effective on July 1, 2004, entered into by and among the City of Redondo Beach (“Redondo Beach”), a chartered municipal corporation; the City of Manhattan Beach (“Manhattan Beach”), a general law city; the City of Torrance (“Torrance”), a municipal corporation; the City of Hermosa Beach (“Hermosa Beach”), a body corporate and politic; the City of El Segundo (El Segundo), a general law city; the County of Los Angeles (“County”), a political subdivision of the State of California and the California Department of Transportation (“Caltrans”) (individually “Party” and collectively, “Parties”), a fully executed copy of the MOA which is attached hereto as Exhibit A. This Amendment No. 1 modifies the MOA with respect to the following:

## RECITALS

**A. WHEREAS**, on July 15, 2005, the Parties submitted the Implementation Plan to the Regional Water Quality Control Board, Los Angeles Region (RWQCB);

and

**B. WHEREAS**, on April 6, 2006, the RWQCB held a public hearing and adopted Resolution No. 2006-007, a copy is attached hereto as Exhibit B, which requires the responsible agencies within Jurisdictional Groups 5 & 6 to submit a report to the RWQCB by January 6, 2007. The report will contain information specified in said resolution that will support the schedule as delineated in the Implementation Plan; and

**C. WHEREAS**, the Parties of both responsible jurisdictions in either Jurisdictional Group 5 or 6 need to work together cooperatively in order to complete the report described in Paragraph B above within the allotted 9 months; and

**D. WHEREAS**, the MOA is set to terminate on July 1, 2006 and the Parties need to extend the term of MOA to cooperatively complete said report within the allowed time period.

**NOW, THEREFORE**, in consideration of the mutual benefits and representations made herein, the Parties hereby agree as follows:

### AMENDMENT TO MEMORANDUM OF AGREEMENT

1. Article IV, Paragraph 1 of the MOA is modified as follows:

“1. Term of MOA – This MOA shall continue in effect until July 1, 2008, unless earlier terminated or extended by agreement of all Parties to the MOA. A Party may withdraw from this MOA

("Withdrawing Party") by sending a letter to each Party including the Primary Jurisdictions stating that Party's decision to withdraw from this MOA. However, prior to withdrawing, the Withdrawing Party must be current on all financial obligations resulting from this MOA. Once the Party withdraws from the MOA it will no longer be a participant in the Work prepared under this MOA. Further, the Withdrawing Party forfeits any funds contributed prior to withdrawal from the MOA. Withdrawal is effective sixty (60) days after the date of written notice to the Primary Jurisdictions. If, however, the Withdrawing Party is Redondo Beach, withdrawal is effective sixty (60) days after executing an assignment of the Third Party contract to another Party to the MOA to serve as the new Contracting Agency."

2. All other terms or conditions of the MOA shall remain in full force and affect and are not modified by the Amendment No. 1.

**IN WITNESS WHEREOF**, the Parties hereto agree to sign this Amendment No. 1 to Memorandum of Agreement on the date afterwards indicated.

**City of Manhattan Beach**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Geoff Dolan, City Manager

Attest: \_\_\_\_\_ Approved as to Form: \_\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
Liza Tamura, City Clerk Robert V. Wadden, City Attorney

Mailing Address: City of Manhattan Beach  
Public Works Department  
3621 Bell Ave.  
Manhattan Beach, CA 90266

**City of Hermosa Beach**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Art Yoon, Mayor

Attest: \_\_\_\_\_ Approved as to Form: \_\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
Elaine Doerfling, City Clerk Michael Jenkins, City Attorney

Mailing Address: City of Hermosa Beach  
1315 Valley Dr  
Hermosa Beach, CA 90254

**City of Redondo Beach  
a Chartered Municipal Corporation**

By: \_\_\_\_\_  
Mike Gin, Mayor

Date: \_\_\_\_\_

Attest:

Approved as to Form:

