CONTRA COSTA
CLEAN WATER
PROGRAM

Thomas E. Dalziel
Program Manager

September 15, 2015

Bruce H. Wolfe, Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Ms. Pamela Creedon, Executive Officer
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
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Dear Mr. Wolfe and Ms. Creedon:

Enclosed is the Contra Costa Clean Water Program's (CCCWP's) *Fiscal Year 2014/15 Annual Report, Volume I: Group Activities.* This report documents activities conducted collectively by Contra Costa Permittees in accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. CAS612008 (Orders R2-2009-0074 and R2-2011-0083) issued by the San Francisco Bay Regional Water Quality Control Board (Water Board), and NPDES Permit No. CA0083313 (Order R5-2010-0102) issued by the Central Valley Water Board. This submittal includes by reference the following reports submitted separately by the Bay Area Stormwater Management Agencies Association (BASMAA) to the San Francisco Bay Water Board and by the CCCWP to the Central Valley Water Board on behalf of Contra Costa Permittees:

- *BASMAA "Annual Reporting for FY 2014-2015 - Regional Supplement for Training and Outreach"; and*
- *CASQA "Pesticides Subcommittee Annual Report and Effectiveness Assessment - 2014-2015".*

With the approval and direction from each duly authorized representative of each Permittee, I have been authorized to submit and certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the 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 knowing violations.

Also provided with this submittal are the *Fiscal Year 2014/15 Individual Municipal Annual Reports* compiled and referred to as "Volume II". The Individual Municipal Annual Report for the City of Antioch will be submitted separately.

Sincerely,

Thomas E. Dalziel
Program Manager
Contra Costa Clean Water Program

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Enclosures

CONTRA COSTA
CLEAN WATER
PROGRAM

FISCAL YEAR 2014/15
ANNUAL REPORT

VOLUME 1:
GROUP ACTIVITIES

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VOLUME 1 – List of Acronyms

Acronym	Term
AB	Assembly Bill
BAR	Bureau of Automotive Repair
BASMAA	Bay Area Stormwater Management Agencies Association
BERC	Business Environmental Resource Center
BIP	Business Inspection Plan
BMP	Best Management Practice
BPP	Brake Pad Partnership
CALTRANS	California Department of Transportation
CASQA	California Stormwater Quality Association
CCC	Contra Costa County
CCCAC	Contra Costa County Agricultural Commissioner
CCCWP	Contra Costa Clean Water Program
CCWF	Contra Costa Watershed Forum
CCCSD	Central Contra Costa Sanitary District
CGP	Construction General Permit
CHP	California Highway Patrol
CPSC	California Product Stewardship Council
CRRA	California Resource Recovery Association
CUPAs	Certified Unified Program Agencies
CWSGP	Community Watershed Stewardship Grant Program
DDSD	Delta Diablo Sanitation District
DOE	Department of Energy
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
EPA	Environmental Protection Agency
EPR	Extended Producer Responsibility
ERP	Enforcement Response Plan
FY	Fiscal Year
GBP	Green Business Program
GI	Green Infrastructure
GIS	Geographic Information System
HHW	Household Hazardous Waste
HID	High Intensity Discharge
HM	Hydromodification Management
HMP	Hydrograph Modification Management Plan
HOA	Homeowner Association
HPSV	High Pressure Sodium Vapor
IDDE	Illicit Discharge Detection and Elimination
IGP	Industrial General Permit

Acronym	Term
IMP	Integrated Monitoring Plan
IMPs	Integrated Management Practices
IMR	Integrated Monitoring Report
IPM	Integrated Pest Management
LED	Light Emitting Diode
LID	Low Impact Development
MOC	Municipal Operations Committee
MOU	Memorandum of Understanding
MRP	Municipal Regional Permit
MS4	Municipal Separate Storm Sewer System
NGOs	Non-Governmental Organizations
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSF	National Science Foundation
O&M	Operations and Maintenance
OPP	Oil Payment Program
OWOW	Our Water, Our World
PAPA	Pesticide Applicators Professional Association
PBDEs	Polybrominated Diphenyl Ethers
PCBs	Polychlorinated Biphenyls
PCOs	Pest Control Operators
PG&E	Pacific Gas and Electric Company
PIP	Public Information/Participation Committee
POC	Pollutants of Concern
POTW	Publicly Owned Treatment Works
RFP	Request For Proposal
RMC	Regional Monitoring Coalition
ROWD	Report of Waste Discharge
SSID	Stressor Source Identification Study
SOPs	Standard Operating Procedures
SR	State Route
SUA	Stormwater Utility Assessment
SWPPP	Stormwater Pollution Prevention Plan
TMA	Trash Management Area
TWP	The Watershed Project
TMDL	Total Maximum Daily Load
UC	University of California
UCMR	Urban Creeks Monitoring Report
USEPA	United States Environmental Protection Agency
VTA	Valley Transit Authority
WCCIWMA	West Contra Costa Integrated Waste Management Authority
WCCUSD	West Contra Costa Unified School District
WCWD	West County Wastewater District

SECTION 1 – INTRODUCTION

Introduction

The Contra Costa Clean Water Program (CCCWP) comprises Contra Costa County (CCC), its 19 incorporated cities/towns[1], and the Contra Costa County Flood Control & Water Conservation District (Flood Control District). These 21 public agencies are collectively referred to as "Permittees." The Permittees are submitting their CCCWP Fiscal Year (FY) 2014/15 Annual Report to the San Francisco Bay and Central Valley Regional Water Quality Control Boards (Water Boards) as required by the Joint Municipal National Pollutant Discharge Elimination System (NPDES) Permits (see "Municipal Stormwater Permits" discussed further on Page 1-2). The report documents permit compliance activities conducted during the previous FY (July 1, 2014 to June 30, 2015), and consists of the following:

- **Volume I – Group Activities Annual Report**: This Volume I report documents permit compliance activities conducted collectively as a group by all 21 Permittees.
- **Volume II – Individual Municipal Annual Reports**: Volume II is a compilation of each Permittee's Individual Municipal Annual Report, which documents compliance activities conducted within each agency's jurisdiction.
- **BASMAA Regional/CASQA Statewide Supplemental Reports**: These reports document compliance activities conducted regionally (Bay Area-wide) in coordination with the Bay Area Stormwater Management Agencies Association (BASMAA)[2] and statewide in coordination with the California Stormwater Quality Association (CASQA)[3]. On behalf of the CCCWP Permittees, BASMAA submitted

1 Cities of Antioch, Brentwood, Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek; and, Towns of Danville and Moraga.

2 BASMAA is a consortium of municipal stormwater programs representing over 90 agencies, including 79 cities and 6 counties. BASMAA was started by local governments in the Bay Area to share information and combine resources to develop products and programs that would be more cost-effective if done regionally. In FY 2008/09, BASMAA reorganized as a 501(c)(3) non-profit organization. This allows BASMAA to enter into contracts and seek grant funds on behalf of its members. BASMAA is focused on regional challenges and opportunities to improving the quality of stormwater that flows to our local creeks, San Francisco Bay and Delta, and the Ocean.

3 Formed in 1989 as the California Stormwater Quality Task Force (SWQTF), the SWQTF was a quasi-governmental organization, which advised the State Water Resources Control Board on matters related to developing stormwater regulations - more specifically, it was intended to help California comply with the municipal and industrial National Pollutant Discharge Elimination System (NPDES) stormwater mandates of the federal Clean Water Act. The Task Force officially became

separately the following regional/statewide supplemental reports directly to the San Francisco Bay Water Board[4]:

1. BASMAA "*Annual Reporting for FY 2014-2015 - Regional Supplement for Training and Outreach*"; and
2. CASQA "*Pesticides Subcommittee Annual Report and Effectiveness Assessment - 2014-2015".*

Municipal Stormwater Permits

The San Francisco Bay Water Board issued a *Municipal Regional Stormwater NPDES Permit* to 76 Phase I[5] municipalities within the San Francisco Bay Region on October 14, 2009 (NPDES Permit No. CAS612008, Order No. R2-2009-0074). This permit was amended on November 30, 2011 (NPDES Permit No. CAS612008, Order No. R2-2011-0083). The October 2009 permit and its November 2011 amendment are hereinafter referred to as the "Municipal Regional Permit" or "MRP". The MRP excludes the cities of Antioch, Brentwood, and Oakley, and the eastern portions of CCC and the Flood Control District. These agencies and agency areas are within the jurisdiction of the Central Valley Water Board, and were issued a separate Joint Municipal NPDES Permit titled "East Contra Costa Municipal Storm Water Permit" (East County Permit) on September 23, 2010 (NPDES Permit No. CAS083313, Order No. R5-2010-0102). Most provisions of this permit are substantively identical to those in the MRP. Unless specified otherwise, hereinafter all "Group Activities" reported below will reference activities conducted by all CCCWP Permittees in accordance with the MRP. Copies of both permits can be downloaded from the CCCWP website at: http://www.cccleanwater.org/permits.html. The MRP is in effect for five years and terminated on November 30, 2014; however, in accordance with MRP Attachment K, General Provision #14, the "permit continues in force and effect until a new permit is

CASQA in September 2002, when its formal 501 (c)(3) non-profit organization status was approved.

4 CCCWP submitted these reports directly to the Central Valley Water Board.

5 Phase I regulations were promulgated in 1990 and requires medium and large cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges.

issued or the Water Board rescinds the permit." On February 3, 2015, San Francisco Bay Water Board staff issued a memorandum to the Permittees that the MRP would continue to be in effect and enforceable until the Water Board adopts a new permit. The East County Permit is set to expire on September 1, 2015.

MRP Permittees include all Phase I Municipal Stormwater Programs[6] in the San Francisco Bay Region. Each Permittee is individually responsible for complying with the MRP; however, the MRP allows and encourages Permittees to collaborate in the design, development, and/or implementation of certain mandates as a group (i.e., countywide, region-wide and/or statewide). These Group Activities are documented in this Volume I report and in the supplemental regional/statewide reports noted on Page 1-2.

CCCWP Overview

Program Agreement

The CCCWP Permittees operate under a "Program Agreement", which was first entered into in 1991 and has been updated several times since. The roles and responsibilities of CCCWP staff and the 21 Permittees are outlined in the Program Agreement (2010-2025).

Program Staffing

Staff to the CCCWP is provided by CCC. During FY 2014/15, CCCWP staff consisted of four (4) full-time employees and one (1) part-time employee. CCCWP staffing has yet to return to pre-2010 levels, when there were five (5) full-time employees and one (1) part-time employee. The reduction in CCCWP staffing has been the result of

6 Phase I Municipal Stormwater Programs include: 17 public agencies comprising the Alameda Countywide Clean Water Program (ACCWP); 21 public agencies comprising the CCCWP; 15 public agencies comprising the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP); 22 public agencies comprising the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP); the cities of Fairfield and Suisun City comprising the Fairfield-Suisun Urban Runoff Management Program (FSURMP); and, the City of Vallejo and the Vallejo Sanitation and Flood Control District.

attrition; however, due to the global financial crisis of 2007 and 2008, the state budgetary crisis from 2009 to 2012, the defeat of the CCCWP's 2012 Community Clean Water Initiative, and the ever-increasing costs for compliance with the stormwater permit mandates, CCCWP Permittees have elected to maintain reduced staffing levels and eliminate some tasks previously conducted as a group (e.g., coordinating and implementing certain public education and outreach activities). Additional staff support has been provided, when needed, by consultants/contractors. Attachment 1.1 outlines CCCWP staffing and consultants/contractors retained in FY 2014/15. Despite the passage of Proposition 30 in 2012 and a steadily improving economy, Permittees' stormwater programs continue to struggle as dedicated stormwater revenues remain fixed and stormwater permit compliance costs continue to increase. Of particular concern are the costs associated with local implementation of trash load reduction mandates and the countywide and regional water quality monitoring programs and pilot projects mandated for priority pollutants (i.e., mercury and PCBs). See "Funding Stormwater Compliance Programs" on Page 1-7 for further information on existing dedicated stormwater program revenue and funding constraints.

Organizational Structure

The Management Committee, which consists of one designated representative from each of the 21 Permittees, is the decision-making body of the CCCWP and provides direction to CCCWP staff and committees. The Management Committee meets monthly, and directs and monitors the implementation of all Group Activities. Five (5) subcommittees review, research, and make recommendations to the Management Committee. CCCWP staff and designated municipal representatives represent the CCCWP on similar BASMAA subcommittees, which are focused on the implementation of tasks and projects conducted regionally and/or statewide. Attachment 1.2 outlines the CCCWP's organizational structure, including the roles and responsibilities of the various committees and the various representatives participating on behalf of the CCCWP on the BASMAA committees during FY 2014/15.

Attachment 1.3 reflects CCCWP Permittees' participation and attendance on the CCCWP's Management Committee and its subcommittees. In accordance with the Program Agreement, designated Permittee representatives are required to attend at least 80% of the CCCWP's regularly scheduled meetings.

The Program Agreement allows for the establishment of Ad Hoc workgroups for a temporary period, as needed, for the purposes of reviewing, researching and making recommendations to the Management Committee or a subcommittee on a specific permit compliance matter. Four Ad Hoc Workgroups were in place during FY 2014/15. A brief summary of each is provided below:

- Ad Hoc GIS Workgroup – In June 2014, the Management Committee established the Ad Hoc Geographic Information System (GIS) Workgroup (GIS Workgroup) to review and research needs, costs, benefits and options for developing and managing a CCCWP Stormwater GIS. During FY 2014/15, the GIS Workgroup identified many possible and beneficial uses of GIS; however, it was agreed any initial effort should be limited in scope and implemented as a pilot effort. Should the pilot effort prove to be cost effective, manageable, and beneficial on a countywide basis to all Permittees, the Management Committee could then later decide to expand the GIS platform to include additional beneficial programs. For the initial pilot effort, the GIS Workgroup recommended development of a stormwater GIS platform that serves municipalities' most immediate GIS needs (i.e., support for trash load reduction planning and implementation, and PCBs screening and mapping of high-opportunity source properties/areas).

  In December 2014, the Management Committee approved the GIS Workgroup's recommendations and proposed next steps to develop a CCCWP GIS Pilot Project Request for Proposal (RFP). With input and direction from the GIS Workgroup, CCCWP staff released the RFP on March 11, 2015. RFPs were sent to 8 candidate firms. The Program received two proposals by the April 1 deadline.

Interviews were held in the morning of April 9. Based upon a careful review of the written proposals and the interviews, the GIS Workgroup recommended, and the Management Committee approved, retaining PSOMAS (i.e., PSOMAS and teaming partner Miller Spatial Services, LLC). The CCCWP will contract with PSOMAS for a two-year period beginning July 1, 2015 and ending June 30, 2017. With satisfactory performance and with the approval of the Management Committee, the contract can be extended another year (July 1, 2017 to June 30, 2018). Further details regarding the CCCWP GIS Pilot Project are provided in Sections 10 and 12 of this Volume I report.

- Ad Hoc Stormwater Inspector Workgroup - In FY 2014/15, CCCWP staff established an Ad Hoc Stormwater Inspector Workgroup (Inspector Workgroup) primarily in response to the need to develop countywide consistency among stormwater inspectors for identifying and referring facilities that may need coverage under the newly adopted Industrial General Permit (IGP) to the Water Boards. The workgroup is composed of inspectors from each of the three contracted Publicly Owned Treatment Works (POTWs), Contra Costa Hazardous Materials Program, the cities of Brentwood and Richmond, CCC, and CCCWP staff. Further details regarding the Inspector Workgroup are provided in Section 4 of this Volume I report.

- Ad Hoc IPM Workgroup – The Ad Hoc Integrated Pest Management (IPM) Workgroup (IPM Workgroup) was created in FY 2012/13 to finalize the IPM work products that had been previously initiated. These products included standard operating procedures (SOPs) for IPM, sample contract language when contracting for IPM services, guidance material for landscape and structural IPM, and factsheets for specific pests. In FY 2014/15, the IPM Workgroup assembled the materials that had been developed (i.e. the Model IPM Policy and Program) and created a new guidance manual entitled *Integrated Pest Management for Municipalities*. Further details regarding the activities of the IPM Workgroup during FY 2014/15 are provided in Section 9 of this Volume I report.

- Ad Hoc PCBs Workgroup – An Ad Hoc PCBs Workgroup (PCBs Workgroup) was formed in March 2015 to develop, coordinate and assist Permittees' PCBs source property identification screening actions. PCBs source property identification screening was initiated in FY 2014/15 and will be ongoing in FY 2015/16. This effort is being conducted as part of the CCCWP's "*Alternative Approach to Pollutants of Concern and Long Term Trends Monitoring*", which has been accepted by San Francisco Bay and Central Valley Water Board staff. Further details regarding the alternative approach and the PCBs source property identification screening is contained in Section 12 of this Volume 1 report.

Funding Stormwater Compliance Programs

With the exception of the cities of Brentwood and Richmond[7], CCCWP Permittees' stormwater programs are funded by a stormwater utility assessment (SUA). The SUA was established in 1993. In FY 2014/15, SUA rates ranged from $25 to $45 a year for a typical single-family home. SUA rates are based on estimates of stormwater runoff based on impervious area.

Revenues from the SUAs are collected by the CCC Tax Collector with the property tax bill. The Flood Control District is responsible for the administration and disbursement of the assessment revenues, which in FY 2014/15 totaled approximately $13,973,876. The assessment revenue may only be used for NPDES program activities including, but not limited to, construction of pollution control improvements and drainage system maintenance. Approximately 20% of these revenues are used to fund permit compliance activities that municipalities choose to conduct as a Group Activities. The remaining 80% of the revenue is "returned-to-source" (i.e., returned to the local jurisdiction from which they originated). That revenue pays for permit compliance activities conducted at the municipal level. Each Permittee's cost share of Group Activities is apportioned by population.

7 Brentwood and Richmond's stormwater pollution prevention activities are funded by other revenues, including the General Fund.

CCCWP staff, consultants and contractors assist Permittees in compliance with the MRP by providing guidance and staff training, and/or by implementing a variety of activities, including public education and outreach and water-quality monitoring, which can be more effectively and cost-efficiently implemented as Group Activities. The CCCWP's FY 2014/15 budget was $3,019,998 and is available on the CCCWP's website at: http://www.cccleanwater.org/wp-content/uploads/2014/03/Adopted-FY-14-15-CCCWP-Budget.pdf.

Within this budget, the CCCWP pays dues on behalf of the Permittees, to BASMAA, to the San Francisco Bay Regional Monitoring Program for Trace Substances, to the California Product Stewardship Council, to the Bay Friendly Landscape Coalition, to the Green Business Program, and to CASQA. These groups provide water quality monitoring and research activities that are mandated under the NPDES permits, and/or provide representation, guidance and/or staff training at the regional and state levels.

Permittees' authority to raise taxes or assessment fees to pay for governmental activities has been sharply constrained by voter initiatives such as Proposition 13 and Proposition 218[8]. CCCWP Permittees' SUA rates have a maximum limit, which was established in 1993. All municipalities reached their maximum rate by FY 2009/10, when the MRP was issued by the San Francisco Bay Water Board. Since then, Permittees have been supplementing their SUA revenues with funding from other sources, including the General Fund, to finance the ever-increasing MRP compliance mandates. Municipalities anticipated this scenario (i.e., funding gap) following the expiration of their previous Municipal Stormwater Permit in July 2004. In 2005, the CCCWP initiated what became a 6-year planning effort, culminating in the *2012*

8 **Proposition 13** - In 1978 California voters passed Proposition 13, reducing property tax rates by about 57%. The basis for property tax calculation was rolled back to the 1976 assessed value. Reassessment of property value was allowed only upon change in property ownership and the assessment was limited to 1% of the sales price. Revenue for stormwater management agencies, such as a Flood Control Zone, was reduced significantly and the tax rate was locked in at the 1976 adopted rate. As time went on, stormwater management agencies could not raise revenue to keep up with needed construction, major maintenance, or replacement of failed drainage facilities.

Proposition 218 - After Proposition 13 was passed, many stormwater management agencies turned to assessments and other measures to help fund services. In 1996, California voters passed Proposition 218, expanding the protection against property tax increases established by Proposition 13. Voter approval was now required for all new or increased assessments, charges or fees proposed by a stormwater management agency. Assessment proponents also had to demonstrate the specific benefit to properties before initiating or increasing the assessment. Fees and charges established or increased by agencies providing water or sewer services were expressly exempted from obtaining voter approval.

Community Clean Water Funding Initiative. Details regarding this initiative, which was ultimately unsuccessful, can be found in the CCCWP's FY 2013/14 Annual Report.

Complying with the unfunded state and federal mandated stormwater permit compliance programs continues to be the Permittees most significant challenge. In the absence of new revenues for stormwater pollution prevention, MRP Permittees have repeatedly advocated for the need to prioritize actions that have proven most beneficial to water quality, and have asked that permit requirements that are less beneficial be eliminated or reduced. However, the Permittees ultimately have no authority over permit conditions, and cannot guarantee that permit conditions are reasonable or implementable, or that the prescribed actions are effective or worthwhile. Those decisions rest entirely with the Water Boards, which generally approve the recommendations of their staff. Further details regarding ways to improve stormwater permitting are provided in the CCCWP Report of Waste Discharge submitted to the San Francisco Bay Water Board in June 2014 and can be found at: http://www.cccleanwater.org/wp-content/uploads/2014/06/Final-CCCWP-Report-of-Waste-Discharge-packet.pdf.

CCCWP Permittees continue to explore ways to improve cost recovery and to assign costs for controlling certain pollutant sources that originate on private property. Permittees also continue to seek community partners for trash cleanup and other watershed stewardship activities, and aim to align available stormwater grant funding with transportation funding and grant programs for integrated transportation and drainage infrastructure improvements. In FY 2014/15, BASMAA, the Association of Bay Area Governments, and the San Francisco Estuary Partnership were awarded a United State Environmental Protection Agency (USEPA) San Francisco Bay Water Quality Improvement Fund grant titled *Urban Greening Bay Area: LID Planning, Implementation and Tracking* (Urban Greening Bay Area). This project will create, among other things:

- A Regional Roundtable to develop a regional concept plan for integrating Green Infrastructure[9] (GI) into future regional climate change and transportation investments to ensure stable long-term funding;
- Cost-effective, transferable, and low maintenance designs for integrating GI into active transportation projects for typical roadway scenarios;
- High-impact urban GI projects; and,
- GI tracking tools to document local and regional progress toward achieving water quality goals.

Attachment 1.4 provides the Urban Greening Bay Area full proposal submitted to USEPA in July 2014. Permittees are also closely tracking a new statewide Stormwater Funding Initiative effort, which is described below.

Statewide Stormwater Funding Initiative

Cities, counties and special districts throughout California face critical, very costly, and seriously underfunded stormwater and urban runoff water quality challenges. In FY 2014/15, an effort to address these challenges at the statewide level was initiated. Assembly Bill (AB) 1362, introduced by Assembly Member Richard S. Gordon in February 2015, proposes to define "stormwater" in the Proposition 218 Omnibus Implementation Act, which prescribes procedures for local jurisdictions to comply with the California Constitution regarding establishment of assessments, fees and other charges. AB 1362 would become operative only if a subsequent Assembly Constitutional Amendment (ACA), yet to be introduced, is approved by the California electorate. The ACA, once introduced and if approved by a 2/3 majority of the California legislature, would provide the California public the opportunity to decide if "stormwater" infrastructure and services should be funded similar to the way wastewater districts and water districts fund their infrastructure and services. Further details

9 Green infrastructure uses vegetation, soils, and natural processes to manage water and create healthier urban environments. At the scale of a city or county, green infrastructure refers to the patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the scale of a neighborhood or site, green infrastructure refers to stormwater management systems that mimic nature by soaking up and storing water.

regarding the Statewide Stormwater Funding Initiative can be viewed on the CCC website at: http://www.cccounty.us/stormwaterinitiative.

Reissuance of the MRP and East County Permit

MRP Provision C.19 states:

> "This Order expires on November 30, 2014, five years from the effective date of this Order. The Permittees must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for reissuance of waste discharge requirements."

Similarly, East County Permit Provision C.16 states:

> "This Order expires on 1 September 2015, five years from the effective date of this Order. The Permittees must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for reissuance of waste discharge requirements."

During FY 2014/15, CCCWP staff, consultants, and Permittees have been actively engaged in negotiations with both the San Francisco Bay and Central Valley Water Board staff for the reissuance of the MRP and East County Permit, respectively. Provided below is a summary of permit-reissuance related activities conducted during FY 2014/15:

Reissuance of the MRP

Throughout FY 2013/14 and FY 2014/15, representatives from Contra Costa municipalities, along with a consortium of Bay Area agencies and BASMAA, have been

engaged in an ongoing dialogue with San Francisco Bay Water Board staff regarding experience gained and lessons learned from the current MRP, and how to apply that experience toward maximizing the effectiveness in the reissued MRP (hereinafter referred to as MRP 2.0).

On February 17, 2015, Water Board staff posted a Final Administrative Draft MRP on their website with a March 9 deadline for written comments. The three week written comment deadline period was subsequently extended to March 27. The CCCWP submitted a comment letter on behalf of Contra Costa Permittees to San Francisco Bay Water Board Assistant Executive Officer, Thomas Mumley, by the original March 9 deadline (see Attachment 1.5). The BASMAA Phase I Program Managers also submitted early comments on proposed provisions C.4, C.5, C.6, C.9, C.13 and C.15 on March 16, and additional comments on proposed provisions C.3, C.7, C.8, C.10, and C.11, and C.12 by the March 27 deadline. Copies of the BASMAA Phase I Program Managers comments can be provided upon request.

On May 11, Water Board staff released a "*Notice of Public Workshop Hearings and Public Comment Period for the Tentative Order for the San Francisco Bay Region Municipal Regional Stormwater Permit*." A copy of the public notice and Draft Tentative Order can be downloaded from the Water Board website at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/mrp_page4.shtml. The 60-day deadline for written comments was 5:00 PM, Friday, July 10. The two public workshop/hearings were scheduled as follows:

- Wednesday, June 10 at the Elihu M. Harris State Building, First Floor Auditorium, 1515 Clay Street, Oakland. At this hearing, the Water Board accepted testimony for all provisions in the May 11 Draft MRP, except for Provision C.10 – Trash Load Reduction
- Wednesday, July 8 at the Elihu M. Harris State Building, First Floor Auditorium, 1515 Clay Street, Oakland. At this hearing, the Water Board accepted testimony on Provision C.10 only.

The CCCWP submitted, on behalf of its 21 Permittees, a comment letter on the May 11 Draft Tentative Order by the July 10 deadline (see Attachment 1.6). Seventeen (17) Contra Costa Permittees also submitted individual comment letters by the July 10 deadline, which are available on the Water Board's website at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/mrp_sw_reissuance.shtml.

Eighteen (18) Contra Costa representatives attended and testified at the Water Board's June 10 public hearing. At this hearing, just three (3) of the seven (7) Water Board members were present and accepted oral testimony on all provisions of the Draft MRP, except for Provision C.10 – Trash Load Reduction. A listing of the Contra Costa representatives and their testimony can be provided upon request.

Twelve (12) Contra Costa representatives attended and testified at the Water Board's July 8 public hearing. At this hearing, four (4) of the seven (7) Water Board members were present and accepted oral testimony of Provision C.10 only.

The CCCWP anticipates San Francisco Bay Water Board staff to release a revised Draft Tentative Order and response to comments document by mid-September, with a Water Board public hearing on October 14, 2015 to consider adoption of a Final Draft Tentative Order.

Reissuance of the East County Permit

As stated above, the East County Permit expires on September 1, 2015. In accordance with Provision C.16 in the East County Permit, the CCCWP prepared and submitted a Report of Waste Discharge (ROWD) to the Central Valley Water Board on March 4, 2015 on behalf of the East County Permittees (i.e., cities of Antioch, Brentwood, and Oakley; and, the eastern portions of CCC and the Flood Control District). A copy of the ROWD is available on the CCCWP website at: http://www.cccleanwater.org/wp-content/uploads/2015/03/ROWD-Submittal-to-CVRWQCB-3-4-15.pdf.

The CCCWP implements coordinated, consistent and countywide water quality control programs throughout CCC, which falls within the jurisdiction of both San Francisco Bay and Central Valley Water Boards. As stated in Finding 4 in the East County Permit, the provisions in the East County Permit emulate those in the MRP where the MRP provisions are sufficient to meet the requirements of the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plans). Where different or additional provisions are required to meet the requirements of the Basin Plan or other Central Valley Water Board policies, including the Sacramento-San Joaquin Delta Methylmercury Total Maximum Daily Load[10] (TMDL), those different or additional provisions are included in the order. Since the inception of the CCCWP, the CCCWP and Central Valley Water Board have worked to coordinate and integrate the East County Permit specific provisions with the San Francisco Bay permit provisions to the extent possible. This is critical for maintaining the countywide CCCWP organizational structure, maintaining countywide and Bay Area-wide consistency, and maintaining a level playing field throughout Contra Costa. Consistent with this approach, the ROWD submitted to the Central Valley Water Board attached Part VII, Sections 1.0 through 7.0, contained in the ROWD submitted to the San Francisco Bay Water Board in June 2014. In the June 2014 submittal to the San Francisco Bay Water Board, the CCCWP presented current practices, issues, priorities, and recommended updates for the highest-priority concerns in MRP 2.0, which are the same for the East County Permit and, therefore, were included in the March 4, 2015 ROWD submitted to the Central Valley Water Board.

Group Program Activities for FY 2014/15

CCCWP Permittees collectively conducted, as a group program, a broad range of activities designed to reduce or eliminate the discharge of pollutants into and from municipal storm drain systems. This Volume I report documents activities conducted and/or coordinated collectively for the MRP provisions as follows:

10 A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant.

MRP Provisions	Section
C.2 Municipal Operations – Controls to reduce non-stormwater discharges and polluted stormwater to storm drains and watercourses during operation, inspection, and routine repair and maintenance activities of municipal facilities and infrastructure.	2
C.3 New Development and Redevelopment - Source controls, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges, and controls to prevent increases in runoff flows from new development and redevelopment projects.	3
C.4 Industrial and Commercial Site Controls – Inspections and enforcement of stormwater pollution prevention measures at businesses to prevent pollutant exposure and discharges into and from municipal storm drain systems.	4
C.5 Illicit Discharge Detection and Elimination – Surveillance, spill and complaint investigations, control of mobile sources, and enforcement and case follow-up.	5
C.6 Construction Site Controls – Inspections and enforcement of construction site stormwater pollution prevention to reduce and eliminate pollutant discharges into and from municipal storm drain systems.	6
C.7 Public Information and Outreach – Information and outreach to increase knowledge and encourage behavior changes of target audiences regarding the impacts of stormwater pollution on receiving water and of pollution prevention solutions to mitigate the problems, respectively.	7
C.8 Water Quality Monitoring – Conduct water quality monitoring programs and studies intended to answer relevant questions such as: • Are water quality objectives, both numeric and narrative, being met in local receiving waters? • Are conditions in local receiving waters supportive of or likely to be supportive of beneficial uses?	8

MRP Provisions	Section
C.9 Pesticide Toxicity Control – Actions to prevent impairment of urban streams by pesticide-related toxicity including implementation of Integrated Pest Management (IPM); outreach and training to municipal employees, pest control operators (PCOs), and residents; and, outreach to consumers on less-toxic methods of pest prevention and control.	9
C.10 Trash Load Reduction – Implementation of control measures and other actions to reduce trash loads discharged into municipal storm drainage systems and receiving water bodies.	10
C.11 Mercury Controls – Implementation of control measures to reduce mercury loads in accordance with load reduction allocations established for urban runoff in the San Francisco Bay Mercury Total Maximum Daily Load (TMDL).	11
C.12 Polychlorinated Biphenyls (PCBs) Controls - Implementation of control measures to reduce PCBs loads in accordance with load reduction allocations established for urban runoff in the San Francisco Bay PCBs TMDL.	12
C.13 Copper Controls – Implementation of source control Best Management Practices[11] (BMPs) to reduce and eliminate discharges containing copper into and from municipal storm drainage systems.	13
C.14 Polybrominated Diphenyl Ethers (PBDE), Legacy Pesticides and Selenium – Gather pollutant concentration and loading information on Pollutants of Concern (POC); and, identify, assess and manage controllable sources found in urban runoff, if any.	14
C.15 Exempted and Conditionally Exempted Discharges – Exempt unpolluted non-stormwater discharges, such as flows from natural springs; and, conditionally exempt non-stormwater discharges that are potential sources of pollutants by identifying and implementing effective control measures to eliminate any adverse impacts to receiving waters.	15

11 A Best Management Practice (BMP) is defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution.

SECTION 2 – PROVISION C.2 MUNICIPAL OPERATIONS

Introduction

CCCWP staff, consultants and municipal staff participate on the Municipal Operations Committee (MOC), which assists in the review and preparation of guidance and training for municipal staff for Provisions C.2 (Municipal Operations), C.4 (Industrial Commercial Site Controls), C.5 (Illicit Discharge Detection and Elimination), C.9 (Pesticide Toxicity Control), C.10 (Trash Load Reduction), and C.15 (Exempted and Conditionally Exempted Discharges). CCCWP staff and designated MOC also participate in the BASMAA MOC, which coordinates related regional activities. This section of the Annual Report will focus on municipal operation activities (Provision C.2). Reporting related to Provisions C.4, C.5, C.9, C.10, and C.15, are covered in Sections 4, 5, 9, and 15, respectively, in this Volume I Report.

In FY 2014/15, Michele Mancuso (CCC) and Jolan Longway (City of Pittsburg) served as Chair and Vice Chair, respectively, of the CCCWP MOC. The MOC met the first Monday of each month in FY 2014/15, except for the months of September, December and March. The CCCWP MOC also held two special meetings devoted to Provision C.10 Trash Load Reduction. These meetings were held on the third Monday in October and November 2014. The BASMAA MOC did not meet during FY 2014/15, although some actions were initiated and discussed via e-mail.

Rinta Perkins (City of Walnut Creek), Ms. Mancuso, Dan Cloak (CCCWP consultant) and Beth Baldwin (CCCWP staff) represented the CCCWP at the BASMAA Trash Subcommittee (an offshoot of the BASMAA MOC) and the MRP Trash Steering Committee in FY 2014/15. Work undertaken on these committees is discussed in Section C.10.

A listing of Contra Costa municipal representatives on the CCCWP MOC is included in Attachment 1.3. Summary minutes of these meetings are available in the FY 2014/15

Management Committee agenda packets provided on the CCCWP website at http://www.cccleanwater.org/meetings/.

Accomplishments

The monthly MOC meetings provide an opportunity to further train and educate Permittees on subjects that are relevant to municipal operations and permit compliance. They also provide an opportunity to network with outside agencies whom may be tasked with similar responsibilities or whose activities may impact a Permittee's own municipal operations. For these reasons, CCCWP staff arranged for guest speakers to present on topics of special interest to municipalities.

Arranged for Guest Speakers to Present at the CCCWP MOC

Chris Mayfield, California Department of Transportation (Caltrans) Adopt-A-Highway Program Manager with Caltrans District 4, discussed the agency's Litter Clean-Up and Enforcement Days that are conducted in conjunction with California Highway Patrol (CHP). These Cleanup and Enforcement days are conducted approximately four times a year with both agencies reducing litter through targeted cleanups, and CHP making a concerted effort on anti-littering enforcement activities, such as ticketing for uncovered loads. MOC members gained a better understanding of both agencies' efforts to reduce litter, and how they could coordinate their own cleanup events with these agencies to maximize the amount of litter removed.

Mr. Mayfield also discussed the Adopt-a-Highway and other adoption programs, and provided information on the requirements and expectations of any organization wanting to participate in an adoption program.

Dave Despain, Regional Stormwater Coordinator, Caltrans District 4, discussed the maintenance activities conducted by District 4 in CCC in relation to litter reduction activities. He stated there are crews dedicated for maintenance and landscaping. He

noted that landscaping crews picked up litter only in conjunction with their landscaping work. He stated maintenance crews sweep their major highways approximately twice a week. He provided contact information should municipalities identify litter problems along entrance and exit ramps that may be impacting their jurisdictions.

Anthony Ortega, West Valley Clean Water Program (WVCWP) staff member provided an overview of the Zero Litter Initiative launched by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPP). He discussed how this Initiative led to the Right Size-Service Campaign. He explained that SCVURPP (of which WVCWP is a member) brought together agencies and groups involved with waste management. These "partners" included representatives from the solid waste industry, transportation agencies such as Caltrans and Valley Transit Authority (VTA), nonprofits, and select municipalities. They held a series of roundtable sessions to identify sources and pathways of litter, and foster partnerships to develop cooperative solutions to the address and reduce litter. One of the outcomes of the roundtable sessions led to the creation of the Right Size-Service Campaign to address trash from overflowing bins. Mr. Ortega explained the components of this outreach effort, and discussed its effectiveness using the City of Palo Alto's Right Size-Service Campaign as an example.

Chandra R. Johannesson, Manager of Environmental Compliance, East Bay Municipal Utility Department (EBMUD), gave a presentation on the utility's drinking water operations and how they manage planned and unplanned discharge events. She also discussed the recently adopted statewide permit for discharges from drinking water systems, and noted that many of the requirements were similar to those required under the MRP. This portion of the presentation was of particular interest to Permittees that are also water purveyors who may need to file for the new statewide permit.

Leigh Chavez, Environmental Services Division Manager, Contra Costa Department of Public Works, gave an overview of permitting requirements for conducting maintenance work in creeks and streams, including those that could be considered part of a municipality's Municipal Separate Storm Sewer System (MS4) system. Ms. Chavez

reviewed the regulatory authority of state and federal agencies charged with protecting these waterways, their jurisdictional areas, and the type of permits they issue.

Jose Avila, Division of Environmental Health, Contra Costa Health Services, gave a presentation on illicit discharges. The presentation covered the actions the County takes in response to learning about an illicit discharge and how they resolve the issue, including when to call in other agencies and how compliance is achieved.

Larry Yost, Deputy Agricultural Commissioner with the Contra Costa Department of Agriculture; and, Beth Slate, Weights & Measures Inspector III with the Contra Costa Department of Agriculture, provided an update of his Department's activities. Mr. Yost discussed the actions that the Department had taken for eradicating the Guava fruit fly, limiting Brown Marmorated Stink Bug populations, and responding to regulatory changes on Second Generation Anti-Coagulants. He also reported on the Department's research on neonicotinoid pesticides and the potential link to Colony Collapse Disorder in honey bees.

BMPs for Mobile Cleaning Operations

For many years, BASMAA has maintained and implemented a training and certification program for mobile surface cleaners. Contra Costa Permittees hire BASMAA-certified mobile surface cleaners, or use their own trained staff, for surface pavement washing of public facilities. Permittees also require private businesses to implement the BMPs in BASMAA's Mobile Surface Cleaner Program. BASMAA's mobile surface cleaner training and certification program is consistent with Provision C.2.b., "Sidewalk/Plaza Maintenance and Pavement Washing". Refer to Section 5 for additional information on BASMAA's Mobile Surface Cleaner Program.

Development of a Draft Model Notification Protocol for Discharges into MS4s from Utility Vaults and Underground Structures

In October 2014, the State Water Board adopted Water Quality Order 2014-0174-DWQ for the reissuance of the General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Waters of the United States (Utility Discharge Permit), and gave this permit an effective date of July 1, 2015. The permit covers short-term and intermittent discharges from the de-watering of utility vaults and underground structures by utility companies. The reissued Permit now explicitly requires dischargers to notify municipalities to obtain permission to discharge into the municipalities' storm sewer system and adhere to all notification protocols. As a result, utility companies or their consultants were contacting Permittees requesting a copy of the respective municipality's notification protocol.

To assist Permittees with the protocol request, CCCWP staff conducted research on the Utility Discharge Permit and drafted a model Notification Protocol. Research on the Permit itself was presented to the MOC in May 2015 and a draft notification protocol was reviewed by the MOC in June 2015. It is anticipated that the model Protocol will be finalized in October 2015.

MRP Reissuance

For the second half of FY 2014/15, one of the primary activities of the MOC was reviewing and providing comments on the administrative draft and draft Tentative Order of MRP 2.0. MOC reviewed in depth those provisions most relevant to municipal operations, including Provision C.2, C.4, C.5, C.9, C.10, C.13, and C.15.

For each draft, CCCWP staff identified proposed changes, reviewed them with Committee members and solicited feedback. Comments were then compiled and included in CCCWP draft comment letters submitted to San Francisco Bay Water Board staff.

FY 2015/16 Planned Activities

In FY 2015/16, the CCCWP MOC will continue to review and provide assistance to municipal maintenance and operations staff, where necessary, to ensure consistent and effective BMPs are implemented during the operation, inspection, and routine repair and maintenance activities of municipal facilities and infrastructure. This includes, but is not limited to: graffiti removal; implementation of Corporation Yard Stormwater Pollution Prevention Plans (SWPPPs); municipal stormwater pump station inspection, operation, maintenance, and monitoring; implementation of appropriate BMPs during road, parking lot and bridge repair and maintenance work; and, complying with the reporting requirements in Provision C.2.

The CCCWP MOC will also be revising its work plan to help Permittees identify those tasks that must be completed within specified time frames to help ensure compliance with MRP 2.0 requirements. These tasks may include, for example, ensuring that each Permittee has a spill response contact number on its municipal website, conducting outreach to mobile businesses, and ensuring that Permittees have established a written operating procedure to identify applications for architectural copper on building permits.

SECTION 3 – C.3 NEW DEVELOPMENT AND REDEVELOPMENT

Introduction and Summary

During FY 2014/15, the CCCWP Development Committee's work focused on two main issues: (1) how to achieve consistent quality in constructed bioretention facilities; and, (2) the C.3 Provisions in the forthcoming MRP 2.0.

The number of installed C.3 facilities grows each year. In time, there will be thousands of facilities operating countywide. Investment in high-quality construction will pay dividends as the facilities age. Long-term maintainability of facilities, as well as community acceptance and engagement, have long been primary drivers for the CCCWP's Low Impact Development (LID) based approach to stormwater controls for new development and redevelopment projects.

Throughout FY 2014/15, CCCWP provided direct assistance to municipal staff and to land development professionals regarding design and construction inspection for C.3 facilities. CCCWP and the City of Walnut Creek sponsored a half-day workshop, including a tour, focused on bioretention design and construction.

During FY 2014/15, CCCWP sought the incorporation, in the forthcoming MRP 2.0, of provisions that would facilitate quality in constructed C.3 facilities. CCCWP proposed:

- Updated design criteria for C.3 facilities;
- Clarifications to criteria for determining when C.3 applies;
- Consolidation of overlapping and duplicative permit requirements;
- Updated hydraulic criteria for sizing facilities;
- Better integration of hydromodification and treatment criteria; and,
- Streamlined reporting requirements.

CCCWP emphasized that streamlining the requirements, and eliminating less beneficial tasks, would enable municipalities to redirect scarce staff resources toward ensuring quality in the design and construction of C.3 facilities. Water Board staff were mostly unresponsive to CCCWP's pleas; however, a few of CCCWP's proposals were incorporated into the Administrative Draft and Draft Tentative Order for MRP 2.0.

In addition to these efforts, the CCCWP played a primary role in defining and articulating a strategy for furthering and expanding green infrastructure (GI). CCCWP initiated the process of drafting GI planning requirements in MRP 2.0.

FY 2014/15 Objectives

The CCCWP FY 2014/15 C.3 Work Plan was guided by the following objectives:

- Facilitate member agencies' compliance with MRP Provision C.3;
- Facilitate implementation of permanent controls on new developments in CCC;
- Organize and implement all required C.3 Group Activities and submittals;
- Integrate MRP requirements and BASMAA MRP submittals into existing training and guidance;
- Negotiate permit requirements and interpretations that protect water quality and are implementable and cost-effective;
- Continuously improve Program outreach and guidance on development controls;
- Continue CCCWP's regional and statewide role as an exemplar and leader in implementation of development controls.

FY 2014/15 Accomplishments

The CCCWP's Development Committee, assisted by staff and consultants, facilitated Permittees' implementation of MRP Provision C.3 requirements and provided direction to CCCWP staff and consultants. The Development Committee was chaired by Carlton Thompson (City of Walnut Creek). John Steere (CCC) served as vice-chair. Staff from

Antioch, Brentwood, Clayton, Concord, CCC, Danville, Pittsburg, Pleasant Hill, Richmond, San Ramon, and Walnut Creek actively participated in the Committee.

The CCCWP's FY 2014/15 accomplishments included:

- Reviewing and responding to Water Board staff proposals for MRP 2.0, preparing CCCWP comments on the Administrative Draft and Draft Tentative Order, and assisting Contra Costa municipalities to prepare their comments;
- Preparing a proposed comprehensive rewrite and update of Provision C.3 and proposing it to Water Board staff;
- Participating in review and revision of the BASMAA "White Paper" on Provision C.3 in MRP 2.0;
- Providing technical support for BASMAA's development of a proposal to use direct simulation of erosion potential for sizing hydromodification management facilities;
- Facilitating areas of agreement on Green Infrastructure, drafting a G4I Provision for incorporation in MRP 2.0, and negotiating subsequent revisions with other Permittees (through BASMAA) and with Water Board staff;
- Organizing and implementing a half-day training and tour for municipal staff on LID planning, design, and construction;
- Sharing lessons learned from a decade of implementing LID with attendees at a quarterly meeting of the CASQA;
- Assisting with initiation of a BASMAA Development Committee Bioretention Soils, Mulch, Horticulture, and Forestry work group.

Additional detail on each of these major accomplishments follows:

<u>Reviewing and Responding to Water Board Staffs Proposals for MRP 2.0</u>

Water Board staff's June 2, 2014 handout included the following proposed changes in Provision C.3 for MRP 2.0:

- Making all development projects that create or replace between 5,000 and 10,000 square feet of impervious area Regulated Projects under Provision C.3.
- Making all road projects, including new roads and reconstructed roads, Regulated Projects.
- Including design specifications and operation and maintenance requirements for pervious pavement and pervious pavers.
- Sunsetting the grandfathering of development projects for which applications were made or approved prior to earlier C.3 start dates.
- Making minor changes to the criteria for Special Projects, which may use non-LID facilities to treat runoff.
- Requiring Permittees to evaluate the feasibility of 100% LID treatment on-site, 100% LID treatment off-site, or to pay in-lieu fees, prior to invoking Special Projects credits to use non-LID treatment.
- Requiring Enforcement Response Plans for Operations and Maintenance (O&M) inspections.

Each of these proposals was discussed in meetings of CCCWP's Development Committee. Committee members shared their relevant experience and perspectives, and directed staff to conduct various technical analyses. The experience, perspectives, and analyses were carried forward into discussions with Water Board staff through the BASMAA Development Committee, BASMAA Board, and the MRP 2.0 Steering Committee. CCCWP submitted comments on the February 17, 2015 Administrative Draft of MRP 2.0; many of those comments addressed Provision C.3. CCCWP also participated in the preparation of BASMAA comments on the Administrative Draft, and submitted additional comments on Provision C.3 in an April 2, 2015 letter.

Comprehensive Rewrite and Update of Provision C.3

Consistent with discussions in the BASMAA Development Committee and MRP 2.0 Steering Committee, in which Water Board staff participated, CCCWP developed proposals to comprehensively update Provision C.3, revising outdated technical criteria,

correcting ambiguous language in the requirements, eliminating unnecessary reporting tasks, and reorganizing the provision to make it more accessible to Permittees and to applicants for land development approvals. The effort incorporated ideas and experience from participants in CCCWP's Development Committee. In late September 2014, a draft of a revised C.3 Provision was brought to the BASMAA Development Committee chair. Following additions and revisions, the draft revised C.3 Provision was distributed to Permittee representatives on the BASMAA Development Committee and discussed point-by-point at a BASMAA Development Committee meeting. The BASMAA Development Committee's input was incorporated into a third draft.

The work on the draft was mentioned at the October 2, 2014 MRP 2.0 Steering Committee meeting. Mr. Mumley encouraged Permittees to share the draft Permit language. The CCCWP sent this language to Water Board staff on October 8, 2014. No response was received. The October 8 e-mail to Mr. Mumley and the draft Permit language attached to that e-mail were incorporated into CCCWP's comments on the Tentative Order.

