ATTACHMENT B

Provision C.3.b.
Sample Reporting Table

Provision C.3.b. Sample Reporting Table
Regulated Projects Approved During the Reporting Period 07/15 to 06/16
City of Eden Annual Report FY 2015-16

Project Name, Project Number, Location, Street Address,	Name of Developer, Project Phase No.,[1] Project Type & Description	Project Watershed[2]	Total Site Area, Total Area of Land Disturbed	Total New and/or Replaced Impervious Surface Area[3]	Total Pre- and Post-Project Impervious Surface Area[4]	Status of Project[5]	Source Control Measures	Site Design Measures	Treatment Systems Installed[6]	Operation & Maintenance Responsibility Mechanism	Hydraulic Sizing Criteria	Alternative Compliance Measures[7,8]	HM Controls[9,10]
Private Projects													
Nirvana Estates; Project #05-122; Property bounded by Paradise Lane, Serenity Drive, and Eternity Circle; Eden, CA	Heavenly Homes; Phase 1; Construction of 156 single-family homes and 45 townhomes with commercial shops and underground parking.	Runoff from site drains to Babbling Brook	25 acres site area, 21 acres disturbed	20 acres new	20 acres post-project	Application submitted 12/29/14, Application deemed complete 1/30/15, Project approved 7/16/15	Stenciled inlets, street sweeping, covered parking, car wash pad drains to sanitary sewer	Pervious pavement for all driveways, sidewalks, and commercial plaza	vegetated swales, detention basins,	Conditions of Approval require Homeowners Association to perform regular maintenance. Written record will be made available to City inspectors.	WEF Method	n/a	Contra Costa sizing charts used to design detention basin at Peace Park. Also contributed to in-stream projects in Babbling Brook
Barter Heaven; Project #05-345; Shoppers Lane & Bargain Avenue; 14578 Shoppers Lane, Eden, CA	Deals Galore Development Co.; Demolition of strip mall and parking lot and construction of 500-unit 5-story shopping mall with underground parking and limited outdoor parking.	Runoff from site drains to Bargain River	5 acres site area, 3 acres disturbed	1 acre new, 2 acres replaced	3.5 acres pre-project, 4.5 acres post-project	Application submitted 7/9/15, Application deemed complete 8/2/15, Project approved 12/12/15	Stenciled inlets, trash enclosures, underground parking, street sweeping	One-way aisles to minimize outdoor parking footprint; roof drains to planter boxes	tree wells with bioretention; planter boxes with bioretention	Conditions of Approval require property owner (landlord) to perform regular maintenance. Written record will be made available to City inspectors.	BMP Handbook Method	$ 250,000 paid to Renew Regional Project sponsored by Riverworks Foundation, 243 Water Way, Eden, CA 408-345-6789	Renew Project includes treatment and HM Controls

Provision C.3.b. Sample Reporting Table
Regulated Projects Approved During the Reporting Period 07/15 to 06/16
City of Eden Annual Report FY 2015-16

Project Name, Project Number, Location, Street Address,	Name of Developer, Project Phase No.,[1] Project Type & Description	Project Watershed[2]	Total Site Area, Total Area of Land Disturbed	Total New and/or Replaced Impervious Surface Area[3]	Total Pre- and Post-Project Impervious Surface Area[4]	Status of Project[5]	Source Control Measures	Site Design Measures	Treatment Systems Installed[6]	Operation & Maintenance Responsibility Mechanism	Hydraulic Sizing Criteria	Alternative Compliance Measures[7,8]	HM Controls[9,10]
New Beginnings; Project No. #05-456; Hope Street & Chance Road; 567 Hope Boulevard, Eden, CA	Fresh Start Corporation; Demolition of abandoned warehouse and construction of a 5-story building with 250 low-income rental housing units.	Runoff from site drains to Poor Man Creek	5 acres site area, 100,000 ft^2 disturbed	1 acre replaced	2 acres pre-project, 1 acre post-project	Application submitted 2/9/16, Application deemed complete 4/10/16; Project approved 6/30/16; estimated completion date 9/30/17	Trash enclosures, underground parking, street sweeping, car wash pad drains to sanitary sewer	roof drains to landscaping	parking runoff flows to six bioretention units/gardens	Conditions of Approval require property owner (landlord) to perform regular maintenance. Written record will be made available to City inspectors.	BMP Handbook Method	n/a	n/a
Public Projects													
Gridlock Relief, Project No. #05-99, ABC Blvd between Main and Huett Streets, Eden, CA	City of Eden. Widening of ABC Blvd from 4 to 6 lanes	Runoff from site drains to Congestion River	6 acres site area, 3 acres disturbed	2 acres new, 1 acre replaced	4 acres pre-project, 6 acres post-project	Application submitted 7/9/15, Application deemed complete 10/6/15, Project approved 12/9/15, Construction scheduled to begin ~~7~~2/10/16 and estimated to	none	ABC Blvd sloped to drain runoff into landscaped areas in median	Runoff leaving underdrain system of landscaped median is pumped to bioretention gardens along either side of ABC Blvd	Signed statement from City of Eden assuming post-construction responsibility for treatment BMP maintenance.	WEF Method	n/a	BAHM used to design and size stormwater treatment units so that increased runoff is detained.

Provision C.3.b. Sample Reporting Table
Regulated Projects Approved During the Reporting Period 07/15 to 06/16
City of Eden Annual Report FY 2015-16

Project Name, Project Number, Location, Street Address,	Name of Developer, Project Phase No.,[1] Project Type & Description	Project Watershed[2]	Total Site Area, Total Area of Land Disturbed	Total New and/or Replaced Impervious Surface Area[3]	Total Pre- and Post-Project Impervious Surface Area[4]	Status of Project[5]	Source Control Measures	Site Design Measures	Treatment Systems Installed[6]	Operation & Maintenance Responsibility Mechanism	Hydraulic Sizing Criteria	Alternative Compliance Measures[7,8]	HM Controls[9,10]
						complete by 9/30/16							

Sample Reporting Table C.3.b. Footnotes

1. If a project is being constructed in Phases, use a separate row entry for each Phase.
2. State the watershed(s) that the Regulated Project drains to. Optional but recommended: Also state the downstream watershed(s).
3. State both the total new impervious surface area and the total replaced impervious surface area, as applicable.
4. For redevelopment projects state both the pre-project impervious surface area and the post-project impervious surface area.
5. State project application date; application deemed complete date; and final, major, staff-level discretionary review and approval date.
6. List stormwater treatment system(s) installed onsite or at a joint stormwater treatment system facility.
7. For Alternative Compliance at an offsite location in accordance with Provision C.3.e.i.(1), on a separate page, give a discussion of the alternative compliance site including the information specified in Provision C.3.b.iv.(2)(m)(i) for the offsite project.
8. For Alternative Compliance by paying in-lieu fees in accordance with Provision C.3.e.i.(2), on a separate page, provide the information specified in Provision C.3.b.iv.(2)(m)(ii) for the Regional Project.
9. If HM control is not required, state why not.
10. If HM control is required, state control method used (e.g., method to design and size device(s) or method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), biodetention unit(s), regional detention basin, or in-stream control).

Instructions for Provision C.3.b. Sample Reporting Table

1. **Project Name, Number, Location, and Street Address** – Include the following information:
   - Name of the project
   - Number of the project (if applicable)
   - Location of the project with cross streets
   - Street address of the project (if available)

2. **Name of Developer, Project Phase Number, Project Type, and Project Description** – Include the following information:
   - Name of the developer
   - Project phase name and/or number (only if the project is being developed in phases) – each phase should have a separate row entry
   - Type of development (i.e., new and/or redevelopment)
   - Description of development (e.g., 5-story office building, residential with 160 single-family homes with five 4-story buildings to contain 200 condominiums, 100 unit 2-story shopping mall, mixed use retail and residential development (apartments), industrial warehouse)

3. **Project Watershed**
   - State the watershed(s) that the Project drains into
   - Optional but recommended: Also state the downstream watershed(s)

4. **Total Site Area and Total Area of Land Disturbed** – State the total site area and the total area of land disturbed.

5. **Total New and/or Replaced Impervious Surface Area**
   - State the total new impervious surface area
   - State the total replaced impervious surface area, as applicable

6. **Total Pre- and Post-Project Impervious Surface Area** – For redevelopment projects, state both the pre-project impervious surface area and the post-project impervious surface area.

7. **Status of Project –** Include the following information:
   - Project application submittal date
   - Project application deemed complete date
   - Final, major, staff-level discretionary review and approval date
   - Whether the project has been completed. If not, the estimated project completion date.

8. **Source Control Measures** – List all source control measures that have been or will be included in the project.

9. **Site Design Measures –** List all site design measures that have been or will be included in the project.

10. **Treatment Systems Installed** – List all post-construction stormwater treatment system(s) installed onsite and/or at a joint stormwater treatment system facility.

11. **Operation and Maintenance Responsibility Mechanism –** List the legal mechanism(s) that have been or will be used to assign responsibility for the maintenance of the post-construction stormwater treatment systems.

12. **Hydraulic Sizing Criteria Used** – List the hydraulic sizing criteria used for the Project.

13. **Alternative Compliance Measures**

    - **Option 1: LID Treatment at an Offsite Location (Provision C.3.e.i.(1))** – On a separate page, give a discussion of the alternative compliance project including the information specified in Provision C.3.b.v.(1)(m)(i) for the offsite project.
    - **Option 2: Payment of In-Lieu Fees (Provision C.3.e.i.(2))** – On a separate page, provide the information specified in Provision C.3.b.v.(1)(m)(ii).

14. **HM Controls**

    - If HM control is not required, state why not
    - If HM control is required, state control method used (e.g., method to design and size device(s), method(s) used to meet the HM Standard, and description of device(s) or method(s) used, such as detention basin(s), biodetention unit(s), regional detention basins, or in-stream control)

ATTACHMENT C

Provision C.3.g.
Hydromodification Applicability Maps

Attachment A:
HMP susceptibility map

Alameda Countywide
Clean Water Program
November 13, 2006

LEGEND (see text also)

- Major highways
- Major watersheds
- County boundary
- Streets

Channel type

- Natural creek or stream (susceptible)
- Earthen channel or connector
- Engineered channel - materials unknown
- Engineered channel - concrete
- Enclosed pipe or culvert

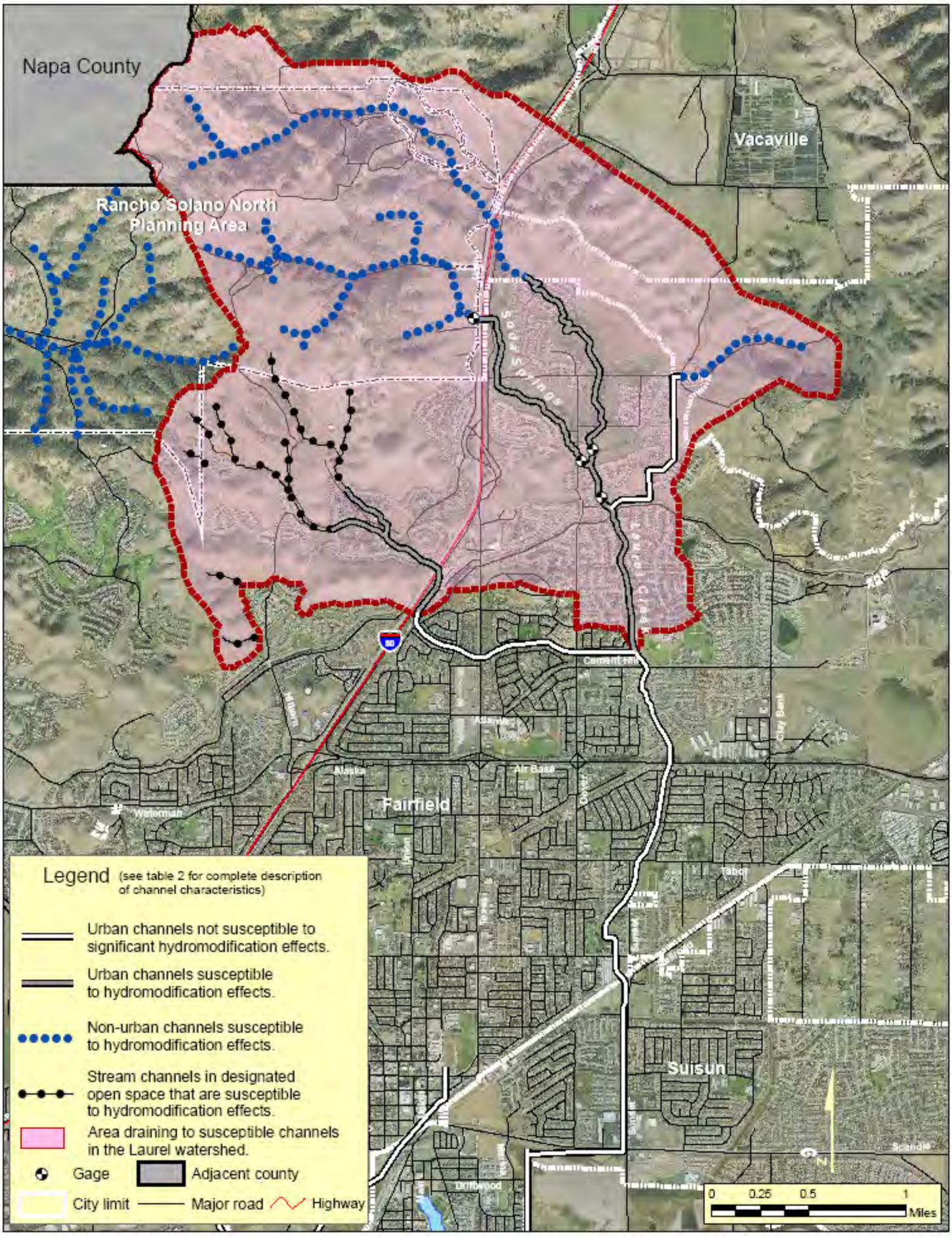
- Special consideration - San Lorenzo & Alameda Creeks
- Special consideration - Codornices Creek
- Hill or high slope region (susceptible)
- Tidally influenced / depositional - exempt
- Not included in HMP

Data sources:
Alameda County Flood Control and Water Conservation District; ACCWP;
Zone 7 Water Agency; U.S. Census Bureau; U.S. Geological Survey;
William Lettis Associates (Oakland Museum creek and watershed mapping project);
Balance Hydrologics and EIP Associates (Proposed test of the approach for the ACCWP HMM Preliminary Map, July 2003)

N
W E
S

2 0 2 4 6 Miles

Contra Costa County
Alameda County
Contra Costa County
Alameda County
Alameda County
Santa Clara County
Alameda County
Santa Clara County
Alameda County
San Joaquin County