By: \_\_\_\_\_  
Sandy Forrest, City Clerk

By: \_\_\_\_\_  
Michael W. Webb, City Attorney

Mailing Address: City of Redondo Beach  
Engineering and Building Services Department  
415 Diamond Street  
Redondo Beach, CA 90277

**City of Torrance  
a Municipal Corporation**

By: \_\_\_\_\_  
Dan Walker, Mayor

Date: \_\_\_\_\_

Attest:

Approved as to Form:

By: \_\_\_\_\_  
Sue Herbers, City Clerk

By: \_\_\_\_\_  
John L. Fellows, City Attorney

Mailing Address: City of Torrance  
Public Works Department – Engineering Division  
20500 Madrona  
Torrance, CA 90503

**City of El Segundo  
a General Law City**

By: \_\_\_\_\_  
Jeff Stewart, City Manager

Date: \_\_\_\_\_

Attest:

Approved as to Form:  
Mark D. Hensley, City Attorney

By: \_\_\_\_\_  
Cindy Mortesen, City Clerk

By: \_\_\_\_\_  
Karl H. Berger, Assistant City Attorney

Mailing Address: City of El Segundo  
Public Works Department  
350 Main Street  
El Segundo, CA 90245

**County of Los Angeles  
Acting on behalf of the Los Angeles  
County Flood Control District**

By: \_\_\_\_\_  
Don Knabe, Chair - Board of Supervisor

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Donald L. Wolfe, Chief Engineer

Date: \_\_\_\_\_

Attest:

Approved as to Form:

SACHI A. HAMAI  
Executive Office of the  
Board of Supervisors of  
the County of Los Angeles

RAYMOND G. FORTNER, Jr.  
County Counsel

By: \_\_\_\_\_  
Deputy

By: \_\_\_\_\_  
Deputy

Mailing Address: Los Angeles County  
Department of Public Works  
Watershed Management Division,  
11th Floor  
900 South Fremont St.  
Alhambra, CA 91803

**STATE OF CALIFORNIA  
Department of Transportation**

**Will Kempton  
Director of Transportation**

By: \_\_\_\_\_  
Douglas R. Failing  
District Director

Date: \_\_\_\_\_

Approved as to Form & procedure:

Certify as to funds:

By: \_\_\_\_\_  
William B. Bassett  
Attorney

By: \_\_\_\_\_  
District Budget Manager

Certify as to Financial Terms and Conditions:

By: \_\_\_\_\_  
Accounting Administrator

Address: California Department of Transportation  
District 07  
100 South Main Street, Suite 100, MS 13  
Los Angeles, California 90012  
Attention: Bob Wu

# Executive Summary

## Santa Monica Bay Beaches Bacteria TMDL Jurisdictional Groups 5 and 6 Implementation Plan

The Santa Monica Bay beaches are listed on the State's 303(d) List of impaired water bodies due to excessive amounts of coliform bacteria which from time-to-time prevent the beaches from attaining their designated use for human body contact recreation, also known as REC-1 beneficial use. As required under the Federal Clean Water Act, the State has taken action to eliminate these impairments by establishing watershed-based, pollutant-specific total maximum daily loads (TMDLs) that effectively set limits on the bacterial indicator concentrations at the shoreline. The California Regional Water Quality Control Board for the Los Angeles Region (Regional Board) issued Wet- and Dry-Weather TMDLs for bacteria at Santa Monica Bay Beaches that became effective on July 15, 2003. The regulated agencies under the TMDLs must now prepare and implement plans to reduce their discharges to comply with the load allocations.

This Implementation Plan has been developed to address the requirements of both the Santa Monica Bay Beaches Bacteria Wet-Weather and Dry-Weather Total Maximum Daily Loads (TMDLs) within Jurisdictional Groups 5 and 6 that include summer dry weather, winter dry-weather, and 30-day rolling geometric mean targets for indicator bacteria. The Implementation Plan utilizes an integrated approach and describes a systematic strategy for progressively improving compliance with Santa Monica Bay Beaches Bacteria (SMBBB) Wet- and Dry-Weather TMDL objectives while at the same time providing opportunities for achieving broader water quality benefits and public goals. The strategy for reducing exceedances relies on a combination of measures designed to reduce migration and transport of bacteria and other pollutants by reducing the amount of dry-weather and wet-weather runoff while at the same time pursuing opportunities for beneficial reuse of runoff.