"White Paper" on Provision C.3 in MRP 2.0

In early 2014, the BASMAA Development Committee proposed, and Water Board staff agreed, to take a "big picture" view of LID implementation in the Bay Area, where we've been and where we are headed in the long term. There was a shared desire to address the following questions:

1. What is the vision for LID in the Bay Area?
2. What is the approach to achieving that vision?
3. How should permit provisions be designed to follow that approach and achieve the vision?

The Committee proposed that BASMAA prepare a white paper to help address these questions and provide the technical support and rationale for future permit requirements.

CCCWP's Development Committee reviewed and commented on a draft of the "White Paper" during January 2015. Comments were incorporated into the final version sent to the Water Board the following month.

Technical Support for Development of a Proposal to Use Direct Simulation of Erosion Potential to Size Hydromodification Management (HM) Facilities

CCCWP's FY 2014/15 work on this topic followed up the September 15, 2013 submittal of an Integrated Management Practices (IMPs) Monitoring Report. The IMP Monitoring Report concluded a process, launched in 2006, to validate the effectiveness of IMPs, including bioretention, that are promoted in CCCWP's *Stormwater C.3 Guidebook.* The project included monitoring (through two rainy seasons) of three IMPs at an office development in Pittsburg and two IMPs at a townhouse development in Walnut Creek. The IMP Monitoring Report is available on the CCCWP website at www.cccleanwater.org/surveys-studies-annual-report.

On April 1, 2014, in accordance with a requirement in MRP Attachment C, the CCCWP also prepared and submitted a proposal for hydromodification management requirements in MRP 2.0. The report reiterated CCCWP's commitment to work with other Permittees, through BASMAA, to propose appropriate flow-control criteria and sizing factors to be used during the term of MRP 2.0.

In July 2014, having received no response from Water Board staff to the submittals, CCCWP staff and consultants initiated investigation of options for updating Hydrograph Modification Management Plan (HMP) criteria. It was observed that the permit's curve-matching criterion:

> "The post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of the length of the curve corresponding to the range of flows to control."

was arbitrary—in the sense that there was no supporting analysis of the relationship between deviation from the curve and potential for downstream erosion.

It was further noted that the permit's specification of a curve-matching procedure presumed that for all development projects, compliance would be accomplished by design of a flow-duration-control basin with multiple staged flow-control orifices. Bioretention facilities, with a single flow-control orifice, produce a different flow-duration curve shape, "over-controlling" flows in the most significant channel forming range (corresponding to return intervals of 1-2 years) and being less effective in controlling the higher flows from less frequent storms (near the 10-year return interval).

Therefore, the curve-matching specification produced the artifact of requiring bioretention facilities to be sized considerably larger than what would be needed to meet the permit's underlying standard of protecting streams from increased erosion due to land development. This has substantial environmental costs, as gravel and sand must be mined from quarries or stream beds, and are transported using fossil fuels. In addition, experience with the layout of land developments shows that requirements to devote more than about 4% of impervious area to bioretention facilities tends to undermine current efforts to produce compact, pedestrian-oriented urban design.

To remedy this unintended negative environmental consequence of oversizing facilities, CCCWP consultants assessed an alternative curve-matching criterion, which would allow crediting of "overcontrol" in some portions of the flow-duration curve against "undercontrol" in other portions of the curve. This was examined with and without application of the peak flow frequency curve standard. This standard applies only to Contra Costa and not elsewhere in the Bay Area. The effect of different low-flow control thresholds was also examined. The various scenarios were modeled using the

calibrated values documented in the IMP Monitoring Report. The methods and results were documented in a November 14, 2014 memo by Tony Dubin of Dubin Environmental Consulting.

CCCWP subsequently participated, through BASMAA, in an investigation of an approach that involves direct simulation of erosion potential (E_P). In this study, the various curve-matching standards analyzed by Dubin Environmental Consulting were evaluated with regard to the extent to which their use would match an E_P of 1.0 or less (representing no effect, or a diminished likelihood, for downstream erosion following development). The results of that effort were documented in a March 19, 2015 memo by Geosyntec Consultants, and were discussed in a March 20, 2015 meeting with Water Board staff at their offices.

As an outcome of these efforts, Provision C.3.g. in the May 11, 2015 Tentative Order contains an allowance for the Permittees to propose a method of using E_P to demonstrate compliance with the HM standard.

Green Infrastructure

In 2013, CCCWP staff and consultants initiated discussions, within BASMAA, of Green Infrastructure as a unifying theme for MRP 2.0. CCCWP staff and consultants participated in a BASMAA-sponsored GI Work Group that was launched in early 2014.

In July 2014, CCCWP staff and consultants drafted a proposal, for discussion within BASMAA, of a Green Infrastructure Permit Provision in MRP 2.0. CCCWP staff and consultants then drafted a list of six questions which were reviewed during an August 4, 2014 meeting between BASMAA representatives and Water Board staff:

1. Can green infrastructure address the TMDL requirements for PCBs and mercury? How expansive must our green infrastructure vision or strategy be if we are to credibly address the required load reductions?

2. Do we think our green infrastructure idea could pass muster with USEPA (specifically regarding TMDLs)?
3. Given there is no local funding, can our strategy ride on the hope that we can build substantial green infrastructure over the coming decades by (a) piggybacking on public transportation projects, (b) obtaining Federal and state funding through grants and legislation, and (c) making green infrastructure a component of private development through municipal development review authority?
4. If the concept can ride on that hope, what actions can municipalities take that would be meaningful contributions toward bringing each of those elements (a), (b), and (c) to fruition?
5. If we can agree on meaningful actions, how would these be written into a permit provision that accounts for differences among municipalities and provides both flexibility and accountability?
6. What is the relationship between the green infrastructure strategy and future C.3 requirements?

Following the August 4 meeting, BASMAA prepared a 1-page "Green Infrastructure Areas of Agreement" document to guide further work toward consensus on green infrastructure requirements in MRP 2.0.

CCCWP staff and consultants prepared a draft of a green infrastructure provision and distributed it to a BASMAA Work Group on October 30, 2014. The draft was revised over the following weeks, and the revised draft was forwarded to Water Board staff on November 11, 2014. Portions of the revised draft were incorporated into Provision C.3.j. in the February 2015 Administrative Draft of MRP 2.0.

<u>Half-day Training on LID Planning, Design, and Construction</u>

This training was held Tuesday, March 17, 2015. Carlton Thompson (City of Walnut Creek) arranged for city training space, as well as a tour of the nearby, newly-

constructed Brio apartment complex. The 50 person registration limit was quickly reached. Staff from 13 Contra Costa municipalities were among the participants, along with some consultants that assist municipalities with C.3 implementation. Staff from two cities outside the CCC (Vallejo and Hayward) also attended. Water Board staff was invited, but did not attend.

Presentations included:

- A brief primer on reviewing Stormwater Control Plans and plan checking bioretention facilities;
- Steps for inspecting construction of bioretention facilities;
- Methods for checking bioretention soils at the project site.

Discussion was held following the presentation and continued in small groups during the tour of bioretention facilities at the Walnut Creek Public Library and at the Brio apartment complex.

Sharing Lessons Learned at CASQA Quarterly Meeting

At CASQA's invitation, CCCWP consultant Cloak provided a presentation, "20 LID Lessons Learned," at the March 12, 2015 quarterly meeting in Sacramento. The presentation summarized the most salient lessons from a decade of LID implementation in CCC and highlighted the results of recent research.

Initiation of a BASMAA Bioretention Soils, Mulch, Horticulture, and Forestry Workgroup

As FY 2014/15 ended, CCCWP staff, Contra Costa municipal staff representatives to BASMAA's Development Committee, and CCCWP consultants responded to an invitation from City of Fremont staff to form a workgroup to discuss bioretention soil mix specifications. CCCWP suggested expanding the scope of the workgroup to take into

account the interrelated nature of bioretention soils, mulch, and plant selection, and to also work on designs to facilitate inclusion of large trees in bioretention facilities.

SECTION 4 – PROVISION C.4 INDUSTRIAL AND COMMERCIAL SITE CONTROLS

Introduction

During FY 2014/15, CCCWP municipalities implemented their business inspection programs as follows:

- Antioch, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Orinda, Pittsburg, Pleasant Hill, San Ramon, and Walnut Creek contract for business inspection services with local sanitary district inspectors (or Publicly Owned Treatment Works (POTW) inspectors). This institutional arrangement of using local POTW inspectors to conduct municipal stormwater inspections was initiated soon after the CCCWP was issued its first Joint Municipal NPDES Permit in 1993. This arrangement has been praised by San Francisco Bay Water Board staff, and has served as a model for other municipalities throughout California. Business inspections conducted by POTW inspectors are referred to in this Annual Report collectively as the "Group Inspection Program". The CCCWP provides administrative support to the Group Inspection Program. This includes management of the contracts, agreements, invoices and reporting; and, assistance in review and development of annual inspection lists, plans, and goals.
- Brentwood, Oakley, Pinole and CCC currently conduct their own business inspection programs.
- Richmond and San Pablo use a combination approach to their business inspection programs. These cities conduct their own inspections, but also contract with the POTWs to perform a certain number of inspections.

Accomplishments

During FY 2014/15, CCCWP staff and the CCCWP's MOC assisted Permittees with implementation of Provision C.4 by:

1. Administering the CCCWP's Group Inspection Program, and reviewing and updating the model Business Inspection Plan (BIP) and model Enforcement Response Plan (ERP) to support Permittees' business inspection and enforcement response programs;
2. Hosting two Industrial Commercial Stormwater Inspector Training Workshops;
3. Supporting and participating in the Contra Costa Green Business Program; and,
4. Providing outreach to the business community.

The following is a detailed account of each activity listed above:

Administering the CCCWP's Group Inspection Program, and Providing Guidance for Municipal Business Inspection and Enforcement Response Plans

CCCWP staff administers and manages the various inspection agreements for the Group Inspection Program involving the 16 municipalities, three local POTWs (Central Contra Costa Sanitary District (CCCSD), Delta Diablo Sanitary District (DDSD), and West County Wastewater District (WCWD)). Administration of the Group Inspection Program includes coordinating the review of amendments and revisions to the inspection agreements, when necessary; receipt and payment of invoices by the POTWs on behalf of the 16 municipalities; assistance to the Permittees and POTW staff in developing inspection goals; ensuring MRP compliance concerns are integrated into business inspections (e.g., identification and proper management of POC, such as PCBs); training of inspectors to promote consistent inspection services countywide; and, field support to inspectors and municipal staff when needed. CCCWP staff meets with the participating municipalities and POTW staff annually to: assess the services provided; set inspection goals for the upcoming fiscal year; distribute documentation needed for preparation of municipal annual reports; and, review any special issues or enforcement problems that have occurred.

In FY 2014/15, CCCWP staff continued its review of the model BIP and ERP initiated in FY 2013/14. The model plans were finalized in late September, and the proposed

revisions were reviewed by the MOC the following month. Based upon MOC's recommendation, the model plans were then presented to Management Committee at its October meeting.

Stormwater Inspector Training Workshops

The CCCWP hosted two Commercial/Industrial Stormwater Inspection Training Workshops in FY 2014/15. The first workshop was held on December 16, 2014 at CCCSD in Martinez. The purpose of this half-day workshop was to provide training on the reissued NPDES General Permit for Stormwater Discharges Associated with Industrial Activities IGP. The existing permit had been in effect since 1997 and the new IGP was adopted in April 2014. It was given an effective date of July 2015. The training included three presentations and one panel session. The three presentations gave an overview of the key features in the new IGP, identified what types of facilities should file a Notice of Intent (NOI) to obtain coverage, and provided guidance on how to inspect a NOI facility. The panel session provided an opportunity for stormwater inspectors to ask questions about the new IGP in general, and get clarification on specific issues.

The second workshop was held on April 30, 2015 at the San Ramon Community Center. To build upon the information presented at the December 2014 workshop on the new IGP, the morning session of the April workshop included a presentation on how to inspect a NOI facility followed by a site visit to the San Ramon Valley Unified School District Service Center, a NOI facility. Stormwater inspectors conducted a mock inspection of the Service Center and witnessed a fleet washing demonstration. The morning session also included a brief overview of what inspectors should expect under the reissued MRP with respect to stormwater inspection, illicit discharges, mobile businesses, and POC, namely copper, mercury, and PCBs.

The afternoon portion of the workshop was devoted to PCBs and included presentations on PCBs regulations, screening source properties for PCBs, and responding to PCBs releases. These presentations included guest speakers from USEPA and San Francisco Bay Water Board.

Both workshops were well attended and received. The workshop agendas and presentation materials are available on the CCCWP website at http://www.cccleanwater.org/workshops-and-conferences/.

Green Business Program

During FY 2014/15, the CCCWP provided $6,000 to support the Green Business Program (GBP). The CCCWP is the second largest contributing partner to the GBP in CCC. The GBP is designed to publicly recognize private businesses and public agencies that take extra steps, beyond baseline compliance with environmental regulations, to prevent pollution and save resources (e.g., conserve water and energy, reduce waste through reuse and recycling, prevent stormwater pollution through good housekeeping practices, etc.). This program encourages and helps business managers and inspectors strengthen and sustain the quality of the environment in the County through a collaborative partnership.

Since its inception, 581 businesses have been certified as Green Businesses in the County. There are 335 currently certified businesses, including 20 new businesses that were certified in FY 2014/15, as well as 22 businesses that were recertified. There are 17 new certifications in process, and 139 being reviewed for recertification. The types of businesses being certified are diverse and include business offices, auto repair shops, landscapers, printers, restaurants, small manufacturers, grocery and hardware stores, home remodelers and cleaning services.

Municipal stormwater and POTW inspectors assist the GBP by encouraging business to become Green Business candidates. CCCWP staff serves on the GBP's "Partners

Committee," and actively engages in development of the Green Business checklist (i.e., the stormwater pollution prevention section that each business needs to complete before becoming certified as a Green Business). At the September GBP Partners Committee meeting, CCCWP staff gave a presentation on the mission, goals, and activities of the Clean Water Program. This presentation included an overview of MRP requirements and discussed how the GBP helps Permittees meet some of these requirements.

Providing Outreach and Resources to Businesses

With CCCWP MOC input and direction, CCCWP staff develops and/or updates a variety of business outreach materials, including BMP brochures and posters, a website, and a telephone hotline. Stormwater inspectors promote these resources during their inspections.

During FY 2014/15, CCCWP staff finalized the Spanish translation of the *Water Pollution Prevention for Food Services Facilities* poster. The Spanish version was made available to Permittees in September 2014. CCCWP obtained cost estimates to have the poster translated into Mandarin, and it is anticipated that this version will be made available to Permittees in FY 2015/16.

CCCWP staff also developed other outreach materials. The first was an existing brochure on BMPs for architectural copper. The brochure was reviewed by the MOC, and members directed CCCWP staff to conduct further research and include additional information. It is anticipated that this brochure will be finalized by the end of the second quarter for FY 2015/16.

CCCWP staff prepared revisions to the *Stormwater BMPs for Vehicle Maintenance* poster. The GBP provided comments on the poster and additional comments were solicited from MOC members. Program staff met with the County's Fleet Management Division of the Public Works Department to learn more about vehicle maintenance and

operations, and what types of messaging are most effective with educating employees in the use of BMPs, and prevent non-stormwater discharges to the MS4. It is anticipated that this poster will be also finalized by the end of the second quarter for FY 2015/16.

Throughout the fiscal year, CCCWP staff responds to businesses requesting copies of such outreach materials. Business owners use the CCCWP website at http://www.cccleanwater.org/business/ to find information on stormwater pollution prevention practices and how they can make their stormwater inspections as easy as possible. Businesses also use the CCCWP's 1-800-No-Dumping hotline to report illegal dumping in their area to help their business communities prosper from a cleaner environment for their customers. A growing awareness of stormwater BMPs has stemmed from use of these resources. Many direct discharges of pollution have been eliminated by educating businesses in proper stormwater BMPs.

Creation of a Temporary Ad Hoc Stormwater Inspector Workgroup

CCCWP staff created a temporary Ad Hoc Stormwater Inspector Workgroup primarily in response to the need to develop countywide consistency among stormwater inspectors for referring facilities that may need coverage under the newly adopted IGP. The workgroup is composed of inspectors from each of the three contracted POTWs, Contra Costa Hazardous Materials Programs, cities of Brentwood and Richmond, CCC, and CCCWP staff.

The workgroup will be developing guidance on other topics as well. These topics include drafting standard operating procedures for inventorying PCBs-containing equipment identified during inspections, developing outreach materials to mobile businesses that have not yet been addressed, and responding to issues that may arise once MRP 2.0 is adopted. All guidance and outreach material developed by the workgroup will be presented to MOC members for their review.

FY 2015/16 Planned Activities

For over 16 years, the CCCWP and local POTWs have consistently maintained a strong Group Inspection Program. Many of the MRP requirements were already part of Permittees' existing business inspection programs. To promote continuous improvement of the municipal inspection programs, the CCCWP MOC established as planned goals for FY 2015/16 the following activities:

- Conduct an annual training workshop for industrial commercial stormwater inspectors;
- Provide training on POC source identification and management;
- Finalize outreach material for architectural copper and vehicle maintenance, and develop other outreach materials as needed;
- Establish standard operating procedures for inspecting and referring NOI facilities;
- Maintain the CCCWP's 1-800-No-Dumping telephone hotline and website for businesses; and,
- Continue to participate in, and support, the GBP.

SECTION 5 – PROVISION C.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Introduction

The majority of MRP requirements related to Illicit Discharge Detection and Elimination (IDDE) are being addressed directly by Permittees. The CCCWP MOC oversees IDDE Group Activities.

Accomplishments

The following IDDE Group Activities were initiated or ongoing during FY 2014/15:

1. Managed the 1-800-No-Dumping Hotline and Hazmat Incident Reports;
2. Assisted with the expansion of BASMAA's Mobile Surface Cleaner Program;
3. Continued to promote and offer stormwater pollution prevention car washing kits for charity car washing events; and
4. Provided support to the City of Brentwood during an audit in December 2014 of its IDDE Program by USEPA and its consultants.

Provided below is a brief summary of each activity listed above:

<u>1-800-NO-DUMPING Hotline and Hazmat Incident Reports</u>

The CCCWP continues to operate the 1-800-NO-DUMPING Hotline. The Hotline is used by the public to report illegal dumping and to obtain stormwater information. All Hotline calls are referred to the appropriate municipality for follow-up and, if necessary, enforcement**.** Calls have been logged since FY 2004/05.

Of the 336 hotline calls the CCCWP received during FY 2014/15, the overwhelming majority were to report an illegal dumping incident. This number represents a 29%

increase in the number of calls from FY 2013/14. The most common dumped materials reported in these calls include garbage, sofas, mattresses, and other furniture. Other reported dumped materials included building/construction debris, electronics (i.e., TV, stereos, computer, etc.), tires, household goods and other debris. Each Permittee uses the information from the Hotline to identify problem areas that need to be addressed.

The CCCWP continues to collaborate with the CCC Hazmat Division. Hazmat's countywide 24-hour spill response is a vital component of Permittees' IDDE programs. Each month, the CCCWP disseminates the Hazmat spill response reports (also known as "Incident Reports") to Permittees. These reports inform each Permittee of Hazmat incident responses within their jurisdiction. Permittees use this information to track the type and locations of spills and dumping incidents, and to conduct appropriate follow-up. More information on each Permittee's IDDE program is provided in the individual Municipal Annual Reports compiled in Volume II of this Report.

Expansion of BASMAA's Mobile Surface Cleaner Program

BASMAA's Mobile Surface Cleaner Program is a training and certification program for mobile surface cleaners. BASMAA has continued to improve and expand on these efforts, but has made limited progress in this fiscal year. For a list of activities and accomplishments and additional details, see BASMAA's "*Annual Reporting for FY 2014/15 Regional Supplement for Training and Outreach.*"

To augment BASMAA's efforts to address mobile businesses, the CCCWP conducted its own outreach activities. CCCWP staff created an inventory of carpet cleaners, power washers, and auto detailers that are based in the County. A cover letter that included a brochure on wash water disposal practices for either carpet cleaners or mobile surface cleaners was sent to these businesses. The letter explained why it is illegal for wash water from these and similar businesses to be discharged to a street, gutter, parking lot, or storm drain. The letter also directed owners and their employees

to the BASMAA website to become recognized surface cleaners. A total of 196 letters were mailed to the three types of mobile business.

Charity Car Wash Kits

During FY 2007/08, the CCCWP created and implemented a charity car wash pilot campaign to help charity car wash sponsors avoid illegal discharges of wash water to storm drains. The charity car washing campaign included the creation of a brochure and several car washing kits each containing: one submersible pump; one 50' electrical extension cord; one 3' X 4' rubber mat; one 50' garden hose; one metal spray nozzle; three collapsible safety cones, and tape. The brochure instructs charity car wash organizers on how to conduct a car washing event without discharging wash water into the storm drain system. The brochure instructs organizations to: 1) contact the CCCWP; 2) make sure that charity car washes are legal within their municipality; and, 3) use the car washing kit in accordance with the instructions provided. In FY 2014/15, one organization used the CCCWP's charity car wash kit one time.

Although this is a substantial reduction in usage from previous years, it appears that at least one organization that had typically used the kit 4-5 times per year has created its own kit. Another possible reason for the drop in kit usage is likely the ongoing drought. The CCCWP intends to research the reason for the drop in usage, but will continue to promote and track the use of these charity car wash kits in FY 2015/16.

Audit Support to Municipalities

CCCWP staff provided support to the City of Brentwood during USEPA's audit of the City's IDDE Program (C.5) and Construction Site Controls Program (C.6). CCCWP staff reviewed and commented upon the list of materials requested by the USEPA. Staff furnished the City and/or the USEPA (or its contracting consultants) with several documents, including the organizational structure of the CCCWP, standard operating procedures for receiving and tracking 1-800-No-Dumping calls, a screenshot of the

spreadsheet that is used to record the calls, and sample outreach brochures to mobile businesses.

During the audit, CCCWP staff attended the “Kick-Off” meeting, and answered questions and provided comments where necessary to clarify the Program’s roles and responsibilities, as well as permit requirements under C.5. Staff also attended the “Closing Discussion” conducted at the end of the audit, and provided input as appropriate.

FY 2015/16 Planned Activities

The CCCWP will continue to support the 1-800-No-Dumping Hotline and distribution of the CCC Hazmat Division’s incident response reports to the Permittees. CCCWP will continue to provide input and support for BASMAA’s expanded mobile surface cleaners program. In addition, CCCWP will continue to build upon the countywide inventory of mobile cleaning businesses created in FY 2014/15, and conduct outreach activities to these businesses on an annual basis.

The CCCWP’s MOC will continue to review and assist in the development of guidance and training, as may be requested, to help improve Permittee IDDE programs.

SECTION 6 – PROVISION C.6 CONSTRUCTION SITE CONTROLS

During FY 2014/15, CCCWP's efforts with regard to Provision C.6 were focused on seeking changes in MRP 2.0 that would make the mandated enforcement response and reporting process more workable. Specifically, in comments, CCCWP has noted the need to refine the way "violations" are defined and reported. These changes are needed to ensure inspectors in the field have a means to direct contractors to correct minor problems without bringing a regulatory obligation on the municipality to track, inspect, and report the correction.

Some progress was made with the language that appears in the MRP Tentative Order. Contra Costa Permittees hope to see the remaining issues addressed in the revised Tentative Order.

To assist Permittees with compliance of MRP Provision C.6, CCCWP sponsors a biannual training for Permittee construction inspection staff. The last training was in held in April 2014. No training was provided during FY 2014/15, but will be offered again in FY 2015/16.

SECTION 7 – PROVISION C.7 PUBLIC INFORMATION AND OUTREACH

Introduction

The CCCWP Public Information/Participation (PIP) Committee, with assistance from CCCWP staff and consultants, is responsible for development of materials and products, information dissemination, marketing and public outreach. Most of the public information and outreach requirements in the MRP are contained in Provision C.7; however, additional outreach activities are required or encouraged in other MRP provisions. The CCCWP PIP Committee works to identify and coordinate these public information and outreach mandates conducted as a group and regionally through BASMAA's Public Information/Participation Committee. Attachments 1.2 and 1.3 provide a list of CCCWP representatives to BASMAA's PIP Committee, and participation and attendance at CCCWP PIP Committee meetings, respectively. In FY 2014/15, Laura Wright (City of Pittsburg) and Steven Spedowfski (City of San Ramon) served as Chair and Vice-Chair, respectively, of the CCCWP PIP Committee.

The CCCWP's public information and outreach budget for FY 2014/15 was $246,480. This was supplemented by CalRecycle Oil Payment Program (OPP) Grant funds totaling approximately $74,239 for a combined budget of approximately $320,719.

In FY 2014/15, the CCCWP continued to improve its website with periodic updates. The website is used to help educate residents, community organizations, watershed stakeholders, businesses, schools, and the general public about the CCCWP's programs and activities, stormwater quality requirements, pollution prevention practices, and water quality-related community events.

The CCCWP, through BASMAA, provided regional media relations outreach. CCCWP representatives participated in BASMAA's PIP meetings and outreach efforts. For further details of the CCCWP's outreach activities implemented regionally, see

BASMAA's "Annual Reporting for FY 2014/15 Regional Supplement for Training and Outreach".

The remainder of this section documents public education and outreach activities conducted collectively in CCC.

Accomplishments

C.7.b – Pesticide Reduction Advertising Campaigns

The CCCWP built on the pesticides outreach foundational research collected in FY 2012/13 that resulted in conducting three distinct pesticide reduction campaigns tailored around the regional differences within CCC. In FY 2013/14, the CCCWP focused on creating and beginning the implementation of the three-pronged approach. In FY 2014/15, the three campaigns continued implementation as well as focusing on gathering the surveys. The three campaigns are briefly described below.

1. Buy Less-Toxic: Petstircides

   The Petstircides campaign was launched in the fall of 2013 to promote the use of less-toxic alternatives for pesticides and herbicides. In early 2014, two pilot phases were conducted to determine which tactics were best suited to reach West and South Contra Costa target audiences. Pilot Phase 1 consisted of partnering with five stores in West and South County, and placing the less-toxic outreach information in the stores. In Phase 2, tablings were conducted at the same stores, and information about using less-toxic alternatives, as well as surveys, was given to the public.

   CCCWP partners with Our Water Our World (OWOW), which develops informative handouts and shelf tags that inform the public at the point of purchase in nurseries and hardware stores where pesticides are sold. The information helps the public to identify and solve pest/disease problems, advises them on less-toxic products and how to use them, and provides a wide variety of informational materials on less-toxic

gardening alternatives. In an effort to leverage the specific product recommendations that OWOW has developed, the initial pilot focused on partnering with stores with existing OWOW materials. The goal in so doing was to pair the Petstircides marketing with the OWOW infrastructure.

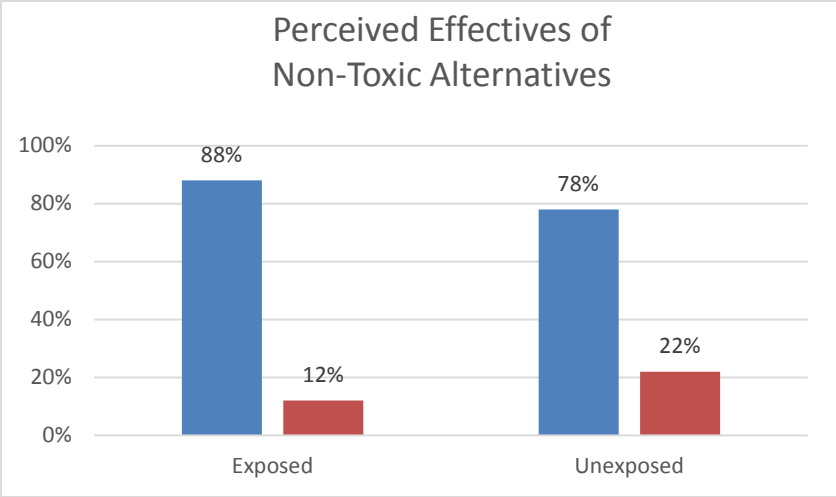
The second pilot phase utilized tablings (conducted at both OWOW and non-OWOW stores.) The tablings consisted of placing campaign materials on display, distributing flyers to customers, and conducting surveys. The goals of the tablings were to promote the campaign message, collect surveys from participants who were exposed to the campaign, and test the effectiveness of conducting in-person outreach in promoting the campaign message.

Following the pilots conducted early in FY 2014/15, CCCWP shifted the focus of the campaign to direct outreach, which is marketing that goes directly to the public, while at the same time keeping campaign reminders in stores so residents would be exposed to the message at the point of purchase.

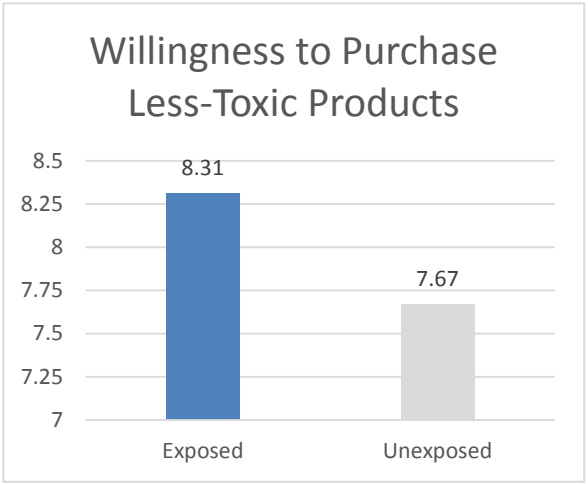
Direct outreach was conducted at local farmer's markets across West and South County. At the events, residents were asked to take a short survey and sign a pledge to use less-toxic alternatives.

Survey Results - Since the campaign started in 2013, CCCWP collected 384 surveys from people who were exposed to the campaign (134 in FY 2013/14 and 250 in FY 2014/15) and 250 surveys from those who were not exposed (collected just in FY 2014/15). The sample was 50% male and 50% female.

Effectiveness- On a scale of 0 to 10, with 0 being "Not effective at all" and 10 being "Completely Effective," 88% of respondents who were exposed to the campaign rated less-toxic pesticides as a "5" or more and 12% rated them as a "4" or less. Among the respondents who were not exposed to the campaign 78% (195) rated less-toxic products as a "5" or more and 22% (55) rated them as a 4 or less. This suggests that the attitudes towards less-toxic products are pointing in the right direction for both groups; however, the group that was exposed to the campaign ranked less-toxic alternatives as more effective.



Willingness to purchase less-toxic products - Those who were exposed to the campaign had an 8.31 mean willingness score, which is 0.68 points higher than our goal for the campaign (7.63 mean willingness score). For comparison, those who were not exposed to the campaign had a mean willingness score of 7.67 which is only slightly higher than the baseline mean



willingness. The willingness score provides a good idea of what the behavior would be if residents decided to purchase a gardening product.

Discussing the use of less-toxic products- 56.4% of respondents who were exposed to the campaign indicated that they discussed the use of less-toxic products with somebody. The total reported number of people that the less-toxic message was shared with is 5,545, exceeding our goal of 3,240 discussions for the entire campaign period by 71.14%.

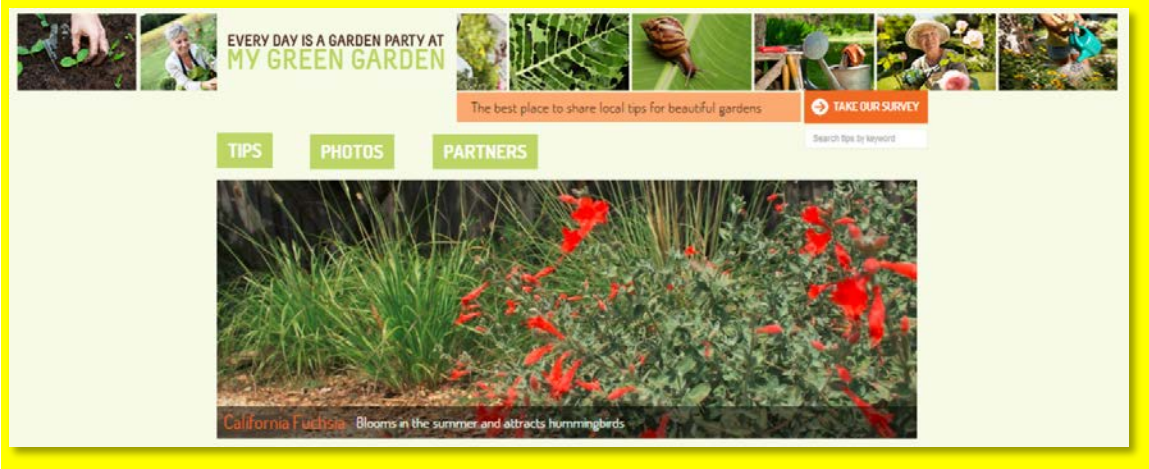
For further details on the CCCWP's Petstircides campaign and survey results, see Attachment 7.1 of this Volume 1 report.

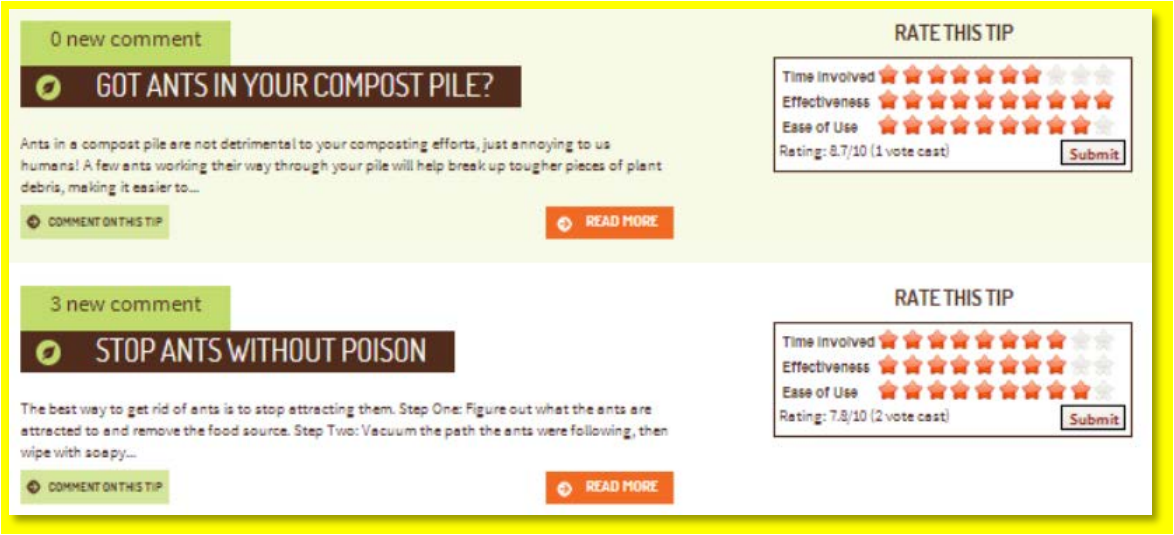
2. Try Non Toxic: MyGreenGarden.org Website

Residents of Central, East, and West County all expressed an interest in so-called "home remedies" during the focus groups conducted in FY 2012/13. In FY 2013/14, CCCWP created a website entitled, *My Green Garden*, in an effort to encourage Contra Costa residents to share tips and tricks for organic gardening without jumping directly to the use of toxic pesticides and herbicides.

From a series of iterations, this modern and visually appealing website was developed. The website is fully responsive, meaning the website template automatically adjusts to fit a range of display resolutions, allowing it to be viewed on traditional PC, tablet, Pay Per Click, and mobile (e.g. smartphone) devices.

Through the website www.mygreengarden.org, the CCCWP strives to build a sense of community through a Yelp-type model of content produced by the end user. In FY 2014/15, CCCWP continued improving the website, including adding further tips to the site and partnering with a high school group to have the students assist in creating and vetting tips.





Activities - The following four major activities were carried out in FY 2014/15 to support the MyGreenGarden.com strategy:

- Partnerships – CCCWP formed partnerships with local gardening clubs, bloggers, and individuals asking them to write and post hundreds of initial home remedies, to rate each other's posts, and to lend credibility to the new site. Partner relationships were maintained and can be leveraged in the future (the key organizations the CCCWP worked with include: Ruth Bancroft Garden, Los

Medanos College Nature Preserve, Plant Justice, Urban Farmer, UC Berkeley Student Organic Gardening Association, Bringing Back the Natives, Pleasant Hill Instructional Garden, and Flora Shanti Gardens).

- User Experience – CCCWP pivoted the website's functionality to a new format that provides an improved user experience by allowing gardeners to not only share their expertise, but to ask specific pest management questions. CCCWP also designed the site to be more consistent with the Pesticides Linger campaign (discussed below) look and feel.
- Sustainable Youth Program – CCCWP transitioned primary ongoing content management and site promotion duties to more than 100 Antioch High School students in the academies of Media/Technology, Environmental Science, and Engineering/Design. School presentations and a User Manual were created for the students. With support from CCCWP and teachers, each year, the students will train the next class to take it on.
- Surveys - To evaluate success for the site, surveys were conducted with both people who had and had not been exposed to the site. Responses from the two groups were compared to determine the effect of the site in terms of both awareness of home remedies and willingness to act on that awareness.

Survey Responses - CCCWP received 110 completed survey responses from people who had never been exposed to the MyGreenGarden.com website. As for people who had been exposed to the site, CCCWP received 53 survey responses. Zip codes were collected to ensure respondents were residents of CCC. E-mail addresses, (from those willing to share it), were also collected for future correspondence.

Behavior Change Results - CCCWP asked people if they had, in the past month, actually used a non-toxic solution or home remedy to manage pests or weeds. In the Non-Exposed Control group, less than a third (28.2%) said that they had. In the Exposed group, nearly two thirds (63.5%) said that they had – more than double the proportion in the Control group.

For further details on the CCCWP's My Green Garden website campaign and survey results, see Attachment 7.2 of this Volume 1 report.

3. Hire Eco Certified: Pesticides Linger

The Pesticides Linger campaign encourages Contra Costa residents, who hire PCOs for pest control, to consider hiring eco-certified PCOs who practices environmentally-sound pest management practices.

The campaign focuses on residents in Contra Costa's South, East and Central areas of the County, as these areas were found in the foundational research to be most likely to hire PCOs.

The Pesticides Linger campaign had two phases:

Phase I Digital Activation – Accomplished in FY 2013/14, this integrated online marketing phase was designed to garner interest in the campaign message via targeted Google ads, Facebook ads and the campaign webpage. The goal during this phase was to test tactics, track audience behavior and engagement in the campaign, and prompt answers to a simple question: On a scale of 1 to 5, how effective is eco-pest control?

Phase II In-Person Activation - With a clear knowledge of the target audience established, the next phase, which occurred in FY 2014/15, focused on bringing this message into the physical world, via partnership-building and in-person outreach. The goal was to expand the campaign profile and increase the number of residents interacting with the campaign. CCCWP forged partnerships with media outlets, homeowner associations (HOAs) and local parenting organizations that have influence with the target audience and can deliver the message of the campaign more effectively. CCCWP also used grassroots outreach tactics to personalize the message and begin comparing the effectiveness reporting between people who have seen the campaign and those who have not.

The Pesticides Linger campaign's target pollutants included: 1.) Organophosphorus pesticides: chlorpyrifos, diazinon, and malathion; 2.) Pyrethroids: bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin; and, 3.) Carbamates: carbaryl, and finally, Fipronil.

The following additional elements of the campaign included:

- Developing the creative artwork for the Pesticides Linger campaign, including messaging and two versions of artwork;
- Building an interactive, responsive webpage for the campaign and integrated it on www.cccleanwater.org. (The website for this campaign is www.cccleanwater.org/pesticideslinger);
- Creating a digital advertising strategy for Google and Facebook that would test two versions of the Pesticides Linger ad;
- Launching a visual and text only advertising campaign on Google; and,
- Tracking performance, analyzing the results, and making any necessary adjustments to the strategy.

The pilot digital advertising campaign ran on Google using the following two images:

The CCCWP simultaneously launched a text-only advertising campaign with the following text advertisements:

A **B** **C**

Results of the Pesticides Lingers campaign included:

- 250 questionnaires from people who have been exposed to the Pesticides Linger campaign (campaign participants);
- 250 questionnaires from people who have not been exposed to the campaign (control group);
- 2 million impressions (indicates how wide an audience the message reached); and,
- 10,000 clicks (indicates deeper level of engagement and commitment).

Surveys Results

- The Pesticides Linger campaign surveyed equal numbers of people who had been exposed to the campaign (campaign participants) and those who hadn't been exposed (control group). Each was asked a simple question, "On a scale of 1 to 5, how effective is eco-pest control?"
- CCCWP's goal was to show that relative to the control group, 26% more campaign participants rated eco-pest control as more effective in treating pests. This result indicates an attitudinal shift toward eco-pest control, influenced by the messaging of the campaign.

To determine whether the campaign participants rated eco-pest control more effective than the control group, CCCWP staff and consultants looked at the number of responses in each group that rated either a 4 (mostly effective) or 5 (always effective).

Group	**Rated 4 or 5**

Campaign participants	159
Control group	101
Percent difference	36.4%

For further details on the CCCWP's Pesticides Lingers campaign and survey including more in-depth survey results, see Attachment 7.3 of this Volume 1 report.

Section C.7.c – Media Relations – Use of Free Media

This provision requires Permittees to participate in, or contribute to, a media relations campaign, maximize use of free media/media coverage with the objective of significantly increasing the overall awareness of stormwater pollution prevention messages and associated behavior change in target audiences, and to achieve public goals.

The CCCWP Permittees participated in BASMAA's regional efforts in conducting six media pitches during FY 2014/15. For further details regarding these media pitches, see *BASMAA's "Annual Reporting for FY 2014/15 Regional Supplement for Training and Outreach".*

During FY 2014/15, the CCCWP Permittees also conducted two media pitches on the findings of the CCCWP's Stressor Source Identification Studies (SSID) in Dry Creek and Grayson Creek as briefly discussed below:

- **Stressor Source Identification Studies (SSID) Outreach** – The purpose of this outreach effort was to increase public awareness of the toxic levels of pesticides found in local Contra Costa creeks, to educate and offer solutions to residents on ways they can reduce their use of pollutant pesticides, and the impacts on local creeks. This outreach provided links to the CCCWP's three pesticide campaigns. CCCWP created two press release versions', one tailored with information specific for journalists; and, another version tailored for use by the CCCWP

Permittees in city newsletters and websites. CCCWP reached out to 49 local media outlets. CCCWP's efforts resulted in generating seven media placements in the local press. For a detailed overview of the Stressor Source Identification Studies (SSID) Outreach Report, see Attachment 7.5 in this Volume 1 report.

C.7.d – Stormwater Point of Contact

The CCCWP's website provides a "Municipality Contact List" (i.e., each Permittee's stormwater point of contact, including the stormwater representative's phone number and e-mail, and a link to the Permittee's website) under the "Resources" table at: http://www.cleanwater.org/municpality-contact-list/. CCCWP staff updates the "Municipality Contacts List" page when notified of a change by a Permittee representative. The CCCWP website is also accessible from the "Links" page on the BASMAA website at http://www.basmaa.org/.

In addition, the CCCWP provides a "1-800-No Dumping" Hotline where people can call and report illegal dumping, as well as obtain stormwater information. Calls regarding illegal dumping are forwarded to the appropriate Permittee for follow-up as appropriate. Further details regarding these calls are provided in Section 5 of this Volume I report.

C.7.e – Public Outreach Events

CCCWP Permittees conducted several public outreach events, watershed stewardship collaborative efforts, and citizen involvement events as a group in order to reach a broad spectrum of the community with both general and specific stormwater runoff pollution prevention messages. Two specific public outreach events conducted countywide are described below:

- **Bringing Back the Natives Garden Tour** - CCCWP Permittees sponsored the Eleventh Annual Bringing Back the Natives Garden Tour, which took place on

Sunday, May 3, 2015, showcasing 38 gardens located in 18 cities and unincorporated areas of Alameda and Contra Costa counties. For summary information and a detailed report about the Bringing Back the Natives Garden Tour, see Attachment 7.4 of this Volume 1 report.

- **Our Water Our World** – As in past years, CCCWP Permittees partnered with the OWOW Program to help raise awareness of the connection between pesticide use and water quality, and to provide information to consumers at the point-of-purchase about IPM and less-toxic alternatives that do not cause water quality problems. Twenty-nine stores participated. Over 87 store staff were provided formal trainings, with more than 60 additional staff trained in-aisle during informal, mentoring visits. Nine outreach/tabling events were held in stores reaching over 540 people. There was participation in six additional outreach/community events reaching over 5,500 people. For more information, see Section 9 of this Volume 1 report.

C.7.f – Watershed Stewardship Collaborative Events

Below is a summary of several watershed stewardship collaborative events supported and/or conducted collectively by CCCWP Permittees in FY 2014/15:

- **Pesticide Applicators Professional Association –** During FY 2014/15, the CCCWP promoted a Pesticide Applicators Professional Association (PAPA) training held in Concord during July 2014. For additional information, see Section 9 of this Volume 1 report.
- **California Products Stewardship Council (CPSC)** – CCCWP continued to support CPSC through its annual membership fees. As a member of CPSC, the CCCWP is part of a network of local governments, non-governmental organizations (NGOs), businesses, and individuals supporting policies and projects where producers share in the responsibility for managing problem products at end of life. Product stewardship creates incentives for producers to "design it green and take it back," thereby reducing the environmental impact of

product waste. By diverting products from the waste stream, resources are conserved, demand for landfills is ultimately reduced, and the potential for waste products to end up in local creeks, the Delta and bay is reduced. For more details regarding CPSC activities and accomplishments, see Section 10 of this Volume 1 report.

- **Green Business Program (GBP)** – CCCWP has annually provided staff support and financial assistance to the GBP to help with its outreach activities to the business community, including the certification and recertification of Green businesses. CCCWP continues to be a major contributor to the GBP. Strategic meetings are held quarterly. For more details on the GBP, see Section 4 of this Volume 1 report.
- **Contra Costa Watershed Forum (CCWF)** – CCCWP staff attends and participates in CCWF meetings, an open committee of some 50 organizations, including state and local agencies, local non-profit environmental and education organizations, community volunteer groups, and private citizens. The CCWF operates on the premise that actions in a watershed are inter-related, and that broad participation and cooperation is needed to affect change. CCWF members work together in an effort to find common approaches to making water resources healthy, functional, attractive, and save community assets. The CCWF impacts the community, environment, and decision makers in Contra Costa. Concerned with urban, suburban, and rural areas in the San Francisco Bay Delta area, the CCWF facilitates local agency and citizen collaboration, fosters innovative strategies for stewardship and protection of watershed resources, and encourages regional capacity building in Contra Costa and neighboring areas.
- **CCCWP Community Calendar** – CCCWP promotes watershed-related community events, activities and volunteer opportunities on the CCCWP Community Calendar webpage at www.cccleanwater.org/community-calendar/. A secondary goal in maintaining the Community Calendar is to increase traffic to, and use of, the CCCWP website and its information resources to increase awareness of stormwater quality and pollution prevention practices.

- **Community Car Wash Kits** – As reported in Section 5 of this Volume I report, the CCCWP provides community car wash kits to various groups and organizations for charity/fund raising car washing events. The kit allows a group to hold a charity/fund raising car wash event, while also teaching them how to protect local creeks and become better stewards of their watershed.

C.7.g – Citizen Involvement Events

CCCWP Permittees collectively supported the following citizen involvement event in FY 2014/15:

- **Community Watershed Stewardship Grant Program (CWSGP) –** For the fourth year, CCCWP Permittees and CCC Watershed Program partnered with The Watershed Project (TWP) to administer the CWSGP. The goal of the CWSGP is to benefit County watershed groups, environmental nonprofit organizations, and grassroots organizations in their efforts to prevent water pollution and help restore the health of local watersheds and creeks around the County. A total of $100,000 in grant funds were awarded to seven different organizations implementing eight separate projects (see Attachment 7.6 for the list of organizations and projects).