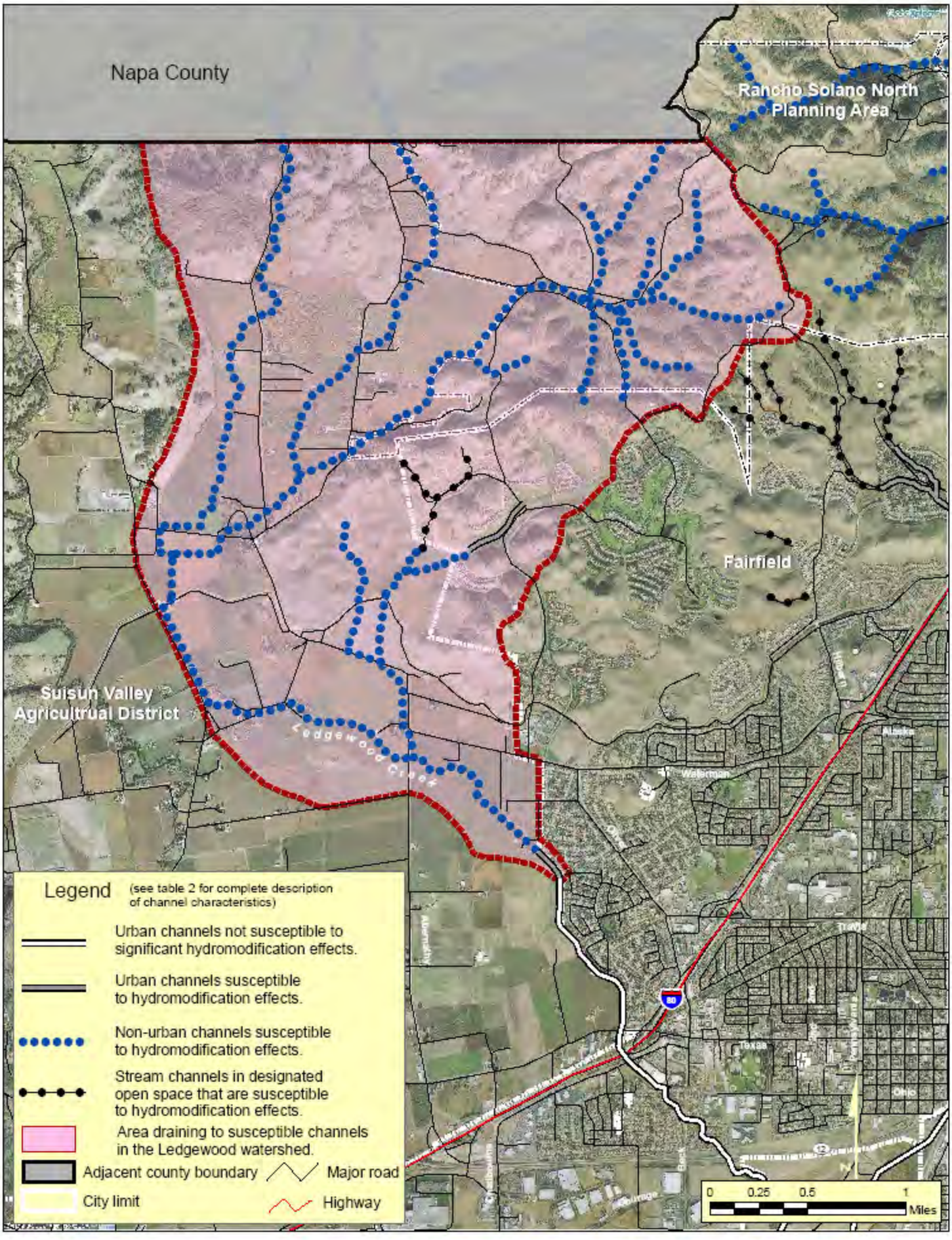


Source: Basemap data provided by Fairfield-Suisun Sewer District. Note that the roads layer does not include the most recently urbanized areas (north of Cement Hill Road, for example).

Balance Hydrologics, Inc.

Figure 2. Map showing HMP channel Classification for the Laurel Creek watershed. The mid- to upper reaches include all channels within the watershed that are susceptible to hydromodification effects (dotted and gray-shaded channels on this map). Hydromodification controls are not required for projects that drain directly to non-susceptible urban channels.

W:\Projects\204126 Fairfield HMP\204003\204126_Figure2_edits.mxd

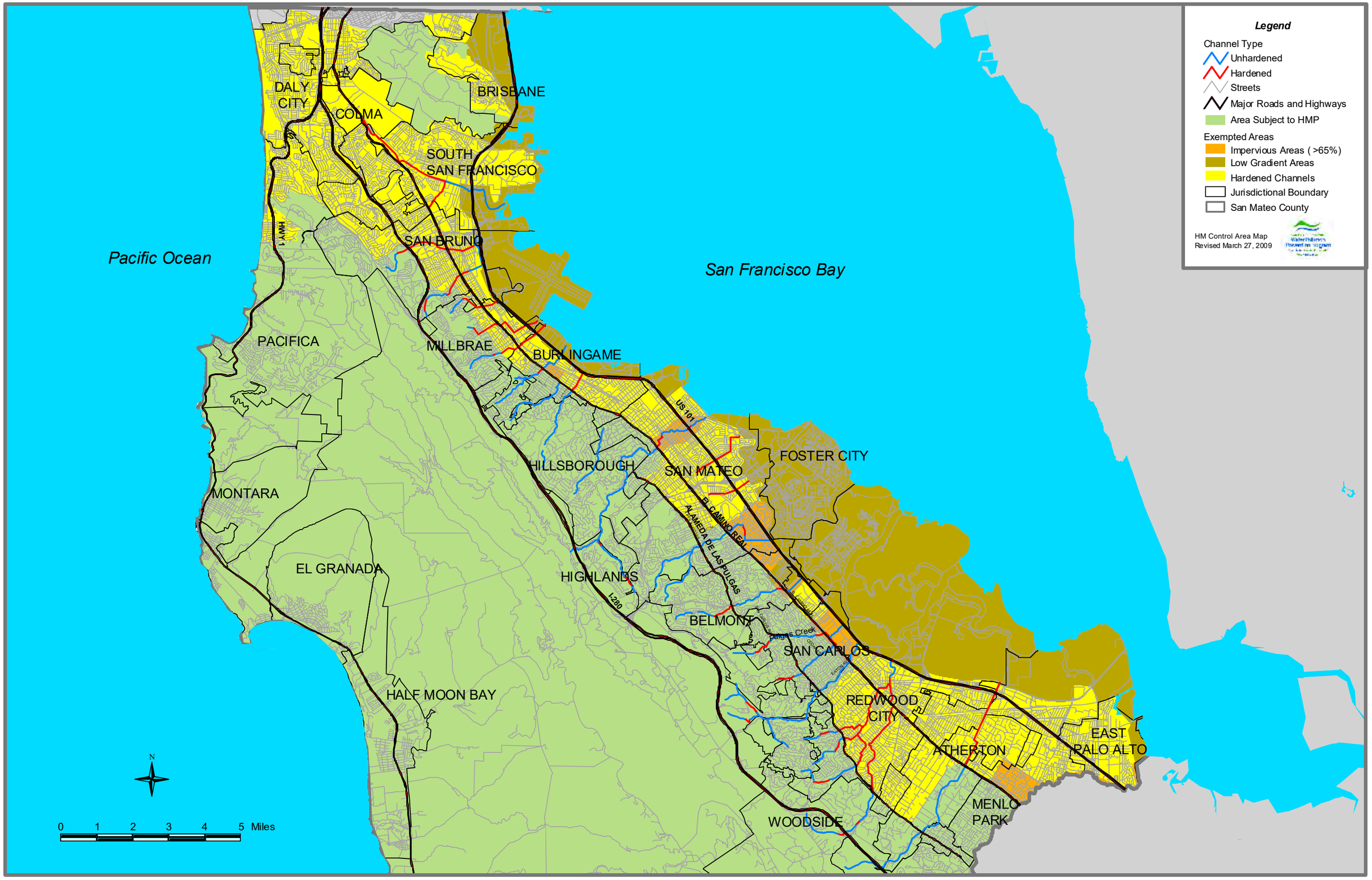


Basemap data provided by Fairfield-Suisun Sewer District. Note that the roads layer does not include the most recently urbanized areas, as shown in the aerial photo.

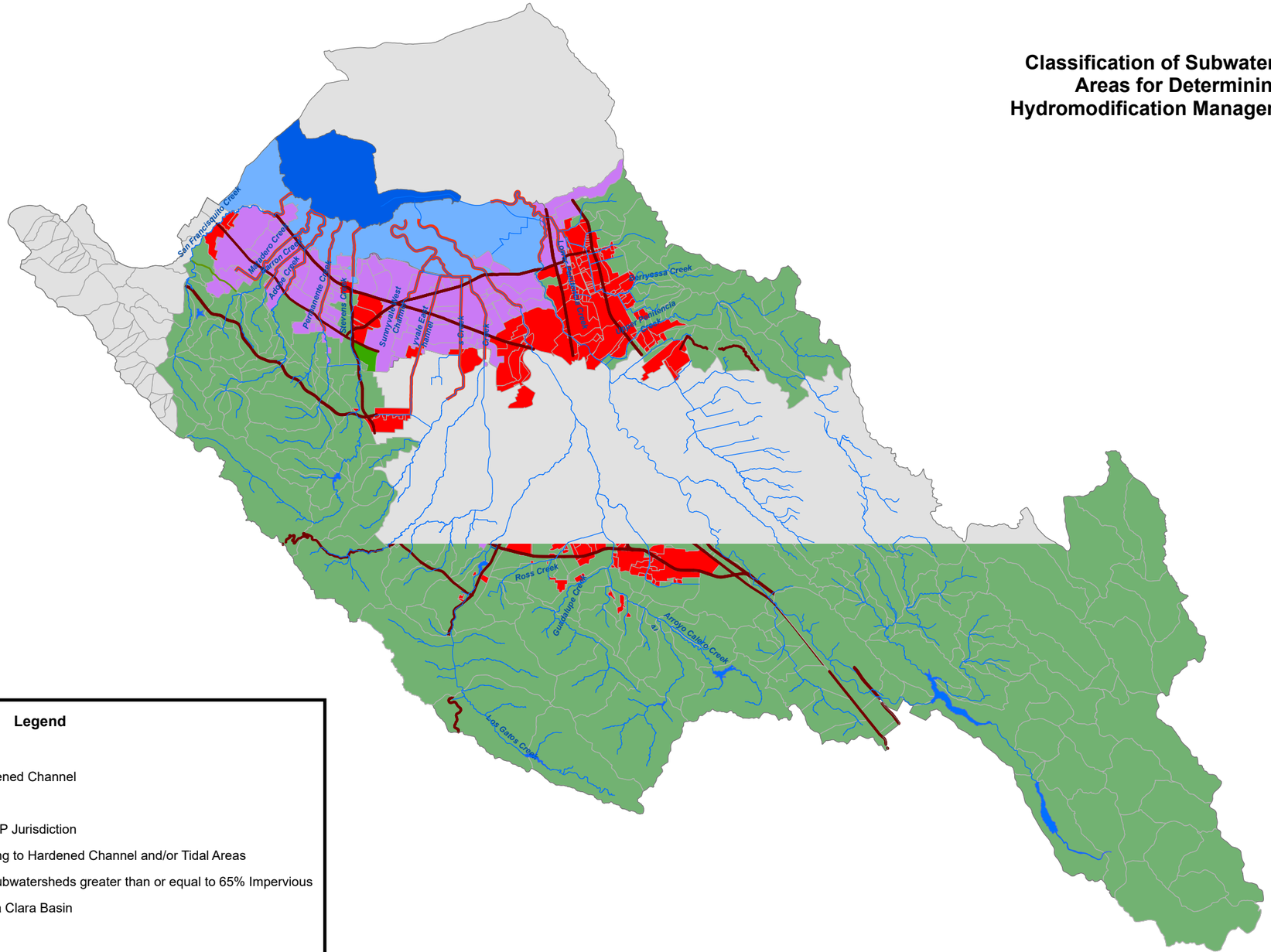
Balance Hydrologics, Inc.

Figure 3. Map showing HMP channel Classification for the Ledgewood Creek watershed. The mid- to upper reaches include all channels within the watershed that are susceptible to hydromodification effects (dotted and gray-shaded channels on this map), however areas outside the City of Fairfield are not included in this permit unless annexed by the city. The non-developed areas within the current city limits are designated open space in relatively steep terrain, and are unlikely to be converted to urban areas however the HMP still applies in these areas.

W:\Projects\204126 Fairfield HMP\204003\204126_Figure3_edits.mxd


Legend
Channel Type
Unhardened
Hardened
Streets
Major Roads and Highways
Area Subject to HMP
Exempted Areas
Impervious Areas (>65%)
Low Gradient Areas
Hardened Channels
Jurisdictional Boundary
San Mateo County
HM Control Area Map
Revised March 27, 2009
Pacific Ocean
San Francisco Bay
DALY CITY
COLMA
BRISBANE
SOUTH SAN FRANCISCO
SAN BRUNO
HWY 1
PACIFICA
MILLBRAE
BURLINGAME
US 101
FOSTER CITY
SAN MATEO
HILLSBOROUGH
EL CAMINO REAL
ALAMEDA DE LAS PULGAS
MONTARA
EL GRANADA
HIGHLANDS
I-280
BELMONT
San Carlos Creek
Belmont Creek
Pulgas Creek
SAN CARLOS
HALF MOON BAY
REDWOOD CITY
ATHERTON
EAST PALO ALTO
MENLO PARK
WOODSIDE
N
0 1 2 3 4 5 Miles

Classification of Subwatersheds and Catchment Areas for Determining Applicability of Hydromodification Management (HM) Requirements