The Wet-Weather SMBBB TMDL grouped the responsible agencies under the TMDL into Jurisdictional Groups, divided roughly along watershed boundaries. A primary jurisdiction was identified for each Jurisdictional Group and is responsible for submitting an Implementation Plan for the group in a draft report to the Regional Board by March 15, 2005. The final Implementation Plan is due to the Regional Board by July 15, 2005. Jurisdictional Group 5 is comprised of five responsible agencies: City of Manhattan Beach (primary jurisdiction), City of El Segundo, City of Hermosa Beach, County of Los Angeles and Caltrans. The limits of this area extend from the north boundary of the City of Manhattan Beach to just south of the Hermosa Beach Pier. Jurisdictional Group 6 is comprised of six responsible agencies: Cities of Hermosa Beach, Manhattan Beach, Redondo Beach (primary jurisdiction) and Torrance, along with the County of Los Angeles and Caltrans. The limits of Jurisdictional Group 6 extend from the southern boundary of Jurisdictional Group 5

to the southern city limit of Torrance at the coast. The overlap of responsibility and similarity of land use among Jurisdictional Groups 5 and 6 have prompted the agencies to submit a joint implementation plan on behalf of both jurisdictional groups.

This Implementation Plan is the product of a joint planning effort among the agencies comprising Jurisdictional Groups 5 and 6, as well as interested stakeholders and Regional Board staff. Monthly meetings were held among the responsible agencies to direct the course of implementation plan development and coordinate information needs for the plan. A series of workshops were held for interested stakeholders to provide briefings on progress of Implementation Plan development and to receive feedback from stakeholders.

The Regional Board recognizes two general approaches to implementing TMDLs. The first is an integrated water resources approach that takes a holistic view of regional water resources management. The alternative to an integrated approach would be a plan focused on a single pollutant that does not take into consideration these other goals. This Implementation Plan employs an integrated approach designed to provide the Jurisdictional Group 5 and 6 responsible agencies with a systematic process for progressively improving compliance with SMBBB TMDL objectives while at the same time achieving broader water quality benefits and public goals. Although the requirement for developing this implementation plan arises from the Wet-Weather SMBBB TMDL, an integrated approach by definition should consider all TMDLs that apply to the watershed. Therefore, planning for compliance with the summer dry-weather, winter dry-weather and 30-day rolling geometric mean targets for indicator bacteria is included in this Implementation Plan. This Implementation Plan provides the responsible agencies of Jurisdictional Groups 5 and 6 with an iterative, adaptive framework that is designed to identify and advance those management practices that are found to be most effective in achieving the TMDL objectives. This plan calls for three categories of management approaches: Programmatic Solutions, Structural BMPs, and Source Identification & Control. Each of these categories will be implemented in three phases, with each phase incorporating information gained from the prior phases across the three categories.

Programmatic solutions will be initiated and developed where applicable across Jurisdictional Groups 5 and 6. Agencies in Jurisdictional Groups 5 and 6 have already adopted many programmatic solutions as part of management plans under the municipal storm water and Caltrans statewide stormwater permits, so programmatic solutions under this implementation plan will build on these existing programs, focusing on enhancements and improvements that specifically target indicator bacteria control. These measures will focus on improving education, awareness and compliance with good housekeeping practices and ordinances that minimize release of bacteria sources among targeted populations. Programmatic non-structural source control options are generally those that do not require new infrastructure, but rather use techniques such as: education and outreach, positive reinforcement of good housekeeping behavior and land use, and enforcement of existing codes and

ordinances. Programmatic options also include improvements in public agency activities and standard operating procedures.