C.7.h – School Age Children

This provision requires Permittees to individually or collectively implement outreach activities designed to increase awareness of stormwater and/or watershed messages in school-age children. In FY 2014/15, the Permittees, individually and collectively, implemented three specific youth-oriented outreach programs, which are discussed below:

1. **Oil Payment Program (OPP) Grant & Mr. Funnelhead** – The OPP strives to reach across all age groups, but places particular emphasis on youth, because they are

the most forceful environmental stewards. CCCWP staff believes nothing will motivate an adult to change behavior more than being corrected by their child.

Several CCCWP Permittees provided their allocation of OPP grant funds to the CCCWP for implementation of an ongoing countywide comprehensive effort in FY 2014/15.

There are several components of the OPP: 1) certifying and recertifying used-oil recycling centers throughout the County; 2) providing educational programs targeted to elementary schools throughout the County; 3) providing outreach at community events countywide; providing programming to educate and entertain people about the importance of recycling used motor; and, 4) providing outreach through a cable advertising component. A "Mr. Funnelhead" website exists as an additional outreach tool at www.funnelhead.com/. A summary of OPP activities are reported below.

- **Used Oil Collection Center Certification** - A total of five new oil collection centers were certified, and three oil collection centers did not recertify resulting in a net gain of two oil collection centers. There are now a total of 102 certified oil collection sites in CCC.
- **Mr. Funnelhead** - Matt Bolender is CCCWP's OPP Grant consultant, using the Mr. Funnelhead character to provide educational outreach. This year, the Mr. Funnelhead School Education Program visited 16 schools educating 4,500 students about the importance of used oil and filter recycling. These appearances continue to have a long-lasting effect on the children who recount their experience years later when they see Mr. Funnelhead at community events. This year's show was entitled "Oil from Outer Space," focusing on the premise of an alien from the planet "Bob", not knowing that dumping used motor oil and filters was bad for our environment, and creating issues with water and soil.

Using three professional actors, the show was a complete success. Many teachers commented on this show being the most professional and entertaining education program they have seen in years. The Mr. Funnelhead School education program continues to be the heart of the Used Oil Education Project, now going into its 20th year.

- **OPP Watershed Diorama** - A popular draw for youth at both at community events and school events is the Watershed Diorama. This diorama is used to educate children about stormwater pollution and proper disposal of used oil and oil filters.
- **Mr. Funnelhead Annual Art Contest -** Mr. Funnelhead also holds an annual art contest where children incorporate Mr. Funnelhead into their own message about recycling used oil. Prizes are given to the top three artists with the winners appearing in a Mr. Funnelhead Oil Buster Public Service Announcement, which airs on premium cable television.

2. **"Be Classy Not Trashy" -** The CCCWP's youth outreach activities for the fiscal year centered on our continued use of green screens and user-generated photographic content. Large green screen components are set up at an event, and then attendees are invited to get their pictures taken in front of the green screen. Because most people, particularly those between the ages of 12 through 18, are

aware of how green screen technology works, they are eager to have their picture taken and the backdrop transposed.

The CCCWP has continued with the youthful concept of “Be Classy Not Trashy” to play with the idea of people posing in front of clean environments rather than trashy ones. Not only does this provide an opportunity to begin talking with picture subjects regarding trash issues, it provides municipalities with digitally uploaded pictures of youth “doing the right thing.” These pictures are then shared across multiple social media platforms, most notably Facebook, in an effort to develop a perceived social norm, that is, the perception that the majority of people are participating in a clean, non-littered environment. In terms of the youth audience today, no single type of media is more important to put use in the development of that social norm than social media.

While the majority of the Permittees are still learning how to use the green screen technology and how to best use it with their events, it has been used at several events including the Alamo Concerts in the Park and Walnut Creek’s Centennial Picnic.

In terms of value extending beyond the numeric achievements of the pictures being taken, shared on Facebook, and shared again by the participants, research has indicated that messages are much more effective in sticking when they are delivered by members of the audience’s peer group rather than by an official entity or company. Thus, there is confidence in saying that not only will this Youth Outreach protocol achieve results with the people who attend the events and interact with the green screen, but with their networks and ultimately, the greater Contra Costa community.

3. **CCCWP Watershed Diorama** – The CCCWP's Watershed Diorama is provided to and used by Permittees and stakeholder organizations for youth-education programs and various public outreach events. The Watershed Diorama shows how rain becomes stormwater runoff carrying dirt, garbage, and any other pollutants found in the urban environment into storm drains, which flow untreated to local creeks, the Delta, and the Bay. In FY 2014/15, the diorama was seen by more than 865 people and used 9 times as follows:

Watershed Diorama Use Tracking Sheet		
Use Dates	**Representing**	**Target/Event**
10/18/14	City of Walnut Creek	Walnut Creek Centennial
11/1/14	Contra Costa Clean Water Program	Boy Scout Hornaday Weekend
11/15/14	Contra Costa County Flood Control & Water Conservation District	Riverside Drainage Clean-Up
2/5/15 to 3/6/15	New Leaf Sustainable Living Collaborative	K-5 Elementary Classroom P9resentations
4/19/15	Town of Danville	Earth Day 2015
5/4/15	City of Walnut Creek	Walnut Creek Children's Education Program
5/19/15	City of Brentwood	Public Works Week
5/20/15	City of Oakley	Public Works Week
7/16/15	Contra Costa County Flood Control & Water Conservation District	Teen Garden Class

FY 2015/16 Planned Activities

Planned public information and outreach activities for FY 2015/16 include:

- Continued implementation of the CCCWP's Pesticide Reduction Advertising Campaigns (i.e., My Green Garden Website; and, Hire Eco-Certified: Pesticides Linger) through the end of December 2015;
- Planning additional outreach campaigns, media relations, public outreach events, citizen involvement events, and watershed stewardship activities consistent with the reissued MRP;
- Continued outreach to school-age children with the CCCWP's "Be Classy Not Trashy" campaign and OPP/Mr. Funnelhead programs showcasing the watershed diorama; and,
- Continued enhancement to the CCCWP's Facebook page and website with current and valuable information.

SECTION 8 – PROVISION C.8 WATER QUALITY MONITORING

Reporting on implementation of the Provision C.8 Water Quality Monitoring requirements is provided in the *Urban Creeks Monitoring Report, Water Year 2014 (UCMR)* submitted to the Water Boards on March 15, 2015. This report is available on the CCCWP's website at: http://www.cccleanwater.org/surveys-studies-annual-report/.

CCCWP's Creek Status Monitoring in both Water Year (WY) 2012 and WY 2013 triggered exceedances for water and sediment toxicity parameters under NPDES permit Provision C.8.c, Table 8.1 and Attachment H/D. As required in Provision C.8.d.i., the first step ("Part A") of the SSID studies were conducted by CCCWP during 2014 to evaluate and investigate the extent and causes of the observed creek toxicity to *H. azteca* in Dry Creek and Grayson Creek watersheds. The *Report of Stressor/Source Identification Studies in Dry Creek and Grayson Creek, Part A* was submitted in March 2015 as Appendix 3 of the UCMR, and provides the methods and results of Part A of the two SSID studies, and an analysis of the results.

As part of the phased approach proposed in the CCCWP SSID Concept Plan (2013) in 2014/15, CCCWP initiated the second step of Provision C.8.d.i. ("Part B"), which entails SSID projects to include the following: "*Identify and evaluate the effectiveness of options for controlling the cause(s) of the trigger stressor/source."*

The results of the two SSID studies conducted on both creeks confirmed that current-use pesticides are the principal causes of the toxicity in the watershed, and, therefore, constitute the stressor. Part B studies will investigate the magnitude and patterns of pesticide applications in order to more explicitly identify the sources of the identified stressors. This report will estimate: 1) the sources attributable to professional PCOs versus homeowners, 2) spatial and temporal characteristics of pesticides; 3) the role of impervious surfaces and 4) any contributions from non-urban land uses such as agriculture or golf courses to the extent feasible. The *Report of Stressor/Source*

Identification Studies in Dry Creek and Grayson Creek, Part B will be submitted with the UCMR WY 2015, in March 2016.

In addition, CCCWP continues to track, through BASMAA and CASQA, the Department of Pesticide Regulation (DPR) and the State Water Board's development of a coordinated approach to pesticide monitoring and management in California's urban areas.

SECTION 9 – PROVISION C.9 PESTICIDES TOXICITY CONTROLS

Introduction

BASMAA and CCCWP staff, consultants and MOC members provided the following assistance to Contra Costa Permittees' efforts to reduce pesticide toxicity in local creeks during FY 2014/15:

- Tracking and participating in pesticide regulatory initiatives;
- Promoting opportunities for training events for municipal employees and contractors on IPM and similar programs;
- Providing outreach to residents and the general public on less-toxic pesticides, and proper pesticide use and disposal; and,
- Coordinating with, and reporting to, the Contra Costa County Agricultural Commissioner (CCCAC) on improper pesticide use.

Accomplishments

BASMAA and the CCCWP's MOC provide a forum for Permittees to share information on common issues and lessons learned related to reducing pesticide toxicity in the County's urban creeks. A summary review of specific topics and activities are provided in BASMAA's "*Annual Reporting for FY 2014-2015 Regional Supplement for Training and Outreach".* A summary review of specific topics and activities coordinated through the CCCWP are discussed below.

C.9.b. - Continuous Improvement to Municipal IPM Programs

With assistance from CCCWP staff and consultants, the Ad Hoc IPM Workgroup that was created in FY 2012/13 finalized the work products that had been previously initiated. These products included SOPs for IPM, sample contract language when

contracting for IPM services, guidance material for landscape and structural IPM, and factsheets for specific pests.

In FY 2014/15, the IPM Workgroup assembled the materials that had been developed (i.e. the Model IPM Policy and Program) and created a new guidance manual entitled *Integrated Pest Management for Municipalities.* The IPM Workgroup held a half-day workshop/training on the manual and its contents on June 16, 2015. One hardcopy of the manual was distributed to each Contra Costa Permittee and an on-line version of the manual was posted to the CCCWP's public website at http://www.cccleanwater.org/publications/.

C.9.c. – Train Municipal Employees on IPM Practices

As mentioned above, CCCWP held a half-day workshop for municipal staff on the *Integrated Pest Management for Municipalities* guidance manual. The workshop included presentations on IPM for landscape and structures, and provided an overview of anticipated C.9 permit requirements for municipalities when the MRP is reissued. The training was well received with 19 municipal staff attending the workshop.

C.9.e – Track and Participate in Relevant Regulatory Processes

In recent fiscal years, the CCCWP, along with other BASMAA members and stormwater programs statewide, invested considerable efforts in tracking and participating in USEPA and DPR actions related to urban uses of pesticides to reduce the amount of toxic pesticides impacting urban waterways.

The most recent efforts in this area may be found in CASQA's "*Pesticides Subcommittee Annual Report and Effectiveness Assessment 2014-2015 Final Report*" submitted separately by BASMAA on behalf of Contra Costa Permittees.

C.9.f – Interface with CCCAC

During FY 2014/15, Larry Yost, Deputy Commissioner, and Beth Slate, Weights and Measure Inspector, both with the CCCAC attended the May MOC meeting, and gave a presentation on some of the Department's high priority activities including its response to the detection of the invasive Guava Fruit Fly in CCC, and further limiting the spread of the Brown Marmorated Stink Bug, another invasive species.

CCCWP staff also spoke with Mr. Yost regarding any improper pesticide usage reported to the CCCAC. During FY 2014/15, there were no reports of improper pesticide usage.

For FY 2015/16, CCCWP intends to further collaborate with CCCAC, including a review of the anticipated C.9 permit requirements under MRP 2.0.

C.9.h.i – Public Outreach: Point of Purchase

Our Water Our World - The CCCWP funds and participates in the OWOW Program, which provides educational outreach directly to the consumer/user at the point of purchase (i.e., in the store). The OWOW Program is implemented both regionally and locally. Further details regarding the OWOW Program regional implementation are provided in the BASMAA's *"Annual Reporting for FY 2014-2015 Regional Supplement for Training and Outreach."*

Locally, the CCCWP distributes OWOW educational literature to schools and at community events in addition to the general public when requested. CCCWP staff promotes OWOW through its website and direct interactions with citizens, schools, and businesses. A total of 29 Contra Costa stores participated in the OWOW Program in FY 2014/15 with three new stores added in FY 2014/15: Morgan's Home & Garden in Antioch, ACE Hardware in Oakley, and Home Depot in Hercules. Two additional stores, Annie's Annuals and Urban Farmer Store, were added in Richmond late in the fiscal

year. All 29 were set up with literature racks, fact sheets, and shelf talkers. Training on the OWOW Program was provided to staff at 13 key stores in FY 2014/15.

Trainings include information on:

- The connection between pesticide pollution and water quality; how pesticides enter water through storm drains and sewers; pesticides of particular concern; how and where to dispose of pesticide products no longer wanted.
- Common beneficial insects in the landscape; resources for identifying pests/beneficial insects and how to use them; incorporating insectary plants into the landscape to attract beneficial insects; and new and invasive pests/diseases.
- The benefits of organic fertilizers (especially during drought years), compost and mulch; nutrient run-off; chemical salt build-up from fertilizers; and the importance of building up the soil food web.
- Techniques and resources for managing specific pest problems; tips for working with customers on how to use products; basic less-toxic chemical ingredients and how they work on pests; and tips for using/selling the less-toxic products and working with customers.
- Using online resources, including the OWOW 'Ask the Expert' feature and the UC IPM website.

Each training participant receives a packet of information and resources including background on the OWOW program and IPM techniques, information on how products work and how to read a pesticide label, laminated bug guides, a chart for identifying pest damage, pest fact sheets, *The 10 Most Wanted Bugs in Your Garden* brochure, and a list of resources and helpful websites. Stores that participated in trainings were also given a laminated poster on identifying good bugs, suggestions for rat/mouse management, *Landscape Pest Identification Cards*, and a set of cards to help customers on identifying pests, diseases and beneficial insects.

The OWOW Program was supported, in part, by an USEPA grant called "*Greener Pesticides for Cleaner Waterways*," which ended this fall. The grant paid for IPM advocates to offer OWOW program services to a small number of stores. Also, the USEPA grant allowed CCCWP funding to be used toward more time spent mentoring the other Contra Costa stores in the OWOW Program with repeat visits and additional outreach events.

In addition, the Home Depot Pilot Project Grant program was completed in December 2014, and focused on providing extended OWOW services to certain Home Depot stores throughout the Bay Area. The Home Depot in San Ramon was the one Contra Costa store included in the grant, and as a result, the bulk of the work done at this store before December was not charged to the contract. In addition to the basic OWOW program components and services, this project included identifying and training a Green Garden Specialist at each store, providing stores with an enhanced training and more frequent store mentoring visits, and sets of books and materials for identifying pests and diseases and choosing appropriate planting materials.

As part of this grant, OWOW developed new materials that will be used as templates to revise materials for all of the stores. One of these new handouts is an IPM pocket guide specific to Home Depot, designed to highlight their products and services. Another is a pest calendar designed to promote pest management when it is most effective.

Lastly, the Home Depot Regional Training Program Grant ran from February to March of 2015, and allowed OWOW to provide three regional trainings for staff from Home Depot stores throughout the Bay Area. The focus was on providing more in-depth information about products and pests, and additional resource materials to help Home Depot Associates become more knowledgeable about answering customer questions and directing customers to less-toxic products. Associates from Contra Costa stores attended this training and were able to network with associates from a number of Bay Area Home Depot stores.

Sales of Less-Toxic Products: Each year, OWOW tries to get sales numbers from participating stores so that the CCCWP can see if there has been an increase in the sales of less-toxic products. OWOW worked with Bayer on an end cap promotion of their Natria product line, putting up shelf talkers and OWOW posters. These displays ran until fall 2014, and resulted in a 20% increase in sales. Home Depot has given OWOW some numbers for the last two years, and so far their less-toxic products have shown an average of 10% -- 12% increases each year. OWOW has also been working with Scott's to promote their new line of less-toxic products (Nature's Care), and they showed a 50% increase in pesticide sales and 20% increase in fertilizers.

For additional information on the OWOW Program, see Attachment 9.1.

C.9.h.iii –Pest Control Contracting Outreach

In FY 2014/15, CCCWP conducted three pesticide reduction campaigns. The Pesticides Linger campaign specifically targeted Contra Costa residents who contract for pest control services and encouraged them to hire eco-certified PCOs who practices environmentally sound pest management practices.

The ongoing campaign focuses on residents in South, East and Central areas of the County, as these areas were found in foundational research to be most likely to hire PCOs. The campaign strategy seeks to address the most common motivators and barriers to hiring eco-certified PCOs.

For further details on the CCCWP's three pesticide reduction campaigns including the Pesticides Linger campaign, see Section 7 in this Volume I report.

C.9.h.v –Outreach to Pest Control Operators

During FY 2014/15, the CCCWP promoted the Pesticide Applicators Professional Association (PAPA) training workshop held in Concord in July 2014. The CCCWP sent

a letter promoting the workshop to approximately 142 pesticide applicator businesses licensed in Contra Costa, and also promoted the workshop to Permittee staff.

FY 2015/16 Planned Activities

Planned activities for FY 2015/16 include:

- Potentially providing a one-day training workshop specifically aimed for municipal employees and contractors on structural and/or landscape IPM;
- Supporting a Bay Friendly Landscaping Certification and Training Workshop for landscape businesses and municipal staff;
- Continuing to support BASMAA and CCCWP's OWOW Programs; continuing to track and participate in relevant pesticide-related regulatory processes and initiatives through BASMAA and CASQA; and,
- Continuing the countywide pesticide reduction campaign targeting a broad audience on reducing the impact of urban pesticide use on water quality.

SECTION 10 – PROVISION C.10 TRASH LOAD REDUCTION

Introduction

In FY 2013/14, Permittees continued to build upon the new framework as first documented in the FY 2012/13 Annual Reports. This shift in direction towards trash management was reflected in the development and implementation of Permittees' Long-Term Trash Load Reduction Plans. As part of their FY 2013/14 Annual Report submittals, Permittees calculated the percent reduction in trash loads they had achieved by July 1, 2014 and reported their percentage relative to the 40% reduction required by the MRP.

In FY 2014/15, at the December 2014 San Francisco Water Board public hearing, Water Board staff reported on Permittee compliance towards achieving the 40% reduction based on the information Permittees had submitted in the their Annual Reports. Roughly one-third of Contra Costa Permittees were deemed to be in compliance, with the remaining placed in one of the three types of noncompliance categories. The primary reason given by Water Board staff for noncompliance was their rejection of any volume-based calculations to demonstrate reductions. Prior to this evaluation, acceptable methods for determining percent reduction had not been well-defined. Many Permittees reported collecting significant volumes of trash and calculated reductions based on volume collected relative to trash generated. This method was often used in the absence of any observed lowering of generation rates as based on the results of visual assessments. In some cases, Permittees simply did not have enough time to visually assess control measures that had been implemented. And in still other cases, statements made by Water Board staff seemed to indicate that Permittees would be in compliance as long as they were implementing significant control measures in their highest trash generating areas and had some means to demonstrate the effectiveness of the measure (such as volume of trash collected). That is, the actual percent reduction achieved was less important that demonstrating trash was being removed.

Following the December 2014 meeting, CCCWP reported to its Permittees that moving forward under MRP 2.0, in the absence of full trash capture devices, the only other acceptable method for calculating reduction would be based on results of visual assessments. As such, CCCWP initiated the process of contracting with EOA, Inc., to conduct a visual assessment workshop that would also provide information on creating sampling plans for where assessments should be performed.

It should be noted that the importance of visual assessments as one of only two acceptable methods for accounting for trash load reduction was further reinforced by the language proposed in the Administrative Draft of MRP 2.0 released for comment in early February 2015.

Provided below are details regarding the above mentioned Visual Assessment Workshop and other trash load reduction Group Activities.

Sponsoring a Visual Assessment Training Workshop

The Visual Assessment Workshop was held on April 20, 2015 in the City of Pittsburg, and included classroom instruction and field exercises. Classroom instruction covered field observation techniques, assessment areas and timing, field forms and assessment scoring, and quality assurance. Field exercises consisted of conducting assessments at three predetermined sites and comparing results with others. The workshop was well attended with all Permittees or their consultants in attendance.

As follow up to the workshop, in FY 2015/16, CCCWP staff will be working with Permittees to establish minimum standards for conducting assessments to help ensure countywide consistency, and to develop assessment sampling plans for each municipality. This work will go hand-in-hand with development of a Countywide GIS Pilot Program discussed later in this section.

Coordinating Trash Reduction Efforts

Engaging Caltrans

Most Contra Costa Permittees identified state highways, interstates, and associated entrance and exit ramps as high-trash generating areas. In many instances, trash from these areas ultimately contributes to Permittees overall trash loads and yet Permittees have no authority to implement control measures on these lands. For this reason, CCCWP staff reached out to the California Department of Transportation (Caltrans) to discuss its trash reduction efforts, and identify strategies that could be undertaken to improve coordination of efforts between Permittees and Caltrans.

CCCWP staff identified that certain efforts, in particular, on-land cleanups, were better addressed at the local level, while other efforts, such as installation of multi-benefit stormwater treatment/retrofit projects/facilities, would be more appropriately discussed at the state level. Thus, CCCWP staff is engaging Caltrans at the local and state level.

At the local level, CCCWP staff has continued its involvement with the litter enforcement group and participated in its meetings. The group is composed of Caltrans District 4 staff, CHP, and MRP Permittees. The purpose of this group is to communicate and promote cleanup events among its members. The Adopt-A-Highway Program Manager has typically served as coordinator for this group's activities, but due to recent staffing changes within that Program, this group has not been very active for the past four months. However, to the extent feasible, CCCWP will continue to participate in the litter enforcement group.

At the state level, CCCWP staff has regularly communicated with Caltrans staff assigned to oversee the trash reduction requirements of Caltrans' statewide stormwater permit. In May 2015, CCCWP, MRP Permittees, and staff from other stormwater programs met with Caltrans to discuss potential partnerships between municipalities and Caltrans. Prior to the meeting, Caltrans indicated they were particularly interested

in evaluating opportunities for collaborative efforts along three state routes (SR) that they had identified as high opportunity areas based on trash generation rates and other factors. Of the three highways identified, only SR 123 (San Pablo Ave) was within CCC. Furthermore, only that section of SR 123 that runs through the City of El Cerrito was being considered for potential partnering.

Working with City of El Cerrito staff, CCCWP staff provided Caltrans with the existing maintenance agreement between the agency and the City for SR 123. With assistance from CCCWP consultants, CCCWP also provided Caltrans a spreadsheet detailing curb feet per trash generation rate and curb feet treated by full trash capture. CCCWP is awaiting Caltrans' response to the submitted documents.

Working with Contracted Stormwater Inspectors

As discussed in FY 2013/14, Permittees had identified commercial areas, specifically restaurants and certain retail, as potentially significant trash generating areas. These businesses are inspected for stormwater compliance on a regular basis. In the County, four Permittees conduct business inspections internally while 16 Permittees contract with one of three POTW agencies' inspectors to conduct all or a portion of their business inspections, the "Group Inspection Program," which is discussed in detail in Section 4 of this Volume I report). Trash management is an important component of Permittees' business inspections, with inspectors reviewing the businesses' dumpsters, parking lots, and storm drains for compliance with trash-related standards. If trash-related issues are identified during the inspection, appropriate enforcement actions are taken. POTW inspectors provide Permittees with a copy of written enforcement actions that identifies the details of the non-compliant condition, and a summary reporting on the status or resolution of the enforcement actions. Previously, this enforcement summary did not always provide specific information on trash-related issues for a particular enforcement action.

This more robust reporting of trash-related issues identified during business inspections was implemented in FY 2014/15. The enforcement summary now provides additional details for any trash-related enforcement action initiated during an inspection conducted by POTW inspectors. This additional reporting element has helped Permittees target businesses that appear to have chronic trash management issues, and work with them to identify and implement solutions to their trash management challenges.

Partnering with West Contra Costa Unified School District

Many Permittees identified schools as contributing significant sources of trash within their municipalities. For this reason, some Permittees have committed, as part of their overall trash load reduction strategy, to work with school districts or select schools as one means to help meet trash load reduction requirements.

West County Permittees, CCC, cities of San Pablo, El Cerrito, Richmond, Hercules, and Pinole are working with West Contra Costa Unified School District (WCCUSD) to expand existing programs (or develop new ones) that address trash in the environment and, in particular, trash in and around school campuses. These programs include Waste Action and Zero Litter, and are managed by EarthTeam, a nonprofit environmental education organization.

CCCWP participated in meetings among Permittees, WCCUSD staff, and EarthTeam members and solicited Trash Management Area (TMA) maps from Permittees once they had added the locations of middle and high schools. The maps were then forwarded to WCCUSD and EarthTeam staff, who assisted in identifying potential candidates for EarthTeam programs or other activities that may reduce overall trash loads emanating from these schools. CCCWP also provided a draft protocol for conducting visual assessments to WCCUSD staff and EarthTeam members, and arranged for EarthTeam staff to participate in the Visual Assessment Training Workshop held in April.

Developing a Countywide GIS Pilot Program to Address Trash Load Reduction

In FY 2014/15, CCCWP created an Ad Hoc GIS Workgroup to develop a scope of work, followed by a RFP, for creating a countywide GIS Pilot Project that would assist Permittees with C.10/11/12 compliance in MRP 2.0 and beyond. The workgroup reviewed RFP submittals, interviewed applicants, and selected a consultant for the work.

In FY 2015/16, CCCWP and its consultant will begin the task of collecting GIS layers and associated data, and start developing and customizing existing applications that Permittees may use to electronically record visual assessments and inspections of trash capture devices. In addition, CCCWP and its consultants will use the data collected from the applications in conjunction with GIS layers to develop queries or perform other types of analyses to address Provision C.10 compliance requirements, such as calculating percent reductions in trash loads.

Additional information regarding the countywide GIS Pilot Project may be found in Section 1 and 10 of this Volume I report.

Provision C.10 and MRP 2.0

In the second half of FY 2014/15, CCCWP spent considerable staff time and resources negotiating provisions for MRP 2.0 with San Francisco Bay Water Board staff. In regards to Provision C.10, CCCWP staff worked closely with the MRP Steering Committee (including the MRP Trash Steering Committee) and BASMAA Trash Subcommittee, and identified highly problematic issues in both the Administrative Draft released in February 2015 and the draft Tentative Order released in May 2015. These issues largely centered on the accelerated timeline for meeting trash load reduction milestones; reduction credits for litter-prone items and additional creek and shoreline cleanups; addressing trash impacts of homeless encampments and chronic illegal dumping, trash management requirements on private lands that drain to MS4s and

mapping private drainage systems; receiving water observations as it pertains to Permittee compliance; and, developing means to acknowledge or credit control measures that removed significant volumes of trash but did not result in a change in the trash generation rate category.

To address these issues, CCCWP provided alternative language, submitted comments on both the Administrative Draft and draft Tentative Order, offered verbal feedback at numerous meetings with San Francisco Bay Water Board staff, and testified at the July 8, 2015 San Francisco Bay Water Board public hearing. More detailed information on CCCWP activities as related to MRP 2.0 negotiations is presented in Section 1 of this Volume I report.

Preparing Annual Report Format and Submission

CCCWP staff and consultants participated in BASMAA Trash Subcommittee meetings and MRP Trash Steering Committee meetings with San Francisco Bay Water Board staff. Discussions from these meetings helped to define the format for Section C.10 in the FY 2014/15 Annual Report. The final format largely mirrored the previous year's, but was slightly less data intensive.

Even though the format remained relatively the same, some Permittees continued to find completing this section of the Annual Report a challenge. CCCWP staff worked closely with these Permittees and assisted them in reporting on changes to trash generation rates within TMAs, and provided guidance on what methods were acceptable for reporting reductions. CCCWP staff also provided guidance on how to calculate percent reduction for product bans and additional creek and shoreline cleanups while noting that next year's approach may be substantially different.

Trash Source Control Initiatives

California Product Stewardship Council (CPSC) - The CCCWP is a member of the CPSC. Its mission is to promote Extended Producer Responsibility (EPR), which is based on shifting California's product waste management system from one focused on government-funded and ratepayer-financed waste diversion, to one that relies on producer responsibility, in order to reduce public costs and drive improvements in product design that promote environmental sustainability. The CPSC's position is that the producers should have the primary responsibility to establish, fund, and manage end-of-life systems for their products. The CCCWP supports the CPSC financially through membership fees equaling $2,500 a year and through direct participation in their associate meetings. CPSC has an impressive record of accomplishments over the last year including, but not limited to:

- Achieved more state and national press coverage on EPR by being featured in Waste Advantage Magazine, Washington Examiner, and American Public Works Association Reporter Magazine.
- Coordinated development of two newspaper inserts on meds/sharps in San Mateo and Marin counties.
- Selected as a recipient of the 2014 Sacramento Environmental Commission Award for promoting a high quality environment by putting into practice programs that make a positive contribution towards this goal in our community and honored by the County Business Environmental Resource Center (BERC) as a Sustainable Business of the year, receiving a Pollution Prevention Award for their medicine bin collection campaign.
- Partnered with pharmacies and law enforcement to set up nine new, sustainably funded pharmaceutical take-back sites in Sacramento, Yolo and Contra Costa counties.
- Developed fact sheets on international pharmaceutical EPR programs in North and South America and Europe.
- Hosted a webinar, free to members, for local governments to educate them on

how producers and others in the product chain can share in the cost and responsibility for managing their products at end of life.

- Worked with partners California Resource Recover Association (CRRA) and the Mobius Network in hosting a free webinar promoting the new refillable one-pound propane gas cylinders through the ReFuel Your Fun Campaign.
- Supported the roll-out of the paint stewardship program operated by PaintCare, which now has over 730 convenient retail collection sites statewide.
- Gained dozens of new supporters, including the Western Placer Waste Management Authority, Russian River Watershed Association, and the cities of Clovis, Culver City, and Oceanside.
- Presented the fifth Annual Arrow Awards to recognize companies who are leaders in product stewardship.

The CCCWP will continue to support and participate in the CPSC's mission and efforts in FY 2015/16.

Legislative Advocacy

Through CPSC and other organizations, CCCWP tracked statewide legislation as it pertained to litter prone items and products that would be better managed through EPR programs, such as sharps, batteries, mattresses, etc. CCCWP submitted two comment letters during the spring legislative period. CCCWP submitted a letter of opposition on Assembly Bill (AB) 45 – Household Hazardous Waste Local Government Mandate. As drafted, the bill would have imposed an unfunded mandate on local governments, to increase their collection rate in accordance with unspecified goals and timeframes with collection and disposal responsibilities residing solely on local governments. CCCWP submitted a letter of support for AB 1159 - Recycling: Batteries & Sharps: Product Stewardship Pilot Program. The bill called for the formation of EPR pilot programs for home-generated sharps and household batteries, and could potentially have been used to determine the viability and cost-effectiveness of EPR programs. Both bills were held in committee, but since they are two-year bills, they may be taken up again in January

2016.

FY 2015/16 Planned Activities

CCCWP staff and consultants will continue to coordinate and support Contra Costa Permittees in refining and implementing their Long-Term Trash Load Reduction Plans. CCCWP staff and consultants will also continue to work with San Francisco Bay Water Board staff, stakeholders and Permittees in further development and refinement of effective trash management actions and assessment methods used to demonstrate progress towards achieving trash load reduction goals. This work will include providing oversight of the countywide GIS Pilot Project to support Permittees' needs for compliance with Provision C.10 requirements. It may also include creating a model O & M Program for trash capture devices, participating in a regional project to determine the effectiveness of certain control measures when applied at a specified frequency, and identifying funding opportunities to offset costs associated with trash load reduction actions.

As part of this support to Permittees, CCCWP staff will continue to engage Caltrans at the state and local level, and expand its outreach efforts to other agencies, potentially including the Contra Costa Transportation Authority and other school districts.

SECTION 11 – PROVISION C.11 MERCURY AND METHYLMERCURY CONTROL PROGRAMS

Introduction

The majority of the MRP and East County Permit requirements related to mercury are being addressed regionally through BASMAA and the RMC. Reporting on these elements of the MRP, for which there were deadlines in FY 2014/15, can be found in the *UCMR* submitted to the Water Boards on March 15, 2015.

CCCWP has been conducting a Methylmercury Control Study in response to Provision C.11.i of the East County Permit, which states: "Permittees shall conduct methylmercury control studies to monitor and evaluate the effectiveness of existing BMPs on the control of methylmercury, and shall develop and evaluate additional BMPs as needed to reduce mercury and methylmercury discharges to the Delta and meet methylmercury waste load allocations…". *The Methylmercury Control Studies Year One Progress Report* will be submitted on schedule to the Central Valley Water board this fall.

During FY 2014/15, the CCCWP continued to coordinate with Permittees and local household hazardous waste (HHW) collection facilities to implement mercury collection and recycling in accordance with Provisions C.11.a.i and C.11.a.ii. These efforts are reported below.

Mercury Collection and Recycling

Provision C.11.a.i states: "The Permittees shall promote, facilitate, and/or participate in collection and recycling of mercury containing devices and equipment at the consumer level (e.g., thermometers, thermostats, switches, bulbs, elemental mercury)."

CCCWP Permittees collect HHW at three regional facilities in the County:

- Central Contra Costa Sanitary District (CCCSD);
- Delta Diablo Sanitation District (DDSD); and,
- West Contra Costa Integrated Waste Management District (WCCIWMA).

CCCSD serves the communities of Concord, Clayton, Martinez, Pleasant Hill, Orinda, Lafayette, Moraga, Walnut Creek, Danville, San Ramon and unincorporated county. DDSD serves Pittsburg, Antioch and Bay Point. WCCIWMA serves Richmond, Pinole, El Sobrante, El Cerrito and San Pablo.

Provision C.11.a.ii states: "The Permittees shall report on these efforts in their Annual Report, including an estimate of the mass of mercury collected." Tables 11-1, 11-2 and 11-3 (see pages 11-4 and 11-5); provide the estimated mercury mass collected at each HHW collection facility. The total estimated amount of mercury collected in CCC in FY 2014/15 was 165.29 kg, the majority due to elemental mercury being collected by two of the three facilities.

The types of data collected at each facility are slightly different as is the level of differentiation between types of mercury containing devices and the level of specificity in reporting the data. BASMAA has developed a simple, spreadsheet-based tool to estimate the mass of mercury based on the number of different types of mercury-containing devices and products collected by HHW programs. CCCWP began working with HHW programs in FY 2014/15 to help develop and implement tracking programs by device, and revising the calculator so that more accurate estimates can be generated and consistently reported. This work is ongoing. References for amounts of mercury found in the bulbs and devices are detailed in the Mercury Collection Calculator, which can be found at the CCCWP website at http://www.cccleanwater.org/materials. These estimates fulfill provision C.11.a requiring Permittees to report an estimate of the mercury mass collected.

Using the calculator to quantify the estimated mercury in the various mercury-containing devices, the following facilities collected the amounts of mercury displayed in Tables 11-1, 11-2, 11-3. In FY 2014/15, CCCSD collected approximately 154.8 kg of mercury. This is significantly more than previous years and from other County collection facilities. This can be explained by a total of 152.52 kg of elemental mercury being collected this year, along with 0.51 kg of mercury from fluorescent bulbs, and 1.05 kg from itemized devices. DDSD and its retail partners collected a total of 10.27 kg of mercury; 0.21 kg of mercury from fluorescent bulbs, and an additional 0.05 kg in thermostats and thermometers alone, and an additional 10 kg of elemental mercury. WCCIWMA collected 0.23 kg of mercury from fluorescent lights; no mercury was collected from un-itemized mercury containing devices. The relatively smaller amount of mercury collected from this facility can be explained because WCCIWMA utilizes the Big Green Box service, which provides boxes for collection of used batteries in retail outlets. WCCIWMA pre-pays for the shipping and when the box is full it is sent for proper sorting and recycling. This year the service collected a total of 741 various types of batteries, containing mercury and other metals (mostly alkaline with some lead, nickel cadmium, nickel-metal hydride and lithium). These items are not calculated with the calculator, but included for reference.

It is important to note High Intensity Discharge (HID) lamps are not just headlamps for a vehicle. High Pressure Sodium vapor and metal halide vapor lamps are HID's and are what is included in the CCCSD count. According to the Sylvania website, they can range from 1 to 30mg each https://assets.sylvania.com/assets/documents/Public%20Mercury%20Quantity%20in%20Lamps%20for%20General%20Light.1b882b8b-1f18-41d3-b4f8-539dcd204b1d.pdf. Also, switches here are not just from thermostats. Thermostat Recycling Corporation (See Source Definitions in Mercury Calculator instructions) is only able to provide information on thermostats. Mercury switches are found in appliances, automobiles, homes, and industrial equipment. We see many variations. They vary from 1-200+ grams each, according to the Northeast Waste Management Officials' Association website:

http://www.newmoa.org/prevention/mercury/imerc/factsheets/switches.cfm.

Table 11-1: Summary of Mercury Mass Collected by CCCSD FY 2014 /15

Mercury Containing Device/Equipment	Total Amount of Devices Collected	Estimated Mass of Mercury Collected (kg)
#1: Fluorescent Lamps[1] (**linear feet**)	341,646	.071
#2: CFLs[2] (**each**)	108,464	0.49
#3 HID Headlamps (each)	3,344	0.02
#4: Thermostats[3] (**each**)	120	0.48
#5: Thermostats (**lbs**)	NA	0
#6: Thermometers (**each**)	NA	0.54
#7: Switches [4](**each**)	11	0.03
#8 Elemental mercury	152.52	152.52
Total Mass of Mercury Collected During FY 2014 /15:		**154.79**

Table 11-2: Summary of Mercury Mass Collected by DDSD FY 2014 /15

Mercury Containing Device/Equipment	Total Amount of Devices Collected	Estimated Mass of Mercury Collected (kg)
#1: Fluorescent Lamps[1] (**linear feet**)	82,344	0.17
#2: CFLs[2] (**each**)	9,348	0.04
#3 HID Headlamps (each)	620	.0031
#4: Thermostats[3] (**each**)	6	0.024
#5: Thermostats (**lbs**)	0	0
#6: Thermometers (**each**)	47	0.03
#7: Switches [4](**each**)	0	0
#8 Elemental Mercury	10	10
Total Mass of Mercury Collected During FY 2014 /15:		**10.27**

Table 11-3: Summary of Mercury Mass Collected by WCWD FY 2014 /15

Mercury Containing Device/Equipment	Total Amount of Devices Collected	Estimated Mass of Mercury Collected (kg)
#1: Fluorescent Lamps[1] (**linear feet**)	78,392	0.16
#2: CFLs[2] (**each**)	15,140	.07
#3 HID Headlamps (each)	0	0
#4: Thermostats[3] (**each**)	0	0
#5: Thermostats (**lbs**)	0	0
#6: Thermometers (**each**)	0	0
#7: Switches [4](**each**)	0	0
#8 Elemental Mercury	0	0
Total Mass of Mercury Collected During FY 2014 /15:		**0.23**

In addition to the above mercury collection activities, in FY 2014/15 CCC had PG&E replace approximately 1,023 High Pressure Sodium Vapor (HPSV) lights with Light Emitting Diode (LED) lights, and the City of Martinez had approximately 1,900 streetlights replaced. Each street lamp is reported to have 1-22 mg of mercury, with an average of 16 mg/bulb for a 100 Watt bulb. Using the 16 mg average per bulb, this street light replacement project results in an estimated 16.4 grams of mercury removed (http://www.grahlighting.eu/learning-centre/street-lighting-technology-comparison) from Unincorporated County, and 30.4 grams in Martinez, for a total of 46.8 grams.

SECTION 12 – PROVISION C.12 PCB CONTROLS

Introduction

The majority of MRP requirements related to PCBs are being addressed regionally through BASMAA and the RMC, as mentioned in Section 11. Reporting on implementation of Provision C.12 PCBs Controls was provided in the WY 2014 UCMR, which can be found on the CCCWP website at: http://www.cccleanwater.org/surveys-studies-annual-report/. The East County Permit does not contain a provision on PCBs as the MRP does; however, the East County Permittees are conducting the same level of effort as the MRP Permittees for regional consistency.

In FY 2014/15, the CCCWP initiated development of a countywide GIS Pilot Project for maintaining, analyzing, interpreting, displaying and reporting relevant municipal stormwater program data and information, for compliance with MRP Provisions C.10 and C.11/12. This project will kick-off in FY 2015/16. One main purpose of the CCCWP GIS platform development project is for the screening and mapping of Potential PCBs Source Properties/Areas. This is in accordance with the Alternative Approach to POC and Long-term Trends Monitoring allowed for under the current MRP. The CCCWP GIS project will compile the potential high-opportunity PCBs site information Integrated Monitoring Report 2014 (IMR), which is in an Excel spreadsheet, with desktop and field screening data and sediment sampling results, and display them on a GIS map. The map will be used for visual geographic representation of the potential high opportunity PCBs/mercury areas, which we plan to use to analyze and help develop the Green Infrastructure plans required in MRP 2.0, including identification of potential opportunities for early implementation.

PCBs Containing Equipment Identification Training

Provision C.12.a requires training of industrial/commercial inspectors to identify PCBs-containing equipment, and to document their findings in inspection reports for referral to

the appropriate agencies. Training on the identification and management of PCBs-containing equipment was conducted in FYs 2010/11, 2012/13 and 2014/15 (i.e. April 30, 2015).

Managing PCBs-Containing Materials and Waste

Provision C.12.b requires pilot projects to evaluate control measures for managing PCBs-containing materials and wastes during building demolition and renovation. This provision was fulfilled by a collaborative, grant-funded project at the direction of the San Francisco Estuary Partnership. Details regarding this project are documented in the IMR Part B (2014) submitted to the Water Boards on March 15, 2014 http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/IMR/BASMAA_2014.pdf.

PCBs Source Property Identification Screening

CCCWP and Permittee staff have been conducting PCBs Source Property Identification Screening to delineate High, Moderate, and Low/No Opportunity parcels for consideration in focused implementation planning for PCBs and mercury load reductions. The CCCWP prepared a guidance document and map files to assist the Permittees in identifying potential PCBs source properties through the refinement of the draft source area maps contained in the IMR, and the preliminary source property database. Using multiple lines of evidence (e.g., institutional knowledge, records review, windshield surveys, facility inspections, and sampling results), the properties in the database are systematically being categorized as Potential High, Moderate, or Low/No Opportunity, which will help in identifying and prioritizing control measure implementation. As a first step, the Permittees carefully reviewed the parcel database through a desktop screening process. The desktop screening process is designed to identify properties that have been redeveloped, are non-jurisdictional, have separate NPDES Permits, and have previous pollutant violations/clean-up history. The Permittees then conducted windshield surveys of those properties that were considered

Potential High Opportunity after the desktop screening. If a parcel(s) met the Potential High Opportunity criteria, it was put on a list for possible sediment sampling. Sample locations are aimed at visible areas of track-out or erosion of sediment from an individual property. Some sites for which records and maps indicated a potential high-likelihood source property may be unsampleable (i.e. there is no sediment trackout or erosion onto the public right of way). These properties remain on the high priority list until further evidence suggests otherwise. In some cases, composite samples are analyzed to screen a larger area, which could later be potentially narrowed down to pinpoint individual parcels. Each sample is analyzed for PCBs (method 8082), Mercury, Total Organic Carbon and Grain Size. If a sample concentration is above 0.5 ppm PCBs, then CCCWP may reanalyze the sample with method 1668 for confirmation, and if appropriate, referral to Regional Water Board for enforcement action. Out of a total of 4,515 sites considered (including non-jurisdictional properties such as railroad, military, and Caltrans parcels, which were set-aside for future consideration), 600 passed the first level of desktop screening per the guidance, to be considered as Potential High Opportunity parcels. Out of these, 53 sites were sampled in the first round of sampling, seven sites were found to have sediment PCBs concentrations that were greater than 0.5 ppm, and two sites had sediment PCBs concentrations greater than 1 ppm. These samples will be reanalyzed with the more precise laboratory method and appropriate follow-up actions will be conducted by the respective Permittees. Ongoing screening will consider sites that may not have been included in the preliminary database or have other evidence pointing to potential high concentration of PCBs that may migrate off the parcel into the municipal storm drain system. Parcels that are non-jurisdictional with a high likelihood of PCBs and/or mercury will be inventoried and referred to the Water Board for follow-up action.

Screening results provided by the Permittees are being incorporated into the database to create revised GIS layers and source area maps. CCCWP expects to use its new GIS Pilot Project platform as a data management, analysis, and reporting tool for this C.11/12 screening work in FY 2015/16.

Table 12-1 shows the numbers of parcels in CCC that have been screened to date. The preliminary source property database was generated from maps provided in IMR, Part C (2014), which was based on land use (i.e., parcels located in Old Industrial areas). Each municipality (Column 1) screened the Old Industrial parcels within its jurisdiction (Column 2) according to screening guidance criteria. Through the screening process, Permittees ranked the parcels and placed them in to a moderate or low opportunity-level if they did not meet the criteria for Potential High Opportunity. The third column lists the number of parcels that were deemed to be Potential High Opportunity parcels after desktop and windshield screening. The fourth column lists the number of sites that were sampled based on the criteria for sampling.

Table 12-1: PCBs Source Property Screening by Contra Costa Permittees in FY 2014-15

Agency	# of Parcels to be Screened	Revised # of Potential High Opportunity Parcels	# of Parcels Sampled
Richmond	1,465	222	19
Unincorporated County and Flood Control District *	684	193	12
Concord	435	49	1
Pittsburg	578	46	18
Antioch *	67	31	0
Hercules	542	16	0
Martinez	201	11	0
San Pablo	132	11	2
El Cerrito	20	7	0
Pinole	105	6	1
Oakley *	21	5	0
Brentwood *	140	2	0
San Ramon	1	1	0
Walnut Creek	61	0	0
Clayton	0	0	0
Danville	11	0	0
Lafayette	4	0	0
Moraga	18	0	0
Orinda	3	0	0
Pleasant Hill	27	0	0
*** East County Permittees**			
		Total Sampled Sites	**53**

In FY 2015/16, CCCWP will continue the PCBs source property screening to identify potential high opportunity areas for implementation of green infrastructure and other controls to reduce PCBs and mercury loads.

SECTION 13 – PROVISION C.13 COPPER CONTROLS

Introduction

One of the most significant copper control effort completed during this permit term has been the passage of legislation addressing copper in vehicle brake pads. A detailed summary of the regulation and how its passage has assisted Permittees in meeting Provision C.13.c.ii requirements is provided below. Additionally, this section includes the results of two RMP studies examining the potential pollutant impacts of copper in the San Francisco Bay. These technical studies assist Permittees in meeting Provision C.13.e requirements. The legislative efforts and technical studies are being reported in this Volume I Report at the direction of BASMAA. A summary review of copper control activities specific to the CCCWP is also provided here. Copper control activities conducted at the local level are reported in the Individual Municipal Annual Reports compiled in Volume II of this Report.

Architectural Copper

As indicated in Section 4 of this Volume, the MOC reviewed outreach material drafted by CCCWP on BMPs for architectural copper. The brochure largely mirrors the one developed by the San Mateo Countywide Water Pollution Prevention Program. It is anticipated that the brochure will be finalized within the first half of FY 2015/16.

Vehicle Brake Pads

This MRP provision requires Permittees to engage in efforts to reduce the copper discharged from automobile brake pads to surface waters via stormwater. Provision C.13.c.iii requires that the Permittees report annually on legislation development and implementation status. Permittee compliance is achieved through continued participation in a process originally initiated by the Brake Pad Partnership (BPP) that achieved the 2010 passage of Senate Bill 346, which will phase out copper and other

heavy metals in brake pads over the next 15-20 years (see Table 13-1[12]). Because the State of Washington passed brake pad legislation a few months before California, and the Washington law is similar but different in a few key areas, the automotive brake pad-related industry is responding to both laws simultaneously, and Permittees must do likewise regarding the laws' implementation status.

In FY 2014/15, Permittees continued to track and support implementation of SB 346 through participation in CASQA, which is engaged through a CASQA-funded project in the following implementation efforts:

- Legislation
- Regulations
- Marking
- Certification
- Education
- National Memorandum of Understanding (MOU)
- Metrics

12 Full text of the legislation was submitted with the FY 2010/11 Regional POC Report. The law is the Brake Friction Material Law (or CA Brake Pad Law) (Health and Safety Code sections 25250.50 et seq.).