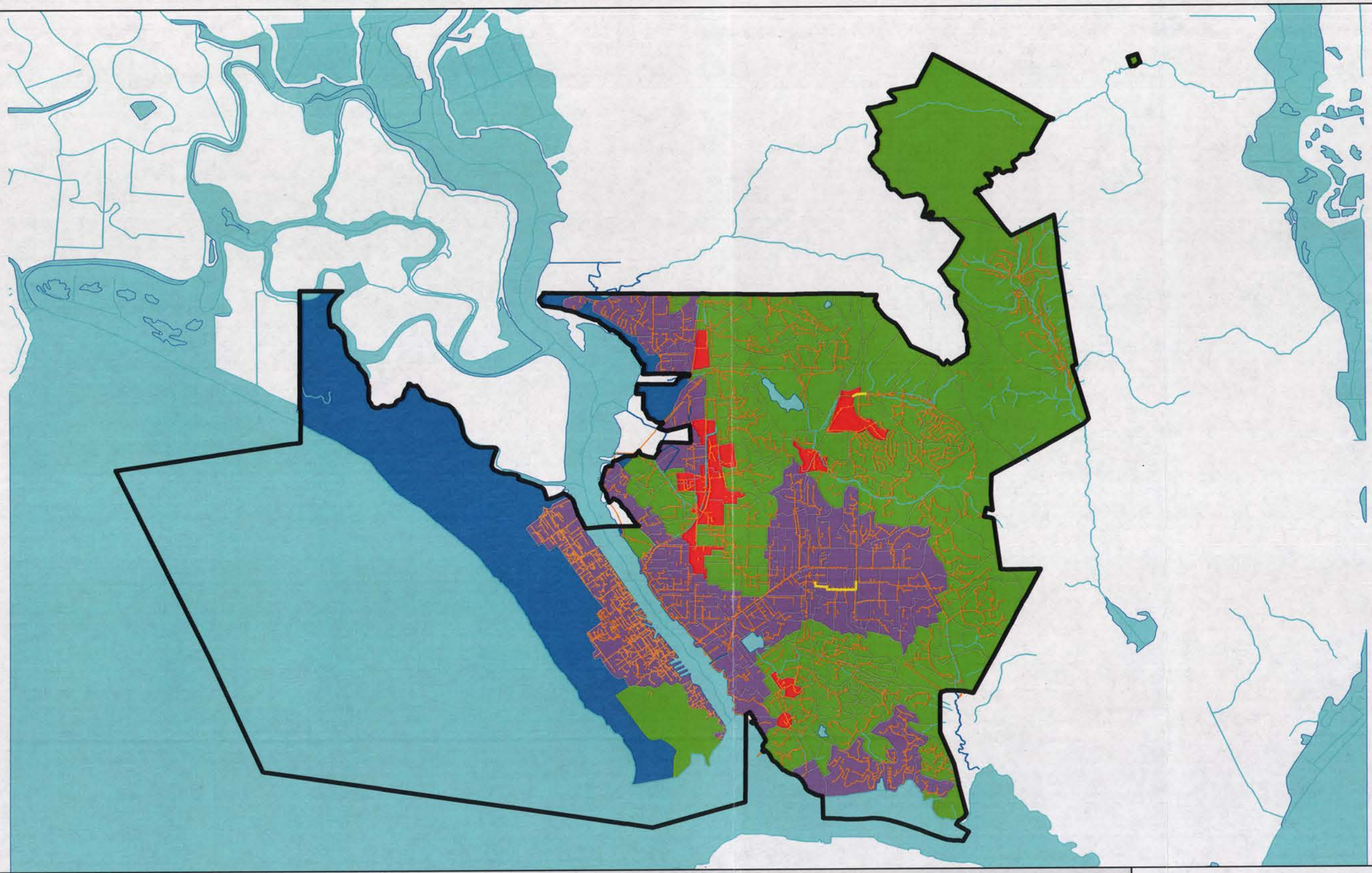


Legend

- Major Roads
- Continuously Hardened Channel
- Major Creeks
- Outside SCVURPPP Jurisdiction
- Catchments Draining to Hardened Channel and/or Tidal Areas
- Catchments and Subwatersheds greater than or equal to 65% Impervious
- Reservoirs in Santa Clara Basin
- Baylands
- Subwatersheds less than 65% Impervious

Revision Date: November 2010

This map contains revisions to the March 2009 version to reflect updated impervious surface data and/or catchment boundaries in the Cities of San Jose, Sunnyvale, Mountain View, and Milpitas, as described in the report to the Water Board dated October 14, 2010, consistent with the HM applicability criteria set forth in Attachment F, Section 4 of the MRP.



Legend

- HMP Boundary
- Fully Hardened Channels
- Non-Hardened Channels (Non-Tidal)
- Non-Hardened Channels (Tidal)
- Storm Drain System
- Open Water
- Areas Draining to Continuously Hardened Conveyances to the Bay
- HMP Applicable Areas
- Subcatchments with greater than or equal to 65% Impervious
- Baylands

N

0 1.25 2.5 3.75 Miles

HMP Applicability Map

Vallejo HMP

Geosyntec consultants

WW1538 | April 2013

Figure 3-1

P:\GIS\Vallejo_HMP\Projects\Figure3-1.mxd

ATTACHMENT D

Provision C.8.
Standard Monitoring Provisions

All monitoring activities shall meet the following requirements:

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR 122.41(j)(1)]
2. Permittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, and copies of all reports required by this Order for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Water Board or USEPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge. [40 CFR 122.41(j)(2), CWC section 13383(a)]
3. Records of monitoring information shall include [40 CFR 122.41(j)(3)]:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and,
   f. The results of such analyses.
4. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. [40 CFR 122.41(j)(5)]
5. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the monitoring Provisions. [40 CFR 122.41(l)(4)(iii)]
6. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.
7. For priority toxic pollutants that are identified in the California Toxics Rule (CTR) (65 Fed. Reg. 31682), the Permittees shall instruct their laboratories to establish calibration standards that are equivalent to or lower than the Minimum Levels (MLs) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). If a Permittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The

Permittee must submit documentation from the laboratory to the Water Board for approval prior to raising the ML for any priority toxic pollutant.

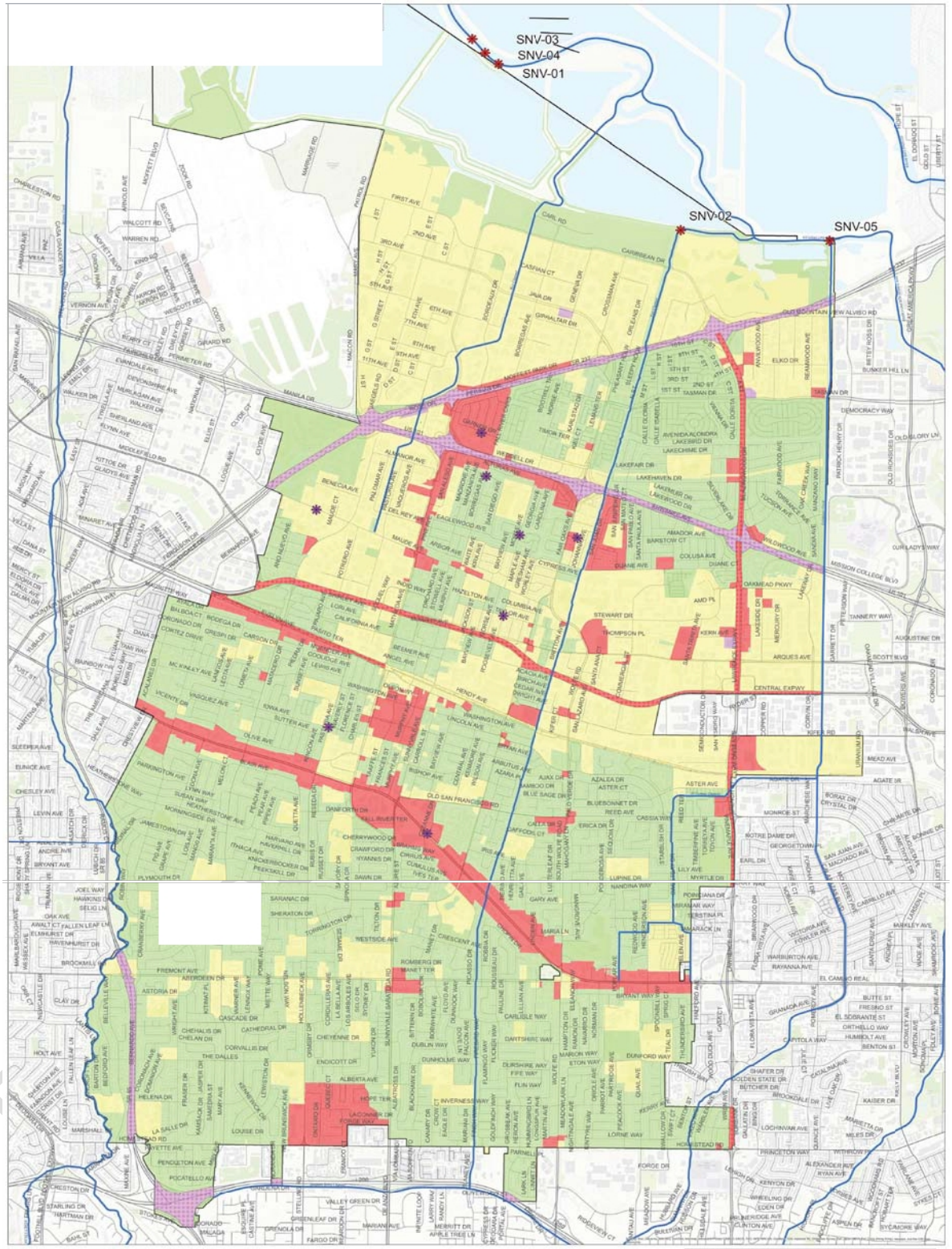
8. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both. [40 CFR 122.41(k)(2)]
9. If a Permittee monitors any pollutant more frequently than required by the Permit, unless otherwise specified in the Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the reports requested by the Water Board. [40 CFR 122.41(l)(4)(ii)]

ATTACHMENT E

Supporting Information for Provision C.10.

Example Trash Generation Rate Map

303(d) Trash Resolution and Staff Report February 2009


SNV-03
SNV-04
SNV-01
SNV-02
SNV-05

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. R2-2009-0008

RECOMMENDING CHANGES TO THE LIST OF WATER BODIES AS REQUIRED IN SECTION 303(d) OF THE CLEAN WATER ACT

WHEREAS, the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board), finds that:

1. Section 305(b) of the federal Clean Water Act requires the State to prepare a biennial update of an assessment of the waters within the State; and

2. Section 303(d) of the federal Clean Water Act requires the State to identify waters within the State for which water quality standards are not attained; and

3. The Water Board actively solicited water quality information from the public on December 4, 2006, and received 16 data and information submittals; and

4. Water Board staff assembled and considered all readily available data to assess water quality conditions and prepared fact sheets supporting recommendations for additions, deletions and changes to the existing list of impaired water bodies consistent with the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy); and

5. Water Board staff provided advanced notice and opportunity for public comment on the draft recommendations for public review during a 45-day public comment period commencing on October 30, 2008; and

6. Water Board staff developed written responses to all public comments received and revised the supporting staff report and water body fact sheets for the Water Board's consideration; and

7. The Listing Policy requires that the Water Board consider and approve each proposed list change as documented in a water body fact sheet; and

8. On January 14, 2009, the Water Board held a public hearing to consider the recommendations to change the 303(d) list; and

9. On February 11, 2009, the Water Board held a second public hearing to consider all testimony and comments, both oral and written, regarding the 2008 Water Quality Assessment and 303(d) list for the San Francisco Bay Region.

THEREFORE, BE IT RESOLVED that the Water Board approves each proposed 303(d) list addition, deletion or change as documented in the attached Staff Report.

BE IT FURTHER RESOLVED that the Water Board, in fulfillment of the requirements described in Sections 305(b) and 303(d) of the federal Clean Water Act, hereby authorizes the Executive Officer to transmit the Water Board's assessment, including recommended modifications to the section 303(d) list, as detailed in the attached Staff Report dated February 11, 2009, and associated water body Fact Sheets to the State Water Resources Control Board for approval of the 303(d) list and inclusion in the 2008 California Integrated Report on Water Quality.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the Water Board, San Francisco Bay Region, on February 11, 2009.

Digitally signed
by Bruce Wolfe
Date: 2009.02.13
16:42:14 -08'00'

BRUCE H. WOLFE
Executive Officer

Attachment: Staff Report dated February 11, 2009, Evaluation of Water Quality Conditions for the San Francisco Bay Region - Proposed Revisions to Section 303(d) List

STAFF REPORT

EVALUATION OF WATER QUALITY CONDITIONS FOR THE SAN FRANCISCO BAY REGION

PROPOSED REVISIONS TO SECTION 303(d) LIST

February 2009

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

San Francisco Bay Regional
Water Quality Control Board

[Page intentionally left blank]

Table of Contents

Tables

Figures

Appendices

1 Introduction

One of the San Francisco Bay Water Board's functions is to evaluate the water quality condition of waters in the San Francisco Bay Region. To accomplish this goal, staff gathers and evaluates data that are the basis of its water quality assessments. This staff report presents the results of staff's review and consideration of the available water quality data for the Region, including data submitted by the public. One important outcome of the assessment process is the identification of water bodies that are being proposed for inclusion on the list of impaired water bodies. Under federal Clean Water Act (CWA) regulations, the State is required every two years to report to the U.S. EPA on the status of water quality in the State (Section 305(b) water quality assessment), and provide a list of impaired water bodies (Section 303(d) list). Impaired water bodies are those where water quality standards are not met or expected to be met after implementation of technology based requirements of the CWA.

The 303(d) list of impaired waters must include a description of the pollutants causing the violation of water quality standards. As defined in CWA and federal regulations, water quality standards include the designated uses of a water body, the adopted water quality criteria, and the State's antidegradation policy. For water quality limited segments included on the 303(d) list, the State is required to develop a Total Maximum Daily Load (TMDL) to address the impairment. A TMDL is defined as the "sum of the individual waste load allocations for point sources and load allocations for non-point sources and natural background" (40 CFR130.2) such that the capacity of the water body to assimilate pollutant loadings (the loading capacity) is not exceeded. The federal requirement for setting priorities on which TMDLs will be developed is addressed in the State Board's *2004 Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy) by the establishment of schedules for TMDL development.

The last review of the 303(d) list and update occurred in 2006. The review was based on the Listing Policy developed in 2004. For the 2008 update, the Water Board is considering for approval, recommendations on the conditions of waters in the Region, applying the Listing Policy in the process.

This staff report presents the current status of water quality in the San Francisco Bay Region for water bodies with readily available data, and identifies the methods and data used to evaluate water quality status. The report identifies the proposed additions, deletions, and changes to the 2006 303(d) list. The water quality assessments also result in the identification of water bodies where water quality standards are met or where not enough information is available to accurately assess water quality. The results of the water quality assessments are compiled into a statewide integrated report referred to as the 303(d)/305(b) Integrated Report (Integrated Report) by the State Board.

The State Board will include the Water Boards' listing/delisting recommendations in its preparation of the statewide 303(d) list for submission to the U.S. EPA. The statewide 303(d) list will be part of the Integrated Report. The State Board's deliberative process will be conducted in 2009.

Appendix A of this staff report includes the public solicitation letters requesting that the public submit any and all available data to support the assessment of water quality in the Region. Appendix B provides a summary of the data received from the public and an assessment of data quality. Appendix C refers to the Fact Sheets supporting the 303(d) list change recommendations The Fact Sheets are available online at http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.shtml

Fact Sheets showing water bodies that support at least some beneficial uses, water bodies not listed due to insufficient information and revisions to the 2006 303(d) list are also available for viewing by following the link above.

2 Listing Policy and Evaluation Criteria

The proposed 2008 303(d) list of impaired water bodies in the San Francisco Bay Region was developed in accordance with the Listing Policy (SWRCB 2004). The Listing Policy establishes a standardized approach for developing California's section 303(d) list. It outlines an approach that provides the rules for making listing decisions based upon different kinds of data and establishes a systematic framework for statistical analysis of water quality data. The Listing Policy also establishes requirements for data quality, data quantity, and administration of the listing process. Decision rules for listing and delisting are provided for: chemical-specific water quality standards; bacterial water quality standards; health advisories; bioaccumulation of chemicals in aquatic life tissues; nuisances such as trash, odor, and foam; nutrients; water and sediment toxicity; adverse biological response; and degradation of aquatic life populations and communities.