Site-specific structural BMPs will be piloted in specific drainage areas and evaluated for effectiveness. Jurisdictional Group 5 and 6 agencies have already implemented or are in the process of implementing dry weather structural diversions at six major storm drain outfalls and additional sand filtration BMPs to address the upcoming summer dry weather compliance deadlines. The site-specific structural BMP pilot studies will evaluate the effectiveness of addressing wet-weather, and to a lesser degree, dry-weather bacteria control using on-site structural BMPs. It is widely accepted within the scientific community that there is insufficient data and understanding regarding the effectiveness of wet weather structural BMPs for reducing indicator bacteria in receiving waters. Jurisdictional Groups 5 and 6 agencies have selected two study areas as the initial focus for piloting site-specific structural BMPs – the drainage areas associated with monitoring locations SMB 5-5 (Hermosa Pier) and SMB 6-2 (Redondo Pier).

The agencies have selected SMB 6-1 (Herondo) as the focus for initiating source identification and control since it is large, exhibits a wide variety of land use and is a high priority drainage area due to frequent wet and dry weather exceedances. Near-shore source identification activities described in Section 4.1.3.1 and 4.1.3.3 will also be conducted in SMB 6-2 (Redondo Pier and King Harbor areas) to identify potential source control or land use-specific structural BMPs that may be particularly effective in near-shore areas. The objective of source identification is to identify conditions or factors that produce significantly higher indicator bacteria concentrations in the receiving waters associated with these drainage areas than occur in lower priority areas. As significant factors and/or sources are identified, appropriate source controls will be developed and implemented at applicable sources within the high priority drainage areas.

Both structural BMPs and source controls will require carefully designed and implemented monitoring plans to measure effectiveness of these measures in controlling bacteria. It is critical that early phases of this implementation plan develop the necessary evaluations of effectiveness in order to leverage the agencies' expenditures of resources to the maximum extent possible while enhancing other public goals, e.g., water conservation, beneficial reuse, shoreline native habitat restoration. Based on these evaluations of effectiveness, the responsible agencies can make adaptive decisions to pursue the most promising combination of management approaches to achieve TMDL objectives. Source controls and structural BMPs that are identified as being most cost effective will be expanded and implemented in later phases at relevant and applicable sites in Jurisdictional Groups 5 and 6. This implementation strategy is summarized in Table ES-1 and described in detail in Section 4 of this implementation plan.

	<b>Programmatic Solutions</b>	<b>Structural BMPs</b>	<b>Source Identification &amp; Control</b>
<b>PHASE 1</b>	Enhance existing programmatic solutions targeting: <ul style="list-style-type: none"> <li>■ Homeowners/residents</li> <li>■ Schools</li> <li>■ Business</li> <li>■ Public agency activities</li> </ul>	Site-specific structural BMPs combined into alternatives for study areas <ul style="list-style-type: none"> <li>■ Select drainage areas for study</li> <li>■ Siting, data collection and BMP selection process</li> <li>■ Conceptual design and selection of alternatives</li> <li>■ Design, installation and monitoring of site-specific BMPs.</li> </ul>	Identify significant sources in high-priority drainage areas <ul style="list-style-type: none"> <li>■ Eliminate sanitary sewage infrastructure as potential source</li> <li>■ Enhance comparative land use mapping to focus source identification</li> <li>■ Field reconnaissance of high priority drainage areas.</li> </ul> Prioritize source controls
<b>PHASE 2</b>	Assess/Expand/Develop programmatic solutions	Evaluate performance of individual site-specific BMPs and alternatives as a whole	Implement source controls in high priority areas
<b>PHASE 3</b>	Implement additional programmatic solutions	Implement applicable BMPs, research new BMPs	Evaluate high priority source controls and Institutionalize Effective Controls

A schedule is proposed for implementing this plan. The first compliance deadline (summer dry-weather) occurs in July 2006. Jurisdictional Group 5 and 6 agencies have already implemented or are in the process of implementing dry weather structural diversions at six major storm drain outfalls as well as additional sand filtration BMPs to address the upcoming summer dry weather compliance deadline.