Table 13-1: Implementation Timeline for SB346 Regulation of Vehicle Brake Pads

Year	SB 346 Key Milestones or Provisions
2011	SB 346 became effective January 1 - California Brake Friction Material Law (or CA Brake Pad Law) When reformulating brake pads, manufacturers must select alternatives to copper that pose less potential hazard to public health and the environment.
2012	Target date - finalization for certification and marking criteria.
2014	Limits on cadmium, chromium, lead, mercury and asbestos took effect January 1. (Non-compliant pads can be sold solely for inventory depletion until 2024). Compliance certification must be marked on pads and listed on the Internet.
2018	California Environmental Protection Agency (EPA) Secretary appoints extension application advisory committee.
2019	Manufacturers may apply for extensions to the 2025 0.5% copper limit beginning January 1.
2021	5% copper limit takes effect January 1. (No extensions allowed, but non-compliant pads for pre-2021 vehicles may continue to be sold indefinitely).
2023	State Water Board & Department of Toxic Substances Control (DTSC) report to legislature on brake pad copper reductions and copper TMDL implementation progress. (The report can make recommendations for any additional brake pad copper controls needed to achieve TMDLs)
2025	0.5% copper limit takes effect January 1.
2032	Final end date for all light duty vehicle compliance extensions. (Non-compliant replacement pads for pre-2025 vehicles may continue to be sold indefinitely)

Legislation

The fact that the California and Washington state legislation and subsequent laws and regulations are different, and now there is a national MOU (see below) that has some differences from the Washington or California laws and regulations, creates an incentive for industry associations to propose state legislation that would revise, for example, California's laws to match Washington state's laws where the provisions are weaker than those in California. With assistance from the lobbyist that assisted the Brake Pad Partnership, CASQA tries to ensure that does not happen by tracking California legislation and being prepared to engage on potentially problematic legislation. No such legislation was proposed in the second year (2014) of the previous California legislative session (2013-2014) or to-date in the first year (2015) of the current session (2015-2016).

Regulations

CASQA continued to engage in the development of regulations for SB 346 by the DTSC and also by the Washington Department of Ecology (DOE) for that state's Better Brakes Law, which is similar to SB 346 in many respects[13]. CASQA's engagement included tracking developments and regular check-ins with key staff at California DTSC, and at Washington DOE as needed.

In 2014, DTSC determined that SB 346 could not be enforced unless DTSC issues regulations to clarify a few elements in the law. On June 20, 2014, DTSC announced it had prepared informal draft regulations to help implement the law that became effective January 1, 2014. The proposed regulations would clarify the standards for implementing the law, including the marking of the brake pads, the analytical testing methodology, and the analytical laboratory qualifications. The regulations are also intended to provide details on the processes that DTSC would use to provide

13 SB 346 includes a requirement that California regulations must be consistent with those of other states concerning compliance markings and certification. Washington's brake pad law required adoption of implementing regulations by December 2012, which was ahead of DTSC's timeline for preparing regulations for SB 346. Washington Department of Ecology adopted final Better Brakes Rules in October 2012; available at http://www.ecy.wa.gov/programs/hwtr/betterbrakes.html

extensions to the January 1, 2025 restrictions, and approve certification requirements used by the testing certification agencies.

DTSC held a series of four workshops in the summer of 2014 designed to discuss the scope and content of the draft regulations on the CA Brake Pad Law, and to provide DTSC with comments or submit questions regarding the proposed draft regulations before initiating the formal rulemaking process later in 2014. CASQA participated and will continue to participate in the regulatory process – conducting reviews and analyses and preparing and delivering comments – to try to ensure the full intent and letter of SB346 is implemented as designed. CASQA reviewed and submitted comments on the draft informal regulations for the CA Brake Pad Law[14], as well as reviewed and submitted comments on the revised draft informal regulations[15]. In each instance, CASQA was generally supportive of the approach being taken by DTSC and provided comments on one or two key aspects. In mid-June 2015, DTSC announced that it anticipates starting the formal rulemaking process in August 2015. The draft formal regulations are expected in late 2015.

Marking

Both California and Washington State laws require brake friction material to be marked according to an industry standard "edge code" certifying the formulation of the material complies with the concentration limits for copper and other constituents in the laws and enabling people throughout the supply chain to identify the information contained in an edge code quickly and easily.

Washington State law (but not California law) also requires brake packaging to be marked with a registered certification mark that is intended to certify compliance with Washington State's law. On October 2, 2013, Washington DOE issued guidelines here https://fortress.wa.gov/ecy/publications/publications/1304011.pdf under the

14 Comments on Draft Informal Regulations for Brake Friction Material Law, CASQA, September 2, 2014.

15 CASQA Response to 15-day Comment Period on the Revised Informal Draft Regulations for the California Brake Pad Law, CASQA, December 5, 2014.

Washington Better Brakes Law. The industry developed a logo for packaging ("LeafMark"™) with three designations:

- Level A designates compliance with requirements concerning cadmium, chromium, lead, mercury and asbestos. Level A compliance was required by January 1, 2014, in California and by January 2015 in Washington.
- Level B designates compliance with each of the above metals as well as copper, which must be reduced to less than 5% of material weight. Level B compliance is required by 2021.
- Level N designates compliance with the "Zero Copper" requirement, which takes effect in 2025.

CASQA has been working to try to secure pre-approved rights for local governments and NGOs to use the LeafMark™ name and logos to conduct public education and promote customers switching to low or non-copper brake pads (see National Memorandum of Understanding (MOU) below for more information).

Certification

An independent certification organization, National Science Foundation (NSF) certifies pads for compliance with the toxic metals, asbestos, and copper standards (see the certification website http://www.nsf.org/services/by-industry/automotive/friction-material/ and product list http://info.nsf.org/Certified/autorp/listings.asp?standard=SAEJ2975).

DTSC has assigned enforcement staff to this program, and they have been involved in discussions with Bureau of Automotive Repair (BAR) and representatives of the

Automotive Services Councils of America. DTSC cannot start enforcement until the regulations are adopted (see above). DTSC must enforce directly it does not have authority to delegate to others, like CUPAs (Certified Unified Program Agencies), but DTSC can accept referrals.

The industry has reported its baseline use of copper; nickel, zinc, and antimony to Washington DOE (see the data summary http://www.ecy.wa.gov/programs/hwtr/laws_rules/baseline.html). Progress in reducing these constituents in brake friction materials may now be tracked http://www.ecy.wa.gov/programs/hwtr/laws_rules/BBtracking.html.

Education

The websites for California http://www.dtsc.ca.gov/PollutionPrevention/BrakePads.cfm and Washington http://www.ecy.wa.gov/programs/hwtr/betterbrakes.html provide an increasing amount of information and links to additional information on the requirements and their implementation. 'Completion' of the California website is pending adoption of the California regulations. DTSC also plans to provide materials to support industry's compliance and education efforts.

National Memorandum of Understanding (MOU)

In late 2013, a coalition of automotive-related industry representatives approached EPA with a proposal to develop and reach an agreement on a nationwide MOU, purportedly to avoid a patchwork of laws and regulations and provide a streamlined, national approach to phasing out the use of copper and other constituents in brake friction materials. Both Washington DOE and California DTSC were made aware of the effort in early February 2014, and CASQA was made aware in early March 2014. It appeared that Washington DOE and California DTSC were consulted regularly during the negotiations, while CASQA and other stakeholders were consulted less regularly.

CASQA representatives participated in a conference call with EPA staff in early April, and followed that up with a comment letter[16]. In the letter, CASQA, in general:

- Noted it supports and encourages EPA's interest in establishing nationwide source control (pollution prevention) solutions for stormwater pollution;
- Pointed out that numerous California agencies are relying on implementation of laws adopted to control brake pad copper content that form the foundation of their compliance with requirements for stormwater copper discharge reductions; and,
- Urged any MOU established between EPA and the vehicle industry strongly support timely, robust implementation of existing state laws.

CASQA also stated the draft MOU fell significantly short of its stated intent of consistency with adopted California and Washington state laws and regulations, despite EPA's commitment to ensure the MOU meets the most stringent provisions in the combination of the existing state laws. CASQA also made specific recommendations to bring the language of the draft MOU as close as possible to the stated intent. Negotiations continued into FY 2014/15, some of which CASQA was made party to indirectly through EPA but for most of which CASQA was not involved.

On January 21, 2015 EPA announced the signing of the MOU by EPA, eight automotive industry associations, and the Environmental Council of the States. The most significant difference between the last draft of the MOU provided to CASQA and the final version was that provisions were removed allowing local governments or NGOs (e.g., BASMAA) use of the educational materials (i.e., the LeafMark™). The MOU contains LeafMark™ usage guidelines that require industry association pre-approval for all uses of the LeafMark™. The day before the MOU signing was announced, CASQA wrote to the industry association asking:

16 CASQA Comments to EPA on Proposed MOU regarding Brake Pad Copper Content (April 15, 2014)

1. "*Under the current MOU and trademark guidance, would MEMA [Motor & Equipment Manufacturers Association] be willing and able to provide pre-approval for the use of materials in a generic form that may be subject to minor or non-substantive modifications?*
2. *Under the current MOU and trademark guidance would MEMA be willing and able to grant permission to use the logos to a local government agency and/or a legally recognized organization on behalf of its members?*"

To date, no response has been received from MEMA but CASQA does plan to make another attempt to secure a generic pre-approval.

Metrics

California law requires the virtual elimination of copper in vehicle brake pads by 2025. Many California municipal stormwater programs are relying on the reduction in copper in brake pads to help achieve TMDL waste load allocations and/or to comply with permit requirements to reduce copper in stormwater. To address these needs, CASQA developed a memorandum that:

"*…identifies quantitative metrics that can be used to track the pace of brake pad copper reduction and provides current and baseline values for each metric*[17]*.*
Based on data [*detailed below*]*, it is apparent that brake pad copper reductions are underway—and are well ahead of regulatory deadlines. Average brake pad formulation copper content—currently 5.6%—has dropped about 30% since 2006. "Copper-free" (<0.5% copper) brake pad formulations have become widely available, comprising 41.2% of all available formulations. Most of the vehicle industry appears to be planning to transition to <0.5% copper brake pads prior to the first copper reduction compliance deadline in 2021.*"

17 *Brake Pad Copper Reduction – Metrics for Tracking Progress*, CASQA Memorandum (December 1, 2014)

Studies to Reduce Copper Pollutant Impact Uncertainties

In FY 2014/15, the RMP completed two studies addressing uncertainties about potential copper effects in San Francisco Bay:

- A follow up study[18] on the effect of changes in salmon physiology and water salinity on the olfactory toxicity of copper found that both freshwater- and seawater-phase juvenile Coho salmon showed no significant olfactory toxicity from exposure to copper at 50 µg /L in salinities typical of estuarine (10 ppt) or seawater (32 ppt) conditions. These results indicate that the Site Specific Objectives adopted for copper also protect the olfactory system of juvenile salmon from toxicity under water conditions likely to be present in various segments of San Francisco Bay.
- Another study[19] indicated that the small particle sizes characteristic of benthic sediment samples from most of the Bay is a significant factor in the widespread observations of moderate toxicity in test amphipods that is not explained by contaminant exposures. If a planned follow-up study with actual Bay sediments confirms that this effect is strongest with larger sizes of Eohaustorius estuaries (associated with increasing age and variability in breeding condition), the RMP may revise its criteria for selecting the test amphipods used in toxicity tests.

FY 2015/16 Planned Activities

Based on the language in the draft Tentative Order of MRP 2.0, it is not anticipated that CCCWP will need to devote significant staff resources to assist Permittees with meeting Copper Control requirements. CCCWP will be working with Permittees to ensure that the following requirements, as currently proposed in MRP 2.0, are being met:

[18] http://www.sfei.org/documents/impact-dissolved-copper-olfactory-system-juvenile-salmon-phase-ii-effect-estuarine

[19] http://www.sfei.org/documents/effects-kaolin-clay-amphipod-eohaustorius-estuarius

- Permittees have established the legal authority to prohibit the discharge of wastewater to storm drains generated from the installation, cleaning, treating, and washing of copper architectural features, including copper roofs.
- Permittees have established the legal authority to prohibit the discharges to storm drains of water containing copper-based chemicals from pools, spas, and fountains.
- Permittees have established standard operating procedures to address potential discharges from architectural copper or pools, spas, and fountains and that these procedures include enforcement actions.

CCCWP will continue to work with stormwater inspectors to address industrial sources of copper identified during inspections and ensure that proper BMPs are in place at such facilities to minimize discharge of copper to storm drains.

SECTION 14 – PROVISION C.14 PBDE, LEGACY PESTICIDES AND SELENIUM CONTROLS

Reporting on implementation of Provision C.14, *PBDE, Legacy Pesticides, and Selenium Controls*, was provided in the "*Regional Annual Report Supplement for POCs and Monitoring*" submitted by BASMAA on September 15, 2013. A copy of this report can be made available upon request.

SECTION 15 – PROVISION C.15 EXEMPTED AND CONDITIONALLY EXEMPTED DISCHARGES

Introduction

As outlined in Section 2 of this Volume 1 report, the CCCWP MOC is tasked with the review, development and coordination of any countywide and/or regional tasks conducted to assist Permittees with implementation of the mandates in Provision C.15. However, due to reductions in CCCWP staffing, redirection of effort in meeting the Trash Load Reduction mandates in Provision C.10, and other competing priorities, only minimal Group Program actions related to Provision C.15 were conducted in FY 2014/15.

As indicated in Section 2, CCCWP arranged for a guest speaker to discuss the newly adopted Statewide NPDES Permit for Drinking Water System Discharges (Statewide Drinking Water Discharge Permit). The presentation was given at the January 2015 MOC meeting. The permit was adopted in November 2014 and given an effective date of February 2015, but MRP Permittees that are also water purveyors (and hence could be subject to this new permit) were given until September 1, 2015 to file an Notice of Non-Applicability (and therefore continue reporting on their drinking water discharges under the MRP) or an NOI if they wished to seek coverage under the Statewide Drinking Water Discharge Permit.

However, while proposed Provision C.15 of the May 11, 2015 draft Tentative Order for the reissuance of the MRP appears now to require such Permittees to obtain coverage under this new permit, some agencies submitted comments by the July 10 deadline requesting that coverage of their drinking water discharges continue under the reissued MRP. Once MRP 2.0 is adopted and reporting and permitting requirements clarified, CCCWP will assist those Permittees who are also water purveyors to obtain appropriate coverage.

FY 2015/16 Planned Activities

In FY 2015/16, anticipated Group Program activities related to Provision C.15 include assisting Permittees who, depending on what transpires under MRP 2.0, may need to report separately on their drinking water discharges under this new permit.

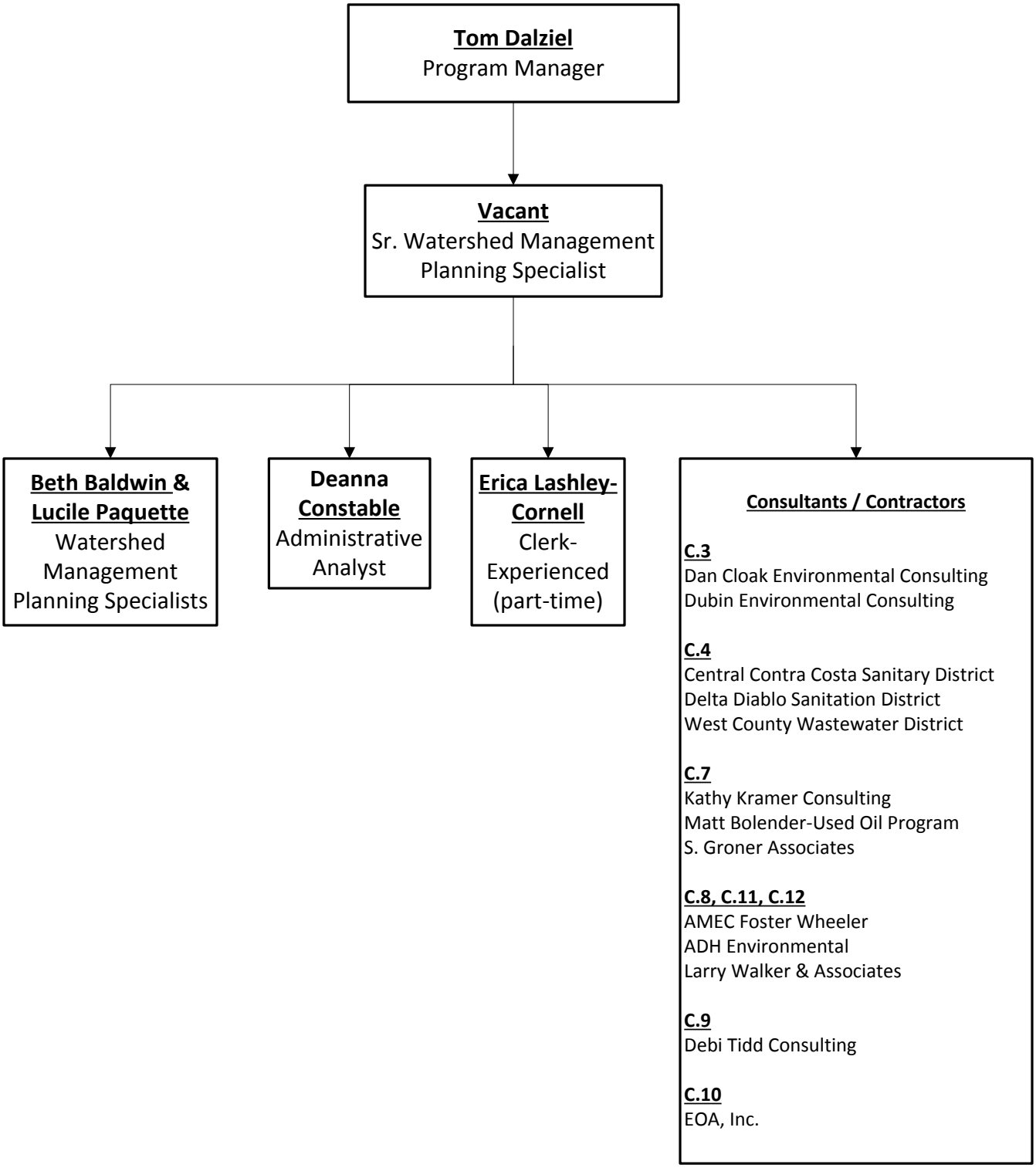
CCCWP staff will also continue to monitor any changes to the Statewide Drinking Water Discharge Permit, and inform the CCCWP MOC of any pertinent developments.

Attachment 1.1

Contra Costa Clean Water Program Management

Contra Costa Clean Water Program Staffing, Consultants and Contractors

Attachment 1.1



G://GrpData/NPDES/Org Charts/CCCWP Program Management 14-15
Last Updated: August 20, 2015

Attachment 1.2

Contra Costa Clean Water Program Organizational Structure and Representation

CONTRA COSTA CLEAN WATER PROGRAM
ORGANIZATIONAL STRUCTURE

Attachment 1.2

Participants -- Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, Walnut Creek, Contra Costa County, and Contra Costa County Flood Control & Water Conservation District

ADMINISTRATIVE COMMITTEE

DUTIES

- Administration
- Strategic Planning
- Personnel
- Budget
- Conflict Resolution

MANAGEMENT COMMITTEE

DUTIES

- Decision Making Body
- Strategic Planning
- Sets Policies / Directives
- Program Manager Evaluation
- Approves / Appropriates Budget

STAFF

Tom Dalziel, Program Manager
Beth Baldwin, Watershed Management Planning Specialist
Lucile Paquette, Watershed Management Planning Specialist
Deanna Constable, Administrative Analyst
Erica Lashley-Cornell, Clerk - Experienced Level

MONITORING COMMITTEE

DUTIES

- C.8 - Water Quality Monitoring
- C.9 - Pesticides Toxicity Control
- C.11 - Mercury Controls
- C.12 - Polychlorinated Biphenols (PCBs) Controls
- C.13 - Copper Controls
- C.14 - PBDEs, Legacy Pesticides and Selenium

DEVELOPMENT COMMITTEE

DUTIES

- C.3 - New Development and Redevelopment
- C.6 - Construction Site Control

PUBLIC INFORMATION / PARTICIPATION COMMITTEE

DUTIES

- C.7 - Public Information and Outreach
- C.9 - Pesticides Toxicity Control

MUNICIPAL OPERATIONS COMMITTEE

DUTIES

- C.2 - Municipal Operations
- C.4 - Industrial and Commercial Site Controls
- C.5 - Illicit Discharge Detection and Elimination
- C.9 - Pesticides Toxicity Control
- C.10 - Trash Load Reduction
- C.15 - Exempted and Conditionally Exempted Discharges

BASMAA MONITORING/ POC COMMITTEE

PROGRAM REPRESENTATIVES
Lucile Paquette, Program Staff
Cece Sellgren, Contra Costa County

BASMAA DEVELOPMENT COMMITTEE

PROGRAM REPRESENTATIVES
Tom Dalziel, Program Staff
John Steere, Contra Costa County
Dan Cloak, Program Consultant

BASMAA PUBLIC INFORMATION/ PARTICIPATION COMMITTEE

PROGRAM REPRESENTATIVES
Deanna Constable, Program Staff
Dan Jordan, Contra Costa County
Julie Wajdowicz, City of Antioch

BASMAA MUNICIPAL OPERATIONS COMMITTEE

PROGRAM REPRESENTATIVES
Beth Baldwin, Program Staff
Dan Cloak Program Consultant

BASMAA TRASH COMMITTEE

PROGRAM REPRESENTATIVES
Beth Baldwin, Program Staff
Rinta Perkins, City of Walnut Creek
Dan Cloak, Program Consultant

Attachment 1.3

Program Subcommittee Participation and Attendance Rosters

Attachment 1.3

ADMINISTRATIVE COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG[3]	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV% ATT	MUNI % ATT
City of Antioch	**Phill Hoffmeister [1]**			1	1	1		1	1	1	1		1	73%	**73%**
	Julie Haas-Wajodwicz													0%	
Contra Costa County	**Cece Sellgren**	1		1	1	1	1	1			1	1	1	82%	**100%**
	John Steere								1	1				18%	
CCC Flood Control District	**Mike Carlson [2]**	1			1	1	1	1	1		1	1	1	82%	**91%**
	John Steere									1				9%	
City of Hercules	**Jose Pacheco**			1	1	1		1	1		1		1	64%	**73%**
	Jeff Brown									1				9%	
City of Martinez	**Tim Tucker**	1		1		1	1	1	1	1		1	1	82%	**82%**
	Khalil Yowakim													0%	
City of Oakley	**Keith Coggins**								1					9%	**45%**
	Billilee Saengchalern										1	1	1	27%	
	Frank Kennedy									1				9%	
City of Orinda	**Wendy Wellbrock**	1		1	1	1					1	1	1	64%	**100%**
	Larry Theis													0%	
	Daniel Chavarria						1	1	1	1				36%	
NON-VOTING															
Town of Danville	Chris McCann					1		1		1			1		
City of Walnut Creek	Rinta Perkins												1		
City of San Ramon	Steven Spedowfski	1		1	1	1	1	1		1		1	1		
PROGRAM STAFF															
	Tom Dalziel	x		x	x	x	x	x	x	x	x	x	x		
	Beth Baldwin	x		x	x	x	x	x	x	x	x	x	x		
	Lucile Paquette	x			x	x			x	x	x	x	x		
	Deanna Constable							x	x						
	Erica Lashley-Cornell										x	x	x		
	Fan Ventura	x		x	x		x	x							

[1] Chairperson [2] Vice-Chairperson [3] Meeting cancelled

DEVELOPMENT COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG(3)	SEP	OCT	NOV(3)	DEC(3)	JAN	FEB	MAR	APR(3)	MAY	JUN	INDIV % ATT	MUNI % ATT
City of Antioch	**Phil Hoffmeister**	1		1	1			1	1	1		1		100%	**100%**
	Julie Haas-Wajdowicz													0%	
City of Brentwood	**Dee Boskovic**	1		1				1	1	1		1		86%	**86%**
	Jagtar Dhaliwal													0%	
City of Clayton	**Laura Hoffmeister**							1	1	1		1		57%	**57%**
	Charlie Mullen													0%	
City of Concord	Dan Sequeira	1		1										29%	**86%**
	Robert Ovadia				1			1	1			1		57%	
	Frank Kennedy													0%	
Contra Costa County	**John Steere**	1		1	1			1		1		1		86%	**86%**
	Michele Mancuso													0%	
Town of Danville	**Chris McCann**	1		1	1				1			1		71%	**71%**
	Michael Stella													0%	
City of Pittsburg	**Jolan Longway**			1				1	1					43%	**43%**
	Majeed Bahri													0%	
City of Pleasant Hill	**Rod Wui**	1		1										29%	**43%**
	Ann Page											1		14%	
City of Richmond	**Joanne Le**				1			1	1	1		1		71%	**100%**
	Lynne Scarpa	1		1										29%	
City of San Ramon	**Theresa Peterson**	1			1			1	1	1		1		86%	**86%**
	Steven Spedowfski													0%	
City of Walnut Creek	**Carlton Thompson**	1		1	1			1	1			1		86%	**100%**
	Michael Hawthorne									1				14%	
PROGRAM STAFF															
Tom Dalziel				x											
Dan Cloak	Consultant	x		x	x			x	x	x		x			

(1) Chairperson, (2) Vice-Chairperson, (3) Meeting Cancelled

MANAGEMENT COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG (3)	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV % ATT	MUNI % ATT
City of Antioch	**Phil Hoffmeister**(1)	1		1		1		1	1	1	1		1	73%	**73%**
	Ron Bernal													0%	
City of Brentwood	**Jack Dhaliwal**	1		1	1	1	1				1	1	1	73%	**91%**
	Jeffrey Cowling								1	1				18%	
City of Clayton	**Laura Hoffmeister**					1	1		1	1	1	1		55%	**55%**
	Charlie Mullen													0%	
	Rick Angrisani													0%	
City of Concord	Dan Sequeira	1		1										18%	**91%**
	Robert Ovadia				1	1	1	1		1	1	1	1	73%	
	Frank Kennedy													0%	
Town of Danville	**Chris McCann**	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Michael Stella													0%	
City of El Cerrito	**Stephen Pree**	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Yvetteh Ortiz													0%	
	Maria Sanders													0%	
City of Hercules	**Mike Roberts**													0%	
	Jeff Brown							1						9%	**82%**
	Jose Pacheco	1		1	1	1	1		1	1			1	73%	
City of Lafayette	**Donna Feehan**	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Mike Moran													0%	
	Ron Lefler													0%	
City of Martinez	**Khalil Yowakim**	1		1	1	1	1	1	1	1		1	1	91%	**91%**
	Tim Tucker													0%	
Town of Moraga	**Edric Kwan**	1		1	1	1	1		1	1	1		1	82%	**100%**
	Lawrence Tam													0%	
	Frank Kennedy							1				1		18%	
City of Oakley	**Keith Coggins**	1		1	1	1		1		1				55%	**100%**
	Frank Kennedy						1		1					18%	

MANAGEMENT COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG (3)	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV % ATT	MUNI % ATT
	Billilee Saengchalern										1	1	1	27%	
City of Orinda	**Wendy Wellbrock**	1		1	1	1					1	1	1	64%	**100%**
	Daniel Chavarria						1	1	1	1				36%	
	Larry Theis													0%	
	Charles Swanson													0%	
City of Pinole	**Dean Allison**			1				1						18%	**55%**
	Frank Kennedy								1	1		1	1	36%	
City of Pittsburg	**Jolan Longway**[(2)]	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Laura Wright													0%	
City of Pleasant Hill	**Rod Wui**	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
City of Richmond	**Lynne Scarpa**	1		1	1	1	1							45%	**91%**
	Joanne Le						1	1	1	1	1		1	55%	
City of San Pablo	Jen Jackson			1	1	1								27%	**91%**
	Karineh Samkian						1	1	1	1	1	1		55%	
	Amanda Booth											1	1	18%	
	Barbara Hawkins													0%	
	John Medlock													0%	
City of San Ramon	**Steven Spedowfski**	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Robin Bartlett													0%	
City of Walnut Creek	**Rinta Perkins**	1		1	1	1	1	1	1	1	1		1	91%	**100%**
	Steve Waymire													0%	
	Carlton Thompson									1				9%	
Contra Costa County	**Cece Sellgren**	1		1	1	1	1	1	1	1	1	1		91%	**91%**
	Julie Bueren													0%	
	Mike Carlson													0%	
Flood Control	**Mike Carlson**	1		1		1	1	1	1	1	1	1	1	91%	**91%**
	Tim Jensen													0%	
PROGRAM STAFF															

MANAGEMENT COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG (3)	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV % ATT	MUNI % ATT
Tom Dalziel		x		x	x	x	x	x	x	x	x	x	x		
Beth Baldwin		x		x	x	x	x	x		x	x	x	x		
Lucile Paquette		x		x	x					x	x	x	x		
Deanna Constable		x		x	x	x	x	x	x	x			x		
Erica Lashley-Cornell									x	x	x	x	x		
Fan Ventura		x			x	x	x								
Dan Cloak	Consultant			x	x	x	x			x		x			

(1) Chairperson (2) Vice- Chairperson (3) Meeting Cancelled

**Both Primary and Alternate attended the same meeting; attendance credit goes to Primary representative.

MUNICIPAL OPERATIONS COMMITTEE
FY 2014-15 MONTHLY ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG	SEP [3]	OCT	NOV	DEC [3]	JAN	FEB	MAR [3]	APR	MAY	JUN	INDIV	MUNI % ATT
City of Antioch	**Cleveland Porter**													0%	**78%**
	Phil Hoffmeister	1	1			1		1	1		1	1		78%	
City of Brentwood	**Jeff Cowling**	1			1	1		1	1					56%	**78%**
	Kelly Martinez		1			1		1				1		44%	
City of Concord	Joe Tagliaboschi													0%	**44%**
	Justin Ezell								1		1	1		33%	
	Jesse Crawford												1	11%	
	Robert Ovadia													0%	
Contra Costa County	**Michele Mancuso** [1]	1			1	1		1	1		1	1		78%	**89%**
	Margie Valdez				1	1		1			1	1	1	67%	
City of Martinez	**Bob Cellini**	1						1	1			1	1	56%	**78%**
	Khalil Yowakim		1		1				1					33%	
City of Pittsburg	**Jolan Longway** [2]	1	1		1	1		1	1		1	1		89%	**89%**
	Ramona Anderson								1					11%	
City of Walnut Creek	Rich Payne								1					11%	**89%**
	Rinta Perkins		1		1	1		1	1				1	67%	
	Tom Hornsby		1		1			1	1		1	1		67%	
NON-VOTING															
City of Clayton	Laura Hoffmeister				1										
Contra Costa County	Chris Lau				1				1						
Contra Costa County	Cece Sellgren	1	1		1										
Contra Costa County	John Steere					1									
Town of Danville	Chris McCann	1			1	1			1		1	1			
City of El Cerrito	Stephen Prée										1	1			
City of El Cerrito	Maria Sanders														
City of Lafayette	Donna Feehan		1		1				1						
City of Martinez	Bill Regan											1			
Town of Moraga	Lawrence Tam	1													
City of Oakley	Billilee Saengchalern										1				
City of Orinda	Wendy Wellbrock				1										
City of Orinda	Daniel Chavarria								1						

Attachment 1.3

MUNICIPALITY	REPRESENTATIVE	JUL	AUG	SEP [3]	OCT	NOV	DEC [3]	JAN	FEB	MAR [3]	APR	MAY	JUN	INDIV	MUNI % ATT
City of Pinole	Kim Odom				1			1			1				
City of Pittsburg	Jorge Esparza											1			
City of San Pablo	Jen Jackson	1													
City of San Pablo	Karineh Samkian				1	1									
City of San Ramon	Steven Spedowfski				1										
City of Richmond	Joanne Le							1							
Kennedy and Associates	AJ Kennedy				1	1			1						
PROGRAM STAFF															
Beth Baldwin		x	x		x	x		x	x		x	x	x		
Tom Dalziel			x		x										

[1] Chairperson, (2) Vice-Chairperson, (3) Meeting Canceled

Changed to monthly meetings starting July 2014.

MONITORING COMMITTEE
ATTENDANCE ROSTER FY 2014-15

MUNICIPALITY	REPRESENTATIVE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV % ATT	MUNI % ATT
City of Antioch	**Phil Hoffmeister** (1)	1	1	1			1	1	1		1	1	1	75%	**75%**
	Julie Haas-Wajdowicz													0%	
County Flood Control	**Cece Sellgren**	1	1	1	1	1		1	1	1		1	1	83%	**92%**
	Michele Mancuso										1			8%	
City of Lafayette	**David Terhune** (3)	1	1	1	1	1								42%	**42%**
	Ron Lefler													0%	
City of Pinole	**Dean Allison**			1	1		1		1	1	1	1		58%	**58%**
City of Pittsburg	**Alfredo Hurtado**	1						1		1				25%	**83%**
	Jolan Longway	1	1	1	1	1	1		1		1			67%	
City of San Pablo	**Karineh Samkian**	1	1	1	1	1	1	1	1	1	1	1		92%	**100%**
	Amanda Booth												1	8%	
	Jen Jackson (3)													0%	
PROGRAM STAFF															
Lucile Paquette		x	x	x	x	x	x	x	x	x	x	x	x		
Tom Dalziel		x		x			x	x	x	x	x	x	x		
Erica Lashley-Cornell									x	x	x	x	x		
Fan Ventura (3)		x	x	x	x		x								
Consultants															
(Geosyntec/LWA)	Lisa Austin						x	x	x						
(Geosyntec/LWA)	Sandy Mathews							x							
(Geosyntec/LWA)	Kristine Corneillie						x		x						

(1) Chair (2) Vice Chair (3) Member left agency

PUBLIC INFORMATION/PARTICIPATION COMMITTEE
FY 2014-15 ATTENDANCE ROSTER

MUNICIPALITY	REPRESENTATIVE	JUL	AUG[3]	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	INDIV % ATT	MUNI % ATT
City of Antioch	**Julie Haas-Wajdowicz**			1	1	1	1	1	1	1		1	1	82%	**100%**
	Phil Hoffmeister	1									1			18%	
	Dan Jordan	1		1	1	1	1	1	1	1	1	1		91%	**91%**
CCC Flood Control District	Elissa Robinson													0%	
	Cece Sellgren													0%	
City of El Cerrito	**Stephen Prée**	1		1	1	1	1	1	1	1	1	1		91%	**91%**
	Garth Schultz													0%	
Town of Moraga	**Edric Kwan**	1		1	1	1	1			1		1	1	73%	**91%**
	Lawrence Tam								1		1			18%	
City of Pittsburg	**Laura Wright**[1]	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Jolan Longway													0%	
City of San Ramon	**Steven Spedowfski**[2]	1		1	1	1	1	1	1	1	1	1	1	100%	**100%**
	Robin Bartlett													0%	
City of Walnut Creek	**Rinta Perkins**	1			1	1	1	1	1	1	1	1	1	91%	**91%**
	Michael Hawthorne													0%	
PROGRAM STAFF															
	Deanna Constable	x		x	x	x	x	x	x	x	x	x	x		
	Tom Dalziel	x		x	x	x	x	x	x	x	x	x	x		

(1) Chairperson, (2) Vice-Chairperson, (3) Meeting Cancelled

Attachment 1.4

Urban Greening Bay Area, Full Proposal to USEPA, July 2014

Attachment 1.4

URBAN GREENING BAY AREA

FULL PROPOSAL TO US EPA

JULY 2014

San Francisco Estuary Partnership & Partners

Urban Greening Bay Area: LID Planning, Implementation & Tracking

FULL PROPOSAL FOR EPA SF BAY WATER QUALITY IMPROVEMENT FUNDS

Applicant Name: Association of Bay Area Governments/San Francisco Estuary Partnership
Address: 1515 Clay Street, Suite 1400, Oakland, CA 94610 **DUNS #**:07-907-3920
Contact Person: Jennifer Krebs **Phone Number:** 510.622.2315 **Email Address:** Jkrebs@waterboards.ca.gov

Abstract

Urban Greening Bay Area is a large-scale effort to re-envision Bay Area urban landscapes as more stormwater-friendly, dense, and green to address challenges associated with climate change, to infiltrate or capture stormwater and pollutants near their source, and in turn, to promote improved water quality in San Francisco Bay. The project channels the resources of local, regional, state, and federal partners to build regional capacity for long-term and effective Green Infrastructure (GI)/Low Impact Development (LID)[1] implementation. To meet high-priority needs related to GI planning, implementation and tracking; the project will create: 1) watershed-scale GI plans that identify optimal placement of GI projects to achieve measurable water quality results; 2) Regional Roundtable to develop a regional concept plan for integrating GI into future regional climate change and transportation investments to ensure stable long-term funding; 3) cost-effective, transferable, and low maintenance designs for integrating GI into active transportation projects for typical roadway scenarios; 4) implemented high-impact urban GI projects; and 5) GI tracking tool to document local and regional progress toward achieving water quality goals. Urban Greening Bay Area will build momentum to help the region's transition from a piecemeal approach to watershed-scale, systematic implementation of GI. A three-year project, the Urban Greening Bay Area's ten-year goal and anticipated environmental outcome is widespread, distributed use of GI as "business as usual" for regional and local agencies that will result in pollutant and runoff load reductions that help protect the health of our waterways and the Bay.

Introduction

Water quality in the San Francisco Bay and its watersheds is impaired by PCBs, mercury, pesticides and a number of other pollutants. Pollutant transport to the Bay is a function of source areas combined with enhanced run-off stemming from modification of the natural hydrological cycle by impervious surfaces. Municipal agencies are tasked with implementing programs to reduce pollutant discharges, while also maintaining the drainage infrastructure to reduce flood risks. Increasingly, distributed management of stormwater runoff using GI is considered the multi-benefit solution that can best address stormwater quality and quantity concerns, while providing positive environmental benefits for urban landscapes—including reduction in urban heat island effect; increased walkability; and beautification. The Municipal Regional Stormwater Discharge Permit (MRP) currently requires GI for certain regulated projects, which may be expanded in the next permit cycle.

Lack of watershed-based planning and dedicated funding are two key deficiencies hindering the Bay Area's transition to regional-scale, standardized implementation of GI. Urban Greening Bay Area brings together municipal staff from both public works and planning departments to develop Urban Greening Plans. These plans, informed by SFEI's scientifically based GreenPlan-IT site locator, hydrologic, and optimizations functions (which will be upgraded as a part of this grant), are currently underway in two Priority Development Areas (PDAs) in San Jose and the City of San Mateo. Urban Greening Bay Area will increase the number of municipalities with such plans. San Jose will plan

1 This proposal will use GI as an abbreviation for both Green Infrastructure and LID

another neighborhood; Oakland, Sunnyvale, Richmond, and Contra Costa Counties will all use GreenPlan-IT outputs to identify and plan for GI implementation.

The Regional Roundtable will work to leverage substantial transportation and GHG-reduction funds associated with Plan Bay Area—the nine-county region's first long-range plan to meet the requirements of California's landmark Sustainable Communities and Climate Protection Act of 2008. The act promotes reduced greenhouse gas emissions from cars and light trucks by locating housing density closer to transit in PDAs. Major planning and implementation investments for transportation infrastructure improvements are occurring in local PDAs through grants from the Metropolitan Transportation Commission (MTC) to local governments to support Plan Bay Area ($14 billion dollars total between now and 2040 for "active transportation" investments focused on bicycle and pedestrian improvements); however, GI measures are not yet a consideration in the effort. The vision of the Roundtable is to have some of these funds available for integrating stormwater improvements into active transportation upgrades.[2]

Given Bay Area population growth projections from seven to nine million people by 2040, on-going environmental impacts of chemical products (past, present and future), and ongoing competition for reliable safe drinking water; the challenge facing the region is how to accommodate these prospects while protecting water quality. Urban Greening Bay Area will help set the stage for cost-effective, widespread, distributed GI implementation as an integrated approach of land use planning, transportation and drainage infrastructure, climate change adaptation, and environmental sustainability.

Partnerships

Urban Greening Bay Area builds on the work of GreenPlan Bay Area, a state-funded initiative begun in 2013 by San Francisco Estuary Partnership (SFEP), San Francisco Estuary Institute (SFEI), and the Bay Area Storm Water Management Agencies Association (BASMAA) to advance GI plans and projects in pilot cities and towns around the region. This working partnership, and the addition of new municipal entities, will ensure steady forward progress in developing and implementing GI plans. Our local governmental partners include: Contra Costa County, the cities of Livermore, Oakland, Richmond, San Jose, San Mateo and Sunnyvale, and Alameda County Zone 7 Water Agency. The voluntary participation of these agencies demonstrates both visionary-thinking and recognition of the regulatory climate that increasingly favors the use of GI.

The GI Roundtable process will promote new linkages between stormwater management and planned investments in regional land use and transportation planning as well as greenhouse gas reduction. In addition to Roundtable meetings, project partners will have conversations with MTC, Joint Policy Committee, ABAG Executive Board, and Regional Planning Committee members and staff. Letters of support for the Roundtable are included from regional agencies (BAAQMD, BCDC, MTC), as well as organizations with an stake in Greening Cities and/or protecting water quality (Save the Bay, BayKeeper, ReNUWIt, Barclays Bank, Pacific Institute, and others).

All partners either have purview over water quality and land use decisions directly, or have an institutional stake in protecting water quality and aquatic resources associated with the San Francisco Bay and its tributary watersheds. Each entity's role is described in the project task descriptions, with verification in the form of a letter of support.

[2] For the purpose of this proposal, the partners evaluated 1) the potential water quality improvements if GI is applied to public rights-of-way within the region's PDAs, and 2) the cost of making such improvements (if accomplished purely under a water quality driver). Assuming that 20% of PDAs are road surfaces and that GI can treat 90% of pollutant loads, then GI in PDA rights-of-way can reduce PCB loads to the Bay by 259 grams/year (3% of total loads to the Bay). The annual cost per acre of treatment is estimated at $16,000, leading to a combined PDA implementation cost of over $264 million per year (over $5 billion in 20 years). If stormwater improvements are married with active transportation projects (sidewalk widenings, crosswalk bulbouts, etc.) and greening projects (street tree plantings, low albedo walkways), then the stormwater costs are significantly reduced).

Project Overview

The Urban Greening Bay Area funding **request from EPA is $1,680,559**, with over **$1,680,559 in matching and leveraged funds.** The primary source of matching funds is a Proposition 84 IRWMP Grant to implement the San Jose Chynoweth Avenue Green Street Retrofit Project. Additional match comes from municipal partners in the form of in-kind staff time. The project is comprised of three elements: **A) Planning, B) Implementation and C) Tracking.** Each of these elements is presented below. Municipal partner expenses are included in task budgets or are listed as in-kind match.

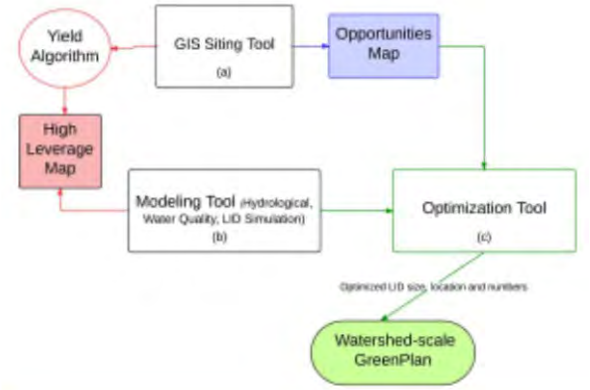
	Budget Overview	EPA		Match/Leverage
Planning			782,000	
	GreenPlan-IT Upgrades	247,000		
	Municipal Master Planning Efforts	405,000		
	Regional GI Roundtable	130,000		
	Matching/Leveraged Funds	inkind est. $10,000 to $15,000/mun.		40,000
Implementation			671,000	
	Design Contest	561,000		
	San Jose Green Street Construc	110,000		
	Matching/Leveraged Funds	IRWMP Imp. Gt to San Jose & Mun.		2,000,000
Tracking				
	Urban Greening Tracker	120,000	120,000	
	Matching/Leveraged Funds	inkind est. $10,000 to $15,000/mun.		30,000
Management		107,559	107,559	
TOTAL GRANT			**1,680,559**	**2,070,000**

A. Planning Element

PLANNING PROJECTS		Budget & Schedule Detail		2014	2015				2016				2017			
GreenPlan-IT				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Site Locator Tool	SFEI	50,000													
	Hydro Modeling Tool	SFEI	10,000													
	Optimization Tool	SFEI	10,000													
	TAC	SFEI	56,000		mtg			mtg								
	Project Management	SFEI	91,000													
	Coordination/Project Mgmt	SFEP	30,000	QR	QR	QR	QR	QR	QR	dr final rept		final re	QR			
			247,000													
Municipal Master Planning																
	GreenPlanIT Analyses	SFEI	280,000													
	Sunnyvale Plan	Sunnyvale	50,000													
	Oakland Plan Update	Oakland	inkind													
	San Jose Plan Update	San Jose	inkind													
	Contra Costa County Plan	CCC	inkind													
	Richmond Plan	Richmond	inkind													
	Coordination/Project Mgmt	SFEP	75,000	QR	QR	QR	QR	QR	QR	QR	QR	QR	QR	dr final rept	final re	
			405,000													
Roundtable																
	Meetings	BASMAA	11,000		mtg		mtg		mtg		mtg					
	White Paper	BASMAA	54,000													
	Project Management	BASMAA	35,000													
	Coordination/Project Mgmt	SFEP	30,000	QR	QR	QR	QR	QR	QR	QR	QR	dr final rept	final rept			
			130,000													
Total Planning Budget			782,000	EPA + Inkind Matching Funds from Participating Municipalities												

GreenPlan-IT 2.0 – SFEI Lead Partner

GreenPlan-IT consists of three interrelated components shown in the diagram below: (a) a GIS-based GI site locator module to identify and prioritize among potential GI sites; (b) a hydrologic and water quality module; and (c) an optimization module that uses cost-benefit analysis to identify the best combinations of GI types and sites within a watershed for achieving load reduction goals. Under the guidance of a **GreenPlan-IT Technical Advisory Committee** (TAC)—project partners, EPA and Water Board representatives, and other technical experts—SFEI will refine the current version of the tool to develop GreenPlan-IT 2.0. SFEI will host two meetings and four conference calls of the TAC to provide input. With funds from this grant, anticipated enhancements will:



- **Upgrade the GIS site locator module** to include additional LID feature types, detailed street analyses, and other recently recommended improvements by stakeholders.
- **Improve the hydrologic and water quality module** by incorporating recent stakeholder recommendations to add stormwater drainage infrastructure (where data are available) to better characterize the nature of urban watersheds, establish baseline conditions, identify critical sources areas, and quantify flow and pollutant reductions expected from various combinations of LID scenarios.
- **Improve the LID optimization module** to include more LID types, more realistic cost estimations, and more flexibility to address recent recommendations by stakeholders in relation to spatial scale and accuracy on LID cost information.

Outputs: An enhanced version of GreenPlan-IT that cost-effectively leverages a $815K state-funded project undertaken by SFEP/SFEI over the past year. GreenPlan-IT v.2.0 will provide Bay Area stormwater agencies with a planning tool for the cost-effective selection and placement of LID features in urban watersheds. It may inform provisions in the next Municipal Regional Permit, and will be publically available for use by stormwater agencies in Bay Area and elsewhere.
Outcomes: A framework for developing watershed-scale quantitative plans for reducing contaminant loads and restoring hydrographs through a combination of GI and more traditional stormwater management features. Municipalities around the Bay area move from opportunistic to strategic GI implementation and integrate it with other city plans.

Municipal Green Infrastructure Master Plans – SFEP Lead Partner

SFEI will use GreenPlan-IT v.2.0 to **analyze selected watersheds** in the municipalities listed below. SFEP will use SFEI's findings as the starting point to **coordinate** with each municipal/county partner to better understand their individual priorities, and to identify the most suitable planning document for institutionalizing the GreenPlan-IT analyses. These master plans would be adopted by the local municipality within new or revised planning or policy documents (e.g., general plans, capital improvement plans, and/or pilot alternative compliance programs).