Listing and delisting decisions were made in accordance with the Listing Policy, using all applicable narrative and numeric water quality criteria contained in the San Francisco Bay Basin Plan and in the California and National Toxic Rules. The Listing Policy specifies the frequency of exceedance of applicable water quality objectives that is necessary to make a determination that the water is impaired. When applying narrative water quality criteria, staff used guidelines developed by the U.S. EPA and other government agencies together with findings published in the scientific peer-reviewed literature to interpret data and evaluate the water quality conditions.

3 Information Received and Analyzed

3.1 Data solicitation

Federal regulation [(40 CFR § 130.7(b)(5)] states that "Each State shall assemble and evaluate all existing and readily available water quality-related data and information" when developing the 303(d) list. In December 2006, Water Board staff solicited the public to submit any and all water quality data to be considered in preparation of the 2008 303(d) list and 305(b) report.

This solicitation established a data submittal deadline of February 28, 2007. On January 30, 2007, staff transmitted a notice clarifying that there were no limits on the type or format of data and information that the public could provide to the Water Boards for their assessment. The notices provided to the public can be found in Appendix A of this report.

Appendix B contains a summary of the data and information submitted to the Water Board for consideration in the 2008 303(d) listing process. We received 15 submissions in response to the data solicitation, including multiple requests to list water bodies, two requests to delist and/or not to list water bodies as well as data sets without any accompanying request to list or delist. Water Board staff evaluated the submitted data in accordance with the Listing Policy, taking into account spatial and temporal representativeness and quality (Appendix B). The submissions and listing requests covered four major categories of pollutants and stressors including (1) trash; (2) general water quality parameters such as dissolved oxygen and temperature; (3) nutrients and biostimulatory substances; and (4) suspended solids, sedimentation /siltation.

3.2 Data analysis and recommendations

The assessment process began by identifying and compiling all readily available water quality data as described above. Then, staff systematically reviewed these data sets. Due to the relatively limited number of data sets identified through the solicitation process, much of the effort focused on reviewing the available data collected by the Surface Water Ambient Monitoring Program (SWAMP) and the Regional Monitoring Program (RMP). Staff also developed an approach for interpreting the photographic and narrative documentation for trash relative to applicable water quality standards, consistent with the Listing Policy. In addition, beach water quality data collected by county health departments and stored in the State Board Beach Water Quality Database were evaluated to determine whether the most recently collected data would result in new listing or de-listing decisions for our Region. No changes to the 2006 303(d) list were identified.

The SWAMP data include field surveys of water column chemistry, sediment chemistry, sediment toxicity, and water toxicity data as well as ancillary data on factors such as flows, biological community and physical habitat indicators. SWAMP was designed to provide information necessary to effectively manage the State's water resources and, subsequently, facilitate assessment of water quality under sections 305(b) and 303(d) of the Clean Water Act. Objectives of SWAMP include: (1) assessing the physical, chemical, and biological condition of water bodies in each region in order to determine if water bodies are impaired and beneficial uses are being protected; (2) generating data and information during different seasonal conditions; and (3) generating data and information that is somewhat evenly distributed across a water body to provide a screening level assessment of water quality. These objectives ensure that the SWAMP data meet all quality requirements of the Listing Policy.

For the purpose of analyzing the data and developing the proposed revisions to the 303(d) list, the Listing Policy recommends a "line of evidence" approach to establish both whether a water

body is impaired and what pollutant is causing the impairment. The lines of evidence in support of listing and/or delisting decisions for each affected water body are summarized in a water body-specific fact sheet. Fact sheets were developed for each water body for which sufficient data were available to evaluate during the review.

3.2.1 SWAMP data evaluation

Over the 5-year period (2001 – 2005) SWAMP conducted water quality monitoring in 37 watersheds in the Region (SFBRWQCB 2007c, 2007d). Data were collected at multiple locations within each water body over three hydrologic cycles including the wet season (January through March), the spring/decreasing flow season (April through May) and the dry season (June through October). Altogether data from over 190 sampling locations were evaluated. Selected sites in each water body were sampled to determine benthic macroinvertebrate assemblages, temperature, dissolved oxygen, nutrients, trace metals, trace organic compounds, toxicity, and coliforms. Temporal variability in basic water quality (temperature, dissolved oxygen (DO), pH, and specific conductance) was determined by continuous deployment of field measurement devices. These continuous deployments typically lasted one to two weeks and were conducted three to four times per year. Water, sediment and tissue samples that were collected were analyzed to determine concentrations of more than 230 constituents.

The first step of the water quality assessment involved screening all the data against the available water quality criteria and guidelines. For pollutants with applicable numeric water quality criteria, the impairment status was evaluated by comparing the concentration data with existing water and sediment objectives and standards contained chiefly in the San Francisco Bay Basin Plan, California and National Toxic Rules and U.S. EPA guidelines. When only narrative water quality objectives existed, staff identified evaluation guidelines protective of the beneficial use and specified the conditions above which impacts were minimal. Table 1 and Table 2 show a complete list of numeric criteria and evaluation guidelines used in this assessment.

Table 1: Water quality thresholds for 303(d) data screening of freshwater creeks for selected beneficial uses including aquatic life, municipal and domestic supply (MUN), agricultural supply (AGR) and water contact recreation (REC1)

Analyte	*Description of Standard*	*Numeric Limit*	*Units*	*Reference*
Field measures				
Temperature	Maximum, salmonid	24	° C	USEPA, 1977
	7-day mean, coho	14.8	° C	Sullivan *et al.*, 2000
	7-day mean, steelhead	17	° C	Sullivan *et al.*, 2000
Oxygen, dissolved	Minimum, warmwater	5	mg/L	Basin Plan, 2007b
	Minimum, coldwater	7	mg/L	Basin Plan, 2007b
pH	Range	6.5 to 8.5	S.U.	Basin Plan, 2007b
Specific conductance	Min for AGR	200	µS	Basin Plan, 2007b
	Max for AGR	3000	µS	Basin Plan, 2007b
	Max for MUN	900	µS	Basin Plan, 2007b
Salts – AGR only	***Salt thresholds apply only to waters with AGR beneficial use assigned.***			
Boron	Maximum	0.5	mg/L	Basin Plan, 2007b
Chloride	Maximum	142	mg/L	Basin Plan, 2007b
Metals	***Cadmium, copper, nickel, silver, and zinc values assume a hardness of 100 mg/L CaCO3. Values at other hardness levels must be calculated using formulas in the Basin Plan.***			
Arsenic, dissolved	1-hour average WQO	340	µg/L	Basin Plan, 2007b
	4-day average WQO	150		
Cadmium, total	1-hour average WQO	3.9	µg/L	Basin Plan, 2007b
	4-day average WQO	1.1		
Chromium VI, dissolved	1-hour average WQO	16	µg/L	Basin Plan, 2007b
	4-day average WQO	11		
Copper, dissolved	1-hour average WQO	13	µg/L	Basin Plan, 2007b
	4-day average WQO	9		
Lead, dissolved	1-hour average WQO	65	µg/L	Basin Plan, 2007b
	4-day average WQO	2.5		
Mercury, total	1-hour average WQO	2.4	µg/L	Basin Plan, 2007b
	4-day average WQO	0.025		
Nickel, dissolved	1-hour average WQO	470	µg/L	Basin Plan, 2007b
	4-day average WQO	52		
Selenium, total	4-day average WQO	5	µg/L	Basin Plan, 2007b
	1-hour average WQO	20		
Silver, dissolved	1-hour average WQO	3.4	µg/L	Basin Plan, 2007b
Zinc, dissolved	1-hour average WQO	120	µg/L	Basin Plan, 2007b
	4-day average WQO	120		
Metals -- MUN only	***These Metals thresholds apply only to waters with MUN beneficial use assigned.***			
Manganese, total	Maximum	50	µg/L	Basin Plan, 2007b
Mercury, total	Maximum	2	µg/L	Basin Plan, 2007b
Organics				
PCBs	Freshwater Criterion Continuous Concentration	0.014	µg/L	CTR
Chlorpyrifos	4-day average (chronic)	0.015	µg/L	CVRWQCB, 2006
Dacthal (DCPA)	Instantaneous maximum AWQC	14300	µg/L	CVRWQCB, 2008
Diazinon	1-hour average	0.1	µg/L	SFBRWQCB, 2005
Disulfoton (Disyston)	Instantaneous maximum	0.05	µg/L	CVRWQCB, 2008

Analyte *Field measures*	*Description of Standard*	*Numeric Limit*	*Units*	*Reference*
	AWQC			
Endosulfan	Continuous 4-day average	0.056	ug/l	CTR
	Instantaneous maximum	0.22		CTR
HCH, gamma- (gamma-BHC, Lindane)	Maximum 1-hour average	0.95	µg/L	CTR
Parathion, methyl	Instantaneous maximum AWQC	0.08	µg/L	CDFG
Thiobencarb	Instantaneous maximum AWQC	3.1	µg/L	CDFG
Pathogens – Water Contact Recreation (REC1)				
E. coli (freshwater)	Steady state (all areas)	126	MPN /100 mL	US EPA, 1986
	Designated beach (max)	235		
Fecal coliform	Geometric mean	200	MPN /100 mL	Basin Plan, 2007b
	90th percentile	400		
Total coliform	Median	240	MPN /100 mL	Basin Plan, 2007b
	Maximum	10000		
Coliforms – MUN only	***MUN thresholds are DOHS recommendations for surface water that serves as drinking water source.***			
Fecal coliform	Geometric mean	<20	MPN /100 mL	Basin Plan, 2007b
Total coliform	Geometric mean	<100		
Toxicity -- Basin Plan	***Two-sample t-tests (one-tailed, alpha = 0.05) were performed on station data versus control data.***			
For *Ceriodaphnia and Pimephales*, the null hypothesis tested was that the station response was less than (less growth, survival, etc) the control response.		80	%	Basin Plan (2007b) - "There shall be no chronic/acute toxicity in ambient waters." (3.3.18)
For Selenastrum, where we are testing that station responses are greater than (more growth) or less than (less growth) the control, these two-sample tests have an alpha of 0.10.		80	%	

CTR - (Federal Register, Part III; EPA; 40 CFR Part 131 Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule. May 18, 2000)

CDFG - California Department of Fish and Game, Office of Spill Prevention and Emergency Response, Hazard Assessment and Water Quality Criteria documents for pesticides (various dates), http://www.cdpr.ca.gov/docs/sw/hazasm.htm

Table 2: Freshwater sediment quality pollutant thresholds for 303(d) data screening

SQG type: *Analyte*	Probable effect concentration *mg/kg*	*µg/kg*	*Reference*
Metals			MacDonald et al. 2000
Arsenic	33		
Cadmium	4.98		
Chromium	111		
Copper	149		
Lead	128		
Mercury	1.06		
Nickel	48.6		
Zinc	459		
Organics			MacDonald et al. 2000
Anthracene		845	
Fluorene		536	
Naphthalene		561	
Phenanthrene		1170	
Benz(a)anthracene		1050	
Benzo(a)pyrene		1450	
Chrysene		1290	
Fluoranthene		2230	
Pyrene		1520	
PAH (total)		22800	
PCB (total)		676	
Chlordane		17.6	
Dieldrin		61.8	
DDD (sum op + pp)		28	
DDE (sum op + pp)		31.3	
DDT (sum op + pp)		62.9	
DDT (total)		572	
Endrin		207	
Heptachlor epoxide		16	
HCH, gamma		4.99	
Toxicity	***Two-sample t-tests (one-tailed, alpha = 0.05) were performed on station data versus control data.***		
For *Hyalella*, the null hypothesis tested was that the station response was less than (less growth, survival, etc) the control response. 80% of the control group was the threshold for sediment toxicity.			Basin Plan (2007b) - "There shall be no chronic/acute toxicity in ambient waters." (3.3.18)

3.2.2 Trash

Trash is not a new problem for the Bay Region, but it is a continuing problem both as an aesthetic nuisance, as a serious threat to aquatic life in tributaries, and as a threat to marine life in estuaries and oceans. Data suggest that plastic from trash persists for hundreds of years in the environment and can pose a threat to wildlife through ingestion, entrapment and entanglement, and this plastic can leach potentially harmful chemicals to the aquatic environment. During the 2002 303(d) listing update effort, Staff discussed the water quality impacts associated with trash at some length (SFRWQCB 2001). Water Board staff found that trash threatened water quality in all urban creeks, lakes, and shorelines. Rather than listing all urban creeks at that time, the Water Board urged municipalities to implement trash control measures, assess trash impairments in their jurisdictions and document these assessments in annual reports submitted to the Board. Since 2002, Water Board staff has developed, refined, and implemented (2002 through 2005) a rapid trash assessment method as part of SWAMP (SFBRWQCB 2007a). Other local entities, e.g., the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), also collected trash assessment data. The water quality assessments for trash conducted for this 303(d) update are based on the results of the rapid trash assessment method and interpretation of data submitted by the public using a similar approach.

The data solicitation for this update resulted in the submission of a large quantity of trash-related data and accompanying requests for 303(d) listings. These data consisted mainly of photographs and narrative documentation on the status of trash levels for specific water bodies. In addition to these data, staff compiled and considered rapid trash assessment data collected by SWAMP as well as similar trash assessment data collected by SCVURPPP. The two types of trash data, photographs and trash assessment results, required distinct evaluation methodologies described below. Because there are no numeric water quality criteria for trash, the trash data were reviewed according to the "weight of evidence" guidelines established in section 3.11 of the Listing Policy. After reviewing these data in accordance with the Listing Policy, there were several water bodies for which we did not have compelling evidence to place them on the 303(d) list. These water bodies are identified in Table 3 below. The water bodies recommended for placement on the 303(d) list for trash impairment are identified in Table 4 below, and the lines of evidence are described in detail in the Fact Sheets (Appendix C).

Relevant Beneficial Uses and Water Quality Objectives

Several beneficial uses may be adversely impacted by trash, including recreation, aquatic life, wildlife habitat, and navigation. However, data were not readily available to allow staff to evaluate all beneficial uses possibly impaired by trash. Instead, we focused our review on evaluating impairment of the non-contact water recreation (REC-2) and wildlife habitat (WILD) beneficial uses, because these uses can be most easily evaluated through review of available trash data. Impairment of REC-2 can be readily evaluated based on the level of trash present. Impairment of WILD can be evaluated based on the level of certain types of trash associated with threat to wildlife, a beneficial use that implicitly includes aquatic life.

Beneficial uses adversely impacted by trash are, in turn, supported by the following set of narrative water quality objectives and Basin Plan prohibitions. The Basin Plan (Table 4-1,

Prohibition Number 7) prohibits discharge of "rubbish, refuse, bark, sawdust, or other solid wastes into surface waters or at any place where they would contact or where they would be eventually transported to surface waters, including flood plain areas." The Basin Plan (Section 3.3.6) also has a narrative objective for floating material, "waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses." Last, the Basin Plan (Section 3.3.13) has a narrative objective for settleable material, "waters shall not contain substances in concentrations that result in the deposition of material that cause nuisance or adversely affect beneficial uses."