Phase I of the three management approaches will begin simultaneously and by the time the TMDL is re-opened in July 2007, Phase I of the three management approaches will be well underway. As the second compliance deadline arrives in July 2009 (winter dry-weather and 10% wet-weather reduction), Phase I of programmatic solutions will have been implemented and Phase I source identification investigations will be complete. Additionally, Phase II of these two management approaches will also be underway and five years of Coordinated Shoreline Monitoring data will be available. It is not clear whether shoreline monitoring data will be of sufficient precision and accuracy to measure a 10% wet weather reduction in the four wet-weather exceedance days (effectively 0.4 of an exceedance day). However, the responsible agencies believe it is reasonable to expect that implementation of Phase I programmatic solutions throughout Jurisdictional Groups 5 and 6 could provide such a reduction, whether or not it can actually be measured at the shoreline.

Assuming the original schedule continues, by the 25% wet weather reduction deadline in July 2013 one entire cycle of the three phases of programmatic solutions

and source control measures will be complete. Additionally the final assessment of the site-specific structural BMP pilot study alternative will be complete (Phase II). The combined effect of source controls implemented in high priority drainage areas with appropriate expansion into other drainage areas, and the three phases of programmatic solutions implemented throughout of Jurisdictional Groups 5 & 6, should be expected to provide sufficient controls on bacteria loads “stored” within the watershed to achieve the 25% wet weather objective. This will also be the major decision point regarding distribution of future resources and effort among the three approaches.

Depending on how well compliance targets have been met or exceeded through implementation of one complete cycle of source control and programmatic solutions, and on the demonstrated effectiveness of the pilot study in reducing wet-weather runoff within the pilot areas, a number of potential options may be pursued. The following if/then scenarios illustrate how these decisions may be made.

- If source control measures combined with programmatic solutions appear to demonstrate promise, that is, winter dry weather allocations are not being surpassed, and wet weather exceedance allocations are still being surpassed, but are demonstrating an improving trend, then consider conducting additional source identification in high priority areas using newer source-tracking technologies and/or pilot emerging source control technologies.
- If source control measures and programmatic solutions are demonstrating an improving trend in compliance for dry weather but wet weather exceedances are not significantly improving in high priority areas, and site-specific structural BMPs appear to show promise in reducing wet-weather exceedances in the study areas, then expand these site-specific BMPs into high priority areas in as many sites as are applicable and feasible from a funding standpoint.
- If the previous scenario holds true except that piloted site-specific structural BMPs are not demonstrating measurable improvements in wet weather compliance, revisit regional BMPs and consider researching and piloting medium-sized site-specific BMPs within high-priority areas that may provide more significant storage capacity for wet-weather flows.

When these major decisions regarding course of action are made, there will still be more than five years until the 50% wet weather reduction compliance date and eight years until the final compliance date. This should be sufficient time to complete a second iteration of the management approaches selected for further exploration at the major decision point.

The responsible agencies will provide an implementation progress report to Regional Board staff at each of the interim wet weather milestones. These progress reports will document accomplishments, information and findings, and planned course of action going forward. The agencies reserve the right to come before the Regional Board at

any point during implementation to discuss new information or findings of significance and/or to request that the Board reconsider the TMDL in light of the information and findings.

The Implementation Plan is organized into four sections. Section 1 describes the history of the TMDL development, the organization of Jurisdictional Groups 5 and 6, and the objectives of this Implementation Plan. Section 2 provides background information on the compliance requirements of the TMDL. Section 3 of the Implementation Plan summarizes the technical analyses that were prepared to lay the foundation for developing the TMDL compliance strategy. Section 4 describes in detail the Jurisdictional Groups 5 and 6 Implementation Plan that has been outlined above. Section 4 also describes the schedule for implementation.