- **Sunnyvale** will incorporate Green-IT analysis into a current Specific Plan process for the City's Peery Park area. The preliminary vision of the Specific Plan includes streetscape design standards and Complete Street standards. This may be expanded to include Sustainable Streets standards based on GreenPlan-IT results for the Specific Plan area and a potential plan or guidance for future build out via redevelopment or public improvements.

- **Oakland** will coordinate and enhance the development of its ongoing Urban Greening Stormwater Retrofit Plan with GreenPlan-IT analyses and optimization tools. Coordination efforts will capitalize on data sharing opportunities, GI analysis refinement and targeting for its city, and comparing results and lessons learned from the two planning efforts to help provide regional consistency.
- **Richmond** and **Contra Costa County** will partner to apply GreenPlan-IT analyses to selected West Contra Costa County areas associated with past and present industrial legacy PCB and Hg pollution. The intent is to identify optimal GI sites in the public right-of-way and on public property for implementation as an element of planned capital improvement projects and potentially as the basis for an alternative compliance pilot program.
- **San Jose** – San Jose will identify green infrastructure retrofit opportunities in the Guadalupe Watershed, focusing on sites within Urban Villages in proximity to the Chynoweth Avenue Green Street Project. GreenPlan V 2.0 outputs would be incorporated into applicable planning efforts and considered for implementation based on available funding. San Jose is currently collaborating with SFEP and SFEI on GreenPlan Bay Area and is incorporating GreenPlan-IT outputs into the City's Storm Sewer Master Plan.

Outputs: Four watershed-based GI master plans and flexible planning documents that identify cost-effective locations for GI with quantitative flow or pollutant load reductions which serve as the blueprints for future GI implementation. By nature, these plans will include transportation corridors that will be considered by the Roundtable.

Outcomes: 1) municipalities are using the planning documents to build effective GI features to manage stormwater runoff/pollution from their watersheds, 2) municipalities around the Bay partner with SFEI or independently use GreenPlan-IT 2.0 to develop their own GI plans, 3) municipalities construct effective GI features to protect the Bay's watersheds, and 4) GI implementation results in pollutant load reductions with measured improvements in the health of our waterways and the Bay demonstrated through Regional Monitoring Program[3] data.

Green Infrastructure Roundtable – BASMAA Lead Partner

Recognizing the significant funding constraints facing local governments, BASMAA will spearhead a two-year Green Infrastructure Roundtable process, with work groups as needed, to develop a comprehensive road map for integrating green infrastructure with future climate change and transportation investments within the region. BASMAA and SFEP will **coordinate** to identify contacts at regional agencies, schedule/host meetings, arrange for speakers, and develop informational presentations.

This effort includes six **meetings** per year for two years addressing topics, including presentations by various technical experts, in the following categories:

- **Setting the Stage** - summarizing current water quality issues, stormwater permit mandates, regional Sustainable Communities Strategy and planned climate change and transportation investments, challenges with current approaches to integrated projects, and the purpose/vision for the roundtable

[3] The Regional Monitoring Program (RMP) is collaborative effort between SFEI, the Regional Water Quality Control Board, and the regulated discharger community (i.e, municipalities, industries, and treatment works facilities) to monitor contamination in the Estuary. The RMP has produced a world-class dataset on estuarine contaminants, including spatial patterns and long-term trends through sampling of water, sediment, bivalves, bird eggs, and fish, toxic effects on sensitive organisms, and chemical loading to the Bay.

- **Quantifying the Benefits** - addressing the multiple benefits an integrated approach could provide, including benefits related to water quality and quantity (the results from GreenPlan Bay Area master planning to-date and other pertinent information derived from previously funded state and federal grants), groundwater recharge, reducing urban heat islands, climate change mitigation and resiliency, public health, urban forestry, property values, etc.
- **Funding the Vision** - discussing current funding approaches and challenges, magnitude of need to meet water quality goals, and new approaches for sustainable long-term funding for an integrated approach.
- **Developing the Roadmap** - laying out a comprehensive roadmap for integrating and funding green infrastructure as part of future climate change and transportation investments, including any necessary legislative fixes, agency agreements, consolidated funding mechanisms, etc.

Outputs: White paper that summarizes the Roundtable's efforts and serves as the *Comprehensive Roadmap* for integrating green infrastructure with future climate change and transportation investments. The Roadmap will identify key policies, documents, legislation, agencies, and specific actions needed to effectively integrate and fund green infrastructure as a standard approach for managing stormwater and providing climate change resiliency. Feedback from the Roundtable process may inform the cost-benefit analysis of GreenPlan-IT applications at specific watersheds.

Outcomes: The short term expected outcome is for GI to be integrated into the next Plan Bay Area (planning work will commence in 2015, with the Plan to be adopted in 2017). This will connect regional transportation funds with planning and implementation of GI as well as active transportation and other greening elements. The long-term outcome is to bring water quality/sustainability funds into the transportation and greenhouse gas reduction funding processes to enable GI to become "business as usual" for regional and local agencies. This will lead to widespread, distributed use of GI resulting in pollutant and runoff load reductions.

B. Implementation Element

IMPLEMENTATION PROJECTS		Budget & Schedule Detail		2014	2015				2016				2017			
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Design Contest																
	Prelaunch Activities	BASMAA	25,000													
	Launch Activities	BASMAA	5,000													
	Selection of Winner	BASMAA	15,000													
	Marketing	BASMAA	25,000													
	Project Management	BASMAA	30,000													
	Construction in San Mateo (3 sites)	San Mateo	300,000													
	Construction in Sunnyvale (1 site)	Sunnyvale	100,000													
	Outreach/Coordination/Project Mgmt	SFEP	61,000	QR	QR	QR	QR	QR	QR	QR	QR	dr final rept	final rept			
			561,000													
San Jose Green Street Construction		San Jose	100,000													
	Coordination/Project Management	SFEP	10,000	QR	QR	QR	QR	dr final rept	final rept							
			110,000													
Total Implementation Budget			671,000	EPA + >1.7 million from San Jose IRWMP grant matching funds												

Design Contest – BASMAA Lead Partner

BASMAA will conduct a design contest to develop the most cost-effective and innovative approaches for integrating GI into standard roadway intersections, with the overall intent of driving down design, implementation, operations and maintenance costs. Bid-ready plan sets will be developed from the winning designs for implementation within the partner cities of San Mateo and Sunnyvale, allowing for cost-effectiveness verification. BASMAA and SFEP will package and distribute the winning designs and standard details (via the internet) to municipalities throughout the Bay Area to support future planning and implementation efforts. San Mateo and Sunnyvale staff will participate in the design contest planning, judging, and marketing as in-kind match. The SFEP budget item

includes staff participation in all aspects of the contest as well as publicity coordination, presenting results to the ABAG Executive Board, General Assembly, and/or State of the Estuary Conference. The following steps are envisioned:

- **Pre-launch**: Define contest objectives/rules, overall terms and conditions (eligibility criteria, registration procedures, submittal requirements, etc.), and prize awards; establish steering committee, contest schedule, review team, and evaluation criteria; and, select project sites, gather existing design information and site surveys
- **Launch**: Launch party, marketing/outreach (press releases, social media, blog, website, etc), ongoing registration of design teams, respond to ongoing Q&A, release competition addenda, as needed, receive submissions
- **Judging/Selection of Winning Designs**: Expert panel review, juried presentation, selection of winning designs (anticipated to be 35% level construction documents). Ceremony to be held at a public meeting, possibly ABAG General Assembly, State of the Estuary Conference or other large venue.
- **Post Contest Marketing**: Widely publicize winning designs/firms/teams in local publications, via social media, and on websites. Create bid-ready plan sets for implementation within partner cities of San Mateo and Sunnyvale. Package and distribute designs and standard details to Bay Area municipal and regional governments to support future planning and implementation efforts.

Outputs: GI designs for four intersections in two cities; and widespread outreach to elected officials and the general public. The selected designs will be for "typical intersections" with cost-effective, low-maintenance designs that can be used by many municipalities throughout the region. The designs will be used in GreenPlan-IT analyses as "typical" GI designs to help drive the cost-benefit analysis.
Outcomes: Construction of the designs in Sunnyvale and San Mateo (short term); cities throughout the Bay Area use or modify these designs as "off-the-shelf" products for their jurisdictions (long term). Documented flow and/or load reduction from the implemented sites that is quantified through the GreenPlan-IT analyses.

Implementation of Winning Contest Design – San Mateo & Sunnyvale Lead Partners

The cities of **San Mateo and Sunnyvale will construct GI retrofits** based upon the winning contest designs. Implementation at an intersection may include multiple GI installations depending on the intersection configuration and tributary roadway segments. Successful construction of these designs at multiple locations will provide a means of gauging cost effectiveness. Each city will provide in-kind staff time to identify potential locations, provide available site data, and work with winning design teams to bring design submission to 100%, bid-ready packages. The cities will advertise, solicit, and award contracts for construction. San Mateo will use its $300,000 construction allocation for up to three sites; Sunnyvale will use its $100,000 construction allocation at one site. Total anticipated retrofits are up to 5,000 sq. ft. of new stormwater curb extensions, treating a cumulative catchment area of about 3 acres.

Green Street Construction – San Jose Lead Partner

The Chynoweth Avenue Green Street Project, located in the Guadalupe Watershed, will retrofit a neighborhood collector street (common Bay Area street type) with bioretention rain gardens and permeable pavers to reduce impervious surfaces, provide treatment and infiltration of runoff, calm traffic, and improve the streetscape for pedestrians and cyclists. This watershed is included in the GreenPlan Master Planning effort currently underway. EPA grant funds of $100,000 will be used for design and engineering costs, with 100% plans and specifications developed in house by City of San Jose Public Works Department staff. Matching Prop 84 funds will be used for construction.

At least 71,000 sq. ft. of street area will be treated by converting excess lane width along Chynoweth Avenue to new bioretention areas. The project will also eliminate approximately 19,000 sq. ft. of existing impervious pavement and barren dirt median that currently contributes sediment to the storm drain system. Annual projected pollutant removal is: 616 lbs of total suspended sediment

(TSS), 1.39 lbs of TP, 3.2 lb of TN, 1.1 lb of Pb, 0.45 lb of Zn, and 0.09 lb of Cu. PCB and Hg load reductions will be estimated through GreenPlan-IT analyses.
Outputs: San Jose, Sunnyvale and San Mateo implementation efforts will be properly constructed bioretention treatments that remove stormwater pollutants, green urban areas, and improve the nearby areas. SFEP will coordinate these efforts and report on the progress in quarterly reports. In the final report for each project, each city will describe their lessons learned and recommendations for future efforts. SFEP will post information on each project on its website.
Outcomes: Increased LID implementation in three cities covering 2,400 sq. ft. and the resulting stormwater pollutant load reductions (short term). The long-term outcome is that GI/LID becomes business as usual in these cities and their recommendations are followed by other cities.

C. Tracking Element

TRACKING PROJECT		Budget & Schedule Detail		2014	2015				2016				2017			
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Urban Greening Tracker v 1.0																
	GIS database	SFEI	40,000													
	Incorporate Project Data	SFEI	15,000													
	Interactive Map	SFEI	15,000													
	LID Effectiveness Report	SFEI	20,000													
	System Maintenance	SFEI	10,000													
	Data Transfer/Upload	Muni. Partners	inkind													
	Coordination/Project Mgmt	SFEP	20,000	QR	QR	QR	QR	dr final rept		final rept						
Total Tracking Budget			120,000													

UrbanGreening Tracker v 1.0 - SFEI Lead Partner

SFEI will develop UrbanGreening Tracker, **a GIS database** to collect a standardized list of LID project-based data, such as: LID type, location, year constructed, capital and annual O&M costs, area treated, and present day photographs. To promote a cost-effective and sound approach, the software development will leverage multiple tools already developed by SFEI over 14 years, supported by more than $850k of USEPA funding to inform the watershed approach to mitigation planning. Such tools include the USEPA 3-Level classification of environmental management questions and data, online mapping and remote information uploading for local projects, and EcoAtlas as an online public environmental information delivery system. Separate from this proposal, an additional $600k of upcoming funding over the next 3 years will further enhance the capabilities of these tools and ensure their vitality, innovation, and salience.

To manage scope and capitalize on the GreenPlan-IT geographic extent, the Urban Greening Tracker will be initially developed and piloted for one of the partnering cities. SFEI will **incorporate LID project** data available in electronic format into the UrbanGreening Tracker, and **develop an online interactive map** to display LID project and geospatial information. The UrbanGreening Tracker will work in conjunction with the LID Site Locator outputs to derive **LID Effectiveness Reports**, which will compare the actual location of LID in the landscape to the LID Site Locator's analyses regarding the optimum placement in the same geographic area. The resulting reports analyses will produce an LID project's estimated effectiveness according to its suitability within the given landscape.

Once the Tracker is successfully launched, other partnering municipal agencies, including Livermore, Contra Costa County, and Richmond, will **transfer data/upload LID project data** using in-kind staff time. Both the database and online interactive map will be maintained by SFEI. Grant funds will cover the first year of **maintenance.** On-going database management services will need to be negotiated, as we anticipate use of the Urban Greening Tracker by additional Bay Area municipalities over time.
Outputs: Urban Greening Tracker that compiles and maps past and present of GI implementation and helps assess the cumulative effectiveness at watershed scale and leverages $850k of effort over the past 14 years and an expected $200K of annual funding for the next three years.

Outcomes: Over the short and longer term, the Tracker will be a valuable tool for municipalities (and the Water Board) in evaluating MRP compliance, project information sharing, and potentially tracking alternative compliance credits.

D. Grant Management – SFEP Lead Partner

Grant Management		Budget & Schedule Detail		2014	2015				2016				2017			
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SFEP	Legal, Contracting, Billing & Invoicing		85,000													
	Travel		500													
	Indirect		22,059													
Total Grant Management			107,559													

Element Coordination and Project Management are noted as tasks (based upon presumed level of effort) within each Urban Greening Element table. The overall grant management task ensures successful grant implementation. SFEP will negotiate and finalize agreements with each entity that will receive EPA grant funding, and attain approval from the ABAG Executive Board and the governing body of each local project sponsor. Each agency will be expected to execute such an agreement before reimbursement is requested. SFEP will set up and manage a project webpage and basecamp page for external and internal communications respectively. The deliverables for this task includes: signed grant agreement with EPA: signed sub-recipient agreements with project partners and participating municipalities; processing sub-recipient invoices and grant billings; timely distribution of funds; and timely submission of quarterly progress reports and a final report.

Expenditure of Awarded Grant Funds

SFEP maintains primary responsibility for ensuring successful completion of the grant project(s). SFEP/ABAG issues written sub-award agreements with carefully detailed work scopes, schedules, and deliverables, including required project progress reports that provide timely information on project outputs and outcomes. SFEP monitors project progress, costs, and achievements and works in close collaboration with sub-recipients and the funding agency to ensure projects are completed on time, within budget, and on target to achieve the desired environmental outcomes.

Programmatic Capability and Past Performance

Programmatic Capability of Lead Partners:

The **San Francisco Estuary Partnership (SFEP)**, a program of the Association of Bay Area Governments (ABAG), will be the project lead, responsible for overall project management, budget, coordination, and reporting. SFEP brings extensive project management experience in coordinating large, multi-partner projects with documented environmental outcomes. For more than 15 years SFEP has coordinated complex and collaborative projects (typically federal and/or state-grant funded) designed to improve water quality in the Bay Area. SFEP/ABAG issues written sub-award agreements with carefully detailed work scopes, schedules, and deliverables, including required project progress reports that provide timely information on project outputs and outcomes. SFEP monitors project progress, costs, and achievements and works in close collaboration with sub-recipients and the funding agency to ensure projects are completed on time, within budget, and on target to achieve the desired environmental outcomes. In addition to project management and coordination, SFEP staff will lead the municipal GI master planning efforts, and participate in Technical Advisory Committee meetings, the GI Roundtable, and outreach to local and regional planning officials. SFEP/ABAG team includes Judy Kelly, Jennifer Krebs, Josh Bradt, and Paula Trigueros. Collectively this team has worked in federal, state, local and regional government and is adept at starting up innovative proposals to benefit the Estuary and seeing the projects through completion.

The **San Francisco Estuary Institute (SFEI)**, the established center for regional science synthesis and monitoring, will lead the technical aspects of the project, including the refinement of GreenPlan-IT modules, GreenPlan-IT analyses for master planning, and development of LID tracker. SFEI will also

collaborate with SFEP to create communication tools such as fact sheets, PowerPoint presentations, and other visual aids to promote awareness of GI/LID benefits by elected officials and other key decision-makers. The SFEI team is led by Lester McKee a senior scientist with 14 years of research experience in the Bay Area on stormwater monitoring and management. Team members include Jing Wu, David Senn, Jen Hunt, and Tony Hale. Together they bring multiple decades of experience working on interdisciplinary projects to develop compelling, innovative, and scientifically-sound approaches to assist management and policy decisions.

The **Bay Area Stormwater Management Agencies Association (BASMAA)** is a consortium of eight San Francisco Bay Area municipal stormwater programs designed to encourage information sharing and cooperation, and to develop products and programs that would be more cost-effective done regionally than could be accomplished locally. BASMAA will lead the Regional Roundtable and partner with municipalities to drive the GI design contest. The BASMAA team is lead by Matt Fabry, current BASMAA Chair. Mr. Fabry also serves as Program Manager for the San Mateo Countywide Water Pollution Prevention Program, a program of the City/County Association of Governments of San Mateo County. He will be working with Peter Schultze-Allen and Jill Bicknell of EOA, a private consulting firm specializing in stormwater pollution prevention technical support and that works with multiple area-wide stormwater programs in the Bay Area. BASMAA is currently managing the Clean Water for Clean Bay Grant from EPA's SFBWQIF program; this project is focused on measuring and reducing mercury and PCB contamination to the Bay.

Past Performance relative to previous GI-related EPA grant awards:

EPA has previously partnered with SFEP and local agencies to fund and implement a number of pilot GI implementation projects in the Bay Area demonstrating the value of various types of bio-retention, a widely-accepted GI technique used in many other parts of the nation. EPA's support of SFEP through prior grants to ABAG has set the foundation for Urban Greening Bay Area. These projects include:

- Green Infill Clean Stormwater (WS-96932601-0) – included collaborations with local governments, led to the formation of the LID Leadership Group and significant GI implementation outreach; monitoring of the Daly City library parking lot project was among the first GI pollutant monitoring in the region corroborating national data on GI effectiveness in reducing and attenuating stormwater pollutant loadings.
- Estuary 2100 (EPA Grant X7-00T04701-0) – The Green Solution Report for Alameda County informed SFEI's work on GreenPlan-IT; SF's Newcomb Ave. project is renowned as one of the region's most interesting GI/multi-benefit project.
- Estuary 2100-2 (EPA Grant 00T34101-0) – The Fremont Tree-Well Filters Project is still being studied: the non-patented approach to tree-well filtration is envisioned for cities throughout Southern Alameda County. Similarly, SFEI and Contra Costa County's work on the West Richmond project is in the planning region to be addressed in Urban Greening Bay Area.
- San Pablo Ave SW Spine (W9-00T68901) – SFEP has collaborated with Caltrans and seven cities through which San Pablo Avenue runs to develop and implement this wide scale GI demonstration retrofit project in one of the east bay's busiest transportation corridors.

Letters of Support
1. Muncipalities & Funded Partners

Attachment 1.4

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7
100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486 • PHONE (925) 454-5000

July 15, 2014

Jane Diamond, Director – Water Division
US Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

Subject: ***Support for Urban Greening Bay Area Grant Proposal***

Dear Ms. Diamond:

I am writing to express Zone 7 Water Agency's (Zone 7) support for the application submitted by the Association of Bay Area Governments (ABAG) for the Urban Greening Bay Area project. As a participating partner, Zone 7 is committed to supplying resources to make this important project a success, should it receive the requested grant funding to proceed.

Zone 7 has been the manager of the Livermore Valley Groundwater Basin for over 50 years and provides regional flood protection for Eastern Alameda County. Under anticipated new provisions in the Municipal Regional Stormwater Permit, local governments within our service area, like the City of Livermore, will be required to develop and implement watershed-scale green infrastructure plans to achieve quantitative water quality improvements. Urban Greening Bay Area will build regional capacity for long-term and effective green infrastructure implementation, which could benefit the Livermore Valley Groundwater Basin and regional flood protection in the Livermore-Amador Valley.

If you have any questions, please feel free to contact either me at the number above (by email at jduerig@zone7water.com) or, alternatively, Brad Ledesma at 925 454-5038 (by email at bledesma@zone7water.com).

Sincerely,

G.F. Duerig
General Manager

cc: Ezra Rapport, ABAG; Jennifer Krebs, SFEP; Pamela Lung, Livermore

Alameda Countywide Clean Water Program

Contra Costa Clean Water Program

Fairfield-Suisun Urban Runoff Management Program

Marin County Stormwater Pollution Prevention Program

Napa County Stormwater Pollution Prevention Program

San Mateo Countywide Water Pollution Prevention Program

Santa Clara Valley Urban Runoff Pollution Prevention Program

Sonoma County Water Agency

Vallejo Sanitation and Flood Control District

B A S M A A

June 26, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

c/o Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Participation in *Urban Greening Bay Area* grant project

Mr. Rapport:

On behalf of the Bay Area Stormwater Management Agencies Association (BASMAA)[1], I am writing to express our continued interest and intent to participate in the *Urban Greening Bay Area* grant project. Teaming with BASMAA and others, the Association of Bay Area Governments (ABAG) developed an initial proposal for USEPA San Francisco Bay Water Quality Improvement Fund grant monies. ABAG has since been invited by USEPA to submit a full proposal to compete for these monies.

BASMAA and its member agencies are increasingly focused on the inherent connections between stormwater quality management and issues related to water supply and transportation infrastructure. Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included in this strategy are significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions – emissions that cause stormwater pollution. If funded, the *Urban Greening Bay Area* grant project presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. BASMAA and its member agencies are looking forward to participating in particular, in the "Green Planning", "Regional Roundtable", and "Design / Build Competition" portions of the proposed project.

Sincerely,

Matthew Fabry

Matt Fabry, Chair – Bay Area Stormwater Management Agencies Association

Bay Area
Stormwater Management
Agencies Association
P.O. Box 2385
Menlo Park, CA 94026
510.622.2326
info@basmaa.org

[1] BASMAA is a 501(c)(3) non-profit organization comprised of the municipal stormwater programs in the San Francisco Bay Area representing 96 agencies, including 84 cities and 7 counties. BASMAA focuses on regional challenges and opportunities to improve the quality of stormwater flowing to our local creeks, the Delta, San Francisco Bay, and the Pacific Ocean.

Contra Costa County
Public Works
Department

Julia R. Bueren, Director
Deputy Directors
Brian M. Balbas
Stephen Kowalewski
Stephen Silveira
Joe Yee

July 10, 2014

Mr. Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

Ms. Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay St., Suite 1400
Oakland, CA 94612

Dear Mr. Rapport and Ms. Krebs:

Contra Costa County supports the Urban Greening Bay Area: LID Planning, Implementation, and Tracking grant application to San Francisco Bay Water Quality Improvement Fund. The County intends to participate in the planning portion of the project in collaboration with the City of Richmond (an incorporated city within the County) to identify green infrastructure opportunities in West County. Many areas in West County have old industrial land uses associated with increased levels of PCBs and Mercury. Using the results of the GreenPlan-IT analyses, the County and Richmond will evaluate the cost and feasibility to install stormwater treatment facilities within public right of way. The County also intends to work with current property owners and tenants to contain pollutant laden sediments on the private properties. Finally, the County also commits to participating in the use of the Urban Greening Tracker component by uploading relevant County information once the tracker is developed.

The County commits to "in-kind" labor contributions to the project by furnishing available GIS information to San Francisco Estuary Institute for GreenPlan-IT analyses, meeting with project partners, and to uploading data into the tracker. The County hopes this effort will ultimately assist in assessing the feasibility of utilizing some of the 350 County-owned properties for alternative compliance to new and redevelopment water quality requirements. The vast majority of these properties are office buildings with parking lots that are located within various cities and watersheds throughout the County. We believe these sites offer LID opportunities as alternative compliance for public projects where construction of LID infrastructure on site is infeasible.

Attachment 1.4

If you have any questions regarding this commitment, please contact me at (925) 313-2296. We look forward to collaborating with the Estuary Partnership on green infrastructure planning and tracking.

Sincerely,

Cece Sellgren
Stormwater Manager
Contra Costa County Watershed Program

CS:cw
G:\fldctl\NPDES\Grants\Letters of support\2014 SFEP LID-GI app to SFBWQIF_Final.docx
By e-mail

c: Steve Kowalewski, Deputy Chief Engineer
Mike Carlson, Flood Control Engineering
Jerry Fahy, Transportation Engineering
Chad Davidson, City of Richmond
450 Civic Center Plaza
Richmond, CA 94804
Lynne Scarpa, City of Richmond

LIVERMORE
CALIFORNIA

July 8, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Support for Urban Greening Bay Area

Dear Mr. Rapport:

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for Urban Greening Bay Area. The City of Livermore is charged with implementing stormwater pollution prevention efforts. Under anticipated new provisions in the Municipal Regional Stormwater Permit, Bay Area local governments will be required to develop and implement watershed-scale green infrastructure plans to achieve quantitative water quality improvements. Urban Greening Bay Area will build regional capacity for long-term and effective green infrastructure implementation.

Our agency will partner with ABAG by participating in Regional Green Streets Roundtable quarterly meetings, attending coordination meetings to stay abreast of project development on Urban Greening Tracker, uploading green infrastructure data into the Urban Greening Tracker after it is developed and work with SFEI to develop a usable tool to track maintenance, landscaping, bio-retention and creek improvements in the watershed that improve water quality. Pamela Lung, Senior Civil Engineer, currently serves as the City Floodplain Manager and staff liaison to the Alameda County Clean Water Program. She or another City staff representative will represent the City of Livermore at all meetings and provide the data and 80 hours of time valued at $16,000 as an in kind 50% match to upload the Livermore GI data into the Urban Greening Tracker. The total estimated time to accomplish all of this over a four year period is 160 hours.

If you have any questions, please call Pamela Lung at (925) 960-4538.

Sincerely,

Cheri Sheets
City Engineer
Engineering, Community and Economic Development Department

Attachment 1.4

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, 4TH FLOOR, OAKLAND, CALIFORNIA 94612

Public Works Agency
Department of Engineering and Construction

(510) 238-3051
FAX (510) 238-6633
TDD (510) 238-7644

July 8, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

SUBJECT: Support for Urban Greening Bay Area Grant Proposal

Mr. Rapport:

On behalf of the City of Oakland, I am writing in support of the *Urban Greening Bay Area* grant proposal submitted to the US Environmental Protection Agency. The City of Oakland is one of the municipal partners in this proposal and we will be contributing in-kind services through our participation in the development and refinement of the Green Infrastructure model and as a stakeholder in the Roundtable dialogue.

This *Urban Greening Bay Area* grant proposal will provide cities with a valuable toolkit to help plan and prioritize the incorporation of green infrastructure into municipal projects including capital improvement projects and transportation planning efforts. The planning tools developed through this effort will help provide a regional consistency in the planning of green infrastructure projects and will track the extent of projects incorporated throughout cities to assess regional benefits being achieved. The Roundtable forum presents an excellent opportunity to share ideas and strategies to facilitate cities' efforts to plan and implement LID projects.

We support this proposal to develop an approach to effectively incorporate stormwater management into our future projects. Should you have any questions about our participation in or support for this proposal, please contact me at lestes@oaklandnet.com.

Sincerely,

FOR

Lesley Estes, Manager
Measure DD Program and Watershed & Stormwater

Attachment 1.4

ENGINEERING & WASTE WATER DEPARTMENT

July 10, 2014

Mr. Ezra Rapport
Executive Director, Association of Bay Area Governments
101 8th St
Oakland, CA 94612

Dear Mr. Rapport,

The City of Richmond is writing to offer its support for the San Francisco Bay Water Quality Improvement Fund grant proposal entitled "Urban Greening Bay Area: LID Planning, Implementation, and Tracking." Richmond's industrial land developed in the World War II era has potential for increased levels of legacy PCBs in stormwater runoff. Present land uses within the City have the potential for increased levels of Mercury in stormwater runoff from air deposition. We believe LID offers the best solution to treating these elevated levels.

The City intends to participate in the planning portion of the project to identify green infrastructure opportunities within its jurisdiction. Using the results of the GreenPlan-IT analyses, the City Richmond will evaluate the cost and feasibility to install stormwater treatment facilities within public right of way. The City also commits to participating in the use of the Urban Greening Tracker component by uploading relevant City information once the tracker is developed.

The City commits "in-kind" labor contributions to be used as match for the Federal grant. Specifically, the City of Richmond will furnish available GIS-information to San Francisco Estuary Institute (SFEI) for GreenPlan-IT analyses, meet with project partners, use the Green Plan-It developed from SFEI to assess old industrial parcels within incorporated areas of Richmond that may pose an environmental risk for contaminates such as PCBs and Mercury, and upload data into the tracker.

We look forward to collaborating with the San Francisco Estuary Partnership on green infrastructure planning and tracking.

Sincerely,

Lynne Scarpa

Lynne Scarpa
Environmental Manager
City of Richmond

450 Civic Center Plaza, Richmond, CA 94804-1630
Telephone: (510) 307-8091 Fax: (510) 307-8116 www.ci.richmond.ca.us

SFEI | AQUATIC SCIENCE CENTER

July 11, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport,

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for ***Urban Greening Bay Area***.

For the past 25 years, SFEI has worked to monitor environmental quality and provide Bay, watershed, and wetland science to inform environmental management and policy. The ***Urban Greening Bay Area*** project is directly aligned with our mission of *shortening the distance* between science and environmental management and policy decisions. Consistent with this mission, SFEI provides scientific support and tools for comprehensive stewardship of aquatic resources at the landscape level and in a watershed context through many ongoing and collaborative efforts.

SFEI began with a primary focus on water quality in the Bay. As data were collected and information emerged, attention focused more and more on sources of pollution in urban areas. Subsequently, SFEI has now developed a 14-year history in stormwater monitoring and modeling. Through funding provided by the Regional Monitoring Program and a number of Federal and State grants, our effort to provide timely and relevant information to managers and policy makers has contributed to the development of TMDLs for the Bay, supported the ongoing discussions regarding permit provisions, helped to identify areas for management focus and most recently, is helping to demonstrate and rank the effectiveness of a variety of management alternatives. Consistent with our mission, we provide independent peer-reviewed science for the

region's critical water and environmental quality decisions and either lead or are involved in a number of forums involving complex stakeholder groups in the Bay Area.

As the region prepares for the reissuance of the next Municipal Regional Stormwater Permit, we are working within the forum process with BASMAA and Water Board staff to provide information that will help inform the next permit reissuance. Under anticipated new permit provisions, Bay Area local governments will likely be required to develop and implement watershed-scale green infrastructure plans to achieve quantitative water quality improvements. This development will be informed by the pilot data we have collected over the past 5 years of Federal and State grant supported projects that demonstrate the effectiveness of various LID types in a variety of urban settings for reducing PCB and Hg concentrations and loads. It is also consistent with the preliminary outcomes of our current GreenPlan Bay Area Project in collaboration with SFEP and several local municipalities that aims to identify optimal cost effective locations for LID implementation to support watershed planning decisions.

The proposed ***Urban Greening Bay Area*** will leverage this previous work and help build regional capacity for long-term and effective green infrastructure implementation to support these anticipated master planning needs. The project also advances extensive SFEI and BASMAA work carried out since 1999 on identifying high leverage contaminant 'source areas' in Bay watersheds and drainages that disproportionately impact Bay water quality. The project also leverages previous tool development for tracking environmental information including our wetland and trash tracker tools and a long history of data management and provision of environmental data through a number of web-based portals. The tracker component is an essential element called for by policy makers that will provide basic knowledge that will ultimately lead to our ability to estimate real and ongoing outcomes from LID implementation. We are excited to be part of the ***Urban Greening Bay Area*** team and will continue to work to build momentum and help the region transition from opportunistic, LID placement towards watershed-scale, systematic, and purposeful implementation of LID.

Please don't hesitate to contact me if you have any questions.

Sincerely,

Jim Kelly
Interim Executive Director, SFEI-ASC

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Environmental Services Department
WATERSHED PROTECTION

July 11, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/o Jennifer Krebs
Principle Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 95612

SUBJECT: Support for Association of Bay Area Governments Application for EPA SF Bay Water Quality Improvement Fund Grant – Urban Greening Bay Area Project

Dear Mr. Rapport:

I am writing to express my enthusiastic support for the application submitted by the Association of Bay Area Governments (ABAG) for funding of the Urban Greening Bay Area: LID Planning, Implementation and Tracking Project. As a city regulated by the San Francisco Bay Municipal Regional Stormwater National Pollution Discharge Elimination System Permit (No. CAS612008), we seek and welcome opportunities to implement low impact development (LID) projects within our jurisdiction. Significant factors inhibiting the implementation of more LID projects in San Jose include a lack of information on optimal sites for LID retrofits, and viable funding for their construction and on-going maintenance.

ABAG's proposed project would help address these issues within the San Francisco Bay Area by developing partnerships, tools, and model programs that could be utilized by interested communities. We are excited about the prospect of upgrades to the GreenPlan-IT toolkit. The updated GreenPlan-IT toolkit would facilitate identification of potential green infrastructure projects outside of the current GreenPlan Bay Area pilot areas. In addition to expanding the area of analysis, the GreenPlan-IT toolkit and proposed UrbanGreening Tracker would be particularly beneficial for implementing alternative compliance programs and developing future green infrastructure plans that will likely be required under the next San Francisco Bay Municipal Regional Stormwater NPDES Permit.

As a project participant, the City proposes to construct the Chynoweth Avenue Green Street LID retrofit project that includes installation of bioretention rain gardens and permeable pavers along a neighborhood collector street. City staff would also participate in the Green Infrastructure Roundtable and collaborate with San Francisco Estuary Institute to identify further green

infrastructure retrofit opportunities using GreenPlan-IT Version 2.0. The City will contribute approximately $1.7 million in matching funds from a Proposition 84 IRWMP Round 2 Grant award to construct the Chynoweth Avenue Green Street project.

I am confident that ABAG, with the support of partnering agencies including San Jose, will be able to successfully complete all tasks indicated in this proposal. The City fully supports ABAG's proposed Urban Greening Bay Area project.

If you have any questions or require additional information, please contact Sharon Newton, Stormwater Management Program Manager at (408) 793-5351 or sharon.newton@sanjoseca.gov.

Sincerely,

NAPP FUKUDA
Deputy Director
Environmental Services Department

OFFICE OF THE CITY MANAGER

330 West 20th Avenue
San Mateo, California 94403
Telephone (650) 522-7000
FAX: (650) 522-7001
www.cityofsanmateo.org

July 3, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for Urban Greening Bay Area. The City of San Mateo is charged with implementing stormwater pollution prevention efforts. Under anticipated new provisions in the Municipal Regional Stormwater Permit, Bay Area local governments will be required to develop and implement watershed-scale green infrastructure (GI) plans to achieve quantitative water quality improvements. Urban Greening Bay Area will build regional capacity for long-term and effective low impact development (LID) and green infrastructure implementation.

The City of San Mateo will participate in the regional Green Streets Roundtable to provide input on and review of the Green Streets white paper which will serve as the comprehensive roadmap for integrating green infrastructure with future climate change and transportation investments. The City will contribute approximately $1,000 of staff time to the in-kind match for this portion of the project.

The City of San Mateo will also participate in a design contest to develop the most cost-effective approaches for integrating LID/GI into standard roadway intersections, with the overall intent of driving down design and implementation costs. The City will assist with defining the contest objectives, rules, terms, conditions, and prize awards. The City will also assist with establishing the steering committee,

schedule, review team and evaluation criteria, and with selecting project sites and providing information for the locations selected. The City will assist with the launch and marketing of the contest and respond to public inquiries. The City will participate in the review and selection of winning designs and assist with marketing of the contest results. The City will also create bid-ready plan sets from the winning designs for implementation. City staff will contribute approximately $2,000 as in-kind match to the design contest planning, judging, and marketing for this task.

The City of San Mateo will implement green streets retrofits based on the results of the green streets design contest. Implementation at an intersection may include multiple LID/GI installations depending on the intersection configuration and tributary roadway segments. Successful construction of these designs at multiple locations will provide a means of gauging cost effectiveness. The City will contribute approximately $10,000 of staff time as in-kind match to identify potential locations, provide available site data, and work with the winning design teams to bring design submission to 100% bid-ready packages. The City will advertise, solicit, and award contracts for construction. San Mateo will use its $300,000 construction allocation for up to three sites. Total anticipated retrofits include up to 5,000 square feet of new stormwater curb extensions, treating a cumulative catchment area of about 3 acres.

Our agency and our project partners are confident that ABAG will be able to successfully complete all tasks indicated in this proposal. We fully support the proposal from ABAG and hope you will seriously consider funding it. Please feel free to contact Ken Chin if you have further questions at (650) 522-7313.

Sincerely,

Larry A. Patterson
City Manager

CITY OF SUNNYVALE

The Heart of Silicon Valley℠

456 WEST OLIVE AVENUE SUNNYVALE, CALIFORNIA 94086 (408) 730-7480

Office of the City Manager

July 8, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for Urban Greening Bay Area. Sunnyvale has a strong history of implementing effective stormwater pollution prevention efforts. Anticipated regulatory direction will encourage communities to develop and implement watershed-scale green infrastructure plans to achieve meaningful water quality improvements. Urban Greening Bay Area will help build regional and local capacity for long-term and effective green infrastructure implementation.

The City of Sunnyvale will partner with ABAG by providing in-kind staffing towards key Urban Green Bay Area initiatives including support and participation in the Regional Green Streets Roundtable and support of the Design Competition for Green Infrastructure in Roadways. The requested grant funds will enable Sunnyvale to implement Green Infrastructure locally by constructing one of the winning designs at a City intersection. This will provide valuable, practical experience for our staff and serve as an educational opportunity for our community. Furthermore, we look forward to utilizing the grant funding to integrate green infrastructure master planning into a Specific Area Plan initiative such as the City's Peery Park Specific Plan, which could

identify green infrastructure opportunities and serve as a guide for green infrastructure in that area. We are excited by the multiple opportunities this grant application offers to advance green infrastructure on both a regional and local level.

Our agency and our project partners are confident that ABAG will be able to successfully complete all tasks indicated in this proposal. We fully support the proposal from ABAG and strongly encourage you consider funding it. Please feel free to contact Melody Tovar, Regulatory Programs Division Manager, at (408) 730-7808 if you have further questions.

Sincerely,

Deanna Santana

Deanna J. Santana
City Manager

Letters of Support
2. Organizations and Associations

July 14, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included in this strategy are significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts.

Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. Barclays, in its capacity as an underwriter of municipal bonds, helps municipalities develop and implement funding strategies for transportation- and water-related infrastructure projects and we expect to be able to contribute significant market experience to a bigger-picture discussion of long-term green infrastructure implementation.

Please feel free to contact me if you have further questions at (415) 274-5245 or michael.fleishman@barclays.com.

Sincerely,

Michael Fleishman, Vice President
Barclays Capital Inc.
555 California Street, 30th Floor
San Francisco, CA 94104

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

July 1, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

Bay Area Air Quality Management District (Air District) staff wishes to express its support for the Association of Bay Area Governments' (ABAG) *Urban Greening Bay Area* proposal.

The Air District's mission is to protect and improve public health, air quality, and the global climate. While the principal goal of the *Urban Greening Bay Area* project is to advance green infrastructure and low impact development in the Bay Area, several aspects of the project will also support the Air District's clean air goals. The proposed project seeks to increase active transportation and facilitate the use of heat-mitigating strategies such as tree planting and cool paving, two objectives which will achieve the co-benefit of reducing harmful air pollutant emissions and emissions of greenhouse gases (GHGs). Active transportation and heat island mitigation strategies have been included in the Air District's 2010 Clean Air Plan. The Air District will build upon these and other supporting efforts as we move forward in developing the Regional Climate Protection Strategy.

On a regional level, current planning efforts and implementation incentives through the Bay Area's Sustainable Communities Strategy, *Plan Bay Area*, have focused on greenhouse gas reductions, increasing housing density and active transportation opportunities. Air District staff looks forward to participating in this exciting effort to explore how green infrastructure can be integrated into future transportation and climate change planning and investments.

We support ABAG's *Urban Greening Bay Area* proposal and hope it is awarded funding.

Regards,

Henry Hilken
Director, Planning, Rules & Research
Bay Area Air Quality Management District

Making San Francisco Bay Better

July 8, 2014

Mr. Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

c/o Ms. Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Ezra:

Please accept this letter as a demonstration of my support for the Association of Bay Area Governments' (ABAG) *Urban Greening Bay Area* request to the U.S. Environmental Protection Agency's (EPA) Water Quality Improvement Fund. The San Francisco Bay Conservation and Development Commission (BCDC) is committed to a clean and productive Bay. As such, we know that implementing local stormwater pollution prevention practices is critical to achieving this goal. ABAG's *Urban Greening Bay Area* project will help our region build capacity and develop a long-lasting program of effective green infrastructure and watershed-scale green infrastructure plans. Putting those plans into practice will ensure that we can achieve and maintain quantitative water quality improvements.

BCDC looks forward to partnering with ABAG on this critical project. We shall be happy to participate in a Regional Roundtable and help develop a *Comprehensive Roadmap* to identify the specific actions necessary to effectively integrate and fund green infrastructure as a standard approach to improve water quality, manage stormwater runoff, and improve the region's resilience to a changing climate.

As Executive Director of BCDC, I fully support this proposal and hope that the EPA will seriously consider funding it. I am confidant that ABAG, with its diverse set of partners, will be successful in this project, and that the outcomes will be valuable to all in the region. Please feel free to contact me if you have further questions or if I may be of help in any way.

Sincerely,

LAWRENCE J. GOLDZBAND
Executive Director

LJG/WG/gg

Attachment 1.4

SAN FRANCISCO BAYKEEPER

June 18, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. Baykeeper is a non-profit organization focused on enhancement of San Francisco Bay water quality. As such, stormwater enhancement is a key program area and we fully support a regional approach aimed towards integrating green infrastructure into the built environment wherever possible.

Goals of the Bay Area's Sustainable Communities Strategy (SCS) include implementation of a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included are calls for significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions.

Water quality improvements to receiving waters are not among the stated goals of the SCS. Integration of green infrastructure into the many future projects expected over the coming decades could, however, mitigate the air and water quality-related impacts of these projects, while removing harmful stormwater-borne contaminants from the wider watershed area. Additional benefits of integrating green infrastructure into active transportation solutions include greenhouse gas emissions reduction, urban heat island mitigation, habitat creation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate.

We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

Please feel free to contact me with further questions - ian@baykeeper.org or (415) 810-0444 x108.

Sincerely,

Ian Wren
Staff Scientist, San Francisco Baykeeper

Attachment 1.4

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

July 15, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Infrastructure Roundtable

Dear Mr. Rapport:

I am writing to express willingness to participate in the proposed green infrastructure roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. One of the areas our agency, the State Water Resources Control Board, is charged with regulating is storm water discharges from municipal separate storm sewer systems, construction projects, transportation and industrial facilities. Storm water is and will be in the future, a crucial resource to the state. Creating and maintaining strong partnerships that develop sustainable solutions to managing storm water in California is one of our agencies strongest missions.

Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included in this strategy are significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments. Please feel free to contact me if you have further questions.

Sincerely,

Greg Gearheart
Senior Water Resource Control Engineer
Industrial and Construction Discharge Unit –Division of Water Quality
1001 I Street 15th Floor
Sacramento, CA 95814
(916) 341-5892 phone
greg.gearheart@waterboards.ca.gov

Krebs, Jennifer@Waterboards

Subject: Support for Regional Roundtable

>>> "Whitehead, Melina M" <melina.m.whitehead@hud.gov> 7/3/2014 9:13 AM >>>

Hi Matt,

Subject to travel fund and resources HUD will be interested in participating in the Roundtable discussions.

Melina

Melina Whitehead
Division Director
San Francisco Office of Public Housing
(415) 489-6432

From: Matt Fabry [mailto:mfabry@smcgov.org]
Sent: Tuesday, July 01, 2014 2:57 PM
To: Eric.Eidlin@dot.gov; Karen Irwin; Mulvihill.Carolyn@epa.gov; Whitehead, Melina M
Subject: Re: Discuss Potential Roundtable on Green Infrastructure and Transportation Funding

Thank you for your time today. Copied below is the draft writeup on the proposed Roundtable that would go into the full grant proposal to EPA (subject to revision). Attached is a more detailed writeup on this issue that I had done from my agency (C/CAG) for a separate effort, a sample participation/partnership letter indicating your agency's willingness to participate in a roundtable process if funded, and a list of the various stakeholders we thought might be appropriate for involvement in a roundtable and to whom we are reaching out to right now in preparing our full proposal. I'm happy to answer any additional questions or be on phone calls with other interested persons from other agencies, if appropriate.

Matt

Green Infrastructure Roundtable – BASMAA Lead Partner

Recognizing the significant funding constraints facing local governments, BASMAA will spearhead a two-year Green Infrastructure Roundtable process, with work groups as needed, to develop a comprehensive road map for integrating green infrastructure with future climate change and transportation investments within the region. BASMAA and SFEP will **coordinate** to identify contacts at regional agencies, schedule/host meetings, arrange for speakers, and develop informational presentations.

This effort includes six **meetings** per year for two years addressing topics, including presentations by various technical experts, in the following categories:

- **Setting the Stage** - summarizing current water quality issues, stormwater permit mandates, regional Sustainable Communities Strategy and planned climate change and transportation investments, challenges with current approaches to integrated projects, and the purpose/vision for the roundtable
- **Quantifying the Benefits** - addressing the multiple benefits an integrated approach could provide, including benefits related to water quality and quantity, groundwater recharge, urban heat islands, climate change mitigation and resiliency, public health, urban forestry, property values, etc.

- **Funding the Vision** - discussing current funding approach and challenges, magnitude of need to meet water quality goals, and new approaches for sustainable long-term funding for an integrated approach.
- **Developing the Roadmap** - laying out a comprehensive roadmap for integrating and funding green infrastructure as part of future climate change and transportation investments, including any necessary legislative fixes, agency agreements, consolidated funding mechanisms, etc.

The primary output of this effort will be **white paper** that summarizes the Roundtable's efforts and serves as the *Comprehensive Roadmap* for integrating green infrastructure with future climate change and transportation investments. The Roadmap will identify key policies, documents, legislation, agencies, and specific actions needed to effectively integrate and fund green infrastructure as a standard approach for managing stormwater and providing climate change resiliency. The anticipated short-term outcome of the element is that GI is integrated into the next Plan Bay Area (planning work will commence in 2015, with the Plan to be adopted in 2017). This will allow municipalities to use MTC funds for planning and implementation of PDAs with LID/GI as well as active transportation and other greening elements. The long-term outcome is LID/GI as "business as usual" for the region's planning agencies and municipalities that construct projects based upon such planning efforts resulting in widespread, distributed LID/GI implementation to protect stormwater.

Attachment 1.4

METROPOLITAN
TRANSPORTATION
COMMISSION

Joseph P. Bort MetroCenter
101 Eighth Street
Oakland, CA 94607-4700
TEL 510.817.5700
TTY/TDD 510.817.5769
FAX 510.817.5848
EMAIL info@mtc.ca.gov
WEB www.mtc.ca.gov

July 14, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for Urban Greening Bay Area.

On a regional level, current planning efforts and implementation incentives through Plan Bay Area have focused on greenhouse gas reductions, increasing housing density and active transportation opportunities. Our agency supports ABAG's efforts to develop a *Comprehensive Roadmap* for integrating green infrastructure policies, documents, legislation, agencies, and specific actions needed to effectively integrate and fund green infrastructure as a standard approach for managing storm water and providing climate change resiliency.

We are confident that ABAG will be able to successfully complete all tasks indicated in this proposal. We fully support the proposal from ABAG and hope you will seriously consider funding it. Please feel free to contact me if you have further questions at 510 817-5790.