Table 3: List of water bodies with insufficient evidence to establish trash impairment

Water Body	Designated/Potential Uses	Supporting Data
Adobe Creek	Non-Contact Recreation and Wildlife Habitat	RTA [1], Photos
Alamitos Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Alhambra Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Arroyo Corte Madera del Presidio	Non-Contact Recreation and Wildlife Habitat	Photos
Arroyo Los Positas	Non-Contact Recreation and Wildlife Habitat	RTA
Arroyo Mocho	Non-Contact Recreation and Wildlife Habitat	RTA
Arroyo Seco	Non-Contact Recreation and Wildlife Habitat	Photos
Barron Basin	Non-Contact Recreation and Wildlife Habitat	RTA
Berryessa Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Calabazas Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Corte Madera Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Lagunitas Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Las Trampas Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Lafayette Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Ledgewood Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Los Gatos Creek	Non-Contact Recreation and Wildlife Habitat	RTA, Photos
McCoy Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Pacheco Slough	Non-Contact Recreation and Wildlife Habitat	Photos
Randall Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Rodeo Creek	Non-Contact Recreation and Wildlife Habitat	RTA
San Gregorio Creek	Non-Contact Recreation and Wildlife Habitat	RTA
San Ramon Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Sulphur Creek	Non-Contact Recreation and Wildlife Habitat	Photos
Thompson Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Upper Penitencia Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Vista Grande Canal	Non-Contact Recreation and Wildlife Habitat	Photos
Walnut Creek	Non-Contact Recreation and Wildlife Habitat	Photos

Wildcat Creek	Non-Contact Recreation and Wildlife Habitat	RTA
Yerba Buena Creek	Non-Contact Recreation and Wildlife Habitat	RTA

[1] RTA – Rapid Trash Assessment

Evaluation of Trash Assessment Results

The Water Board's rapid trash assessment method generates site-specific scores on a scale from 0 to 120, with higher scores indicating cleaner sites. The method also documents the number of pieces of trash per one hundred feet of stream or shoreline, and the rate of return of trash under different hydrologic conditions. The trash assessment protocol involves picking up and tallying all of the trash items found within the defined boundaries of a site. When repeated several times throughout a year, this procedure allows for the assessment of temporal changes in impairment, usage patterns, and trash deposition rates under wet and dry weather conditions (SFBRWQCB 2007a).

The Rapid Trash Assessment (RTA) method evaluates six parameters of trash impacts (level of trash, number of items found, threat to wildlife, threat to human health, illegal dumping, and trash accumulation). For purposes of determining impairment status, Water Board staff evaluated the magnitudes of the "level of trash" and "threat to aquatic life" parameters. If the "level of trash" parameter score fell in the 'poor condition category' (scores 0-5), REC-2 is deemed not supported. According to the RTA, the "poor condition" score corresponds to a level of trash that "distracts the eye on first glance. Stream, bank surfaces, and immediate riparian zone contain substantial levels of litter and debris (>100 pieces). This score suggests that the site is being used frequently by people: many cans, bottles, and food wrappers, blankets, clothing." SCVURPPP developed a similar "level of trash" parameter that can be interpreted similarly. Water Board staff reason that if there is sufficient trash to "distract the eye on first glance" and there are substantial levels of litter and debris, then the non-contact beneficial use would be impaired.

The second RTA parameter considered is the "threat to aquatic life" category. If this parameter score fell in the 'poor condition' category (scores 0-5), then WILD is deemed not supported. According to the RTA, the 'poor condition' score corresponds to a "large amount (>50 pieces) of transportable, persistent, buoyant litter (such as hard or soft plastics, balloons, styrofoam, cigarette butts); toxic items (such as batteries, lighters, or spray cans); large clumps of yard waste or dumped leaf litter; or large amount (>50 pieces) of settleable glass or metal."

Water Board staff used the "threat to aquatic life" parameter to assess impairment to wildlife habitat beneficial uses (WILD) because the type of trash measured by this parameter is particularly problematic for wildlife (including aquatic life). The two primary problems that trash poses to wildlife are entanglement and ingestion. Mammals, turtles, birds, fish, and crustaceans all have been affected by entanglement in or ingestion of floatable debris. Many of the species most vulnerable to the problems of floatable debris are endangered or threatened. Entanglement is harmful to wildlife because it can cause wounds that can lead to infections or loss of limbs and also cause strangulation, suffocation, drowning, or limited escape from predators (EPA 2002). Ingestion of trash can lead to starvation or malnutrition if the ingested items block the intestinal tract, preventing digestion, or accumulate in the digestive tract, making the animal feel "full" and lessening its desire to feed. Ingestion of sharp objects can damage the mouth, digestive tract and/or stomach lining and cause infection or pain. Ingested items can also block air passages and prevent breathing, thereby causing death (EPA 2002).

The Urban Rapid Trash Assessment (URTA) developed by SCVURPPP is a very slightly modified version of the original SWAMP RTA. It was modified to make it easier to apply in urban creeks, and the way in which category scores are interpreted was also modified. However, the URTA has an identical parameter assessing threat to aquatic life (wildlife) by characterizing the amount of "Transportable, Persistent, Buoyant Litter." If the raw score for this parameter fell in the marginal urban or poor condition category (scores 0-10, corresponding to a count of 76-200 pieces of such litter), then WILD is deemed not supported.

Although Water Board staff only considered the "level of trash" and "threat to aquatic life" parameters for determining impairment status, the SWAMP and SCVURPPP trash assessment methods have four additional parameters that can provide additional information about both the condition and cause of the trash encountered during assessment (SFBRWQCB 2007a). The assessments include a parameter indicating the total number of trash items counted on the 100-foot stream reach, both above and below the high water line. This is an efficient parameter to use to obtain a rough comparison of the trash impacts between sites, but it can be misleading because sometimes trash items are broken into many pieces, thus inflating the count.

The "threat to human health" parameter accounts for the number of items that are dangerous to humans who wade or swim in the water, and the presence of pollutants that could accumulate in fish in the downstream environment, such as mercury. The worst conditions for this parameter have the potential for the presence of dangerous bacteria or viruses, such as with medical waste, diapers, and human or pet waste. The "illegal dumping and littering" parameter relates to direct placement of trash items at a site, with "poor" conditions assigned to sites that appear to be dumping or littering locations based on adjacent land use practices or site accessibility. Finally, the "accumulation of trash" parameter can be used to distinguish trash that is transported from upstream locations from dumped trash. This is accomplished by noting indications of age and transport. Faded colors, silt marks, trash wrapped around roots, and signs of decay suggest downstream transport, indicating that the local drainage system facilitates conveyance of trash to water bodies.

Evaluation of Photographic Evidence for Trash

Nearly 900 photos of trash impacts were submitted and evaluated to make impairment determinations. These photos presented a fundamental impairment assessment challenge: how to interpret what can be seen in the photos relative to beneficial use impairment? The method we employed was to view the photos as if the water body was being assessed according to the RTA procedure. One of the co-authors of the RTA inspected every photograph and attempted to establish the RTA score for the "level of trash" and "threat to aquatic life" parameters, which relates to impairment of REC-2 and WILD, respectively. One of the first objectives of this photo inspection was to determine if the quantity and quality of the photos were sufficient to establish these parameter scores. Some photos were not clear enough to accomplish this.

In order to establish that the "Level of Trash" parameter was in the poor condition category, we required that reach-scale (i.e., showing most or all of the reach of the creek being photographed) and close-up photos of stream reaches must demonstrate a similar level of

trashiness as the 'poor condition' category of the RTA assessment parameter. In other words, we determined if the visual impression of the photos was consistent with the visual impression the evaluator might have experienced during actual RTA assessments for locations scoring in the 'poor condition" category. A similar determination was made for each photo relative to the "threat to aquatic life" parameter.

Spatial and Temporal Representativeness of Trash Impairment

As a general rule, water bodies recommended for inclusion on the 303(d) list for trash are those for which there is evidence of trash problems persisting through space and time. We applied this rule to trash assessment data and photographic data. In order to recommend listing, we typically required both that the water body contain two or more sites that show evidence of trash impairment (according to assessment or photo documentation) and that evidence of trash impairment existed on two or more occasions. There were instances in which a listing recommendation was made based on data for multiple occasions but only at one location if there were no other data available, but these were very rare exceptions. For San Francisco Bay listings, if shoreline or creek mouth sites satisfied these data sufficiency requirements, we recommended that the applicable bay segment be listed. In fact, for the bay segments recommended for listing (Central and Lower), there were at least two shoreline or creek mouth locations with unacceptably high levels of trash.

3.3 Fact sheet development

Water Board staff developed a Fact Sheet for each water body - pollutant combination that resulted in a listing or delisting recommendation, summarizing the data used to make the decision, the criteria used, and the basic water body characteristics. Figure 1 shows a template provided by the State Board and lists all categories of information required to develop a fact sheet and characterize the cause of impairment.

Region:
Water Body Segment:

Pollutant:
Decision: *List/De-List*

Weight of Evidence
RWQCB Staff Recommendation

Line of Evidence:

Fraction:	*Options for this field are none, not recorded, total, dissolved (does not include suspended), and total dissolved.*
Matrix:	*Options for this field are tissue, water, sediment, N/A. This is the monitoring data sample medium.*
Beneficial use(s):	*Find appropriate beneficial use in your Region's Basin Plan.*
Water Quality Objective/Criteria:	*Find in Basin Plan or use CTR or other appropriate water quality objective or criterion and completely cite it here and reference where you found it.*
Evaluation Guideline:	*If the objective is narrative, use the appropriate evaluation guideline and completely cite it here and reference where you found it.*
Data Used to Assess Water Quality:	*Summarize data assessed here. What is the total number of samples? How many of these samples exceed the objective/criterion/guideline?*
Data References:	*Cite the data reference used for this assessment.*
Spatial Representation:	*Where were the samples collected? How many stations, etc?*
Temporal Representation:	*When were the samples collected? What was the sampling timeframe, etc?*
Water Body Specific Information:	*Environmental conditions or factors that might effect data used in assessment [e.g. Fire/Flood/Dry Year event, etc.]*
Data Quality Assessment	*Excellent, good, fair, poor, unknown, and none*
QAPP Information:	*Clearly describe the quality assurance plan or document that applies to the data used for this assessment. Reference the QA plan that was used. For example: "Quality Control for the chemical analysis portion of this study was conducted in accordance with Standard Operating Procedure QAQC001.00 (Segawa, 1995)."*

Figure 1: Fact sheet template for the 303(d) List

4 Listing Decisions

4.1 Proposed additions to the 303(d) list of impaired water bodies

Table 4 shows all proposed additions to the 303(d) list. Much more comprehensive information is available regarding these new proposed listings in the Fact Sheets (Appendix C). Locations of the water bodies evaluated as impaired during the 2008 listing period are shown in Figure 2 and Figure 3.

Table 4: Proposed 2008 additions to 303(d) list of impaired water bodies

Water Body	Beneficial Uses	Pollutant/ Cause of impairment
Almaden Lake	Commercial and Recreational Collection of Fish, Shellfish, or organisms	Mercury (tissue)[1]
Almaden Reservoir	Commercial and Recreational Collection of Fish, Shellfish, or organisms	Mercury (tissue)[1]
Arroyo Las Positas Creek	Warm Freshwater Habitat	Nutrient/Eutrophication Biological Indicators
Arroyo Mocho Creek	Cold Freshwater Habitat (potential)	Temperature
Codornices Creek	Cold Freshwater Habitat	Temperature
Kirker Creek	Warm Freshwater Habitat	Pyrethroids[2] Water Toxicity
Mount Diablo Creek	Cold Freshwater Habitat	Water Toxicity
Permanente Creek	Cold Freshwater Habitat	Selenium Water Toxicity
San Mateo Creek Lower	Wildlife Habitat	Sediment Toxicity
Stevens Creek	Cold Freshwater Habitat	Temperature
Suisun Creek	Cold Freshwater Habitat	Dissolved Oxygen Temperature
Old Alameda Creek	Non-Contact Recreation and Wildlife Habitat	Trash
Baxter Creek	Non-Contact Recreation and Wildlife Habitat	Trash
Cerrito Creek	Non-Contact Recreation and Wildlife Habitat	Trash

[1] The Guadalupe River Watershed TMDL is expected to address this impairment

[2] San Francisco Bay Urban Creeks Diazinon and Pesticide-Related Toxicity TMDL approved by USEPA on 5/16/07 will address pyrethroids impairment in Kirker Creek.

Water Body	Beneficial Uses	Pollutant/ Cause of impairment
Codornices Creek	Non-Contact Recreation and Wildlife Habitat	Trash
Colma Creek	Non-Contact Recreation and Wildlife Habitat	Trash
Coyote Creek	Non-Contact Recreation and Wildlife Habitat	Trash
Damon Slough	Non-Contact Recreation and Wildlife Habitat	Trash
Grayson Creek	Wildlife Habitat	Trash
Guadalupe River	Non-Contact Recreation and Wildlife Habitat	Trash
Kirker Creek	Wildlife Habitat	Trash
Matadero Creek	Wildlife Habitat	Trash
Permanente Creek	Wildlife Habitat	Trash
Petaluma River	Non-Contact Recreation and Wildlife Habitat	Trash
Rindler Creek	Non-Contact Recreation and Wildlife Habitat	Trash
San Francisco Bay (Central) shoreline	Non-Contact Recreation and Wildlife Habitat	Trash
San Francisco Bay (Lower) shoreline	Non-Contact Recreation and Wildlife Habitat	Trash
San Francisquito Creek	Non-Contact Recreation and Wildlife Habitat	Trash
San Leandro Creek Lower	Non-Contact Recreation and Wildlife Habitat	Trash
San Mateo Creek	Non-Contact Recreation and Wildlife Habitat	Trash
San Pablo Creek	Non-Contact Recreation	Trash
San Tomas Creek	Wildlife Habitat	Trash
Saratoga Creek	Wildlife Habitat	Trash
Sausal Creek	Wildlife Habitat	Trash
Silver Creek	Wildlife Habitat	Trash
Stevens Creek	Wildlife Habitat	Trash
Strawberry Creek	Non-Contact Recreation and Wildlife Habitat	Trash

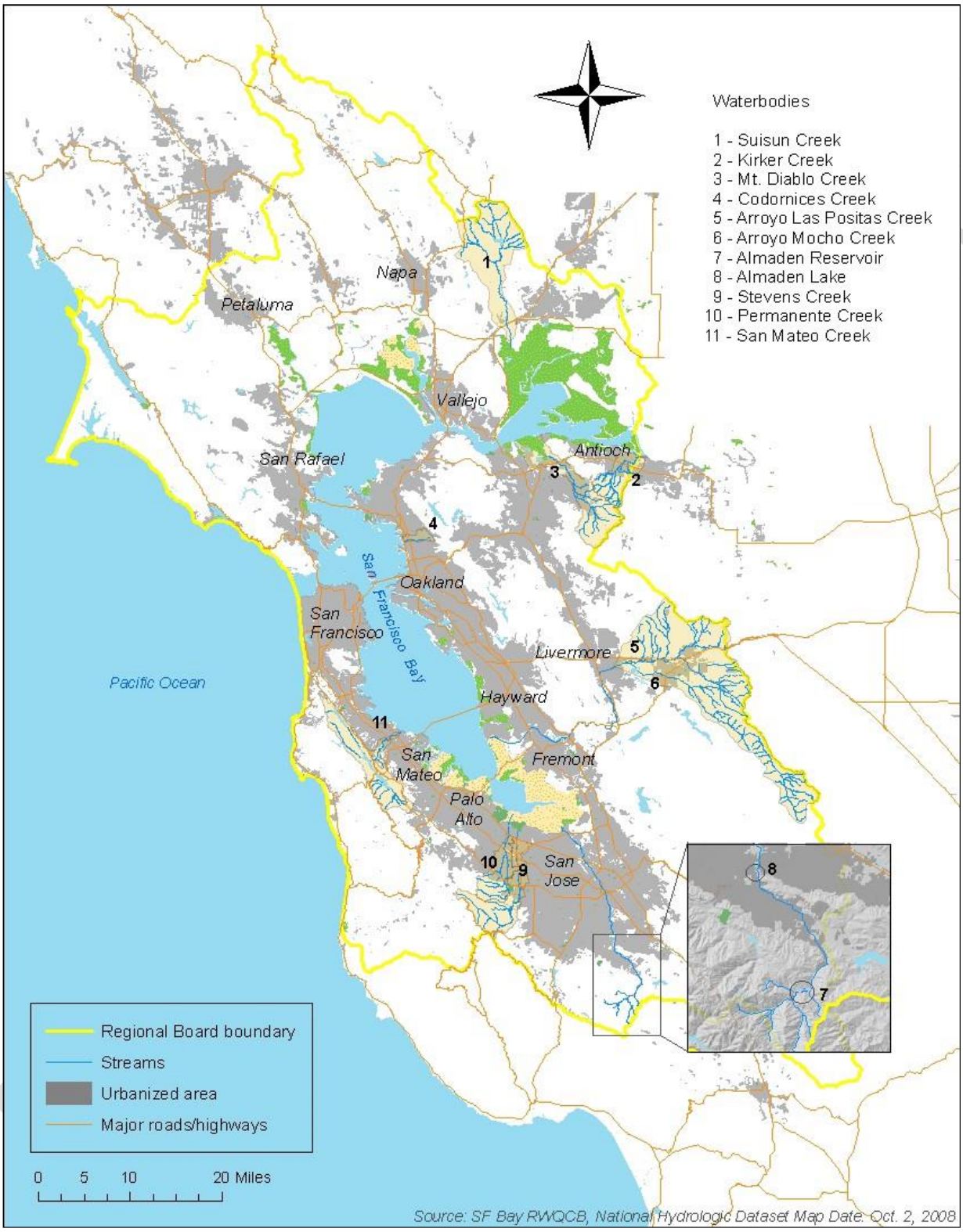


Figure 2: Proposed 2008 new 303(d) listings for toxicants and conventional pollutants

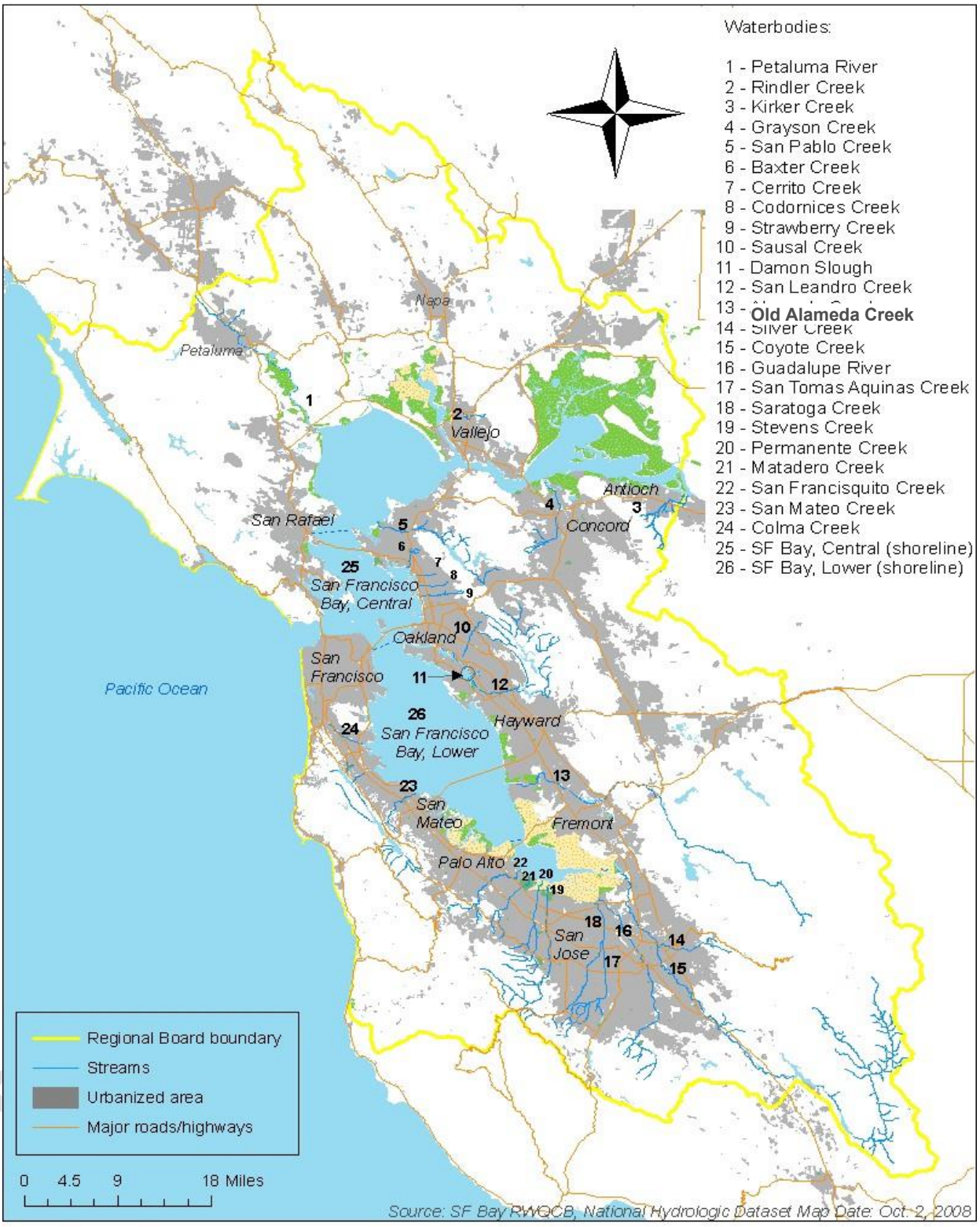


Figure 3: Proposed 2008 303(d) listings for trash

4.2 Proposed delisting and status change

Delist nickel in Sacramento San Joaquin Delta, San Pablo Bay, Suisun Bay

Based on the readily available data and information, there is strong justification for removing these water segment-pollutant combinations from the section 303(d) list in the Water Quality Limited Segments category. The Basin Plan contains nickel water quality objectives of 8.2µg/L as a 4-day average and 74µg/L as a 1-hour average. Data collected by the Regional Monitoring Program and Special Copper/Nickel study from 1993 through 2005 showed that none of the 59 analyzed water samples from the Sacramento San Joaquin Delta exceeded the water quality objectives, none of the 107 analyzed water samples from San Pablo Bay exceeded the water quality objectives, and none of the 96 analyzed water samples from Suisun Bay exceeded the objectives.

Change listing status: Castro Cove, Richmond (San Pablo Basin) - addressed by action other than TMDL

This water body was listed in 2006. Since that time a cleanup and abatement order (Order No. R2-2006-0078) requiring remediation of sediment contamination in the listed portion of Castro Cove was issued. The cleanup action involves removal of contaminated sediment and supports other abatement measures in place, such as the mercury TMDL approved by USEPA on February 12, 2008. Cleanup is underway and, upon its completion, it is expected that this water body will meet applicable water quality standards.

In November 2007, the Water Board received a Monitoring and Risk Management Plan that includes post-dredging confirmation monitoring to demonstrate that chemical contamination in the sediment has been reduced to levels that no longer pose unacceptable ecological risk. The cleanup completion is scheduled for 2010, and it is expected that this action will attain beneficial uses. Therefore, we recommend that Castro Cove be moved from the 303(d) list requiring a TMDL to the 303(d) list of water bodies being addressed by an action other than a TMDL.

4.3 TMDL schedule

All water body-pollutant combinations on the section 303(d) list are assigned with a proposed TMDL completion date. The maximum time that can elapse between 303(d) listing and TMDL completion is 13 years. Accordingly, we have assigned all new listings a TMDL completion date of 2021. This does not suggest that all new listings have the same priority, but rather that the factors determining TMDL priorities have not yet been evaluated as part of this listing process. These factors will be considered through our continuing planning process and with input from our Board and stakeholders. These factors include:

- Water body significance;
- Severity of pollution;
- Degree of impairment;

- Potential threat to human health and the environment;
- Water quality benefits of ongoing activities in the watershed;
- Potential for beneficial use protection and recovery;
- Degree of public concern;
- Availability of funding; and
- Availability of data and information to address the water quality problem.

4.4 Do-Not-List recommendations

This section presents two categories of water bodies for which a "do not list" decision was made. Table 5 lists good quality waters. For these waters there are sufficient data to determine that at least some beneficial uses are supported, and no data are available that suggest non-attainment of beneficial uses. Fact sheets for each of these recommendations are available online (Appendix C).

Table 5: Do Not List recommendations: Some beneficial uses supported

Water Body	Designated/Potential Uses	Supporting Data
Easkoot Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen
Pine Gulch Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen
Redwood Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen
Rodeo Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen
Tennessee Valley Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen
Webb Creek	Aquatic Life/ Cold Freshwater Habitat	Benthic macroinvertebrate bioassessment
		Temperature
		Dissolved Oxygen

Table 6 lists water body-pollutant combinations, for which there was insufficient information

to determine whether or not water quality standards are being attained. In some cases, there are a small number of water quality standard exceedances, but they are insufficient to demonstrate impairment in accordance with the Listing Policy. Thus, for these water body-pollutant combinations, more data should be collected to allow for a definitive determination ina subsequent listing cycle. The Fact Sheets for these water body-pollutant combinations, other than for trash assessment, are provided in Appendix C, online.

Table 6: Do Not List recommendations: Insufficient information to determine if beneficial uses are attained

Water Body	Designated/Potential Uses	Supporting Data
Arroyo Viejo Creek	Aquatic Life/ Warm Freshwater Habitat	Toxicity sediment Cr , Cu, As, Ni – sediment
Audubon Canyon Creek	Aquatic Life/ Cold Freshwater Habitat	Nitrate
Codornices Creek	Aquatic Life / Warm Freshwater Habitat	Dissolved oxygen
Glen Echo Creek	Aquatic Life/ Warm Freshwater Habitat	Toxicity sediment As, Cr, Cd, Cu, Pb, Hg, Ni – sediment Cu, Pb, Ni, Zn – water
Lion Creek	Aquatic Life/ Warm Freshwater Habitat	Dissolved oxygen
Lobos Creek	Aquatic Life/ Warm Freshwater Habitat	Toxicity water Toxicity sediment
Morses Gulch Creek	Aquatic Life/ Cold Freshwater Habitat	Nitrate
Mt Diablo Creek	Aquatic Life / Warm Freshwater Habitat	Dissolved oxygen Toxicity sediment
Peralta Creek	Aquatic Life / Warm Freshwater Habitat	Toxicity sediment Pyrethroids Diazinon
Permanente Creek	Aquatic Life / Cold Freshwater Habitat	Toxicity sediment
San Leandro Creek, Lower	Aquatic Life / Warm Freshwater Habitat	Chromium
Stevens Creek	Aquatic Life / Warm Freshwater Habitat	Dissolved oxygen
Temescal Creek	Aquatic Life/ Warm Freshwater Habitat	Toxicity water Cu, Pb, Ni, Zn – water
Walker Creek	Aquatic Life / Cold Freshwater Habitat	Temperature

4.5 Editorial revisions to the 2006 303(d) list

In addition to the proposed status changing actions, we reviewed and clarified the decision language for water bodies on the 303(d) list adopted in 2006. In particular, careful consideration was given to updating the expected schedules for TMDL completion. In addition, the updated list reflects U.S. EPA approval of TMDLs adopted since the 2006 303(d) list was approved. All of these revisions are editorial in nature and do not change the listing status of any water body. These revisions to the 2006 303(d) list of impaired water bodies are shown in Appendix C, online.

5 303(d)/305(b) Integrated Report

The 303(d)/305(b) Integrated Report will be prepared by State Board based on the information submitted in this report and similar information prepared by all the other Regions. The Integrated Report will then be submitted to the U.S. EPA. All of the assessments reflected in the Fact Sheets included in this report will be used to determine which category to assign to the evaluated water bodies. Additional Fact Sheets may be prepared for non-303(d) listed water bodies for inclusion in the Integrated Report.

The US EPA defines five non-overlapping categories for use in the integrated assessment (USEPA 2005). These categories include:

Category 1: All designated uses are supported, no use is threatened;

Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported (see Table 5 above);

Category 3: There is insufficient available data and/or information to make a use support determination (see Table 6 above);

Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed; and

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed (Table 4 above).

The 2008 Integrated Report adopted by State Board will include the 303(d) listing changes approved by each Regional Water Board. Categories 4 and 5 reflect those water bodies placed on the 303(d) list.

6 References

CVRWQCB. 2006. *Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin Rivers Basins for the Control of Diazinon and Chlorpyrifos*. June 2006. Final Staff Report: http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_op_pesticide/final_staff_report/delta_dc_bpa_staff_rpt.pdf

CVRWQCB. 2008. A Compilation of Water Quality Goals. Report prepared by J.B. Marshack. http://www.swrcb.ca.gov/rwqcb5/water_issues/water_quality_standards_limits/water_quality_goals/index.shtml

MacDonald, D.D., Ingersoll, C.G. and T.A. Berger. 2000. "Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems". *Archives of Environmental Contamination and Toxicology*. 39:20-31.

SFBRWQCB. 2001. *Draft Staff Report: Proposed Revisions to Section 303(d) List and Priorities for Development of Total Maximum Daily Loads (TMDLs) for the San Francisco Bay Region.* August 2001. http://www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/draft303drb2.pdf

SFBRWQCB. 2005. Diazinon and pesticide-related toxicity in San Francisco Bay Area urban creeks Total Maximum Daily Load (TMDL) Staff Report, November 9, 2005. San Francisco Bay Regional Water Quality Control Board, Oakland, CA. http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/urbancrksdiazinontmdl.shtml

SFBRWQCB. 2007a. *A Rapid Trash Assessment Method Applied to Waters of the San Francisco Bay Region: Trash Measurement in Streams.* April 2007. http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/surfacemonitoring/rb2swamptrashrpt06152007.pdf

SFBRWQCB. 2007b. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). January 18, 2007.