Sincerely,

Ken Kirkey
Director, Planning

National Resources Defense Council

~~DRAFT~~ LETTER OF PARTICIPATION IN GREEN STREETS ROUNDTABLE

July 7 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Streets Roundtable

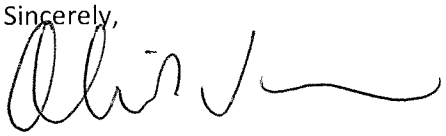
Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. The Natural Resources Defense Council's Center for Market Innovation is a leader in sustainable community policy and development as well as water quality and green infrastructure project finance. We would be delighted to learn from local stakeholders in the Green Streets Roundtable as well as share our expertise and experience where possible. Alisa Valderrama (green infrastructure expertise) or alternatively, Amanda Eaken (regional planning and transportation expertise), would be available to attend meetings by phone or in person.

Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included in this strategy are significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

Please feel free to contact me if you have further questions at avalderrama@nrdc.org.

Sincerely,



Alisa Valderrama

PACIFIC INSTITUTE

Research for People and the Planet

June 24, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. The Pacific Institute has a long history of work on the connections between water quality and water supply and adaptation strategies for addressing climate change impacts on water systems.

Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy that supported walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

Please feel free to contact me if you have further questions at 510-251-1600 x103.

Sincerely,

Heather Cooley
Director, Water Program

654 13th Street, Preservation Park, Oakland, CA 94612
Phone: (510) 251-1600 Email: info@pacinst.org Web: www.pacinst.org

PPIC

June 25, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Mr. Rapport,

As head of the water research program at the Public Policy Institute of California, I am writing to express my enthusiasm for the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal.

Our recent report "Paying for Water in California" explored the challenges facing local communities in managing stormwater. Due to mounting regulatory requirements, legal constraints, and competition for funding, California's stormwater agencies are facing rising costs without sustainable funding streams. Leveraging and integrating transportation and land-use planning through green infrastructure is a promising approach for raising funds and ensuring cost-effectiveness. The Bay Area's Sustainable Communities Strategy provides an opportunity to integrate sustainable stormwater management features to address water quality impacts within a long-term planning initiative.

It will be extremely valuable to use a robust stakeholder process to incorporate sustainable stormwater management approaches into the region's future climate change and transportation investments. We would be delighted to participate in the roundtables where policy perspectives are relevant, both to share our research findings and discuss funding and governance models.

Sincerely,

Ellen Hanak
Senior Fellow

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

500 Washington Street, Suite 600
San Francisco, California 94111
tel 415 291 4400
fax 415 291 4401
web www.ppic.org

Attachment 1.4

STANFORD
CIVIL & ENVIRONMENTAL
ENGINEERING

RICHARD G. LUTHY
Silas H. Palmer Professor
Department of Civil and Environmental Engineering

Yang and Yamazaki Environment
& Energy Building, Room 191
Stanford University
Stanford, CA 94305-4020

July 8, 2014

Ezra Rapport, Executive Director
Association of Bay Area Governments
101 Eighth Street, Oakland, CA 94607
C/O Jennifer Krebs, Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400, Oakland, CA 94612

Subject: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Government's (ABAG) "Urban Greening Bay Area" grant proposal. ReNUWIt is a collaboration among Stanford, UC Berkeley, the Colorado School of Mines and New Mexico State University. Our goal is reinventing the nation's urban water infrastructure to achieve more sustainable solutions to our urban water supplies. ReNUWIt and its members have interest and expertise in stormwater and water resources issues. ReNUWIt would serve as a technical resource and present on various topics as interest aligns and time allows for its members.

Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

Sincerely,

Richard G. Luthy, Professor, Stanford University and
Director, NSF Engineering Research Center for
Re-inventing the Nation's Urban Water Infrastructure
renuwit.org

Phone: 650-721-2615 • Fax: 650-725-8662 • E-mail: luthy@stanford.edu • Web: www-ce.stanford.edu/faculty/luthy/

Attachment 1.4

June 30, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

SUBJECT: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. Save The Bay is the largest regional organization working to protect, restore, and celebrate the San Francisco Bay. The focus of our pollution prevention program for the past several years has been on preventing trash from impacting Bay wildlife and water quality. Data from municipalities and non-governmental organizations suggests that roadways are a major source of trash in stormwater stystems throughout the region. Integrated solutions will be necessary to eliminate this source and achieve zero trash impairment by 2022.

The Bay Area's Sustainable Communities Strategy includes significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. We support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate stormwater management into the region's future climate change and transportation investments. Save The Bay will be available to participate in this process as staff capacity permits.

Please feel free to contact me if you have further questions at dlewis@savesfbay.org and (510) 463-6850.

Sincerely,

David Lewis
Executive Director

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Campbell • Cupertino • Los Altos • Los Altos Hills • Los Gatos • Milpitas • Monte Sereno • Mountain View • Palo Alto
San Jose • Santa Clara • Saratoga • Sunnyvale • Santa Clara County • Santa Clara Valley Water District

July 7, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

On behalf of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), I am writing to express our support for the application submitted by the Association of Bay Area Governments (ABAG) to the U.S. Environmental Protection Agency (EPA) for grant funding for the "Urban Greening Bay Area" project.

SCVURPPP is a consortium of fifteen municipal agencies in Santa Clara Valley that are covered by the San Francisco Bay Municipal Regional Stormwater Permit (MRP) to discharge storm water to South San Francisco Bay. SCVURPPP helps its member agencies implement regulatory, monitoring and outreach measures for improving the water quality of the creeks of the Santa Clara Valley and the South San Francisco Bay. Our member agencies include the Cities of San Jose and Sunnyvale, which are also partners in the Urban Greening Bay Area project. SCVURPPP also participates in the Bay Area Stormwater Management Agencies Association (BASMAA), one of the grant project team members.

Under anticipated new provisions in the MRP, Bay Area local governments will be required to develop and implement watershed-scale green infrastructure plans to achieve quantitative water quality improvements. Urban Greening Bay Area will build regional capacity for long-term and effective green infrastructure implementation. Our member agencies will greatly benefit from the planning tools and inexpensive standard designs and details to be developed as part of the project, as well as the technical data that will help influence policy and placement of low impact development (LID) treatment measures in the landscape. The project is also expected to achieve water quality and climate change outcomes that will benefit our member agencies.

Our agency will partner with ABAG by: 1) participating in the Technical Advisory Committee for the GreenPlan-IT tool; 2) participating in agency meetings to develop model green infrastructure master plans, ordinances, and policies; 3) and participating in the Regional Green Infrastructure Roundtable stakeholder process to develop a comprehensive road map for integrating green infrastructure with future climate change and transportation investments within the region.

Our agency and our project partners are confident that ABAG will be able to successfully complete all tasks indicated in this proposal. We fully support the proposal from ABAG and hope you will seriously consider funding this innovative and valuable project.

Please feel free to contact Jill Bicknell, Assistant Program Manager, at 408-720-8811 if you have any questions.

Very truly yours,

Adam W. Olivieri, Dr. P.H., P.E.
Program Manager

SPUR
San Francisco | San Jose

July 8, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

Dear Mr. Rapport,

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal. SPUR, a member-supported nonprofit organization, has been engaged in policy development around both transportation planning and stormwater management for many years. We would be interested in, and could contribute to, a regional effort to identify ways to mitigate water pollution through future transportation and sustainable communities investments.

In our 2006 report, *Integrated Stormwater Management*, SPUR recommended that the city of San Francisco ensure that the vision of integrated stormwater management is central to the design of streets, parks, and neighborhood plans. Since then, San Francisco has had considerable success creating pilot green streets, requiring new development to manage stormwater onsite, and developing a Better Streets Plan: an award-winning set of standards and guidelines that recognizes that the pedestrian environment is about more than transportation, and that street design must reflect an appropriate mix of ecological, social and recreational values. SPUR continues to champion green infrastructure—nature-based solutions to soften the impact of urban development on water resources—and is currently working with the San Francisco Public Utilities Commission to identify how to scale up green infrastructure in its $6 billion Sewer System Improvement Program.

The Bay Area could benefit from a facilitated exchange of ideas from several cities about better street design, and by working together to figure out how to get sustainable stormwater management out of the region's future climate change and transportation investments. Thank you for including SPUR in your proposal for a regional Green Infrastructure Roundtable and we look forward to participating.

Sincerely,

Laura Tam
Sustainable Development Policy Director

SPUR
654 Mission Street
San Francisco, CA 94105
(415) 781-8726
info@spur.org

SPUR SAN JOSE
76 South First Street
San Jose, CA 95113
(408) 638-0083
infosj@spur.org

Attachment 1.4

TransForm
Our communities. Our transportation. Our future.

July 2nd, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Support for Urban Greening Bay Area

Dear Mr. Rapport:

I am writing to express my support for the application submitted by the Association of Bay Area Governments (ABAG) for Urban Greening Bay Area. Urban Greening Bay Area will build regional capacity for long-term and effective green infrastructure implementation, which can help local governments meet anticipated provisions in the Municipal Regional Stormwater Permit. These anticipated provisions are expected to require development and implementation of watershed-scale green infrastructure plans to achieve quantitative water quality improvements. In tandem with meeting these anticipated requirements, Urban Greening Bay Area can complement air quality improvement strategies and encourage active transportation alternatives to driving.

Transportation infrastructure creates two major point-source environmental impacts: air quality impacts from tailpipe emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy that supported walking and biking and other means of getting people out of their cars as a way to reduce emissions. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emission reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

MAIN OFFICE: 436 14TH STREET, SUITE 600, OAKLAND, CA 94612 | T: 510.740.3150
SACRAMENTO: 717 K STREET, SUITE 330, SACRAMENTO, CA 95814 | T: 916.706.2035
SILICON VALLEY: 48 SOUTH 7TH STREET, SUITE 103, SAN JOSE, CA 95112 | T: 408.406.8074

WWW.TRANSFORMCA.ORG

TransForm is confident that ABAG will be able to successfully complete all tasks indicated in this proposal. We fully support the proposal from ABAG and hope you will seriously consider funding it. Please feel free to contact me if you have further questions at 510-740-3150, extension 311.

Sincerely,

Stuart Cohen
Executive Director

California's
Strategic Growth Council

July 14, 2014

Ezra Rapport
Executive Director
Association of Bay Area Governments
101 Eighth Street
Oakland, CA 94607

C/O Jennifer Krebs
Principal Environmental Planner
San Francisco Estuary Partnership
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: Participation in Green Streets Roundtable

Mr. Rapport:

I am writing to express willingness to participate in the proposed green streets roundtable included as part of the Association of Bay Area Governments (ABAG) "Urban Greening Bay Area" grant proposal.

California's Strategic Growth Council (SGC) brings together agencies and departments within Business, Consumer Services and Housing, Transportation, Natural Resources, Health and Human Services, Food and Agriculture, and Environmental Protection, with the Governor's Office of Planning and Research to coordinate activities that support sustainable communities emphasizing strong economies, social equity and environmental stewardship.

The Council is a cabinet level committee that is tasked with coordinating the activities of state agencies to:

- Improve air and water quality
- Protect natural resources and agriculture lands
- Increase the availability of affordable housing
- Promote public health
- Improve transportation
- Encourage greater infill and compact development
- Revitalize community and urban centers
- Assist state and local entities in the planning of sustainable communities and meeting AB 32 goals

California's
Strategic Growth Council

Transportation infrastructure creates two major environmental impacts – air quality impacts from vehicle emissions and water quality impacts from polluted runoff. The Bay Area developed an integrated approach for air quality impacts in its Sustainable Communities Strategy – a long-term integrated transportation and land-use/housing strategy designed to meet greenhouse gas reduction targets. Included in this strategy are significant transportation investments focused on "active transportation" solutions that support walking and biking and other means of getting people out of their cars as a way to reduce emissions. This presents an important opportunity to simultaneously incorporate sustainable stormwater management features to address water quality impacts. Integrating green infrastructure into active transportation solutions provides benefits beyond greenhouse gas emissions reductions, including water quality improvement and flow reduction, urban heat island mitigation, streetscape enhancement, increased tree canopy, and increased resiliency in a changing climate. We recognize there are existing structural and financial challenges to integrating transportation and water quality solutions and therefore support the proposal to develop, through a robust stakeholder process, an approach to effectively incorporate sustainable stormwater management into the region's future climate change and transportation investments.

Please feel free to contact me if you have further questions at mike.mccoy@sgc.ca.gov.

Regards,

Mike McCoy
Executive Director
California's Strategic Growth Council

Attachment 1.5

Contra Costa Clean Water Program Comments on the February 2015 Administrative Draft Municipal Regional Stormwater Permit dated March 09, 2015

CONTRA COSTA
CLEAN WATER
PROGRAM

Thomas E. Dalziel
Program Manager

March 9, 2015

Thomas Mumley, Assistant Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Contra Costa Clean Water Program Comments on the February 2015 Administrative Draft Municipal Regional Stormwater Permit (MRP)

Dear Dr. Mumley:

The following comments are submitted on behalf of Contra Costa County, its 19 cities and towns, and the Contra Costa County Flood Control and Water Conservation District—the member agencies of the Contra Costa Clean Water Program (CCCWP).

Lost Opportunities

The Administrative Draft includes lost opportunities to improve stormwater pollution prevention and watershed protection in the Bay Area. We ask to work with you and your staff to incorporate more effective provisions in the forthcoming Tentative Order.

Inadequate Time to Comment

The Administrative Draft was released in early February, with the drafts of some provisions not available until February 17. You have stated that written comments will be accepted only until March 9, a comment period of only 14 working days.

Much of the Results of Two Years' Discussions Were Not Incorporated

Prior to your release of the Administrative Draft, CCCWP staff and Permittee staff had actively engaged in over two years of discussions with you and your staff—discussions that delved into every aspect of the 291-page MRP.

The two years of discussion, we believed, had yielded many valuable insights into the workings of the municipal stormwater programs and had generated solid, implementable ideas for improving their effectiveness. These ideas were documented in technical reports, meeting summaries, proposals, and other documents.

We were surprised and disappointed that many of these ideas were not incorporated into the Administrative Draft. Many sections of the Administrative Draft are practically unchanged from the current MRP (MRP 1.0). In this letter, we review some of the ideas generated during our interactions with you and your staff since early 2013.

We request that you and your staff give further consideration to these ideas before issuing the Tentative Order.

Because of the short time allowed, we are limiting our comments to the subjects of Green Infrastructure and New Development and Redevelopment. A review of discussions and technical studies on other subjects would show there are additional worthwhile ideas that should be brought forward into MRP 2.0 but have been omitted from the Administrative Draft.

Green Infrastructure

In March 2013, CCCWP brought to the Board of the Bay Area Stormwater Management Agencies Association (BASMAA) a concept for a "Green Infrastructure Program" as the principal means of controlling PCBs and mercury in MRP 2.0 and successive permit terms. According to CCCWP's concept paper, a regional Green Infrastructure program would identify and implement opportunities to permanently disconnect drainage from impervious surfaces to local waterways. Green Infrastructure would be implemented over the coming decades, as transportation and drainage infrastructure is rebuilt and privately owned urban land is redeveloped.

Although the idea was initially met with skepticism, in late 2013 BASMAA launched a Green Streets Work Group (later renamed the Green Infrastructure Work Group), in which you participated. The Work Group met to facilitate fact-gathering and consensus on how to best go about implementing a Green Infrastructure Program. CCCWP recruited participants from Contra Costa County transportation engineering staff and from the Contra Costa Transportation Authority. The resulting insights were valuable. Work Group participants could see that to implement the concept effectively, we would need to focus on coordinating funding streams and on changing transportation agencies' project design and approval processes.

The next step, we believed, was to develop and reach consensus on MRP 2.0 permit provisions that would promote the most rapid possible implementation of Green Infrastructure, taking into account institutional and resource constraints. BASMAA reached out to you to engage in these small-group discussions. The outcomes of these meetings, held in July and August 2014, were documented in an August 7, 2014 document, "GI Areas of Agreement."

From there, CCCWP went on to draft a proposed MRP 2.0 Green Infrastructure Permit Provision and to guide it through revision by BASMAA participants. The BASMAA-approved draft provision was sent to you on November 11, 2014, and we scheduled a meeting for November 14 to review it with you.

We were surprised and disappointed to see that the Administrative Draft includes three Green Infrastructure sections, which are incorporated into draft Provisions C.3, C.11,

and C.12. Although some language from the November 11, 2014 BASMAA draft provision was included in one of these three sections, much of that language is contradicted in the other two GI sections. Moreover, some of the language in the C.11 and C.12 Green Infrastructure sections directly contravenes the August 7, 2014 "Areas of Agreement." Further, some of the most important strategies proposed in the BASMAA November 11 draft were omitted.

Overall, the Administrative Draft does not reflect the consensus that was achieved, or the carefully balanced strategy that was articulated, as a result of the 2-year process in which you participated. We ask that you and your staff review the documents referenced at the end of this letter and re-engage with us to launch an effective, wide-ranging, and sustainable Green Infrastructure strategy for the Bay Area.

New Development and Redevelopment (Provision C.3)

In late 2013, CCCWP proposed to BASMAA that the Permittees collectively aim to achieve a substantially rewritten and more effective Provision C.3 in MRP 2.0. Our chief concern was then—as it is now—to maximize the effectiveness of the municipalities' oversight of Low Impact Development facilities on private lands. During the term of MRP 1.0, the number of LID facilities in the municipalities' operation and maintenance verification programs has steadily increased. We need to focus on improving the quality of design and construction of these facilities so that private property owners and municipalities can ensure these facilities operate effectively in perpetuity.

To this end, we sought to streamline Provision C.3, in particular to reduce ambiguities, bureaucratic exercises, and outdated (pre-LID) technical requirements. We began by meeting with you in January 2014 to discuss a proposed "White Paper." As we discussed at that meeting, the Permittees were in general agreement with you on objectives for a revised and updated Provision C.3, and the "White Paper" would provide technical documentation for the agreed-upon changes—technical documentation that might be referenced in permit findings.

Based on this successful interaction, BASMAA scoped and funded preparation of the White Paper, and work commenced in April 2014. As part of development of the "White Paper," CCCWP proposed, and BASMAA participants discussed in detail, a complete draft of a revised Provision C.3.

At the October 2014 MRP 2.0 Steering Committee meeting, you presented a plan for Provision C.3 in MRP 2.0 that was entirely inconsistent with what we had discussed in the January meeting. You also stated that because of delays, the White Paper might be "too late" to influence the content of Provision C.3.

In response, CCCWP hastened to forward to you the draft Provision C.3 that we had already prepared and discussed with BASMAA participants. This was sent to you on October 8th. The draft presents an expanded and more assertive approach to implementing C.3 requirements, including LID implementation on projects smaller than the Regulated Projects threshold, consistent with the practices and experience of many CCCWP municipalities. As we had discussed with you in January, the draft also eliminated bureaucratic exercises related to documenting the feasibility and infeasibility

of different methods of implementing LID. The draft also integrates and consolidates hydrologic and other standards for stormwater treatment, LID, and hydromodification management—in MRP 1.0 these are scattered throughout Provision C.3. The draft includes increased specificity of requirements for documenting LID site design and for the design of bioretention facilities. The draft proposes modestly expanded requirements for operation and maintenance verification; these expanded requirements are oriented toward making information publicly available and encouraging community engagement to ensure LID facilities are maintained.

Many of the most important innovations and improvements proposed in the draft have been adopted in other California stormwater NPDES permits—most notably in Provision E.12 of the State Water Resources Control Board's Phase II Permit for small MS4s.

We were surprised and disappointed that we never received any response from you or your staff, and that few or none of these proposed improvements were included in the Administrative Draft.

Technical Studies and Other Documents

We note the following technical studies and other documents, related to Green Infrastructure and New Development and Redevelopment Controls, which were submitted to you. These documents include detailed, forward-looking recommendations intended to accelerate and improve implementation of LID on private lands and within the public right-of-way. We believe the documents and the recommendations within them deserve your further consideration before you proceed to issue a Tentative Order.

- Harvest and Use, Infiltration and Evapotranspiration Feasibility/Infeasibility Criteria Report, BASMAA, May 1, 2011
- Status Report on the Application of Feasibility/Infeasibility Criteria for Low Impact Development, BASMAA, December 1, 2013
- Green Streets Pilot Project Summary Report, BASMAA, August 7, 2013
- IMP Monitoring Report, IMP Model Calibration and Validation Project, Municipal Regional Permit Attachment C, CCCWP, September 15, 2013
- "White Paper" on Provision C.3 in MRP 2.0, BASMAA, February 27, 2015
- Proposed Provision, "C.3. Low Impact Development," CCCWP, October 8, 2014
- Table of Recommendations accompanying the proposed Provision C.3, CCCWP, October 8, 2014
- Proposed Green Infrastructure Permit Provision, BASMAA, November 11, 2014
- GI Areas of Agreement, Green Infrastructure Discussion with Water Board Staff, BASMAA, August 7, 2014

Closing

In closing, we reiterate our desire to work with you and your staff to develop a more streamlined and effective MRP 2.0, one that reduces unproductive bureaucratic requirements and focuses the energies of Permittees and the Water Board alike on improving our urban watersheds.

Sincerely,

Thomas E. Dalziel
Program Manager

c: Keith Lichten, SFBRWQCB, Chief, Watershed Management Division
Dale Bowyer, SFBRWQCB, Senior Water Resource Control Engineer
Selina Louie, SFBRWQCB, Water Resource Control Engineer
Sue Ma, SFBRWQCB, Water Resources Control Engineer
Luisa Valiela, USEPA
Peter Kozelka, USEPA
Phil Hoffmeister, CCCWP, Management Committee Chair

Attachment 1.6

Contra Costa Clean Water Program's Opposition to and Comments on the Tentative Order for the Municipal Regional Stormwater NPDES Permit (Order R2-2015-XXXX, NPDES Permit No. CAS612008) dated July 10, 2015

CONTRA COSTA
CLEAN WATER
PROGRAM

Thomas E. Dalziel
Program Manager

July 10, 2015

Bruce H. Wolfe, Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Via email to: mrp.reissuance@waterboards.ca.gov

Subject: **Contra Costa Clean Water Program's Opposition to and Comments on the Tentative Order for the Municipal Regional Stormwater NPDES Permit (Order R2-2015-XXXX, NPDES Permit No. CAS612008)**

The Contra Costa Clean Water Program (hereafter CCCWP) appreciates the opportunity to submit these comments on behalf of the twenty-one public agencies comprising CCCWP, which consists of the nineteen incorporated cities and towns, unincorporated Contra Costa County, and the Contra Costa County Flood Control and Water Conservation District. The CCCWP has grave concerns about the Tentative Order for Reissuance of the Municipal Regional Permit (MRP 2.0) and is opposed to its adoption in its current form.

CCCWP along with other Permittees have met with your staff over the past two years to work through various issues. Through these meetings we were able to present extensive input and feedback to your staff. While we found these meetings to be productive in working through many issues and generating new ideas to build upon lessons learned and knowledge gained during MRP 1.0, we were disappointed that too few of the many ideas put forward with sound rationale for the changes we've advocated for, were not incorporated into the draft Tentative Order. These ideas would have helped reduce the administrative burdens on Permittees and prioritize and focus our limited resources on those actions that will maximize improvements to water quality. We urge you to seriously reconsider incorporating the Permittees ideas about reducing cost burdens into the revised MRP 2.0.

Our comments are structured to provide general high level comments within this letter and specific detailed comments in **Attachment 1**. Additional attachments provide supporting details to the comments in Attachment 1. In addition we have provided and reference herein a separate submittal of a red-line of editorial comments directly to your staff to assist them in completing a final edit and polish of the Tentative Order. This letter also incorporates by reference the Bay Area Stormwater Management Agencies Association's (BASMAA) comment letter submitted and dated July 10, 2015.

CCCWP General Comments

1. **Funding Limitations and the Need to Offset the Cost of Major New and Expanded Mandates**

CCCWP is committed to the vision of the MRP 2.0 regarding Green Infrastructure and POC control programs. It is important to recognize that these new and expanded initiatives will take significantly more resources. Permittees do not currently have these resources and developing new funding sources and mechanisms is extremely challenging. CCCWP experienced this first hand in 2012 when it sought to obtain voter approval for a stormwater fee. This fee initiative, a six year planning effort, cost the program over $1.5 million. The property-related fee was rejected by the voters in the county, with a 60% "No" vote. Fee initiative campaigns are expensive and take resources away from other stormwater program efforts. This is not a gamble worth trying again until changes are made at the legislative level to recognize stormwater management as a utility, like sewer, water and refuse services. CCCWP invites the Regional Water Board to be a partner to help change the state constitution and law that would allow stormwater to be treated the same water and wastewater utilities.

In the absence of dedicated funding for the stormwater program, stormwater programs have relied upon grants from state and federal agencies. More than $10 million in grant funding was secured for regional stormwater quality projects to support MRP 1.0 requirements. CCCWP appreciates the Regional Water Board's support in securing these past grants and welcomes the continued collaboration to secure grants for on-going and MRP 2.0 initiatives. In particular, support and advocacy for green infrastructure projects – specifically to include these costs into transportation project funding – will be critical to getting the state and regional transportation agencies to include these features as allowable cost and budget items.

Without new funding sources or maintaining a cost neutral program, Permittees will be asked to draw compliance resources from general funds or other program funds. For instance, green infrastructure planning and implementation costs are likely to come from local agency transportation budgets. Projects will cost more and as a result fewer projects will be built and maintenance will be deferred longer. This is an unintended consequence that the Permittees want to avoid.

The Regional Water Board must acknowledge its role in this effort to adequately fund stormwater compliance programs and work collaboratively with Permittees to secure dedicated funding via changes in legislation and opportunistic grants. The Regional Water Board must also acknowledge the inherent uncertainty in these efforts, and the fact that four previous attempts to amend the constitution to allow for stormwater to be funded the same way water and wastewater utilities are funded have failed.

Throughout the MRP 2.0 development process, Regional Water Board staff and management have requested that Permittees identify lower value or "less beneficial tasks" that take time and resources without returning a benefit to water quality. CCCWP provided this information in

its Report of Waste Discharge submitted in June 2014. We were disappointed that our recommendations for reductions were not included in MRP 2.0. POC and trash control programs and Green Infrastructure planning will take significantly more resources and cannot happen unless offset by reductions in lower value efforts.

2. Need for a Clear Path to Compliance for Green Infrastructure and PCBs and Hg TMDLs

Provision C.12 requires the Permittees to demonstrate a total cumulative MRP area-wide PCBs load reduction of 3 kg/yr. over the permit term. Provision C.12 does not provide Permittees with a clear and feasible pathway to attaining compliance with this load reduction performance standard. From a municipal government perspective, new financial and staffing commitments must be based on agreed upon goals and objectives, and have well-defined metrics for measuring progress. The load reduction performance criteria should not be the point of compliance, and Regional Water Board staff should work with Permittee representatives to revise the Tentative Order so that it provides a clear and feasible pathway for Permittees to attain compliance. Most factors that are key to meeting the load reduction performance criteria are uncertain and many are not within Permittee control (e.g., extent of source properties that will be found, building demolition rates, and redevelopment rates), making achievement of compliance uncertain. In order for Provision C.12 to provide Permittees with a clear and feasible pathway to attaining compliance, the load reduction performance criteria needs be informed by and consistent with the final and agreed upon interim accounting method. Compliance should be based upon implementing PCBs and Hg control programs designed to achieve the load reduction performance criteria.

Furthermore, PCBs load reduction performance metrics need to be described in MRP 2.0 in the form of action levels. Regional Water Board staff has acknowledged that load reduction performance metrics are not effluent limits, so this understanding should be explicit in MRP 2.0. Describing the performance metrics as action levels coupled with a clear control program, and accounting method, will compel Permittee action, provide accountability to the Regional Water Board, and alleviate the Permittees concerns regarding the potential third party lawsuits for not meeting the numbers when good faith actions and solid efforts by Permittees consistent with MRP 2.0 requirements does not result in achievement of the load reduction performance criteria.

CCCWP requests MRP 2.0 base compliance on implementation of PCBs and Hg control programs designed to achieve the load reduction performance criteria using an *a-priori* agreed upon interim accounting method and to restate the load reduction performance criteria as action levels. Compliance assessments would be based upon the Permittees good-faith demonstration of actions and effort consistent with these control programs. This approach is warranted based on the significant level of uncertainty, recognized by your staff and the Permittees, in the available data, models and assumptions in the accounting methods. CCCWP recommends the inclusion of a statement in MRP 2.0 that acknowledges this, such as "If the PCBs load reduction performance criteria are not achieved, then Permittees shall demonstrate reasonable and demonstrable progress toward achieving the criteria though the implementation of the control programs."

Section C.3.j needs to be made more consistent with the technical assumptions presented in Provisions C.11 and C.12 and in the corresponding portions of the Fact Sheet. In particular, the load reductions to be achieved through implementation of "green infrastructure," presented in Provisions C.11 and C.12, include public retrofits and private redevelopment; however, in Provision C.3.j, "green infrastructure" refers to public retrofits only.

3. Permit Timelines – First twelve months after the effective date

Various Permit provisions include compliance timelines; however, these timelines for individual provisions have not been coordinated across the Permit as a whole. Requiring aggressive implementation of multiple programs within the same timeframe—many of these Provisions have submittal dates within the first year of the Permit term—creates an untenable situation for the CCCWP and our Permittees. For example, Provisions C.11 and C.12.a.iii (1) require a list of watersheds (or portions therein) where mercury and PCBs control measures are currently being implemented and those in which control measures will be implemented by February 1, 2016, just two months after the permit effective date. Additionally, provision C12.a.ii (4) requires the reporting of "Permittee-specific load fractions" for PCBs reductions by April 2016. More time is needed for CCCWP to work with BASMAA to collaborate and coordinate consistent means and methods for complying with these mandates.

The draft Order contains a plethora of requirements for implementation and/or reporting in the first twelve months after the MRP effective date (see **Attachment 2**). Implementation of these requirements may not be feasible in this timeframe, given the degree of planning and coordination for each requirement and limited Permittee resources. CCCWP asks that the Regional Water Board extend identified deadlines twelve months to allow for outreach, budgeting, and regional collaboration and coordination.

Additionally, the proposed permit effective date of December 1, 2015, falls in the middle of Fiscal Year (FY) 2015/16. Budgets for FY 2015/16 were adopted in the spring of 2015. Planning and budgeting for required compliance mandates in MRP 2.0 must be addressed in FY 2016/17 budgets, which are adopted in the spring of 2016.

CCCWP requests that the Regional Water Board review the deliverables required within the first twelve months of the permit effective date and make appropriate reductions or elimination of lower value tasks, streamline and/or combine required reports, and provide more time for planning and implementation of new tasks that will need to be included in future budgets and that will require countywide and/or regional collaboration and coordination.

4. Trash Load Reduction

Trash was a major focus of MRP 1.0, and continues to be at the forefront of CCCWP's stormwater control efforts. Permittees spent enormous amounts of time and resources to meet the 40% reduction by July 1, 2014. Trash reductions have now become increasingly more challenging with higher percentage reduction goals. Furthermore, the trash reduction approach and accounting methodology for measuring trash reductions changed significantly during MRP

1.0, requiring a major redirection of Permittee efforts resulting in lost time and opportunities. Because of this, the proposed deadline of 70% reduction by July 1, 2017, must be extended to provide sufficient time for Permittees to ramp-up their new and refined trash load reduction programs. Meeting the higher percentage reduction goals will result in significant increases in capital, operating and maintenance costs for which some municipalities have not yet identified funding. During MRP 1.0, Permittees received $5 million dollars in grant funding for the purchase of full trash capture devices. These funds played a significant role in Permittees efforts to meet the 40% trash load reduction goal. Permittees need until the end of the MRP 2.0 term to secure additional funding to achieve 70% reduction. CCCWP asks that the Regional Water Board delay identified deadlines to allow for regional collaboration and additional time for the coordination, funding and outreach which is necessary in order to effectively reduce trash in MS4s. The timelines CCCWP is requesting are consistent with the Trash Amendments[1].

Compounding the challenge to meet the higher trash load reductions are: 1) changes to the formula that reduced the credit allowed for the beneficial efforts of source control and creek and shoreline clean-ups; and, 2) the addition of resource intensive tasks of annual mapping of trash control devices and storm drainage systems on private lands, including, in some cases, residential parcels. Permittees do not have the capacity or resources to perform these tasks, which provide no water quality benefit, while increasing efforts to meet the higher trash load reductions.

At the July 8 Regional Board hearing, a Water Board member suggested as a means to fund trash reduction efforts, that cities impose regulatory fees on litter-prone items. The use of regulatory fees by local government to address litter issues had been successful in the past. In 2006, the City of Oakland had passed a litter fee (regulatory fee) on fast-food restaurants, gas stations, and convenience stores to help pay for costs associated with litter and trash clean-ups. However, Proposition 26, approved by California voters in 2010, has likely effectively eliminated the ability to use a regulatory fee for stormwater management costs, without a balloted two/thirds majority approval. These establishment of regulatory fees as a means to fund trash load reduction programs is viewed with extreme legal risk and imminent legal challenge.

[1] Amendments to the Statewide Water Quality Control Plans for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Should you have any questions or would like to meet to discuss these general or specific comments, please contact me at (925) 313-2392 or Tom.Dalziel@pw.cccounty.us.

I appreciate your consideration of CCCWP's comments.

Sincerely,

Thomas Dalziel
Program Manager
Contra Costa Clean Water Program

CC:
Tom Mumley, SFBRWQCB Assistant Executive Officer
Keith Lichten, SFBRWQCB, Chief, Watershed Management Division
Geoff Brosseau, BASMAA, Executive Director
Jolan Longway, CCCWP, Management Committee Chair

Enclosures:
Attachment 1. Detailed comments on Order No. R2-2015-XXXX
Attachment 2. Some of the compliance deadlines in the first twelve months after the MRP 2.0 effective date

CONTRA COSTA
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ATTACHMENT 1

Contra Costa Clean Water Program

Detailed Comments

Attachment 1

This attachment provides CCCWP's detailed comments, listed in order of permit provision. Each comment identifies CCCWP's concern, and the proposed solution.

Multiple Provisions

Comment 1. The draft Order contains many requirements for implementation and/or reporting within the first 12 months after the proposed permit effective date of December 1, 2015. It must be understood and acknowledged in MRP 2.0 that December 1, 2015 falls in the middle of Fiscal Year 2015/16. Municipal budgets, which were adopted in spring 2015, are already established. The financial resources needed to implement many of the new requirements will not be available. All effective dates for new provisions with substantial financial and staffing resources must be delayed to provide time to be included in FY 2016/17 budgets, which will be adopted in spring 2016, and to provide the time necessary for countywide and/or regional planning and coordination for each requirement.

> *Action desired: Delay identified deadlines **at least** one year from the July 1, 2016 deadline to allow for budgeting in spring 2016, and additional time necessary for countywide and/or regional collaboration and coordination.*

Comment 2. The use of the term "certify" for various provisions throughout the draft MRP 2.0, particularly for various provisions requiring annual reporting, is redundant (e.g., C.3.h.v.(4), C.6.e.iii.(1), C.10.f.iii) . The entire Annual Report must be certified, and requiring certification of each specific provisions within the permit will create additional unnecessary work and confusion.

> *Action desired: Find and delete these unnecessary and redundant requirements to "certify" compliance with specific provisions. Provision C.17.c already adequately addresses this issue (i.e., "The Permittees shall certify in each Annual Report that they are in compliance with all requirements of the Order.").*

C.2.f Corporation Yards

Comment 1. Municipalities are implementing their Corporation Yard Stormwater Pollution Prevention Plans (SWPPPs), which include routine inspections. Requiring pre-rainy season inspections and inspection data collection, and reporting are unnecessary and should be eliminated. This is a "less beneficial" task without a substantial water quality benefit.

> *Action desired: Eliminate the corporation yard inspection reporting requirements.*

> **"ii. Implementation Level**
>
> (2) Routinely inspect corporation yards, according to the Corporation Yard SWPPP, to ensure that non-stormwater discharges are not entering the storm drain system and pollutant discharges are prevented to the maximum extent practicable. ~~At a minimum, each corporation yard shall be fully inspected each year between September 1 and September 30.~~ Active non-stormwater discharges shall cease immediately. Corrective actions shall be implemented before the next rain event, but no longer than ~~10~~30 business days after the potential and/or actual discharges are discovered. Corrective actions can be temporary and more time can be allowed for permanent corrective actions. If more than ~~10~~30 business days are required for compliance, a rationale shall be recorded.

iii. Reporting. The Permittees shall list activities conducted in the corporation yard ~~that have~~and BMPs in the site specific SWPPP~~, date of inspections, the results of inspections, and any follow-up actions~~, including the date of any necessary corrective actions ~~were~~ implemented, in their Annual Report."

C.3 New Development and Redevelopment

Comment 1. At an October 2, 2014 MRP 2.0 Steering Committee meeting with high-level municipal officials, Regional Water Board staff encouraged Permittees to share draft Permit language, then under development by the BASMAA Development Committee, to streamline and improve implementation of Provision C.3. CCCWP sent this language to Regional Water Board staff on October 8, 2014. No response was received. In CCCWP's view, the subsequent Tentative Order misses opportunities to significantly improve the breadth, consistency, and technical quality of C.3 implementation regionally, while substantially reducing the effort required for its implementation. The October 8, 2014 email and the draft Permit language included with that email are attached to this letter and incorporated into these comments **(Attachment 1-A)**.

C.3.b.i Regulated Projects

Comment 1. This provision requires Permittees to require LID treatment on development projects with tentative maps or development agreements approved prior to February 2005 (the C.3 start date under Contra Costa's pre-MRP Permit). However, Permittees' imposition of additional requirements on entitled development projects would potentially conflict with state law and with existing development agreements.

Action desired: Allow municipalities flexibility to require applicants for these development approvals to implement stormwater treatment requirements only to the extent not in conflict with state law and existing development agreements.

C.3.b.ii.(4) Roads Projects

Comment 1. This Provision retains the applicability of Provision C.3 to certain road improvement projects, even though Provision C.3.j sets forth a comprehensive long-term approach to achieving the retrofit of streets and drainage systems with Green Infrastructure.

Action desired: Delete this requirement.

C.3.b.ii.(1)(c) 50% Rule

Comment 1. This Provision requires projects where 50% or more of existing impervious area is redeveloped to provide treatment for the entire area. The requirement pre-dates the LID requirements. With new design requirements promoting the use of LID facilities distributed throughout a development site, rather than building one large detention basin to serve the entire site, this requirement can require applicants to retrofit areas, including plazas and buildings with underground drainage pipes, that are otherwise left untouched by additional development on the same site. Regional Water Board staff has stated the purpose of this rule is to promote retrofit of existing development, an objective which is now addressed by the new Provision C.3.j.

Action desired: Delete this requirement.

C.3.e.ii. Special Projects

Comment 1. In at least one specific, documented case in Contra Costa County, a developer deleted a planned and negotiated pedestrian plaza from a development project in a downtown, pedestrian-oriented shopping area so that the development would achieve the gross density required for C.3 "Special Projects" status.

Action desired: To avoid this disincentive for including pedestrian amenities, allow public plazas to be omitted from calculation of project gross density. Include previously recommended changes for footnote 6, as shown below.

"[6]**Floor Area Ratio** – The Ratio of the total floor area on all floors of all buildings at a project site (except structures or floors dedicated to parking) to the total project site area (excluding any area dedicated to public plazas)."

C.3.e.v.(1) Special Projects Reporting

Comment 1. This provision requires permittees to track Special Projects that have been identified (i.e., an application for development approval has been submitted) but for which no development approval has been given. The purpose of this requirement in MRP 1.0 was to provide Regional Water Board staff with an early opportunity to evaluate the effects of the Special Projects provision. BASMAA has submitted information covering two years of development throughout the region and showing that the number of Special Projects, and the amount of impervious area attributable to Special Projects, is very small when compared to the total amount of development subject to Provision C.3.

Action desired: Delete this requirement.

C.3.e.v.(2) Special Projects Reporting

Comment 1. This provision requires Permittees to conduct and document an analysis of the feasibility of LID treatment for Special Projects. The purpose of this requirement in MRP 1.0 was to provide Regional Water Board staff with an early opportunity to evaluate the effects of the Special Projects provision. BASMAA has submitted information covering two years of development throughout the region and showing that the number of Special Projects, and the amount of impervious area attributable to Special Projects, is very small when compared to the total amount of development subject to Provision C.3. Further, the proportion of LID treatment implemented is high, even where non-LID treatment could be used.

Action desired: Delete this requirement.

C.3.g.iv HM Standard—Methodology for Direct Simulation of Erosion Potential

Comment 1. This provision allows the Permittees to propose an additional method, using direct simulation of erosion potential, by which to meet the hydromodification management (HM) Standard. There is an inconsistency between the Fact Sheet and Tentative Order. The Fact Sheet indicates the Executive Officer can approve the additional method, and the Order specifies the method be submitted to the Board for review and shall not be effective until adopted by the Board as a permit amendment. This is the only Provision in the Tentative Order that contemplates an amendment during the permit term. As the methodology would only change the means and methods for meeting the HM Standard previously adopted by the Board,

and would not constitute any material change to the HM Standard, a permit amendment is not needed.

Action desired: *Make the language in the Tentative Order consistent with that in the Fact Sheet, as shown:*

> **"C.g.iv HM Standard – Methodology for Direct Simulation of Erosion Potential -** The Permittees may, collectively, propose an additional method, using direct simulation of erosion potential, by which to meet the HM Standard in Provision C.3.g.ii. Such a method shall be submitted to the Board for review and shall not be effective until ~~adopted by the Board as a Permit amendment~~ approved by the Executive Officer."

C.3.g.vi. Implementation Level and C.g.vii Reporting

Comment 1. Provision C.3.g.vi states that "For Contra Costa Permittees, Projects receiving final planning entitlements on or before one year after the Permit effective date may be allowed to use the Contra Costa design standards from the Previous Permit." Provision C.3.g.vii. states that Contra Costa Permittees shall, with the first Annual Report following the Permit's effective date, submit a technical report consisting of an HM Management Plan describing how Contra Costa will implement the Permit's HM requirements (e.g., how it will update or modify its practices to meet Permit requirements.)"

Under MRP 1.0, Contra Costa Permittees require applicable development projects to incorporate LID facilities (Integrated Management Practices, or IMPs) that provide both treatment and HM. This is different from other counties, where flow-duration-control detention basins are used, sometimes in series with LID facilities, to achieve HM requirements.

Under MRP 1.0, to show that their individual development project meets the HM standard, Contra Costa applicants may choose to apply a continuous simulation runoff model, with 30 or more years of hourly rainfall data, or they may use standard designs for IMPs with sizing factors. The sizing factors are derived from CCCWP's continuous simulation runoff model, and account for differing soil types and rainfall patterns at development sites. Most applicants—particularly those for smaller developments—use the sizing factors.

Regional Water Board staff commissioned an independent analysis of CCCWP's continuous simulation runoff model, including a review of default values for key model parameters and a comparison to the basin-oriented Bay Area Hydrology Model (BAHM) approach used in other MRP counties. That study found that the CCCWP continuous simulation runoff model produced sizing factors were overly conservative, and stated that the results of the analysis "suggest that Contra Costa would do well to calibrate their [model] to local conditions."[2]

MRP 1.0 required CCCWP to conduct a Model Calibration and Validation Project to monitor the performance of IMPs built using the current (2009) standard designs and sizing factors. This study was completed during 2011-2013 at a cost of over $300,000, and a final report was submitted with CCCWP's Annual Report in September 2013.

[2] Memorandum from Jonathan Butcher, Tetra Tech, Inc., to Janet O'Hara, "Comparison of BAHM and Contra Costa Approaches for Hydromodification Management Plan Requirements," December 7, 2007 (incorporated by reference into these comments).

The final report concludes: "This project demonstrated that the IMPs and sizing factors approved by the Regional Water Board in 2006—and updated in subsequent editions of the *Guidebook*—are adequate to meet current regulatory requirements."

CCCWP has not received any comments from Regional Water Board staff on the September 2013 report.

As the designs and sizing factors meet the current standard, and the Tentative Order proposes that the same standard be continued in the coming Permit term, there is no need for an extension of time to use current design standards. Nor is there any need for an additional technical report. Rather, CCCWP should be allowed to continue to use the current sizing factors while collaborating with Permittees in other counties in a regional effort to update the methodology used to size HM facilities (direct simulation of erosion potential, as provided in proposed Provision C.3.g.iv.).

Action desired: Delete the Contra Costa-specific language from C.3.g.vi and C.3.g.vii.

C.3.h Operations and Maintenance of Stormwater Treatment Systems

Comment 1. This Provision, continued from MRP 1.0, requires that, at a minimum, the Operations and Maintenance (O&M) Inspection Plan must specify the following for each fiscal year: Inspection by the Permittee of at least 20% of the total number (at the end of the preceding fiscal year) of Regulated Projects, offsite projects, or Regional Projects, in addition to the requirement that all Regulated Projects be inspected at least once every five years. Permittees should have the flexibility to perform more or less each year, depending on what they determine is appropriate, so long as all Regulated, offsite and Regional Projects are inspected by year five.

Action desired: Require that all Regulated, Offsite and Regional Projects are inspected by end of permit term, with no annual milestones.

Comment 2. The reporting requirements of Provisions C.3.b and C.3.h. are poorly coordinated with each other and with the typical municipal development review process. During MRP 1.0 term, this lack of coordination resulted in apparent anomalies in Permittee reporting, leading to Regional Water Board staff inquiries and, on the Permittee side, time lost responding to those inquiries. The need to update C.3 reporting requirements was identified during MRP 2.0 negotiations, but was not followed through in time for issuance of the Tentative Order.

Action desired: Include authorization for the Permittees to collectively propose an updated reporting system, such as entry of project data to a publicly accessible relational database, and to implement the updated reporting system following Executive Officer approval.

C.3.j Green Infrastructure Planning and Implementation

Comment 1. This provision continues to be the most challenging and most uncertain portion of C.3 in terms of determining what will constitute compliance. The language needs to be made more consistent with the expectations in Provisions C.11 and C.12. Discussions with Regional Water Board staff on C.11 and C.12 have suggested that load reductions can be accomplished by public retrofits and private development and redevelopment, whereas C.3.j only refers to public retrofits.

Action desired: Make it explicit in C.3.j (as well as in C.11 and C.12) that private development and redevelopment as well as public projects will count toward meeting POC load reductions. Efforts during MRP 2.0 term should focus on planning and opportunistic implementation where feasible.

C.3.j.i (1) Green Infrastructure Program Plan Development

Comment 1. The green infrastructure (GI) framework has to be developed and approved by local governing bodies within one year (by 12/1/16) and then reported in the 2017 Annual Report (9/15/17). This is a very short timeframe given the effort required to coordinate and educate upper level staff and elected officials, prepare the framework, conduct resource planning, and accommodate lead times for bringing the framework to governing bodies.

Action desired: Extend the timeframe for approval to the reporting date (9/15/17), which would provide an additional 9 months.

> **"Green Infrastructure Program Plan Development**
>
> Each Permittee shall:
>
> Prepare a framework (i.e., a plan containing specific tasks and timeframes) for development of its Green Infrastructure Plan and have the framework approved by the Permittee's governing body, mayor, city manager, or county manager ~~within 12 months of the Permit effective date~~by the second Annual Report following permit adoption."

Comment 2. Item (1) (a) requires prioritization and mapping of potential and planned projects. This will be a major, resource-intensive effort, which may not be completed within two years. Additional flexibility in approaches to mapping and prioritization is needed. In addition, the time intervals for planning should be made consistent with the time intervals for load reductions in C.11 and C.12 (i.e., 2020 and 2030).

Action desired: The mechanisms used to develop the GI Plan and priorities should include other less complex tools in addition to GreenPlan-IT. Change the time intervals to 2020, 2025, and 2030.

> "1. A mechanism ~~(e.g., SFEI's GreenPlanIT tool)~~ to prioritize and map areas for potential projects and planned projects, on a drainage-area-specific basis, for implementation over the following time schedules:
>
> a. 2020~~Within 2 years of the Permit effective date~~;
>
> b. 2025~~Within 7 years of the Permit effective date (5-year horizon)~~; and
>
> c. 2030~~Within 12 years of the Permit effective date (10-year horizon)~~.
>
> The mechanism shall include criteria for prioritization (e.g., specific logistical constraints, water quality drivers (e.g., TMDLs), opportunities to treat runoff from private parcels in retrofitted street right-of-way, etc.) and outputs (e.g., maps, project lists, etc.) that can be incorporated into Permittees' long-term planning and capital improvement processes."