SFBRWQCB. 2007c. Water quality monitoring and bioassessment in nine San Francisco Bay Region watersheds: Walker Creek, Lagunitas Creek, San Leandro Creek, Wildcat Creek/San Pablo Creek, Suisun Creek, Arroyo Las Positas, Pescadero Creek/Butano Creek, San Gregorio Creek, and Stevens Creek/Permanente Creek. Oakland, CA: Surface Water Ambient Monitoring Program, San Francisco Bay Regional Water Quality Control Board.

SFBRWQCB. 2007d. Water Quality Monitoring and Bioassessment in Four San Francisco Bay Region Watersheds in 2003-2004: Kirker Creek, Mt. Diablo Creek, Petaluma River, and San

Mateo Creek. Surface Water Ambient Monitoring Program, San Francisco Bay Regional Water Quality Control Board, Oakland, CA.

SWRCB. 2004. Water Quality Control Policy for Developing California's Section 303(d) List. Resolution No. 2004-0063. Sacramento, CA: State Water Resources Control Board. California Environmental Protection Agency.

Sullivan, K., D.J. Martin, R.D. Cardwell, J.E. Toll and S. Duke. 2000. *An Analysis of the Effects of Temperature on Salmonids of the Pacific Northwest with Implications for Selecting Temperature Criteria*. Sustainable Ecosystems Institute.

U.S. EPA. 1977. Temperature criteria for freshwater fish: protocol and procedures. Ecological Research Series. EPA-600/3-77-061 (NTIS PB270032). Prepared by W.A. Brungs and B.R. Jones. U.S. Environmental Protection Agency, Washington, D.C.

U.S. EPA. 1986. Ambient Water Quality Criteria for Bacteria. EPA 440/5-84-002. Office of Water, Regulations and Standards, Criteria and Standards Division, Washington, D.C.

U.S. EPA. 2002. Draft: Assessing and Monitoring Floatable Debris. EPA-842-B-02-002.

U.S. EPA. 2005. Guidance for 2006 assessment, listing and reporting requirements pursuant to sections 303(d), 305(b) and 314 of the Clean Water Act. July 29, 2005. http://www.epa.gov/owow/tmdl/2006IRG/report/2006irg-report.pdf

[Page intentionally left blank]

APPENDIX A

PUBLIC SOLICITATION for Water Quality Information

available online at

http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.shtml

[Page intentionally left blank]

APPENDIX B

SUMMARY OF DATA RECEIVED AND DATA QUALITY EVALUATION

[Page intentionally left blank]

Summary of Data Received as a Result of Solicitation Process in February 2007

REQUESTS TO LIST					
Water Body	**Pollutant/ Water quality parameter**	**Data Source**	**Spatial Representation**	**Temporal Representation**	**Data Quality**
Guadalupe River, Los Gatos Creek, Richmond Marsh, San Rafael Creek, Wildcat Creek, Stevens Creek	**Trash**	**Save the Bay** Photographic documentation and estimates of trash loads	1-4 locations on each water body	Data collected in January and February 2007	Medium – photographic documentation
Guadalupe River, Coyote Creek	**Trash**	**GCRCD**: Guadalupe-Coyote Resource Conservation District Photographic and narrative documentation of trash, debris, channel blockages, encampments and dumping	5 locations on Coyote Creek and 1 location on Guadalupe River	Data collected in March 2002, May 2005, and May 2006	Medium – photographic documentation
Bay area storm drain channels, creeks, wetlands and San Francisco Bay Damon Slough, Eastshore Park, Strawberry Creek, Temescal Creek, Adobe Creek, Alameda Creek, Alhambra Creek, Arroyo Seco, Coyote Creek, Richardson Bay shoreline, Aquatic Park Lagoon, Calabazas Creek, Colma Creek, Corte Madera Creek, Middle Harbor Park shoreline, Frontage Road Beach, Grayson Creek, Guadalupe River, Lafayette Creek, Lake Merritt,	**Trash/Gross pollutants**	Roger B. James & Lawrence P. Kolb Photographic and narrative documentation over a 10-year period	1-5 locations on each water body	Data collected mainly in winter months from 1997-2007, majority in 2006 and 2007	Medium – photographic documentation

REQUESTS TO LIST					
Water Body	**Pollutant/ Water quality parameter**	**Data Source**	**Spatial Representation**	**Temporal Representation**	**Data Quality**
Las Trampas Creek, Ledgewood Creek, Matadero Creek, McCoy Creek, Pacheco Slough, Rindler Creek, San Leandro Creek, San Mateo Creek, San Rafael Creek, San Pablo Creek, San Ramon Creek, San Tomas Aquino Creek, Sausal Creek, Stevens Creek, Sulphur Creek, Vista Grande Canal, Walnut Creek, 54th Ave. Creek (tidal near Oakport)					
Rodeo Creek	**Sediment**	**Muir Heritage Land Trust** No quantitative data, geomorphic assessment and creek analysis (*Geomorphic and Hydrologic Assessment of Fernandez Ranch* prepared by Watershed Sciences	N/A	N/A	No data submitted
Willow Creek (tributary of Wildcat Creek near Saratoga)	**Sediment**	Margaret Giberson of Los Gatos	Willow Creek	1985-1991, 2002	Law – old (1985-1991, 2002) photographic documentation of sediment runoff
San Francisco Bay – areas adjacent to dredge material disposal sites	**Suspended sediment**	Fred Krieger of Berkeley Narrative evidence and references to USGS mapping, SFEI assessments of sediment loadings, RMP data and a White Paper on	San Francisco Bay	N/A	No data submitted

REQUESTS TO LIST					
Water Body	**Pollutant/ Water quality parameter**	**Data Source**	**Spatial Representation**	**Temporal Representation**	**Data Quality**
		Herring			
Abbotts Lagoon and associated tributaries in Point Reyes National Park	**Biostimulatory substances, dissolved oxygen, un-ionized ammonia**	Fred Krieger of Berkeley Link to the USGS report http://pubs.usgs.gov/sir/2005/5261/sir_2005-5261.pdf *Assessment of Hydrologic and Water Quality Data Collected in Abbotts Lagoon Watershed, Point Reyes National Seashore, California, during Water Years 1999 and 2000*	Eleven monitoring locations including 3 locations in Abbotts Lagoon and 8 locations in unnamed tributaries draining into Abbotts Lagoon	Old data collected from November 1998 through August 1999. Quarterly sampling at the 3 lagoon sites and one perennial tributary and sampling of two storm events at several tributary sites	Old data. Medium quality – limited quality control procedures
Lake Chabot and its tributary Rindler Creek (Solano County)	**Trash, dissolved oxygen, sediment**	**Friends of Lake Chabot** Data not submitted, reference made to the data collected by the Vallejo Sanitation and Flood Control District	N/A	N/A	No data submitted
California Ocean Waters	**Carbon dioxide**	**Center for Biological Diversity** No data submitted. Scientific papers and supporting documentation on acidification of ocean waters	N/A	N/A	No numerical data submitted

REQUESTS NOT TO LIST / DE-LIST / OTHER					
Water Body	**Pollutant/ Water quality parameter**	**Data Source**	**Spatial Representation**	**Temporal Representation**	**Data Quality**
Urban Creeks – Santa Clara Basin Adobe Creek, Alamitos Creek, Barron Creek, Berryessa Creek, Calabazas Creek, Coyote Creek, El Camino Storm Drain Channel, Guadalupe River, Los Gatos Creek, Silver Creek, Matadero Creek, Penitencia Creek, Permanente Creek, Randall Creek, Rodeo Creek, San Francisquito Creek, San Tomas Creek, Saratoga Creek, Stevens Creek, Thompson Creek	**Trash and water quality data**	**SCVURPPP:** Santa Clara Valley Urban Runoff Pollution Prevention Program Photographic and narrative documentation of creeks impacted by trash including additional physical, chemical and biological data	1-3 locations on each water body	Data collected 1 to 3 times per location from 2004 through 2006	High Quantitative Trash Assessment Methodology documented in separate report
Lake Merced	**Dissolved oxygen, pH**	**San Francisco Public Utilities Commission** Data submitted in support of not listing Lake Merced on the 303(d) list	Four monitoring locations in Lake Merced including 2 locations in South Lake Merced and 1 location in North and 1 in North East section of the lake.	DO and pH measured from 4 to 8 times a year over a period from 05/27/2004 to 12/20/2006	Quality control procedures unknown
Lake Del Valle Reservoir	**Basic water quality, conventional chemistry, E. coli, Total coliform, Giardia and Cryptosporidium**	**Alameda Food Control and Water Conservation District** Data submitted to document good quality of the drinking water supply. Request to modify the current 303(d) listing of the	Seven monitoring locations at 3 water bodies - including 3 locations at the Lake Del Valle and 4 locations at major inputs to the South Bay Aqueduct	Samples collected from December 2005 through March 2006	Description of the QA/QC protocols not included

REQUESTS NOT TO LIST / DE-LIST / OTHER					
Water Body	**Pollutant/ Water quality parameter**	**Data Source**	**Spatial Representation**	**Temporal Representation**	**Data Quality**
		reservoir for Hg and PCBs to state that there is no threat to treated drinking water supply.			
San Francisco Bay	**Selenium**	**Western State Petroleum Association** Request to de-list Literature review and interpretation of selenium concentration data in San Francisco Bay and the likely toxicological effects of selenium.	N/A	N/A	RMP data available – high quality
Mount Diablo Creek	**Temperature, dissolved oxygen, pH, conductivity, bacteria**	**Friends of Mount Diablo Creek** Data provided for ongoing assessment of Mount Diablo Ck.	Six sampling locations (3 sites on the main stem of Mount Diablo Ck and 3 sites on the local tributaries)	Physico-chemical parameters measured monthly from March 2006 through February 2007. E coli and total coliforms measured at 3 sites in July and August 2006	QA/QC protocols included
N/A	**Pesticides**	**DPR**[1]: Department of Pesticide Regulation - links to the Surface Water Database containing pesticides data for California waterways. **No specific data submitted.**	Contra Costa, San Mateo, Solano and Santa Clara County,	Old data (1992-1998)	High

[1] The database comprises a limited amount of pesticide data (diazinon, chloropyrifos, diuron, metha diuron) collected more than 10 years ago from 12 creeks within Region 2 boundaries.

[Page intentionally left blank.]

APPENDIX C

WATER BODY FACT SHEETS

available online at

http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.shtml

ATTACHMENT F

State Water Resources Control Board Resolution No. 2012-0031, Attachment B Special Protections for Areas of Biological Significance

State Water Resources Control Board

Resolution No. 2012-0031

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

I. PROVISIONS FOR POINT SOURCE DISCHARGES OF STORM WATER ANDNONPOINT SOURCE WASTE DISCHARGES

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

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

A. PERMITTED POINT SOURCE DISCHARGES OF STORM WATER

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

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

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

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

      (3) The discharges:

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

         (ii) Are designed to prevent soil erosion;

         (iii) Occur only during wet weather;

         (iv) Are composed of only storm water runoff.

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

c. The discharge of trash is prohibited.

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

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

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

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

(a) Discharges associated with emergency fire fighting operations.

(b) Foundation and footing drains.

(c) Water from crawl space or basement pumps.

(d) Hillside dewatering.

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

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

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

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

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

The discharger shall specifically address the prohibition of non-storm water runoff and the requirement to maintain natural water quality for storm water discharges to an ASBS in an

ASBS Compliance Plan to be included in its SWMP or a SWPPP, as appropriate to permit type. If a statewide permit includes a SWMP, then the discharger shall prepare a stand-alone compliance plan for ASBS discharges. The ASBS Compliance Plan is subject to approval by the Executive Director of the State Water Board (statewide permits) or Executive Officer of the Regional Water Board (for permits issued by Regional Water Boards).

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

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

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

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

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

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

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

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

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

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

The baseline for these determinations is the effective date of the Exception, except for those structural BMPs installed between January 1, 2005 and adoption of these Special Protections, and the reductions must be achieved and documented within six (6) years of the effective date.

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

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

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

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

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

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

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

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

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

3. Compliance Schedule

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

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

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

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

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

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

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

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

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

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

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

B. NONPOINT SOURCE DISCHARGES

1. General Provisions for Nonpoint Sources

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

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

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

      (3) The discharges:

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

         (ii) Are designed to prevent soil erosion;

         (iii) Occur only during wet weather;

         (iv) Are composed of only storm water runoff.

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

c. The discharge of trash is prohibited.

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

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

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

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

(i) Discharges associated with emergency fire fighting operations.

(ii) Foundation and footing drains.

(iii) Water from crawl space or basement pumps.

(iv) Hillside dewatering.

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

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

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

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

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

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

2. Planning and Reporting

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

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

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

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

The baseline for these determinations is the effective date of the Exception, except for those structural BMPs installed between January 1, 2005 and adoption of these Special Protections, and the reductions must be achieved and documented within six (6) years of the effective date.

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

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

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

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

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

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

3. Compliance Schedule

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

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

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

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

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

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

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

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

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

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

II. ADDITIONAL REQUIREMENTS FOR PARKS AND RECREATION FACILITIES

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

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

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

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

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

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

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

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

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

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

III. ADDITIONAL REQUIREMENTS – WATERFRONT AND MARINE OPERATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IV. MONITORING REQUIREMENTS

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

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

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

A. CORE DISCHARGE MONITORING PROGRAM

1. General sampling requirements for timing and storm size:

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

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

2. Runoff flow measurements

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

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

3. Runoff samples – storm events

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

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

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

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

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

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

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

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

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

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

B. Ocean Receiving Water and Reference Area Monitoring Program

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

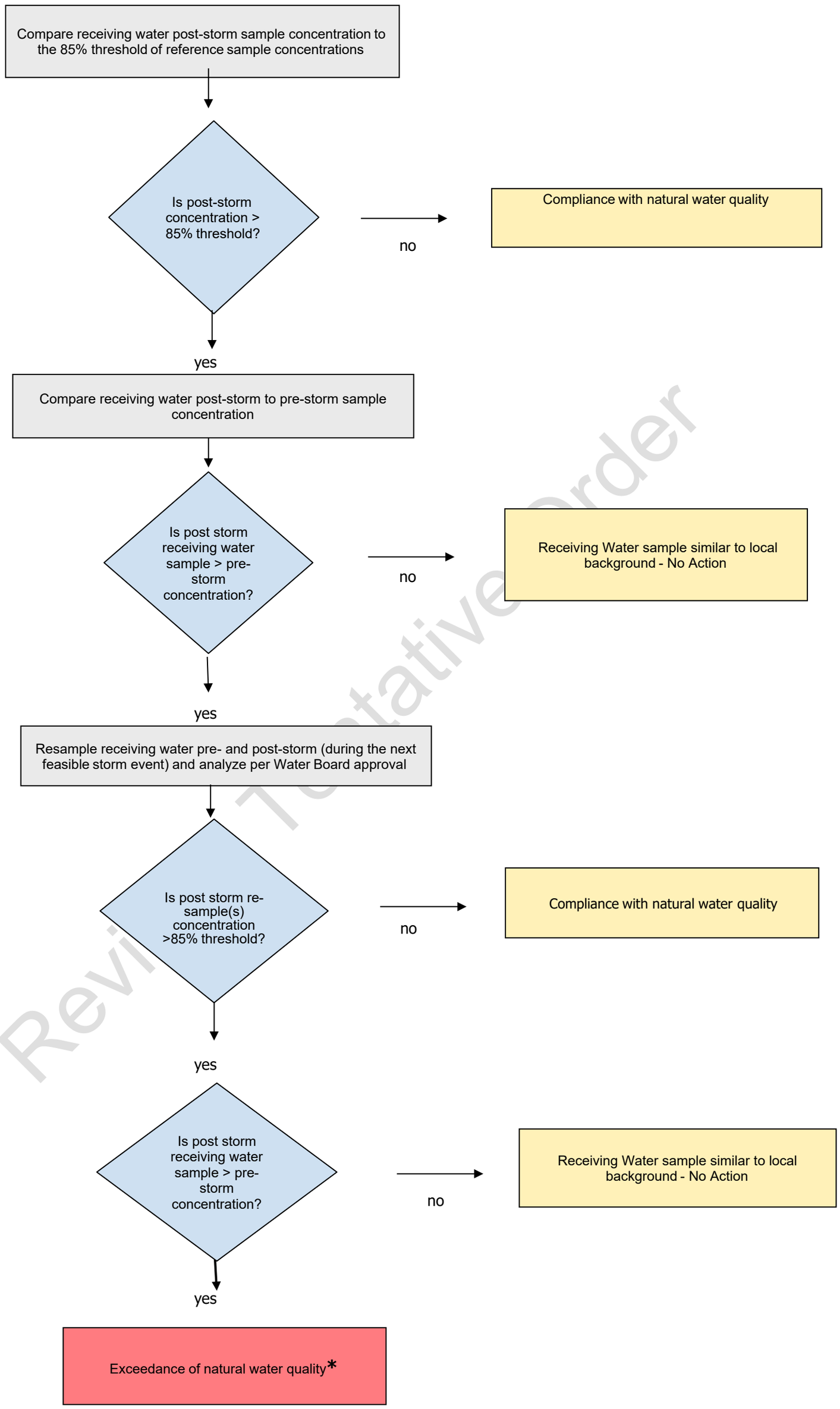
Structural control – A Best Management Practice that involves the installation of engineering solutions to the physical treatment or infiltration of runoff.