Comment 3. Item (1) (c) requires the timeframes for establishing "targets" for amount of impervious surface retrofitted, which do not line up at all with the C.11 and C.12 load reduction timeframes. It is unclear how these targets are to be established by each Permittee.

Action desired: Allow the development of "projections" instead of "targets", and allow Permittees to include projected private development as well as public projects. Allow the

projections to be developed for the years 2020, 2030, 2040, and 2065, consistent with C.11 and C.12.

"(c) ~~Targets~~Projections for the amount of impervious surface within the Permittees' jurisdiction to be retrofitted over the following time schedules:

d. 2020~~Within 2 years of the Permit effective date~~;

e. 2030~~Within 7 years of the Permit effective date (5-year horizon)~~;

f. 2040~~Within 12 years of the Permit effective date (10-year horizon)~~; and

g. 2065.~~Within 27 years of the Permit effective date (25-year horizon); and~~

~~h. Within 52 years of the Permit effective date (50-year horizon).~~"

C.3.j.ii Early Implementation of Green Infrastructure Projects (No Missed Opportunities)

Comment 1. It is unclear how compliance with this provision will be determined. CCCWP recommends that the review process be better defined and objective, in order to avoid disagreements with Regional Water Board staff as to what are "missed opportunities".

Action desired: Add the following language, which would allow for consistent review of CIP projects for GI opportunities, based on specified criteria.

"(3) Permittees shall review and analyze appropriate projects within the Permittee's capital improvement program, and for each project, assess the opportunities and associated costs of incorporating LID into the project. The analysis shall consider factors such as grading and drainage, pollutant loading associated with adjacent land uses, uses of available space with the project area, condition of existing infrastructure, opportunities to achieve multiple benefits such as providing aesthetic and recreational resources, and potential availability of incremental funding to support LID elements along with other relevant factors... Permittees will collectively evaluate and develop guidance on the criteria for determining practicability of incorporating green infrastructure measures into planned projects."

C.4.c, C.5.b, C.6.b Reporting

Comment 1. These provisions indicate that "corrective actions shall be implemented before the next rain event, but no longer than 10 business days after the potential and/or actual non-stormwater discharges are discovered." Requiring a 10 day response for potential discharges results in all observed problems being handled as high priority, which will increase the inspection costs and reduce the total number of sites that can be inspected in a year. Furthermore, requiring that every observed problem requires follow-up within 10 business days creates a disincentive for inspectors to proactively identify and communicate potential problems to site operators because it will require the inspector to complete the prescriptive follow-up and documentation requirements. Not every observed "potential" non-stormwater discharge should nor needs to be deemed a priority. Verbal warnings and warning notices can be effective and efficient Tier 1 enforcement response tools for inspectors to identify and address observed problems without triggering the more time intensive follow-up, documentation, and reporting requirements. . Permittee inspectors and contractors need to be able to use their expertise and best professional judgement to determine how best to allocate their time to provide the maximum number of inspections with the maximum benefit for water quality. Existing guidance allows Permittees up to 30 days to ensure that corrective actions were implemented for potential discharges.

Action desired: Allow the current 30 days for corrective actions to be implemented for potential discharges. Example provided below.

> "C.4.c.ii (3) Timely Correction of Potential and Actual Non-stormwater Discharges – A description of the Permittee's procedures for assigning due dates for corrective actions. Permittees shall require timely correction of all potential and actual non-stormwater discharges. Permittees shall require active non-stormwater dischargers to cease immediately. Corrective actions shall be implemented before the next rain event, but no longer than ~~10 business~~ 30 days after the potential ~~and/or actual~~ non-stormwater discharges are discovered. Corrective actions can be temporary and more time can be allowed for permanent corrective actions. If more ~~than 10 business day are~~ time is required for compliance, a rationale shall be recorded in the electronic database or equivalent tabular system."

C.4.d Reporting

Comment 1. The reporting requirements for C.4.d represent a "less beneficial" task that lacks substantial water quality benefit for the Permittees. Due to the excessive nature of the reporting requirements, Permittees will need to spend considerable resources on reporting, which would be better spent on other higher value tasks.

Action desired: Reduce the excessive data collection and reporting requirements. Examples of excessive data collection and reporting requirements include:

- *the number of inspections;*
- *the number of each enforcement action;*
- *the number of enforcement actions resolved in 10 working days, or otherwise deemed resolved in a longer but still timely manner*
- *facilities that are required to have coverage under the General Industrial Permit but have not filed; and,*
- *the dates of trainings, training topics covered, and percentage of inspectors attending training.*

C.5.e Control of Mobile Sources

Comment 1. Provision C.5.e requires that Permittees provide a summary of specific outreach events and education conducted for each type of mobile business operating within a Permittee's jurisdiction, provide a list of mobile businesses operating within a Permittee's jurisdiction, and develop a separate ERP to address mobile businesses. The language for this section remains very vague, especially as it relates to mobile businesses. It is unclear how Permittees can identify all mobile businesses operating within their jurisdiction, as these businesses operate in several municipalities. Not all municipalities require business licenses, and even when required, some mobile businesses may not obtain licenses for all of the municipalities they operate in. Furthermore, the development of any type of inventory by a Permittee would not include those businesses located in neighboring counties outside of the MRP jurisdictions. The current ERP is adequate to address mobile businesses and does not require revision. Also, there is not enough time to address all the 2016 Annual Report requirements (i.e., minimum BMPs for each business type, enforcement strategy, list and summary of specific outreach events and education conducted to different business types, number of business in jurisdiction, number of inspections conducted at business or job site) which should be coordinated regionally.

Action desired:

- *Clarify the language regarding the identification of mobile businesses operating in a Permittee's jurisdiction. Clarify that these businesses are being addressed through the inspection program as issues are identified. Require Permittees to address mobile businesses through business inspections.*
- *Remove requirement to develop a separate ERP.*
- *Extend the 2016 Annual Report requirements to 2018 Annual Report to provided sufficient time for MRP Permittee collaboration, development and implementation of a regional program.*

C.6.e.iii Construction Site Control – Reporting

Comment 1. Reporting on the "Number of Violations" is inconsistent with Provision C.6.b.ii (3), which requires timely correction for all potential and actual discharges.

Action desired: Revise the reporting requirements to be internally consistent. This would allow the annual reporting process more efficient and effective.

C.6.e.iii (2)(g) Number of actual discharges ~~violations~~ fully corrected prior to the next rain event, but no longer than 10 business days after the actual discharges ~~violations~~ are discovered or otherwise considered corrected in a timely, though longer period; and

C.7 Public Information and Outreach

Comment 1. Many of the permit requirements throughout Section C.7 are duplicated in multiple subsections, as well as throughout the entirety of the Permit.

Action desired: Consolidate public information and outreach requirements throughout the permit into this section and cross-reference it from other sections.

C.7.a Storm Drain Inlet Marking

Comment 1. This provision requires that Permittees mark and maintain municipally-maintained storm drain inlets with an appropriate stormwater pollution prevention message, such as "No Dumping, Drains to Bay", or equivalent. However, this action has been located in the wrong place, and should be moved to Provision C.2 for maintenance of the markers, and C.3 for installation of the markers on development projects.

Action desired: Remove the provision for storm drain inlet marking from Provision C.7., and move to its proper location in Provision C.2 and C.3.

C.7.b Advertising Campaigns

Comment 1. The language for this provision specifies that Permittees shall continue to participate in or contribute to advertising campaigns, with the goal of significantly increasing overall awareness of stormwater runoff pollution prevention messages and behavior changes in target audiences. However, the word "advertising" is antiquated, and should be modernized with the term "outreach," as the word "outreach" is a much broader term that includes social media and in-person events, in addition to traditional advertising media, such as radio, TV, and billboards.

Action desired: Change the word "Advertising" to "Outreach" throughout the provision, as the term "advertising" is more commonly associated with traditional media and is not inclusive of all the outlets Stormwater Programs employ to reach audiences.

Comment 2. Additionally, CCCWP requests that language referring to two campaigns and specific messaging be deleted. CCCWP would like the option to focus on one campaign if it is determined to be beneficial. For instance, a single campaign could allow for development of a sustained, long-term outreach effort analogous to "Spare the Air", "Keep Tahoe Blue", and "Only You Can Prevent Forest Fires". The proposed draft MRP 2.0 requires our limited public outreach resources be spread too thin, and precludes a countywide and/or regional 'branding' effort that might result in greater public recognition and long-term value in increasing awareness of water quality issues and solutions.

Action desired: Eliminate reference to two campaigns and a specific message.

C.8.d.ii Temperature

Comment 1. The temperature triggers defined in provision C.8.d.ii (4) attempt to create a "one-size-fits-all" temperature across all existing watersheds. This is problematic, as this type of temperature trigger does not acknowledge any other existing watershed specific temperature thresholds developed through other regulatory processes (e.g., agreements with National Marine Fisheries Service (NMFS)).

Action desired: Include language to the provision which states that the Permit's temperature triggers are held in deference to existing watershed specific temperature thresholds developed through other regulatory processes (e.g. agreements with NMFS).

> "Follow-up – The Permittees shall consider conducting a SSID project when results at one sampling station exceed the applicable temperature trigger(s) or demonstrate a spike in temperature with no obvious natural explanation. The temperature trigger is defined as when two or more weekly average temperatures exceed the Maximum Weekly Average Temperature of 17.0°C for a Steelhead stream, or when 20% of the results at one sampling station exceed the instantaneous maximum of 24°C. Where existing watershed-specific temperature thresholds were developed through other regulatory processes (e.g. agreements with NMFS), these thresholds prevail. Permittees shall calculate the weekly average temperature by breaking the measurements into non-overlapping, 7-day periods."

C.8.d.v Toxicity and Pollutants in Sediment

Comment 1. The contaminants listed in Table 8.2 of this provision include parameters that are costly to analyze the Permittee and have low water quality benefits. Examples of this type of high cost / low benefit parameters include PCBs, mercury, and organochlorine pesticides.

Action desired: Remove the high cost, low benefit analytes (PCBs, mercury, and organochlorine pesticides) from Table 8.2.

Table 8.2 Sediment Toxicity & Pollutants Analytical Procedures

Test Species or Pollutant	Units	Laboratory Method
Hyalella azteca and Chironomus dilutus survival	Pass/Fail using TST, % Effect	EPA-600/R-99-064
~~PCBs~~		
~~Total Mercury~~		
Pyrethroids: bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin		EPA 3540C followed by EPA 8270D by NCI-GCMS
Carbaryl		
Fipronil		
~~Organochlorine pesticides: Chlordane, Dieldrin, Sum DDD, Sum DDE, Sum DDT, Endrin, Heptachlor epoxide, Lindane~~		
(gamma-BHC)		
Total PAHs		
Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc		
Total organic carbon		
Grain size		

Comment 2. Provision C.8.d.v (4)(c) requires additional follow-up SSID projects for pollutants without Water Quality Objectives when the analytical results exceed Probable Effects Concentrations or Threshold Effects Concentrations (TECs).

Action desired: *Remove triggering by TECs.*

"For pollutants without WQOs, results exceed Probable Effects Concentrations. ~~or Threshold Effects Concentrations from MacDonald 2000.15~~"

C.8.e.ii.(1) Stressor/Source Identification (SSID) Projects

Comment 1. This provision requires Permittees who conduct SSIDs through a regional collaborative to conduct a "minimum of one for toxicity" out of eight possible new SSID projects during the permit term. However, this provision fails to account for the possibility that there may not be any toxicity threshold exceedances. The list of threshold exceedances provided in Provision C.8.e.i may or may not include any toxicity exceedances, and the current provision C.8.e.ii.(1) needs to account for that possibility.

Action desired: *Include qualifying language to the provision which accounts for the possibility of no qualifying toxicity exceedances.*

(1) Permittees who conduct SSID projects through a regional collaborative shall collectively initiate a minimum of eight new SSID projects (minimum of one for toxicity, provided that at least one qualifying toxicity threshold exceedance appears on the list required by Provision C.8.d.i) during the Permit term.

C.8.e.ii.(2) Stressor/Source Identification (SSID) Projects

Comment 1. This provision requires specific Permittees who conduct SSIDs to conduct a "minimum of one for toxicity" new SSID projects during the permit term. However, this provision fails to account for the possibility that there may not be any toxicity threshold exceedances. The list of threshold exceedances provided in Provision C.8.e.i may or may not include any toxicity exceedances, and the current provision C.8.e.ii (1) needs to account for that possibility.

Action desired: Include qualifying language to the provision which accounts for the possibility of no qualifying toxicity exceedances for the countywide programs.

"(2) If conducted through a stormwater countywide program, the Santa Clara and Alameda Permittees each shall be required to initiate no more than five (minimum of one for toxicity, provided that at least one qualifying toxicity threshold exceedance appears for the subject county on the list required by Provision C.8.d.i) SSID projects; the Contra Costa and San Mateo Permittees each shall be required to initiate no more than three SSID (one for toxicity, provided that at least one qualifying toxicity threshold exceedance appears for the subject county on the list required by Provision C.8.d.i) projects; and the Fairfield-Suisun and Vallejo Permittees each shall be required to initiate no more than one SSID project(s) during the Permit term."

C.8.e.iii.(1). Stressor/Source Identification (SSID) Projects

Comment 1. This provision requires SSID projects to be initiated by the third year of the permit term, resulting in the selection of an SSID project based on only 1-2 years of data generated under the new permit. Project selection necessarily requires more substantive data generation than only during the first year of the permit term. Thus, the requirement for this provision should be extended to begin initiation of SSID projects by the fourth year of the permit term, to allow for consideration and incorporation of 3 years of data generated by the MRP.

Action desired: Change requirement to generate SSID projects in the third year to instead begin in the fourth year.

(1) Step 1: The Permittees shall develop a work plan for each SSID project and submit the work plans with the Urban Creeks Monitoring Report (UCMR) such that a minimum of half the required number of SSID projects are started (at a minimum, have a workplan) by the ~~third~~ fourth year of the permit term.

C.8.e.iii.(1).f Stressor/Source Identification (SSID) Projects

Comment 1. The requirements of this provision require the Permittees to conduct a TIE in the event that a monitoring sample exhibits toxicity with no identifiable chemical pollutant. However, this provision is overly restrictive and inflexible. By forcing the Permittee to immediately conduct a TIE, this provision does not allow for the Permittee to explore alternative methods of reducing toxicity prior to conducting a TIE, and overly constrains the study design.

Action desired: Allow greater flexibility for Permittees conducting SSIDs by restoring the option granted in the MRP 1.0 which allows Permittees to conduct a TRE first. See additional language below.

"Conduct a site specific study (or non-site specific if the problem is wide-spread) in a stepwise process to identify and isolate the cause(s) of the trigger stressor/source. This study should follow guidance for Toxicity Reduction Evaluations (TRE) or Toxicity Identification Evaluations (TIE). A TRE, as adapted for urban stormwater data, allows Permittees to use other sources of information (such as industrial facility stormwater monitoring reports) in attempting to determine the trigger cause, potentially eliminating the need for a TIE.

For toxicity studies where there is no chemical pollutant associated with the creek status monitoring sample exhibiting toxicity, a Toxicity Identification Evaluation (TIE)[18] should be conducted. Where chemical data indicate a pollutant, such as fipronil or a pyrethroid, is present at adverse effects levels in the sample location, it is not necessary to conduct a TIE, and the SSID project would be considered complete."

C.8.e.iii.(2) Stressor/Source Identification (SSID) Projects

Comment 1. The requirements of this provision are presented without clarity, and the specific intent and meaning of the requirement to complete half of the SSID projects by the end of the permit term is vague. This provision should make clear that Provision C.8.e.iii.(2) refers to the completion of Step 1, the SSID investigation, and does not include the follow-up steps (Step 3(a) per Provision C.8.iii.(3)(a)).

Action desired: Improve the language and clarity of the provision by making the changes below.

(2) Step 2: The Permittees shall conduct SSID investigations according to the schedule in each SSID project work plan and shall report on the status of SSID investigations annually in the UCMR. SSID projects are intended to be oriented toward taking action(s) to alleviate stressors and reduce sources of pollutants; thus the Permittees shall attempt to complete ~~all steps~~ Step 1 for half their required SSID projects, at a minimum, during the permit term. Local stormwater Permittees shall be advised of the SSID project and consulted regarding possible local sources and potential management actions during the work plan phase and periodically throughout the SSID project.

C.8.e.iii.(3).b. Stressor/Source Identification (SSID) Projects

Comment 1. This provision requires that a Permittee seek the approval of an Executive Officer in order to complete a stressor ID project where the Permittee has determined that the MS4 is not the source. This provision is unnecessary and creates unnecessary steps.

Action desired: Remove the requirement for Executive Officer approval.

(b) If a Permittee(s) determines that discharges from its (their) stormwater collection system(s) are not contributing to an exceedance of a water quality standard, the Permittee(s) may end the SSID project. ~~The Executive Officer must concur in writing before an SSID project is determined to be completed.~~

C.8.e.iv Stressor/Source Identification Projects, Reporting

Comment 1. The requirements of this provision are not specific enough. The provision needs to clarify and make a distinction that the annual SSID reports required by this section are status reports on efforts to date.

Action desired: Introduce clarifying language which specifies SSID annual status reports.

Reporting: The Permittees shall submit an SSID status report in each UCMR which summarizes the actions taken in C.8.e.i-iii above. The SSID status report shall include a running summary of all SSID projects (C.8.e.ii), including start date, brief problem definition, and schedule for each project. As projects progress, the SSID status report shall describe findings and monitoring results and outline steps for the

upcoming year for each ongoing project. The Permittees shall submit the SSID status report with each UCMR.

C.8.f Pollutants of Concern (POC) Monitoring

Comment 1. The number of samples required in Table 8.4 for Contra Costa and Santa Mateo Counties should be consistent with the tiered sample number requirements in the Creek Status Monitoring (C.8.d).

Action desired: Reduce the minimum number of samples for Contra Costa and Santa Mateo Counties, consistent with C.8.d.

Table 8.4 POC Monitoring Parameters, Effort and Type

Pollutant of Concern	**Total Samples[a] Collected /Analyzed (yearly minimum) for each Countywide Program: Alameda & Santa Clara / Contra Costa, ~~Santa Clara, and~~ & San Mateo**	**Minimum Number of Samples for each Monitoring Type[b]**
Polychlorinated Biphenyls (PCBs)	80 (8)	8 samples minimum for monitoring types 1-5
Total Mercury	80 (8)	8 samples minimum for monitoring types 1-5
Copper	20 / 10 (2)	4 samples minimum for monitoring types 4-5
Pesticides: Pyrethroids (water and sediment): bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin Imidacloprid Indoxacarb Fipronil Carbaryl (in sediments)	20 / 10 (2) for each	4 samples minimum for monitoring types 4-5
Toxicity: Water Column (during storms) Sediment (wet season, not necessarily during storms)	10 / 5 (1) for each	~~20~~ 10 samples for monitoring type 4
Emerging Contaminants[c]: Must include but not limited to: Perfluorooctane Sulfonates (PFOS, in sediment) Perfluoroalkyl sulfonates (PFAS, in sediment) Alternative flame retardants	See footnote c	See footnote c
Ancillary Parameters[d]: Total organic carbon Suspended sediments (SSC) Hardness	as necessary to address management questions for other POCs – see footnote d	
Nutrients: Ammonium, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Orthophosphate,	20 / 10 (2) for each nutrient species	20 samples for monitoring type 4 for each nutrient

Total Phosphorus (all nutrients collected together for each sample)		species.

Comment 2. An error in Table 8.4 states that the minimum yearly sample should be 20 for toxicity. This minimum number should be reduced to 10 samples in order to coincide with the total number of samples required.

Action desired: Reduce the minimum number of samples from 20 to 10.

Table 8.4 POC Monitoring Parameters, Effort and Type

Pollutant of Concern	Total Samples Collected / Analyzed (yearly minimum) for each Countywide Program: Alameda, Contra Costa, Santa Clara, and San Mateo.	Minimum Number of Samples for each Monitoring Type
Toxicity: Water Column (during storms) Sediment (wet season not necessarily during storms)	10 (1) for each	~~20~~ 10 samples for monitoring type 4

Comment 3. An error in Table 8.5 POC Analytes and Analytical Methods identifies Method 1668 for PCBs. This method is not appropriate for use with the sediment fraction for analysis. Table 8.5 should include greater flexibility in methods that are approved for sample media to allow Permittees to select appropriate and cost effective methods.

Action desired: Remove PCBs Method 1668 from the table OR add alternative methods to the table to increase flexibility.

C.8.g.iii.(2) Urban Creek Monitoring Report

Comment 1. The requirements of this provision are not specific enough. The provision needs to clarify that the annual SSID report required by this section is a status report.

Action desired: Introduce clarifying language which specifies that SSID annual reports are status reports on work completed to date.

"(2) A SSID status report pursuant to Provision C.8.e.iv."

C.8.g.iv Pollutants of Concern Monitoring Reports

Comment 1. This provision requires the POC Monitoring report to be due annually on October 15, only fifteen days after the end of the preceding Water Year, and one month after the Annual Report is due. This deadline is overly restrictive, as it reduces the potential for sampling during the last three months of the Water Year (July-September) and adds unnecessary, incongruent reporting as it is also asked for annually in the UCMR (C.8.g.iii.) on March 15 with other monitoring data. Streamlining report and data submittal requirements is a cost and staff resources savings for the Permittees.

Action desired: Consolidate the timelines of all monitoring report's electronic data reporting. Remove the duplicative POC reporting and allow this monitoring to be reported with the UCMR.

"iv. Pollutants of Concern Monitoring Reports – ~~By October 15 of each year of the permit (~~Beginning in 2016~~)~~, the Permittees shall submit a report describing the allocation of sampling effort for POC monitoring for the forthcoming year and what was accomplished for POC monitoring during the preceding ~~w~~Water ~~y~~Year. The report ~~may~~shall be integrated into the UCMR (C.8.g.iii). The report shall include (for preceding year and projected for forthcoming year): monitoring locations, number and types of samples collected, purpose of sampling (management question addressed), and analytes measured. ~~Any data not reportable to CEDEN should also be included in this report."~~

C.9.c Implementation of IPM

Comment 1. This provision inappropriately requires the Permittees to observe the application of pesticides by the contractor in order to verify that the contractor is implementing the Permittee's IPM contract specifications or its IPM policies, program, or ordinance; and adhering to the associated standard operating procedures. This requirement assumes that observing pesticide application is somehow indicative of compliance with IPM practices and/or SOPs, which it is not. Furthermore, some Permittees that oversee contracts for IPM services are not qualified to judge whether contractors are applying pesticides properly, and pesticide applications are only a small part IPM contract specifications The most important criteria for the Permittees to do in regard to requiring Contractors to implement IPM are:

a. Have a contract that clearly specifies the requirements related to IPM
b. Be familiar with the contract and its requirements
c. Monitor the work of the contractor through frequent communication. The contractor should report verbally or otherwise with the Permittee on this pest management activities and the rationale behind those practices.

Action desired: Remove requirement to observe pesticide applications. Require instead that Permittees monitor their pest services contract. This monitoring would include reviewing pesticide usage, locations of any applications, and tracking IPM practices.

C.10.a.i.a Schedule

Comment 1. Trash reductions become increasingly more challenging with higher percentage reduction goals. Furthermore, the trash reduction approach and accounting methodology for measuring trash reductions has changed significantly during MRP 1.0 requiring a major redirection of Permittee efforts resulting in lost time and opportunities. Six months after the submittal of the Municipal Short Term Trash Load Reduction Plans and BASMAA's Trash Load Reduction Tracking Methodology on February 1, 2012, Regional Water Board staff rejected Permittees plans and BASMAA's tracking methodology. On August 15, 2012, in a meeting between BASMAA representatives and Regional Water Board Executive Officer, a tentative agreement was reached to work together on a revised methodology. For the remainder of FY 2012/13, Regional Water Board staff and Permittee representatives worked collaboratively on a major new shift in direction for trash load reduction on how trash reduction should be accounted for, and how to proceed toward the objective of "no visual impact". This significant redirection of approach and effort resulted in lost time and opportunities. In FY 2013-2014, Permittees continued to build upon the newly agreed framework in development and implementation of their Long-Term Trash Load Reduction Plans and in demonstrating the 40%

reduction in trash loads by July 1, 2014 as required by the MRP. This framework is still evolving, and Permittees continue to explore and build on their knowledge of the effectiveness of control measures, the frequency these measures should be implemented, and how best to demonstrate or assess progress in meeting trash load reduction requirements. These efforts take time and significant resources. The proposed 70% reduction by July 1, 2017 must be extended to provide sufficient time for Permittees to ramp-up their new and refined trash load reduction programs. Meeting the higher percentage reduction goals will result in significant increases in capital as well as operating and maintenance costs for which municipalities have not yet identified funding. It should be noted that during MRP 1.0, Permittees received $5 million dollars in grant funding for the purchase of full trash capture devices. These grant funds played a significant role in helping Permittees efforts to meet the 40% trash load reduction goal. The proposed extensions are consistent with the State's Trash Amendments.

Action desired: Extend 70% load reduction time schedule to the end of the permit term.

i. **Schedule** - Permittees shall reduce trash discharges from 2009 levels, described below, to receiving waters in accordance with the following schedule:

a. 70 percent by November 30, 2020~~by July 1, 2017~~; and

b. 100 percent or no adverse impact to receiving waters from trash by July 1, 2025~~2022~~.

C.10.a.ii.a Trash Generation Area Management

Comment 1. This provision includes a sentence stating that full trash capture devices only allow trash to be discharged during a large storm event. This language is problematic as a "large storm event" has not been defined.

Action desired: Revise language as below:

"Actions equivalent to full trash capture means actions that send no more trash down the storm drain system than a full trash capture device would allow~~, which is essentially no trash discharge except in very large storm flows~~."

C.10.a.ii.b Trash Generation Area Management

Comment 1. This provision includes requirements to ensure that private lands plumbed directly to the MS4 are equipped with full trash capture devices or managed to a low trash generation rate, and requires mapping of those lands greater than 5,000 square feet by 2018. However, municipalities do not have an accurate inventory of storm drains on private lands nor do they know how these drains are connected to their MS4. It would also be a huge undertaking to identify storm drains on these lands, determine their point of connection to the MS4, and map their drainage areas. Additionally, there is no distinction between residential and commercial/industrial properties though trash on these lands is being addressed through C.4 and C.5 programs. Permittees do not have the capacity to perform the proposed requirement, but can and will address trash issues on these properties through the C.4 programs.

Action desired: Remove C.10.a.ii.b and instead integrate inspections and enforcement of high priority private drainage areas into C.4 programs.

~~"b. Permittees shall ensure that lands that they do not own or operate but that are plumbed directly to their storm drain systems in Very High, High, and Moderate trash generation areas are equipped with full~~

~~trash capture systems or are managed with trash discharge control actions equivalent to or better than full trash capture systems. The efficacy of the latter shall be assessed with visual assessments in accordance with C.10.b.ii. If there is a full trash capture device downstream of these lands, no other trash control is required. Permittees shall map all such lands greater than 5000 ft2 that are plumbed directly to their storm drain systems by 2018, including the trash control status of these areas. This information shall be retained by the Permittees for inspection upon request.~~"

C.10.a.iii Mandatory Minimum Full Trash Capture Systems

Comment 1. This provision requires C.3 facility overflow structures be equipped with a screen. However, having a screen on C.3 facility overflow may result in increased flooding potential resulting in increased risk to property and public safety. Regional Water Board staff has not produced any data or information, which we have requested, that indicates C.3 facilities are not appropriately sized to treat the peak flow resulting from a one-year one hour storm (i.e., the required design treatment capacity for full trash capture device). A technical review of this matter was conducted by engineering staff within the City of Martinez. This review indicated the C.3 facility treats a greater volume of water than produced by the peak flow resulting from a one year-one hour storm.

Action desired: Revise text as noted below.

"A stormwater treatment facility implemented in accordance with Provision C.3 is also deemed a full capture systems if the system is maintained to prevent off site movement of accumulated trash and overflow from the system is ~~appropriately~~ screened, if needed, to meet the full trash capture screening specification for storm flows up to the full trash capture hydraulic specification (C.10.a.iii)."

C.10.b.1.a Maintenance

Comment 1. Maintenance of a full trash capture device should be based on device type, drainage area, and characteristics of the land it drains (amount of trash, amount of vegetation, etc.).

Action desired: Revise text to require that devices are inspected at a minimum of once a year. Frequency of inspection will be based on device type, drainage area, and characteristics of the land it drains.

"**a. Maintenance -** The maintenance of each full capture device shall be adequate to prevent plugging, flooding, or a full condition of the device's trash reservoir and bypassing of trash. Storm drain inlet type full trash capture devices shall be maintained a minimum of once per year. A Permittee-specific maintenance program shall be implemented and adapted to achieve/maintain full capture criteria.

~~(i) Storm drain inlet type full trash capture devices in Low or Moderate trash generation areas shall be maintained a minimum of once per year.~~

~~(ii) Storm drain inlet type full trash capture devices in High trash generation areas shall be maintained a minimum of twice per year.~~

~~*(iii)* Storm drain inlet type full trash capture devices in Very High trash generation areas will be maintained a minimum of 3 times per year.~~

~~*(iv)* All other full trash capture devices shall be maintained a minimum of one time per year.~~

~~If any such device is found plugged or full of trash during a maintenance event, the maintenance frequency shall be increased so that the device is neither plugged nor full of trash by the next maintenance event.~~"

C.10.b.i.c / C.10.f.iii. Certification

Comment 1. These provisions required certification that devices are being operated and maintained to meet full trash capture system requirements. (See related Comment #2 under "Multiple".) Numerous factors beyond the control of Permittees may result in a device being found plugged or clogged even though the device is being maintained on a frequency found to be appropriate. CCCWP requests the language be modified to require Permittees to annually report that they have an operation and maintenance program designed to meet the full trash capture system requirements, and are implementing that program.

> *Action desired: Require Permittees to report annually that an operation and maintenance program is in place, and it is designed to meet full trash system capture requirements.*

C.10.b.ii.v Visual Assessment of Outcomes of Other Trash Management Actions

Comment 1. Currently there is no means that will allow Permittees to take any percent reduction credit for significant efforts that have not conclusively demonstrated a trash generation rate change within a reporting period or the permit period. There should be an acknowledgement of the trial and error nature of implementing trash reduction control measures and the uncertainty in the degree of effectiveness they might achieve within a given timeframe. Permittees should be given greater flexibility and incentive for trying different control measures, at different frequencies, and in different locations. Without this flexibility, Permittees may be compelled to move directly to the installation of full trash capture devices everywhere simply to ensure they meet percent reduction requirements, which may not be the most cost effective method and long-term solution.

For example, source control strategies are very complex, expensive, time-consuming, and difficult to develop and implement, but may provide the most effective, long-term and sustainable solution to addressing a persistent and pervasive litter problem (e.g., single use plastic bags). The current permit language provides no incentive for source control approaches as the maximum achievable reduction credit is fixed at a maximum of 5%. This maximum is less than what was allowed in MRP 1.0 for single use plastic bag bans.

Another example includes the efforts to develop and implement grass-roots community-based approaches and/or partnerships with the local business community to address a trash problem also takes substantial effort and time to ramp-up. The results of these efforts are uncertain at the time of development and may not be known or achieved within a reporting period or several reporting periods; however, given sufficient time for their implementation they may be effective and additionally can have substantial ancillary benefits by increasing awareness of the trash problems within a community.

Another example scenario is a Permittee deciding to increase street sweeping from monthly to twice a month, which may require approval from upper management or elected officials, identification of new or additional funding, a contract amendment, and/or adjustments to other street sweeping routes and frequencies, etc. To plan, implement, and assess this effort could take a year or more, and the increased street sweeping may or may not result in the desired reduction in the trash generation rate even though the control measure has reduced measurable amounts trash. If the action is ultimately not achieving the needed result, then the

Permittee must decide what additional or different trash reduction strategies should be taken. This trial and error process takes time and the results are uncertain. CCCWP requests more flexibility and greater incentives for identifying the best and most cost effective combination of trash load reduction strategies within a reporting period and over the term of the permit.

Action desired: *Include language in permit that provides development of a proposed interim or temporary credit for significant actions that may result or significantly contribute in time to a generation rate change.*

"C.10.b.ii.v. Permittees may put forth substantial effort to reduce trash loads in certain areas which may not be immediately apparent when performing the visual assessments. Permittees shall be allowed to put forth evidence of these efforts or programs, as well as supporting documentation on an allowable interim percent reduction credit for these actions, pending project completion and demonstration of achievement of the reduction in the trash load generation rate."

C.10.b.iv Source Control

Comment 1. The Long-Term Trash Load Reduction Plans developed under MRP 1.0 included source control as a means to meet percent reduction milestones. However, the percentages allowed in the draft MRP 2.0 (up to 5% for all source control actions) are not consistent with previously acceptable percentages for source control. One of the reasons cited for limiting the percent reduction is the suggested "double accounting" of these control measures. The argument has been put forth that reduction in trash loads from implementing product bans should be apparent in the results of visual assessments, and to provide an additional reduction credit for simply establishing a product banned constitutes a double credit. This is argument is flawed for a variety of reasons. First, the ranges assigned to high and very high trash generation rates are considerable. It is quite possible that the results of visual assessments would fail to detect the reduction to the extent of achieving an actual generation rate change. That is, a TMA with very high trash generation rate may continue to be very high even though it is now on the lower end of the range of that rate as a result of the product ban.

Furthermore, source control programs undoubtedly provide benefits beyond the boundaries of a trash management area and even a Permittee's jurisdiction, as these litter items are often obtained in one location and discarded in entirely different geographic location. Additionally, Regional Board staff's arguments also fail to recognize that not all trash is created equal. Certain litter items are more persistent and problematic than others, especially in a marine environment. Single use plastic bags and polystyrene food containers are a more significant threat to aquatic resources then say napkins and paper cups, which break-down and decompose more readily in the environment.

Without sufficient incentives for source control, there will be little incentive for Permittees to tackle other persistent and problematic litter-prone items such as cigarette butts, plastic bottles, metallic balloons, non-paper-based food wrappers, plastic cup lids and straws, etc....

Based on the previously acceptable percentages, CCCWP Permittees have committed resources to the development or advancement of source control programs as a means to meeting their trash load reduction milestones. Many communities implemented product bans to address particularly persistent and problematic sources of litter found in waterways. These efforts were not without significant risk from legal challenges and concerns from members of their

communities. To reduce a previously established trash load reduction credit for these significant efforts is bad public policy. Source control is perhaps the most cost effective and sustainable strategy for eliminating persistent and problematic sources of trash and other pollutants. Strong incentives for source control strategies and efforts should be incorporated into MRP 2.0.

Action desired: Edit section C.10.b.iv language increasing the maximum credit to 25%. Permittees will still be responsible for providing evidence to support the percentages claimed.

> **"C.10.b.iv Source Control** – Permittee jurisdiction-wide actions to reduce trash at the source, particularly persistent and problematic trash items, may be valued toward trash load reduction compliance by up to twenty-five percent load reduction total for all such actions. To claim a load percentage reduction value, Permittees must provide substantial evidence that these actions reduce trash by the claimed value. A Permittee may reference studies in other jurisdictions if it provides evidence that the implementation of source control in its jurisdiction is similarly implemented as the source control assessed in the reference studies."

C.10.b.v / C.10.f.vi Receiving Water Observations

Comment 1. As currently drafted, the receiving water observations for trash will not address the management questions being asked. Since there is no established protocol, there may not be consistency in how the observations are conducted across the region. The intent of receiving water monitoring downstream of areas converted to low generation remains unclear. The requirement that locations of sites have to be downstream of areas converted to low generation implies that compliance with MS4 reductions will be determined in the future via receiving water monitoring. It is not possible to definitely determine the source of all trash in receiving waters (upstream, windblown, direct dumping) and therefore these observations cannot and should not be linked to compliance with trash load reductions.

Action desired: Recommend having Permittees develop a monitoring protocol for receiving water observations within some specified time period of permit adoption. Suggest redrafting of text as follows:

> **"i. Receiving Water Observations -** Permittees shall conduct receiving water observations downstream from trash generation areas that have been converted from Very High, High, or Moderate to Low trash generation rates, or at other locations for which receiving water monitoring over time will produce useful trash management information.
>
> a. The observations shall be sufficient to evaluate the level of trash present in receiving waters over time, and to the extent possible determine whether there are ongoing sources outside of the Permittee's jurisdiction that are causing or contributing to adverse trash impacts in the receiving water(s).~~to determine whether a Permittee's trash control actions have effectively prevented trash from discharging into receiving waters, whether additional actions may be necessary associated with sources within a Permittee's jurisdiction, or whether there are ongoing sources outside of the Permittee's jurisdiction that are causing or contributing to adverse trash impacts in the receiving water(s).~~"

C.10.e.i Additional Creek and Shoreline Cleanup

Comment 1. For additional Creek and Shoreline Cleanups, the formula has a 10:1 offset, which means that most Permittees will not be able to claim even a 1% percent, or the maximum 5%, allowable reduction from these efforts, even though these activities remove significant

amounts of trash from local creeks. While we are glad to see that some percent reduction for these efforts is included, the formula for calculating the reduction should be revised to have 3:1 offset and the maximum allowable percent reduction should be increased. Additionally, this provision is limiting in that creek cleanups must be conducted twice a year to claim the minimal percent reduction. Some areas may not require that frequency of cleanups and some volunteer efforts are not necessarily twice a year at the same stretch of creek. If Permittees may not account for appropriate load reduction from these efforts, it is possible that much of the funding for these extremely effective cleanups will be reduced or eliminated. These events have significant public education, citizen involvement, and community awareness benefits. The removal of trash from creeks and shorelines improves water quality in the creeks, the San Francisco Bay and Delta, and the Pacific Ocean. With an increased maximum credit of 10% and a reduced 3:1 ratio, these important and beneficial efforts will certainly not be done at the expense of upland actions need to achieve the 70% reduction milestone; however, the proposed changes will provide a sufficient incentive for continued local efforts to remove trash that finds its way into our creeks and onto our shorelines. This is a win-win for water quality, the Regional Water Board, friends of creeks organizations, the environment and municipalities.

Action desired: Increase the maximum percent reduction credit to 10% or more for additional creek and shoreline cleanups, remove minimum cleanup frequency at a site, and reduce the 10:1 ratio to 3:1.

"A Permittee may claim a load reduction offset of one percent for each total of trash volume removed from additional cleanups that is ~~ten~~ three percent of the Permittee's 2009 trash load volume estimates, based on its trash generation maps and average categorical trash generation rates (see C.10.a.ii), in accordance with the following formula:

1~~0~~% Reduction Offset (Volume) = $(12\ A_{VH(2009)} + 4\ A_{H(2009)} + A_{M(2009)})\ OF$

where:

$A_{VH(2009)}$ = total amount of 2009 very high trash generation category jurisdictional area

$A_{H(2009)}$ = total amount of 2009 high trash generation category jurisdictional area

$A_{M(2009)}$ = total amount of 2009 moderate trash generation category jurisdictional area

12 = Very High to Moderate weighing ratio

4 = High to Moderate weighing ratio

OF = offset factor equal to (7.5 x 0.1), where 7.5 is the conversion from acres to gallons based on trash generation rates and 0.3~~1~~ is the ~~ten~~ three to one offset ratio."

C.10.e.ii Direct Trash Discharge Controls

Comment 1.The maximum of 10% offset for direct trash discharge controls in too small for such an important action. As the formula is written, even the trash challenged communities may find it difficult to claim meaningful reductions. In certain communities, a significant, pervasive and problematic source of trash observed in receiving waters may predominantly come from direct discharges (i.e., illegal dumping and homeless encampments) and these communities should be

allowed to focus their efforts to address those sources and receive full credit for these actions. On May 13, 2015, the Regional Water Board adopted a resolution stating in part:

> *NOW, THEREFORE BE IT RESOLVED THAT the Water Board:*
>
> 1. *Encourages local agencies to undertake efforts to eliminate and prevent adverse water quality impacts from homeless encampments. These efforts should include clear and measurable goals for trash reduction.*

It isn't enough for Water Board members to "encourage" these programs and then approve a Permit that provides very little credit toward compliance.

> *Action desired: Omit the maximum percent reduction value for direct discharge control programs, and reduce the ratio in the percent reduction formula to 3:1.*
>
> **"Direct Trash Discharge Controls –** A Permittee may offset an additional part of its provision C.10.a trash load percent reduction requirement by implementing a comprehensive plan approved by the Executive Officer for control of direct discharges of trash to receiving waters from non-storm drain system sources. ~~The maximum offset that may be claimed is ten percent using the C.10.e.i formula.~~"

C.10.f.i Reporting

Comment 1. This Provision requires mapping the areal extent of all control measures. However, it is very challenging to map areal extent of some control measures (e.g., trash receptacles, enhanced litter enforcement, enhanced storm drain inlet maintenance, activities to reduce trash from uncovered loads, anti-littering and illegal dumping enforcement, improved trash bins/container management, etc...). These maps would be extremely difficult to read as many trash reduction actions can be employed within a trash management area. This additional mapping effort is a "less beneficial task" and will not contribute in any meaningful way to assisting Permittees with meeting their trash load reduction goals, or to Water Board staff in evaluating compliance.

> *Action desired: Recommend continuing of mapping generation rates, management areas, and drainage of capture devices, but not the areal extent of all control measures.*

C.10.f.ii Reporting

Comment 1. This Provision requires the Permittees to provide an updated trash generation map each reporting period. Considerable resources are required to generate, review, and revise maps. Having a map submitted each year does not provide that much more data than what is otherwise presented in the Annual Reports.

> *Action desired: Recommend tying map submittal to 70% reduction compliance date.*

C.11 and C.12 General Comments

Comments are provided below on Provisions C.11 (Mercury Controls) and C.12 (PCBs Controls). Please note that Provisions C.11.a–d in the Tentative Order is "piggybacked" on C.12.a–d, so comments on Provisions C.12.a-d also generally apply to C.11.a-d.

It appears that the level of effort and resources required to implement Provisions C.11 and C.12 will be dramatically higher than implementing MRP 1.0 Provisions C.11 and C.12. Much of the cost of implementing MRP 1.0 Provisions C.11 and C.12 was offset by a grant from USEPA that

will end in 2016. The availability of grant or other funding for implementing MRP 2.0 Provisions C.11 and C.12 is uncertain.

With the delay in the release of the Draft Tentative Order from February to May 2015, many of the required submittal and/or completion deadlines have not been appropriately extended, and as currently written would be extremely difficult, if not infeasible, to meet. For example, see provisions: C.11.a.iii.(1) due February 2016; C.11.a.iii.(2) due with the June 2016 Annual Report; C.12.a.iii.(1) due February 1, 2016; C.12.a.iii.(2) due with the 2016 Annual Report; and, C.12.a.ii.(4) due April 2016.

Action desired: Extend the deadlines for these reports to the 2017 Annual Report and work with the Permittees to establish more realistic time frames for submittal of reports and/or completion of certain significant tasks, including the Green Infrastructure Framework in Provision C.3.j.i.(1).

C.12 Introduction

Comment 1. For better clarity, the introductory language should state the existing load (14.4 kg/yr.) and the wasteload allocation (1.6 kg/yr) in the PCBs TMDL that are applicable to the MRP Permittees, as opposed to the existing load and wasteload allocation that apply to all urban and non-urban stormwater discharges to the Bay (20 kg/yr and 2 kg/yr, respectively).

Action desired: Edit the introduction to Provision C.12 to identify the existing load and wasteload allocation that apply only to the MRP Permittees.

C.12.a Implement Control Measures to Achieve PCBs Load Reductions

Comment 1. This permit provision requires the Permittees to demonstrate a total cumulative MRP area-wide PCBs load reduction of 3 kg/yr over the permit term. Provision C.12 does not provide Permittees with a clear and feasible pathway to attaining compliance with this load reduction performance standard. In order for Provision C.12 to provide Permittees with a clear and feasible pathway to attaining compliance, the load reduction performance criteria should be informed by and consistent with the final and agreed upon interim accounting method (see comments below on Provision C.12.b). Compliance should be based upon implementing PCBs control programs designed to achieve the load reduction performance criteria, as many factors that would be key to achieving the proposed load reduction performance criteria within this permit term are not controllable by the Permittees (such as the rate of building demolition or the amount of redevelopment that will occur within old industrial areas).

Furthermore, PCBs load reduction performance metrics should be in the form of action levels. Regional Water Board staff has acknowledged that load reduction performance metrics are not effluent limits. Further clarity is needed regarding their legal definition and implications with regard to enforcement and potential third party lawsuits. In addition, the permit should include contingency language that would allow for achieving compliance if a good-faith demonstration of solid efforts and actions by Permittees consistent with permit requirements does not result in achievement of the load reduction performance criteria.

Action desired:

- *Base compliance on implementation of control programs designed to achieve the load reduction performance criteria using the interim accounting method and restate the load reduction performance criteria in the form of Action Levels.*
- *Include contingency language in Provision C.12.a that allows compliance based on a good-faith demonstration of actions and effort consistent with these control programs, such as:*

  "If the PCBs load reduction performance criteria are not achieved, the Permittees shall demonstrate reasonable and demonstrable progress toward achieving the criteria."

C.12.a.ii Control Measures to Achieve PCBs Load Reductions

Comment 1. This provision requires Permittees to submit Permittee-specific PCBs load fractions by April 2016. This requirement would increase the number of stand-alone reports due within the first six months of permit adoption, creating significant burden on the Permittees.

Action desired: Include the submittal of PCBs load fractions with the FY 2016 Annual Report, providing an additional six months for the development of Permittee-specific PCBs load fractions.

C.12.a.ii (4) Implementation Level

Comment 1. The interim PCBs load reduction compliance performance criteria (i.e., 500 g/yr during the first two years of the permit) should be omitted. Although Permittees will continue existing efforts to develop and implement additional PCBs and mercury control programs, it will take time for new control programs to ramp up. Preliminary calculations of the benefit of reasonable control program scenarios over the first two years of the permit term reveals that meeting the year 1 and year 2 load reduction criteria are not feasible. Thus, the inclusion of these performance criteria in the permit will likely cause the Permittees to be out of compliance at the end of year 2.

Additionally, the PCBs load reduction performance criteria presented in Table 12.1 are somewhat unclear as presented. Presumably, the proposed area-wide load reduction performance criteria to be achieved by the end of the permit term is 3 kg/yr (as opposed to 10 kg/yr if one assumed that 0.5 kg/yr would be required in each of the first two years and 3 kg/yr would be required in each of the subsequent three years). Note that the Permit Fact Sheet states that the load reductions should be achieved "each year" (Fact Sheet, page A-98). This should be clarified by stating that 0.5 kg/yr is required at the end of year 2 (although preferably this interim performance criterion should be removed) and that 3 kg/yr be achieved by the end of year 5.

Action desired: Remove the PCBs load reduction performance criteria for the first two years of the permit term from this provision. For example, edit Provision C.12.a.ii.(4) as follows:

"For all Permittees combined, these county-specific average annual PCBs load reduction performance criteria shall total ~~0.5 kg/yr during each of the first two years of the permit and~~ 3.0 kg/yr ~~during each of~~ by the final ~~three~~ years of the permit. The ~~0.5 kg/yr reduction (and county-specific portions thereof) shall be assessed for compliance at the end of year 2 and shall be computed as the average of the year 1 and year~~

~~2 load reduction. Similarly, the~~ 3.0 kg/yr reduction (and county-specific portions thereof) shall be computed as the average of years 3-5 and shall be assessed for compliance at the end of year 4..."

C.12.a.iii (1) Reporting

Comment 1. This provision requires the Permittees to report a list of the watersheds (or portions therein) where PCBs control measures are currently being implemented and those in which control measures will be implemented (C.12.a.ii(1)) during the term of this permit as well as the monitoring data and other information used to select these watersheds by *February 1, 2016*. This submittal timeframe is arbitrary and unnecessarily short. It is unclear as to why this information is needed prior to the related information required in Provision C.12.a.iii.(2).