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

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

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

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



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

ATTACHMENT G

Standard NPDES Stormwater Permit Provisions

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Standard Provisions and Reporting Requirements
for
NPDES Stormwater Discharge Permits

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Permittees (hereinafter individually referred to as Discharger) must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); California Water Code, §§ 13261, 13263, 13265, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violationof this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar

systems that are installed by a Discharger only when necessary to achieve compliance with theconditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasionof other private rights, or any infringement of state or local law or regulations. (40 C.F.R. §122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be requiredby law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); California Water Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); California Water Code, § 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); CaliforniaWater Code, §13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); California Water Code, § 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); California Water Code, § 13383.)

G. Bypass

1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss

caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. **Bypass not exceeding limitations.** The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. (40 C.F.R. § 122.41(m)(2).)

3. **Prohibition of bypass.** Bypass is prohibited, and the Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

   c. The Discharger submitted notice to the Water Board as required under Standard Provisions notice requirements. (40 C.F.R.§ 122.41(m)(4)(i)(C).)

4. The Water Board may approve an anticipated bypass, after considering its adverse effects, if the Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance Part I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

H. Notice

a. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, itshall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Water Board. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting Part V.J of this Attachment G. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

b. **Unanticipated bypass.** The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting Part V.E of this Attachment G (24-hour notice). The notice shall be sent to the Water Board. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting Part V.J of this Attachment G. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40

C.F.R. part 127.(40 C.F.R. § 122.41(m)(3)(ii).)

I. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond thereasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance Part I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. **Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40C.F.R. § 122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 C.F.R. §122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. **Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration dateof this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Water Board. The Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as maybe necessary under the CWA and the Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative ofthe monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, andeither the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoringmust be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order,

for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Water Board Executive Officer or U.S. EPA at any time. (40 C.F.R. § 122.41(j)(2);California Water Code § 13383(a))

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. §122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1));and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Water Board, State Water Board, or U.S. EPAwithin a reasonable time, any information which the Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking andreissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); California Water Code, §13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting Parts V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having

responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3)).

3. All reports required by this Order and other information requested by the Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting Part V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

e. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

f. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

g. The written authorization is submitted to the Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting Part V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting Part V.B.3 above must be submitted to the Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting Parts V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared undermy direction or supervision in accordance with a system designed to assure that qualifiedpersonnel properly gather and evaluate the information submitted. Based on my inquiry ofthe person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingviolations." (40 C.F.R. § 122.22(d).)

6. Any person providing the electronic signature for documents described in Standard Provisions – Parts V.B.1, V.B.2, or V.B.3 above that are submitted electronically shall meet all relevant requirements of this Standard Provisions – Reporting Part V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the this Order. (40 C.F.R. § 122.41(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Water Board or State Water Board. As of December 21, 2020, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting Part V.J of this Attachment G and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R.
§ 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period ofnoncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is

expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

For noncompliance events related to combined sewer overflows, sanitary sewer overflows,or bypass events, these reports must include the data described above (with the exceptionof time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary seweroverflows, or bypass events must be submitted to the Water Board and mustbe submitted electronically to the initial recipient defined in Standard Provisions – Reporting Part V.J of this Attachment G. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours underthis paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Water Board in this Order [40 CFR Section (l)(6)(ii)(C) and 122.44(g)].

3. The Water Board may waive the above-required written report under this provision on a case by case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i));or

2. The alteration or addition could significantly change the nature or increase the quantity ofpollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting Parts V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in StandardProvision – Reporting Part V.E above and the applicable required data in appendix A to 40 C.F.R. part 127. The Water Board may also require the Discharger to electronicallysubmit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient definedin 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and13387.

B. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such Sections in a permit issued under Section 402, or any

requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the CWA is subject to a civil penalty not to exceed
$25,000 per day for each violation. The CWA provides that any person who negligently violatesSections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such Sections in a permit issued under Section 402 of the CWA, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8)of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more

than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such Sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit conditionor limitation implementing any of such Sections in a permit issued under Section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than
$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [40 CFR Section 122.41(a)(2)] [California Water Code Sections 13385 and 13387].

C. Any person may be assessed an administrative penalty by the Water Board for violating Section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such Sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with themaximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for ClassII violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [40 CFR Section 122.41(a)(3)].

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be

maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both [40 CFR Section 122.41(j)(5)].

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 CFR Section 122.41(k)(2)].

IV. CONTINUATION OF EXPIRED PERMIT

A. This Order continues in force and effect until the effective date of a new permit or the Water Board rescinds this Order. (40 C.F.R. section 122.6(d).) Only those dischargers authorized to discharge under the expiring Order are covered by the continued Order.

ATTACHMENT H

Provision C.3.j.ii.(2)

Numeric Implementation Retrofit Requirements

~~And~~

~~Provision C.3.e.ii.(5)~~

~~Affordable Housing Income Thresholds~~

Table H-1. Numeric Retrofit Requirements

County	**Permittee**	2019 US Census Bureau Population Estimate	MRP 3 Provision C.3.j Retrofit Assignment (acres)	County Total (acres)
Alameda	Alameda	77,624	4.66	~~79.83~~58.42
Alameda	Alameda County	147,218	~~8.83~~ 5.00	
Alameda	Albany	19,696	1.18	
Alameda	Berkeley	121,363	~~7.28~~ 5.00	
Alameda	Dublin	64,826	3.89	
Alameda	Emeryville	12,086	0.73	
Alameda	Fremont	241,110	~~105~~.00	
Alameda	Hayward	159,203	~~9.55~~ 5.00	
Alameda	Livermore	90,189	5.41	
Alameda	Newark	49,149	2.95	
Alameda	Oakland	433,031	~~105~~.00	
Alameda	Piedmont	11,135	0.67	
Alameda	Pleasanton	81,777	4.91	
Alameda	San Leandro	88,815	5.~~33~~ 00	
Alameda	Union City	74,107	4.45	
Contra Costa	Antioch	111,502	~~6.69~~ 5.00	~~68.40~~57.32
Contra Costa	Brentwood	64,474	3.87	
Contra Costa	Clayton	12,265	0.74	
Contra Costa	Concord	129,295	~~7.76~~ 5.00	

Contra Costa	Contra Costa County	398,633	~~105~~.00	
Contra Costa	Danville	44,510	2.67	
Contra Costa	El Cerrito	25,508	1.53	
Contra Costa	Hercules	26,276	1.58	
Contra Costa	Lafayette	26,638	1.60	
Contra Costa	Martinez	38,297	2.30	
Contra Costa	Moraga	17,783	1.07	
Contra Costa	Oakley	42,543	2.55	
Contra Costa	Orinda	19,926	1.20	
Contra Costa	Pinole	19,250	1.16	
Contra Costa	Pittsburg	72,588	4.36	
Contra Costa	Pleasant Hill	34,839	2.09	
Contra Costa	Richmond	110,567	~~6.63~~ 5.00	
Contra Costa	San Pablo	30,990	1.86	
Contra Costa	San Ramon	75,995	4.56	
Contra Costa	Walnut Creek	70,166	4.21	
Santa Clara	Campbell	41,793	2.51	~~63.13~~46.09
Santa Clara	Cupertino	59,276	3.56	
Santa Clara	Los Altos	30,089	1.81	
Santa Clara	Los Altos Hills	8,423	0.51	
Santa Clara	Los Gatos	30,222	1.81	
Santa Clara	Milpitas	84,196	5.~~05~~ 00	

Santa Clara	Monte Sereno	3,427	0.21	
Santa Clara	Mountain View	82,739	4.96	
Santa Clara	Palo Alto	65,364	3.92	
Santa Clara	San Jose	1,021,795	~~105~~.00	
Santa Clara	Santa Clara	130,365	~~7.82~~ 5.00	
Santa Clara	Santa Clara County	~~187,307~~ 98,110	~~105~~.00	
Santa Clara	Saratoga	30,153	1.81	
Santa Clara	Sunnyvale	152,703	~~9.16~~ 5.00	
San Mateo	Atherton	7,137	0.43	~~46.11~~43.31
San Mateo	Belmont	26,941	1.62	
San Mateo	Brisbane	4,671	0.28	
San Mateo	Burlingame	30,889	1.85	
San Mateo	Colma	1,489	0.20	
San Mateo	Daly City	106,280	~~6.38~~ 5.00	
San Mateo	East Palo Alto	29,314	1.76	
San Mateo	Foster City	33,901	2.03	
San Mateo	Half Moon Bay	12,932	0.78	
San Mateo	Hillsborough	11,387	0.68	
San Mateo	Menlo Park	34,698	2.08	
San Mateo	Millbrae	22,394	1.34	
San Mateo	Pacifica	38,546	2.31	
San Mateo	Portola Valley	4,568	0.27	

San Mateo	Redwood City	85,925	5.~~16~~ 00	
San Mateo	San Bruno	42,807	2.57	
San Mateo	San Carlos	30,185	1.81	
San Mateo	San Mateo	104,430	~~6.27~~ 5.00	
San Mateo	San Mateo County	64,832	3.89	
San Mateo	South San Francisco	67,789	4.07	
San Mateo	Woodside	5,458	0.33	
Solano	Fairfield	117,133	~~7.03~~5.00	~~16.~~11.78
Solano	Suisun City	29,663	1.78	
Solano	Vallejo	121,692	~~7.30~~ 5.00	
Total		~~6,006,287~~5,917,090.00	~~273.58~~216.92	

Table H-1. The retrofit assignment is three acres per 50,000 population, prorated, with a minimum expectation of 0.20 acres and a maximum expectation of ~~ten~~five acres. The population data in this table is from the 2019 U.S. Census Bureau Population Estimate.

Table H-2. Affordable Housing Income Thresholds

Project Final Discretionary Approval Date	30 Percent of Monthly Area Median Household Income (2019 Dollars)				
	Alameda County	Contra Costa County	San Mateo County	Santa Clara County	Solano County
2022 cutoff for Extremely Low	$ 300	$ 250	$ 400	$ 350	$ 200
2023 cutoff for Extremely Low	$ 300	$ 300	$ 450	$ 350	$ 200
2024 cutoff for Extremely Low	$ 300	$ 300	$ 500	$ 350	$ 200
2025 cutoff for Extremely Low	$ 300	$ 300	$ 550	$ 400	$ 200
2026 cutoff for Extremely Low	$ 350	$ 300	$ 600	$ 400	$ 200
2027 cutoff for Extremely Low	$ 350	$ 350	$ 650	$ 400	$ 200
2022 cutoff for Very Low	$ 450	$ 450	$ 700	$ 550	$ 350
2023 cutoff for Very Low	$ 500	$ 450	$ 750	$ 550	$ 350
2024 cutoff for Very Low	$ 500	$ 500	$ 850	$ 600	$ 350
2025 cutoff for Very Low	$ 550	$ 500	$ 900	$ 600	$ 350
2026 cutoff for Very Low	$ 550	$ 550	$ 1,000	$ 650	$ 350
2027 cutoff for Very Low	$ 600	$ 550	$ 1,100	$ 650	$ 350
2022 cutoff for Low	$ 750	$ 700	$ 1,100	$ 900	$ 550
2023 cutoff for Low	$ 800	$ 750	$ 1,200	$ 900	$ 550
2024 cutoff for Low	$ 800	$ 800	$ 1,300	$ 950	$ 550
2025 cutoff for Low	$ 850	$ 800	$ 1,450	$ 1,000	$ 550
2026 cutoff for Low	$ 900	$ 850	$ 1,600	$ 1,000	$ 550
2027 cutoff for Low	$ 950	$ 850	$ 1,750	$ 1,050	$ 550
2022 cutoff for Moderate	$ 1,100	$ 1,100	$ 1,650	$ 1,350	$ 800
2023 cutoff for Moderate	$ 1,150	$ 1,150	$ 1,800	$ 1,400	$ 800

2024 cutoff for Moderate	$ 1,200	$ 1,150	$ 2,000	$ 1,450	$ 850
2025 cutoff for Moderate	$ 1,300	$ 1,200	$ 2,200	$ 1,450	$ 850
2026 cutoff for Moderate	$ 1,300	$ 1,250	$ 2,400	$ 1,550	$ 850
2027 cutoff for Moderate	$ 1,400	$ 1,300	$ 2,600	$ 1,600	$ 850

Table H-2. This table provides the cutoff for different thresholds of Area Median Household Income (AMI) for the 5 MRP Permittee Counties. The annual increase in AMI for each County is based on the latest available data at the time of Permit adoption, which is the increase between 2018 and 2019 AMI, which is not significantly different from prior years for each County. That 2018-2019 increase for Alameda County is ~4.5%, for Contra Costa County is ~3.9%, for San Mateo County is ~9.7%, for Santa Clara is ~3.6%, and for Solano County is ~1.2%. Note that the income level is defined as 30 percent of the area median household income level, which has been factored into the numbers in this table. Data was made available by the Metropolitan Transportation Commission, in advance of it being uploaded to: https://www.vitalsigns.mtc.ca.gov/income.