Action desired: Consolidate submittal of monitoring data with the monitoring reports submitted per Provision C.8.g.iv Pollutants of Concern Monitoring Reports.

C.12.a.iii (2)(b) Reporting

Comment 1. This provision requires the Permittees to report the identity and description of the contaminated sites referred to the Regional Water Board during the permit term in the 2016 Annual Report, although this is the first annual report of the permit term.

Action desired: Replace "during the permit term" with "during the previous year of the permit term" as this information will be updated each year per Provision C.12.a.iii.(3).

C.12.b Assess PCBs Load Reductions from Stormwater

Comment 1. Provision C.12.b requires Permittees to submit a load reduction assessment methodology by April 1, 2016 for Executive Officer approval. BASMAA and Regional Water Board staff recently worked together to develop an "interim accounting method" that was intended to provide a basis for stipulated load reduction benefits for implementation of the primary PCBs control programs during the MRP 2.0 permit term. CCCWP appreciates that Regional Water Board staff included in the Permit Fact Sheet much of the information developed for the interim accounting method. However, values for certain accounting parameters for managing PCBs-containing materials and wastes during building demolition activities were left out. The values for these, and all other accounting parameters, should be scrutinized now as part of the public permit review process, given the uncertainty of these values. This is especially important for one key parameter, the fraction of PCBs mass in a building that enters the MS4 during demolition in the absence of enhanced controls. In general, it is essential to articulate all aspects of the interim accounting method for managing PCBs-containing materials and wastes during building demolition activities in the permit because complying with the load reduction performance criteria in C.12.a would require the Permittees to rely heavily on this PCBs control program. In addition, many elevated source areas are outside of MRP MS4 jurisdiction (e.g., Caltrans, railroads, electrical utility properties and equipment, and ports). The interim accounting method should recognize that addressing these sites and sources will result in load reductions that should count towards meeting the load reduction performance criteria.

Action desired: Omit this provision. Finalize the interim accounting method and incorporated it into the Permit Fact Sheet. The final interim accounting method would then

be used for annual reporting of load reductions starting with the 2016 Annual Report, with potential refinements to the methodology being submitted starting in 2018. Include in the Permit Fact Sheet a discussion all of the parameters and assumptions underlying the interim accounting method and the associated uncertainties. The Permittees are committed to working with Regional Water Board staff to finalize the interim accounting method over the next few months.

C.12.c Plan and Implement Green Infrastructure to Reduce PCBs Loads

Comment 1. Although the Permit Fact Sheet states that this permit does not require implementation of specific control measures for PCBs load reductions, this provision specifically requires the implementation of GI measures to achieve a 120 g/yr PCBs load reduction over the final three years of the permit and 3 kg/yr by the year 2040.

This provision should not include performance metrics for PCBs load reductions through implementation of Green Infrastructure (GI) over the MRP 2.0 permit term. PCBs load reductions will not be the driver for GI implementation during MRP 2.0. Regional Water Board staff has noted that based on extrapolation of MRP 1.0 data, the proposed metrics should be met via redevelopment in old industrial areas. Thus the proposed metrics would not influence GI implementation during MRP 2.0 and meeting them would instead be dependent upon an activity that is not under Permittee's control. While we expect to learn valuable lessons via opportunistic early implementation of GI retrofit projects through Provision C.3.j.ii., the pollutant load reductions associated with these retrofits implemented over MRP 2.0 is anticipated to be relatively small.

Action desired: This provision should be omitted.

C.12.f Manage PCBs-Containing Materials and Wastes During Building Demolition Activities

Comment 1. Provision C.12.f requires development of a program to manage PCBs in building materials and wastes during demolition. Given the large standing stock of PCBs known to be present in certain buildings in the Bay Area, there may potentially be significant benefits to implementing the proposed control program. However, data are sparse regarding the amount of PCBs-containing materials that are released to the ground during demolition and then mobilized into the MS4 by urban runoff, making it challenging to project with any certainty the actual benefit of the proposed control program. Cost-effectiveness relative to other PCBs controls is also highly uncertain at this time.

There remains a number of very challenging issues related to managing PCBs in building materials and wastes during demolition. For instance, this Provision fails to acknowledge that Permittees have no control over the timing of when properties redevelop. As was stated in the IMR Part B submitted in March 2014, BASMAA believes the various facets of the "big picture" need to be addressed together (e.g., human exposure at the site, water quality, and disposal) rather than trying to apply water quality BMPs outside of this context. The best approach would be to work with the State, USEPA, the building industry, and other stakeholders to develop a comprehensive statewide program analogous to current programs for asbestos and lead-based paint. The three year timeframe for developing such a statewide program and implementing its procedures at the Permittee level is likely unrealistic. Defining EPA's role in any such program is

particularly important. Implementing a program at the local level would likely be highly inefficient.

Action desired: Allow the Permittees to work with the State, USEPA, the building industry, and other stakeholders to develop a comprehensive statewide program analogous to current programs for asbestos and lead paint; remove the requirement to develop this program at the municipal level. Development of the statewide program to control PCBs during building demolitions, rather than applying controls to a specified number of buildings demolished, should represent compliance with this requirement.

C.12 Permit Fact Sheet

Comment 1. Given the uncertainty and variability in the inputs and outputs of the simple modeling used in the current TMDL framework, there is currently little certainty that feasible human interventions to reduce urban runoff PCBs inputs could accelerate the Bay's recovery with respect to PCBs. The TMDL needs to be updated to better reflect: 1) the questionable feasibility of meeting the urban runoff allocation; and, 2) the uncertainties in the allocation related to a number of factors (e.g., food web and pollutant fate modeling, fish consumption rate and target species, dose-response).

The Permit Fact Sheet should state that the Regional Monitoring Program (RMP) PCBs Synthesis Report established a foundation for a more realistic framework for conceptual and quantitative modeling of PCBs fate in the Bay that includes greater focus on the Bay margins. As such, the Permit Fact Sheet should state that the regulated community, Regional Water Board staff and the scientific community (e.g., RMP) should continue to work together to develop as soon as possible: 1) appropriate tools and monitoring strategies in support of this modeling approach to inform future planning of how and where to focus efforts to reduce PCBs loads in urban runoff; and, 2) a clear plan and timeframe for updating the Bay PCBs TMDL.

The Permit Fact Sheet states, on page A-94, that "based on information gained during pilot testing" that the specified load reduction performance criteria are achievable. In fact, the information gained through the Clean Watersheds for a Clean Bay pilot projects summarized in Part B of the Integrated Monitoring Report shows that the performance criteria included in C.12.a. is not likely to be achieved this permit term.

Action Desired: Revise Permit Fact Sheet to reflect the current state of scientific knowledge based on the RMP PCBs Synthesis Report and work to date on PCBs sources and control strategies. Revise the sentence on page A-94 above, or identify the uncertainties associated with achieving the performance criteria.

Comment 2. The Permit Fact Sheet includes an incomplete method to achieve stipulated reduction credits for each building demolished with PCBs controls, for each redeveloped site with new bioretention facilities, and for finding and abating concentrated sources of PCBs. Looking for hidden PCB sources is a good idea, but Permittees cannot guarantee that they will find them and be able to abate them.

Action Desired. Develop a program that will serve as a basis for the credits for the accounting for compliance. The program needs to include methods to systematically

identify and review potential sources, and to refer them to appropriate agencies for abatement.

Comment 3. The Permit Fact Sheet references many values from the Sources, Pathways, and Loadings Multi-Year Synthesis Report (McKee and Yee, 2015). As this is currently a draft report, the Permit Fact Sheet should be revised to reflect final edits to the report.

Action Desired: Revise the Permit Fact Sheet to reflect final edits to the report.

C.15 Exempted and Conditionally Exempted Discharges

Comment 1. The objective of this provision is to exempt unpolluted non-stormwater discharges from Discharge Prohibition A.1 and to conditionally exempt non-stormwater discharges that are potential sources of pollutants. However, fire department hydrant testing, and small new construction water line cleaning are not included as exempt uses. These minor potable water discharges are not conducted by potable water suppliers.

Action desired: Include fire department hydrant testing, and small new construction water line cleaning as conditionally exempted discharges, as long as BMPs are in place to reduce chlorine.

C.17 Annual Reports

Comment 1. Annual Reports under MRP 1.0 are due by September 15 of each year and report on the activities that occurred in the preceding fiscal year. This same reporting cycle is proposed for MRP 2.0. The Tentative Order anticipates an effective date for MRP 2.0 of December 1, 2015. Having a permit effective date in the middle of a permit year and fiscal year is challenging for several reasons. It is a challenge because municipal budgets are on a fiscal year cycle. When permits become effective in the middle of the budget cycle, Permittees' budgets are set for the remainder of the fiscal year. Municipalities are not able to adequately anticipate and budget for permit mandates that fall within the first year of the newly issued permit. For this reason, Permittees have been requesting for the past two years that the effective date of the reissued MRP coincide with the fiscal year. It is also a challenge because with the September 15, 2016 Annual Report, Permittees must report on the preceding fiscal year, which in this case covers two separate permits and sets of permit requirements – the last six months under MRP 1.0 and the first six months under MRP 2.0. This creates confusion and an unnecessary administrative burden on the 76 Permittees under the MRP and Regional Board staff because the Permittees must develop and submit a **one-time** annual report format for the approval of the Executive Officer by the required April 1 deadline. Water Board staff must review and approve that format in a timely manner so that Permittees can begin the 3-4 month process for development and submittal of their annual reports. For the last several years, the review and approval by Regional Board staff has extended into July, which squeezes the time BASMAA, the Stormwater Programs and Permittees have to prepare their many reports. A permit effective date that straddles two permit terms also presents logical challenges for conducting and reporting on our monitoring programs. Should the Water Board insist on a permit effective date that does not coincide with the fiscal year, as repeatedly requested by Permittees, Water Board staff must simplify and streamline the reporting during this overlap period.

Action Desired: *Make the permit effective date July 1, 2016, or waive the requirement for the initial Annual Report under MRP 2.0. The September 2016 report should be the final report for MRP 1.0 and any special submittals due under MRP 2.0. The first Annual Report for MRP 2.0 due September 15, 2017 would cover an 18 month period for program elements.*

CONTRA COSTA
CLEAN WATER
PROGRAM

ATTACHMENT 1-A

Contra Costa Clean Water Program

Provision C.3 Language Provided to Regional Water Board Staff By Email on October 8, 2014

Tom Dalziel

From:	Tom Dalziel <tom.dalziel@pw.cccounty.us>
Sent:	Wednesday, October 08, 2014 10:44 AM
To:	Thomas Mumley
Cc:	'Dale Bowyer'; Louie, Selina@Waterboards; Sue Ma; Matt Fabry; Adam Olivieri; jims@acpwa.org; Lance Barnett; Kevin; Jill Bicknell; lynne_scarpa@ci.richmond.ca.us; John Steere; geoff@brosseau.us; Hoffmeister, Phil; jpacheco@ci.hercules.ca.us; 'Tim Tucker'; 'Keith Coggins'; Cece Sellgren; Mike Carlson; 'Steven Spedowfski'; Beth Baldwin; Lucile Paquette; dan@dancloak.com
Subject:	Draft Provision C.3 for Discussion
Attachments:	Table of Recommendations d3.docx; C3-MRP 2.0_d3.docx

Tom,

Attached are a draft C.3 provision and a tracking table. The Contra Costa Clean Water Program's Administrative Committee has directed me to send these to you.

These documents were originally drafted by Dan Cloak and were presented to the BASMAA Board in late September. A second draft incorporated comments by Jill Bicknell. This third draft also incorporates comments discussed at the BASMAA Development Committee's September 30 meeting.

I believe BASMAA Board members generally support the recommendations in the table and the language in the draft. However, we were unable to reach consensus on how and when to get them to you. Other Board members desired to wait until they could get additional review from their Permittee representatives.

Contra Costa Permittee representatives, mindful of time constraints, wished to get these documents to you and your staff right away. Accordingly, I am sending these to you "for discussion only" with the expectation that you and your staff may find them useful as you continue your work on the Administrative Draft of MRP 2.0. Contra Costa Permittees, and other Permittees, may weigh in with additional comments as we move forward.

The tracking table explains how the draft Provision C.3 differs from MRP 1.0. The Provision is reorganized and simplified, and many requirements are made clearer and less ambiguous. Reporting requirements are reduced. Concerns raised by Water Board staff, and many of the issues we have discussed over the past two years, are addressed.

To address the issue of stormwater retention vs. treatment, the draft Provision C.3 incorporates the language the State Board adopted in Provision E.12 of the Phase II municipal NPDES permit.

I look forward to the opportunity to review this with you. I suggest we meet as soon as possible to go over the draft provision and identify where the proposed approach and language are acceptable to you, where we have differences, and where we can work together to develop additional information to be included in the White Paper.

Thomas Dalziel

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C.3. Low Impact Development

Low Impact Development (LID) is a stormwater management strategy designed to improve water quality and stream integrity by promoting the reduction of impervious surfaces, mimicking natural drainage patterns, dispersing, infiltrating and treating runoff, and controlling runoff peaks and durations. Permittees shall require Low Impact Development (LID) features and facilities to be incorporated into development projects subject to their approval. Permittees shall also incorporate LID into their own capital improvement projects.

C.3.a. Program Implementation

i. **Task Description** –Each Permittee shall:

(1) Maintain legal authority to implement this provision;

(2) Maintain procedures and mechanisms to implement and enforce this provision. For projects discharging directly to CWA section 303(d)-listed waterbodies, conditions of approval must require that pollutants in post-development runoff not exceed pre-development levels for listed pollutants;

(3) In CEQA documents, evaluate potential water quality impacts and incorporate mitigation measures;

(4) Train staff;

(5) Conduct outreach to land development professionals;

(6) Provide guidance on LID to applicants;

(7) Integrate water quality and watershed protection goals, and the requirements of this provision, in General Plan updates and in other planning documents as appropriate.

C.3.b. Project Categories and Definitions

i. **Projects**—For the purposes of Provision C.3, a Project is a proposed development that is subject to the Permittee's planning approval and/or building permitting authority, or is constructed by the Permittee, and that creates and/or replaces impervious surface.

ii. **Regulated Projects**

(1) Projects that that create and/or replace 5,000 square feet or more of impervious surface for the following uses:

(a) Auto service facilities, described by the following Standard Industrial Classification (SIC) Codes: 5013, 5014, 5541, 7532-7534, and 7536-7539;

(b) Retail gasoline outlets;

(c) Restaurants (SIC Code 5812); or

(d) Uncovered parking lots (includes uncovered parking on rooftops)

(2) Other development projects that create and/or replace 10,000 square feet or more of impervious surface.

iii. **Hydromodification Management (HM) Projects**—Regulated Projects that create and/or replace an acre or more of impervious surface.

iv. **Exceptions and Exclusions**—When identifying areas that count toward the impervious surface thresholds in Provision C.3.b.ii.-iii., Permittees may exclude:

- Interior remodels
- Routine maintenance and repair such as roof or wall surface replacement (teardowns and structure replacements are not excluded)
- Pavement resurfacing within the existing footprint—only when existing grading and drainage is retained
- Pervious pavements constructed according to the design criteria referenced in Provision C.3.f.ii.~~*~~
- Swimming pools, fountains, and other water surfaces—only when made to overflow to the sanitary sewer
- Impervious surfaces that drain to a sanitary sewer
- Streets, roads, or trails within the public right of way [see Green Infrastructure Provision]
- Single-family homes that are not part of a larger plan of development.
- Playing fields with natural or artificial turf, when designed to retain runoff

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v. **Special Projects**—Regulated Projects that meet the criteria listed below are Special Projects eligible to use non-LID treatment as described in Provision C.3.e.iv.

(1) **Category A Special Project Criteria**—meet all of the following:~~:~~

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(a) Are built as part of a Permittee's stated objective to preserve or enhance a pedestrian-oriented type of urban design.

(b) Are located in a Permittee's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian oriented commercial district, or historic preservation site and/or district.

(c) Create and/or replace one half acre or less of impervious surface area.

(d) Include no surface parking, except for incidental surface parking. Incidental surface parking is allowed only for emergency vehicle access, Americans with Disabilities Act (ADA) accessibility, and passenger and freight loading zones.

(e) Have at least 85% coverage for the entire project site by permanent structures. The remaining 15% portion of the site is to be used for safety access, parking structure entrances, trash and recycling service,

utility access, pedestrian connections, public uses, landscaping, and stormwater treatment. For the purpose of this requirement, Projects with ground-level public plazas or other public open space may omit that area from the entire project site area when calculating the percentage of the site covered by permanent structures. Runoff from the public plazas or other public open space must be directed to LID features or facilities.

(2) **Category B Special Project Criteria—meet all of the following:**

(a) Are built as part of a Permittee's stated objective to preserve or enhance a pedestrian-oriented type of urban design.

(b) Are located in a Permittee's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district.

(c) Create and/or replace greater than one-half acre but no more than 2 acres of impervious surface area.

(d) Include no surface parking, except for incidental surface parking. Incidental surface parking is allowed only for emergency vehicle access, ADA accessibility, and passenger and freight loading zones.

(e) Have at least 85% coverage for the entire project site by permanent structures. The remaining 15% portion of the site is to be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping, and stormwater treatment. For the purpose of this requirement, Projects with ground-level public plazas or other public open space may omit that area from the entire project site area when calculating the percentage of the site covered by permanent structures. Runoff from the public plazas or other public open space must be directed to LID features or facilities.

(3) **Category C Special Project Criteria (Transit-Oriented Development)**

Transit-Oriented Development refers to the clustering of homes, jobs, shops and services in close proximity to rail stations, ferry terminals or bus stops offering access to frequent, high-quality transit services. This pattern typically involves compact development and a mixing of different land uses, along with amenities like pedestrian-friendly streets. To be considered a Category C Special Project, a Regulated Project must meet all of the following criteria:

(a) Be characterized as a non-auto-related land use project. That is, Category C specifically excludes any Regulated Project that is a stand-alone surface parking lot; car dealership; auto and truck rental facility with onsite surface storage; fast-food restaurant, bank or pharmacy with drive-through lanes; gas station, car wash, auto repair

and service facility; or other auto-related project unrelated to the concept of Transit-Oriented Development.

(b) Achieve at least an FAR of 2:1 for a commercial project or a density of 25 dwelling units per acre (DU/ac) for a residential project. A mixed use project must meet either an FAR of 2:1 or a density of 25 DU/ac.

(c) Have 50% or more of the project site located within ½ mile of an existing or planned transit hub or 100% of the site located within a Priority Development Area (PDA) per Provision C.3.e.vi.3(a).

vi. **Start Date**—Except as noted for specific subprovisions, upon Permit adoption Permittees shall apply all requirements of this Provision C.3 to all Projects for which an initial building or grading permit has not yet been issued, or (for their own Projects) for which construction has not yet begun.

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(1) **Exceptions**

(a) For Projects for which an application containing a complete stormwater control plan (showing Drainage Management Areas and facility footprints) has received final staff discretionary approval prior to December 1, 2011, Permittees may choose to require, as an alternative to the requirements of this Permit, facilities consistent with what is shown in the application.

(b) For projects for which a vested tentative map or development agreement was executed prior to December 1, 2009, Permittees may choose to require, as an alternative to the requirements of this Permit, the requirements in effect on the date of the vested tentative map or development agreement. In such case, a minimum of 60 days prior to issuing any additional permits or approvals for the Project, the Permittee shall inform the Water Board Executive Officer, by letter, of the particulars of prior Project approvals and of the proposed exceptions to the LID requirements of this Permit.

C.3.c. Source Control

i. **Task Description:** Each Permittee shall maintain standard requirements to reduce, to the maximum extent practicable, potential pollutant discharges to stormwater from specific sources that may be associated with Projects.

ii. **Implementation:** During their review of Projects, Permittees shall identify whether potential sources of pollutants will be created by the Project and shall require implementation of corresponding standard source control measures.

iii. **Sources:** At a minimum, each Permittee's standard requirements shall address the following potential sources:

- Interior floor drains
- Parking/storage areas and maintenance

- Indoor and structural pest control
- Landscape/outdoor pesticide use
- Pools, spas, ponds, decorative fountains, and other water features
- Restaurants, grocery stores, and other food service operations
- Refuse areas
- Industrial processes
- Outdoor storage of equipment or materials
- Vehicle and equipment cleaning
- Vehicle and equipment repair and maintenance
- Fuel dispensing areas
- Loading docks
- Fire sprinkler test water
- Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources

iv. **Exceptions:** Permittees may allow implementation of appropriate alternative source control measures, in place of a standard requirement for a structural source control measure, when none of the impervious surface created or replaced by the Project is built to accommodate the potential source.

v. **Schedule:**

(1) **Regulated Projects:** Upon Permit adoption.

(2) **All Projects:** Within one year of the Permit effective date.

C.3.d. LID Site Design

i. **Task Description.** Permittees shall adopt or reference a LID site assessment and site design methodology to be used by Project applicants. Permittees shall ensure Projects implement the following based on the objective of achieving, to the extent technically feasible, infiltration, evapotranspiration, and/or harvesting/use of the amount of runoff identified in Provision C.3.f.i.

(1) Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.

(2) Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.

(3) Limit overall impervious coverage of the site with paving and roofs.

(4) Set back development from creeks, wetlands, and riparian habitats.

(5) Preserve significant trees.

(6) Conform the site layout along natural landforms

(7) Avoid excessive grading and disturbance of vegetation and soils

(8) Replicate the site's natural drainage patterns.

(9) Detain and retain runoff throughout the site.

(10) Use pervious surfaces such as turf, gravel, or pervious pavement

(11) Use surfaces that detain and retain rainfall, such as green roofs,

(12) Disperse runoff from impervious surfaces on to adjacent pervious surfaces (for example, direct roof downspouts to vegetated areas)

(13) Use rain barrels and cisterns

ii. **Design Criteria for Site Design Measures.** Permittees shall adopt or reference design criteria for site design measures to be used by applicants for development approvals. The criteria shall be based on the objective of achieving infiltration, evapotranspiration, and/or harvesting/reuse of the amount of runoff identified in Provision C.3.f.i to the extent technically feasible and shall address the following measures, at a minimum:

- Pervious pavements
- Green roofs
- Dispersal of runoff from impervious surfaces on to adjacent pervious surfaces

Criteria for pervious pavements shall include requirements for signage identifying the pavement and warning against alteration.

C.3.e. Runoff Treatment and Hydromodification Management

i. **Task Description:** Permittees shall require Regulated Projects to implement LID standards to treat stormwater and control runoff flows.

ii. **Drainage Management Areas:** Permittees shall require, for each Regulated Project, a map or diagram dividing the project site into discrete Drainage Management Areas (DMAs) and drawings, text, and calculations showing how runoff from each DMA is managed using site design measures or LID facilities. One DMA may not drain to multiple LID facilities, but multiple DMAs may drain to one LID facility.

~~ii.~~(1) **Exception: Small areas for which it is infeasible to direct runoff to site design measures or LID facilities (for example, some driveway aprons) must be clearly delineated and accounted for as separate DMAs. Such areas must be minimized. Permittees shall require applicants to direct runoff from an equal or greater amount of existing (pre-project) impervious area, or from off-site impervious areas, to LID facilities where feasible.**

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iii. **LID Facilities:** Runoff not managed by LID Site Design shall be directed to facilities designed to infiltrate, evapotranspire and/or bioretain the amount of runoff specified in Section C.3.f.i. The facilities must be demonstrated to be at least as effective as a bioretention system with the following parameters:

(1) Maximum surface loading rate of 5 inches per hour.

(2) Minimum surface reservoir volume equal to surface area times a depth of 6 inches.

(3) Minimum planting medium depth of 18 inches. The planting medium must sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and must maximize runoff retention and pollutant removal and support healthy vegetation. The Permittees shall adopt or reference a regional standard for the planting medium and require the standard be implemented.

(4) Subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.

(5) Underdrain with discharge elevation at the top of the gravel layer.

(6) No compaction of soils beneath the facility, or ripping/loosening of soils if compacted.

(7) No liners or other barriers interfering with infiltration.

(8) Appropriate plant palette for the specified soil mix and to conserve water.

(9) **Signage** that identifies the facility with the aim of preventing the use of pesticides or fertilizers or alteration of the planting medium ~~includes the following~~:

~~(a) Identification of the facility as a bioretention facility for stormwater treatment~~

~~(b) Identification of and contact information for the facility owner/operator~~

~~(c) Instructions warning against alteration of plants or soils or using pesticides or fertilizers~~

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iv. **Alternative Designs:** Facilities such as infiltration trenches or subsurface infiltration chambers or a combination of facilities of different design than in Section C.3.e.iii. may be used if all of the following measures of equivalent effectiveness are demonstrated:

(1) Equal or greater amount of runoff infiltrated or evapotranspired;

(2) Equal or lower pollutant concentrations in runoff that is discharged after biotreatment;

(3) Equal or greater protection against shock loadings and spills;

(4) Equal or greater accessibility and ease of inspection and maintenance.

v. **Variations for Special Site Conditions:** Bioretention facility design parameters may be adjusted for the following special site conditions:

(1) Facilities located within 10 feet of structures or other potential geotechnical hazards established by the geotechnical expert for the project

may incorporate an impervious cutoff wall between the bioretention facility and the structure or other geotechnical hazard.

(2) Facilities with documented high concentrations of pollutants in underlying soil or groundwater, facilities located where infiltration could contribute to a geotechnical hazard, and facilities located on or attached to elevated plazas or other structures may incorporate an impervious liner and may locate the underdrain discharge at the bottom of the subsurface drainage/storage layer (this configuration is commonly known as a "flow-through planter").

(3) Facilities located in areas of highly infiltrative soils or where connection of underdrain to a surface drain or to a subsurface storm drain are infeasible, may omit the underdrain.

(4) Facilities located in areas of high groundwater may omit the underdrain or incorporate an impervious liner based on the recommendations of the geotechnical and/or structural engineer or requirements of the local agency or water district.

(5) Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide additional treatment to address pollutants of concern unless these high-risk areas are isolated from storm water runoff or bioretention areas with little chance of spill migration.

vi. **Non-LID Facilities on Special Projects.** Special Projects may be designed so that runoff from some impervious areas is directed to non-LID runoff treatment facilities, up to a maximum specified percentage of the total impervious area created or replaced by the Project. Allowable non-LID runoff treatment facilities are tree-box-type high flowrate biofilters or vault-based high flowrate media filters. Runoff from remaining impervious area shall be directed to LID facilities.

Permittees shall conduct outreach to applicants for projects that qualify as Special Projects regarding the advantages of LID facilities and, notwithstanding the applicability of credits allowing the use of non-LID facilities, shall require the use of LID facilities wherever it is feasible to do so.

A Regulated Project that meets all the criteria for more than one category may apply the higher LID Treatment Reduction Credit of the categories; however, the LID Treatment Reduction Credits allowed under different categories may not be summed.

(1) Any Category A Special Project may direct runoff from up to 100% of the impervious area created or replaced to non-LID treatment facilities.

(2) For any Category B Special Project, the maximum LID Treatment Reduction Credit allowed is determined based on the density achieved by the Project in accordance with the criteria listed below. Density is

expressed in Floor Area Ratios (FARs) for commercial and in Dwelling Units per Acre (DU/Ac) for residential development projects. Mixed use projects may use either the FAR or DU/ac density criterion.

(a) **50% Maximum LID Treatment Reduction Credit.** For any commercial or mixed use Category B Special Project with a FAR of at least 2:1, and for any residential Category B Special Project with a density of at least 50 DU/acre, runoff from up to 50% of the Project impervious area created or replaced may be directed to non-LID treatment facilities.

(b) **75% Maximum LID Treatment Reduction Credit.** For any commercial or mixed use Category B Special Project with a FAR of at least 3:1, and for any residential Category B Special Project with a density of at least 75 DU/Ac, runoff from up to 75% of the Project impervious area created or replaced may be directed to non-LID treatment facilities.

(c) **100% Maximum LID Treatment Reduction Credit.** For any commercial or mixed use Category B Special Project with a FAR of at least 4:1, and for any residential Category B Special Project with a density of at least 100 DU/Ac, runoff from up to 100% of the Project impervious area created or replaced may be directed to non-LID treatment facilities.

(3) For any Category C Special Project, the total maximum LID Treatment Reduction Credit allowed is the sum of Location Credits, Density Credits, and Minimized Surface Parking Credits.

(a) **Location Credits.**

- 50% Location Credit: Located within a ¼ mile radius of an existing or planned transit hub.
- 25% Location Credit: Located within a ½ mile radius of an existing or planned transit hub.
- 25% Location Credit: Located within a planned Priority Development Area (PDA), which is an infill development area designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program. FOCUS is a regional incentive-based development and conservation strategy for the San Francisco Bay Area.

Only one Location Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Location Credits. At least 50% or more of a Category C Special Project's site must be located within the ¼ or ½ mile radius of an existing or planned transit hub to qualify for the corresponding Location Credits listed above. One hundred percent of a Category C Special Project's site must be located within a PDA to qualify for the corresponding

Location Credit listed above. Transit hub is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes (i.e., a bus stop with no supporting services does not qualify). A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area.

(b) **Density Credits:**

A Category C Special Project that is a commercial development may qualify for the following Density Credits:

- 10% Density Credit: Achieve an FAR of at least 2:1.
- 20% Density Credit: Achieve an FAR of at least 4:1.
- 30% Density Credit: Achieve an FAR of at least 6:1.

A Category C Special Project that is a residential development project may qualify for the following Density Credits:

- 10% Density Credit: Achieve a density of at least 30 DU/Ac.
- 20% Density Credit: Achieve a density of at least 60 DU/Ac.
- 30% Density Credit: Achieve a density of at least 100 DU/Ac.

Mixed-use Category C Projects may qualify for Density Credits based on DU/Ac or FAR. Only one Density Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Density Credits.

- **Minimized Surface Parking Credits**: 10% Minimized Surface Parking Credit: Have 10% or less of the total post-project impervious surface area dedicated to at-grade surface parking. Runoff from the at-grade surface parking must be treated with LID treatment measures.
- 20% Minimized Surface Parking Credit: Have no surface parking except for incidental surface parking. Incidental surface parking is allowed only for emergency vehicle access, ADA accessibility, and passenger and freight loading zones.

Only one Minimized Surface Parking Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Minimized Surface Parking Credit.

vii. **Design Criteria for Non-LID Facilities.** Allowable Non-LID Facilities are tree-box-type high-flowrate biofilters and vault-based high-flowrate media filters. The Permittees shall adopt or reference design criteria to be implemented for Non-LID Facilities. Non-LID facilities shall be designed to treat at least 80%

of total runoff over the life of the project, or a flow rate produced by rainfall intensity of 0.2 inches per hour.

viii. **Design Augmentation for Hydromodification Management (HM):** Facilities designed to meet the HM criteria in Section C.3.f. shall incorporate outflow-limiting devices and shall have additional infiltration area and runoff storage as required to meet the HM criteria.

C.3.f. Design Capacity and Performance of LID Facilities

i. **Point of Control:** Criteria for infiltration, evapotranspiration, harvest/use, and bioretention, and/or for flow-duration control, apply to the Project as a whole. Design flows from individual facilities within the same Project may be aggregated for the purpose of evaluating compliance.

ii. **Infiltration, Evapotranspiration, Harvest/Use, and Bioretention.** LID facilities on Regulated Projects shall be sized to infiltrate, evapotranspire, harvest/use, and/or bioretain at least 80% of the total runoff over the life of the project. For bioretention facilities, a sizing factor of 4% of tributary impervious area, or a flow rate produced by a rainfall intensity of 0.2 inches per hour, may be used.

iii. **Hydromodification Management (HM) Standards:** LID facilities on HM Projects shall be designed to at least the following minimum performance for flow-duration control.

(1) **No flow-duration control required**—HM Projects where one or more of the following apply:[1]

(a) Post-project impervious area is less than, or the same as, pre-project impervious area.

(b) The runoff path downstream to the Bay, Delta, or a flow-controlled reservoir consists solely of storm drains, hardened engineered channels, and channels that are tidally influenced or aggrading.

(c) Project is in a catchment or subcatchment that is 65% or more impervious.

(2) **Flow-duration control from 0.25Q2 to Q10**—Permittees may apply a flow-duration control standard of between one quarter of the two-year pre-project peak flow up to the ten-year pre-project peak flow to HM Projects that create or replace 20 acres or less impervious area and to which one or more of the following apply:

(a) On the runoff path downstream, at the location of first discharge to an unhardened stream, the increase in impervious area due to the HM Project represents 5% or less of the stream's watershed area.

(b) On the runoff path downstream, at the location of first discharge to an unhardened stream, the stream watershed is 25% or more impervious.

[1] Order R2-2009-0074 includes maps showing such locations in Santa Clara, Alameda, and San Mateo counties.

(c) Watershed locations where the local flood control agency has determined the potential for increased stream erosion due to future development is minimal.

(3) **Flow-duration control from 0.1Q2 to Q10** – For other HM Projects, Permittees shall apply a flow-duration control standard of between one-tenth of the two-year pre-project peak flow up to the ten-year pre-project peak flow.

iv. Methods for applying flow-duration-control standards to HM Projects. Permittees may allow applicants for development approvals to use either of the following methods to demonstrate that proposed LID site design measures and LID facilities achieve compliance with the applicable flow-duration control standard:

(1) **Project-specific continuous simulation modeling.** Applicants may use a model interface and parameters developed by the Permittees,[2] or Permittees may allow applicants to prepare their own model using industry-accepted methods and values for model parameters.[3] The most representative and longest available local rainfall data record shall be used.

(2) **Sizing factors derived from continuous simulation modeling.** Permittees may use a continuous simulation model to derive sizing factors for LID facilities to be used by applicants for development approvals. Local rainfall data records shall be used, and the results adjusted for geographic variations in rainfall patterns. Sizing factors may be organized by NRCS Hydrologic Soil Group.

v. Goodness of Fit Criteria for HM Standards: The net deviation above the post-project flow duration curve from the pre-project flow duration curve shall not be more than 10% over more than 10% of the length of the curve corresponding to the range of flows to control.

vi. Limitations on Use of Infiltration Devices

(1) An infiltration device is any structure designed to infiltrate stormwater into the subsurface and, as designed, bypass the natural groundwater protection afforded by surface soil. Infiltration devices include dry wells, injection wells, infiltration trenches, and french drains, but do not include bioretention.

(2) If a Permittee allows an applicant for approval of a development project to use an infiltration device to comply with this Provision, then the Permittee shall review the design and require any necessary measures to protect groundwater. These measures are included in guidance from local Water Districts and include:

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[2] For example, the Bay Area Hydrology Model (BAHM)

[3] For example, as described under Option 3 in the HMP Standard in the Contra Costa Clean Water Program's *Stormwater C.3 Guidebook*, 6th Edition.

- Prohibiting the use of infiltration devices to manage runoff from catchments where spills or dumping could generate high pollutant loads,
- Requiring a 10-foot vertical separation between the base of the device and seasonal high groundwater elevations,
- Requiring a 100-foot horizontal separation from known potable water supply wells, septic systems, and underground storage tanks with hazardous materials.

C.3.g. Alternative or In-Lieu Compliance with Provision C.3.e.

i. **Task Description:** The Permittees may allow an applicant for development project approval to provide alternative compliance with Provision C.3.e for some or all impervious area created or replaced by a Regulated Project. The Permittee must show a net environmental benefit for pollutant loading, as compared to requiring LID for all of the impervious area created or replaced by the Regulated Project. For HM projects, the Permittee must also show a net environmental benefit for reduced potential for stream erosion.

(1) **Option 1: Retrofit Off-Site Impervious Area with LID**
Retrofit with LID Facilities an equal or greater amount of existing impervious area at offsite location(s), or drain existing impervious areas on-site or off-site to on-site LID Facilities.

(2) **Option 2: Payment of In-Lieu Fees**
Pay a portion of the costs of off-site project(s).

C.3.h. Alternative Certification of Stormwater Treatment Systems

i. **Task Description** – In lieu of their own review, a Permittee may elect to have a third party review and certify a Regulated Project's adherence to Provision C.3.f. The third party reviewer must be a Civil Engineer, Licensed Architect or Landscape Architect registered in the State of California, or staff of another Permittee subject to the requirements of this Permit.

C.3.i. Operation and Maintenance of LID Facilities and Non-LID Facilities

i. **Task Description** – Each Permittee shall implement an Operation and Maintenance (O&M) Verification Program.

ii. **Implementation Level** – At a minimum, the O&M Verification Program shall include the following elements:

(1) Legally enforceable agreements or mechanisms for all Regulated Projects that, at a minimum, require at least one of the following from all project proponents and their successors in control of the Project or successors in fee title:

(a) The project proponent's signed statement accepting responsibility for the O&M of the LID Facilities or non-LID Facilities until such responsibility is legally transferred to another entity;

(b) Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the O&M of the LID Facilities or non-LID Facilities until such responsibility is legally transferred to another entity;

(c) Written text in project deeds, or conditions, covenants and restrictions (CCRs) for multi-unit residential projects that require the homeowners association or, if there is no association, each individual owner to assume responsibility for the O&M of the installed LID Facilities or non-LID Facilities until such responsibility is legally transferred to another entity; or

(d) Any other legally enforceable agreement or mechanism, such as recordation in the property deed, that assigns the O&M responsibility for the installed onsite, joint, and/or offsite LID Facilities or non-LID Facilities to the project owner(s) or the Permittee.

(2) Coordination with the appropriate mosquito and vector control agency with jurisdiction to establish a protocol for notification of LID Facilities and Non-LID Facilities.

(3) Legally enforceable agreements or mechanisms for all Regulated Projects that require the granting of site access to all representatives of the Permittee, local mosquito and vector control agency staff, and Water Board staff, for the sole purpose of performing O&M inspections of the installed LID Facilities and Non-LID Facilities.

(4) A written plan and implementation of the plan that describes O&M (including inspection) of all LID Facilities and Non-LID Facilities that are Permittee-owned and/or operated.

(5) A prioritized plan for inspecting all installed stormwater treatment systems and HM controls. At a minimum, this prioritized plan must specify the following for each fiscal year:

(a) Inspection by the Permittee of all newly installed LID Facilities and Non-LID Facilities during construction and at completion of construction.

~~(b) Inspection by the Permittee of at least 20 percent of the total number (at the end of the preceding fiscal year) of installed LID Facilities and Non-LID Facilities;~~

~~(c) Inspection by the Permittee of at least 20 percent of the total number (at the end of the preceding fiscal year) of installed non-LID Facilities; and~~

~~(d)~~(b) Inspection by the Permittee of all installed LID Facilities and Non-LID Facilities, at least once every five years.

(6) A database or equivalent method for tracking Regulated Projects, Facilities, and inspections.

iii. **Maintenance Approvals:** The Permittees shall ensure that LID Facilities and non-LID Facilities installed by Regulated Projects are properly operated and maintained for the life of the projects. In cases where the responsible party for a LID Facility or Non-LID Facility has worked diligently and in good faith with the appropriate State and federal agencies to obtain approvals necessary to complete maintenance activities for the LID Facility or Non-LID Facility, but these approvals are not granted, the Permittees shall be deemed to be in compliance with this Provision. Permittees shall ensure that constructed wetlands installed by Regulated Projects and used for urban runoff treatment shall abide by the Water Board's Resolution No. 94-102: Policy on the Use of Constructed Wetlands for Urban Runoff Pollution Control and the O&M requirements contained therein.

C.3.j. Reporting

i. Annual Reporting—Approvals of Regulated Projects

The Permittees' annual reporting format shall require, at a minimum, the following information for each Regulated Project approved during the reporting period:

- Project Name, Phase, Number, Location, and Street Address
- Project Owner
- Total new and replaced impervious area
- Project Type (Special Project Category and/or HM, as applicable)
- Impervious area draining to LID and to non-LID facilities
- Project status and date of last action
- Alternative compliance option, if any

ii. Annual Reporting—Facilities Beginning Operation

The Permittees' annual reporting format shall require, at a minimum, the following information for each LID Facility and Non-LID Facility beginning operation during the reporting period. :

- Project Name, Phase, Number, Location, and Street Address
- Facility Owner
- Tributary area
- Facility type
- Sizing criteria used (including HM criteria if applicable)
- Date operation started

This information shall be provided to the local mosquito and vector control district.

iii. Annual Reporting—Operation and Maintenance Verification

The Permittees' annual reporting format shall require, at a minimum, the following information for the reporting period:

- Total number of facilities in the Permittee's inspection database; number of bioretention, harvesting/use, green roofs, infiltration, tree-box-type

high-flowrate biofilters, vault-based high-flowrate media filters, and (for new development projects subject to the requirements of previous permits) extended detention basins, sand filters, continuous-deflection separators, other landscape-based facilities, and other mechanical facilities.

- Number of each type of facility inspected during the reporting period.
- Summary of inspection results, including the number of facilities found deficient in operation and remedial and enforcement actions taken.

iv. Records Retention

For each Regulated Project, Permittees shall retain, on an ongoing basis, reports, plans, portions of applications for development approvals, as-built drawings, and other information as necessary to document the design and construction of LID site design measures, Drainage Management Areas, LID facilities, and non-LID facilities in accordance with the requirements of this Provision. Permittees shall have the capability to readily provide this information to the Executive Officer on request, preferably in electronic form.

v. Regional Information Management

The Permittees are encouraged to collectively create and operate regional information facilities (for example, a relational database and GIS) to consistently and effectively manage records and information associated with implementation of this Provision. The Executive Officer may accept access to such facilities in lieu of any or all reporting requirements in Provision C.3.j.i.-iv.

Ref #	Issue Area	Recommendation	Draft Provision	White Paper Sections
1	Title	Retitle C.3 to be "Low Impact Development"	C.3	
2	Thresholds/Applicability	Retain current thresholds for private projects to be Regulated Projects	C.3.b.ii.	2.1-2.3
3	Thresholds/Applicability	Eliminate applicability of C.3 to Roads; defer to Green Infrastructure Provision	C.3.b.	2.4
4	Thresholds/Applicability	Clarify how square footage for special land uses is used to determine C.3 applicability	C.3.b.ii.(1)	2.5.1
5	Thresholds/Applicability	Clarify exclusions and how impervious areas count toward thresholds	C.3.b.iv.	2.5.2
6	Thresholds/Applicability	Omit the 50% rule	C.3.b.	2.5.3
7	Thresholds/Applicability	Set a "construction commenced by" date and end grandfathering after that date	C.3.b.vi.	2.5.4
8	Thresholds/Applicability	~~Omit the exclusion for single-family homes~~	C.3.b.	
9	Thresholds/Applicability	Omit the distinction of development vs. redevelopment	C.3.b.	
10	Thresholds/Applicability	Create a new category of "Projects" consisting of all projects that create and/or replace impervious surface and are subject to planning/building authority	C.3.b.i.	
11	Site Design Measures	Eliminate Provision C.3.i. Small Projects requirements	C.3.b.	2.6-2.7
12	Special Projects	Move Special Projects Categories definitions to C.3.b.—accompanies other applicability	C.3.b.v.	
13	Site Design Measures	Apply site design requirements "to the extent feasible" to all Projects (this replaces the "encourage" language of existing Provision C.3.a. as well as C.3.i.)	C.3.d.i.	
14	Site Design Measures	Update list of Site Design Measures and state that they are to be implemented based on the	C.3.d.i.	

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Ref #	Issue Area	Recommendation	Draft Provision	White Paper Sections
		objective of achieving infiltration, evapotranspiration and/or harvesting/use of specified amount of runoff (this is consistent with Phase II permit)		
15	Site Design Measures	Add requirement that Permittees adopt or reference design criteria for site design measures, and specifically pervious pavements, green roofs, and runoff dispersal	C.3.d.ii.	
16	Source Control Measures	Include a list of sources for which standard source control measures must be adopted by the Permittee. Exclude applicability to Projects where the new or replaced impervious area is not directly related to the source.	C.3.c.	
17	Source Control Measures	Apply source control measures to all Projects.	C.3.c.	
18	Hydromodification Management	Redefine HM Projects to be those that create or replace an acre or more of impervious surface—see specific requirements	C.3.b.iii.	
19	Treatment and Hydromodification Management	Require delineation of Drainage Management Areas for Regulated Projects (consistent the Phase II Provision E.12)	C.3.e.ii.	
20	LID Facility Design	State that facilities must be "at least as effective as a bioretention system" with specified parameters (taken from Phase II permit Provision E.12—this addresses the feasibility/infeasibility of infiltration and harvesting/use issue). Includes provisions for Alternative Designs and Variations for Special Site Conditions (also from Phase II Permit Provision E.12).	C.3.e.iii.	
21	LID Facility Design	Includes requirement for identifying signage.	C.3.e.iii.(9)	
22	Non-LID Facilities for Special Projects	Requires use of LID facilities "where it is feasible to do so" notwithstanding non-LID credits (substitutes for any documentation of	C.3.e.vi.	

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Ref #	Issue Area	Recommendation	Draft Provision	White Paper Sections
		feasibility/infeasibility of bioretention).		
23	Special Projects	Allow public open space areas to be omitted when calculating lot coverage for purpose of determining the applicability of Category A and Category B Special Project provisions	C.3.b.v.(1)(e) and C.3.b.v.(2)(e)	
24	Non-LID Facilities for Special Projects	Require Permittees to adopt or reference design criteria for non-LID facilities (replaces current reporting requirement)	C.3.e.vii.	
25	Treatment Design Capacity and Performance	LID Facilities on Regulated Projects shall be sized to infiltrate, evapotranspire, and/or bioretain at least 80% of the total runoff over the life of the project (replaces current Provision C.3.d. hydraulic criteria). Allows bioretention to be designed to 4% and allows non-LID facilities to be designed to 0.2 in/hr. rainfall.	C.3.f.i.	
26	Hydromodification Management	Retains current exclusions from HM requirements that currently apply except in Contra Costa. Clarifies downstream hardening exclusion to consider flow-controlled reservoirs and specify that hardening applies to engineered channels (omits current references to riprap and sackcrete).	C.3.f.ii.(1)	
27	Hydromodification Management	Adds an intermediate flow duration control standard of 0.25Q2 to Q10 and states where it applies.	C.3.f.ii.(2)	
28	Hydromodification Management	Changes Goodness of Fit criteria to credit the area where the post-project curve is below the pre-project curve against the area where the post-project curve is above the pre-project curve.	C.3.f.iv.	
29	Limits on the Use of Infiltration Devices	Condenses current requirements and makes reference to local Water District standards rather than applying a permit-specific standard	C.3.f.vi.	
30	Alternative Compliance	Eliminate restrictions on Alternative Compliance	C.3.g.	3.2

Ref #	Issue Area	Recommendation	Draft Provision	White Paper Sections
		as to timing.		
31	Alternative or In-Lieu Requirements	Condenses and simplifies options, and combines alternative compliance for treatment and HM. States explicitly credit available for draining existing impervious areas on-site or off-site to on-site LID facilities.	C.3.g.	
32	Alternative Certification of Stormwater Treatment Systems	Condenses language.	C.3.h.	
33	Operation and Maintenance	Requires inspection of newly installed facilities	C.3.i.ii.(5)	
34	Reporting	Simplifies and condenses reporting of Regulated Projects approved during the fiscal year.	C.3.j.i.	
35	Reporting	Adds separate and explicit requirement to report facilities beginning operation	C.3.j.ii.	
36	Reporting	Requires only summary information for O&M Verification inspections	C.3.j.iii.	
37	Reporting	Specifies retention of documentation of design and construction of site design measures and facilities.	C.3.j.iv.	
38	Reporting	Allows option for regional information management for C.3 in lieu of any or all reporting requirements	C.3.j.v.	
39	Treatment and Hydromodification Management	Add a *de minimis* exception for small areas from which runoff can't be directed to LID facilities	C.3.e.ii.(1)	

Attachment 1.6

CONTRA COSTA
CLEAN WATER
PROGRAM

ATTACHMENT 2

Contra Costa Clean Water Program

Some Of The Compliance Deadlines In The First Twelve Months After The MRP Effective Date

Some of the compliance deadlines in the first twelve months after the MRP 2.0 effective date

Permit Section	Implementation Task	Implementation Level/Reporting	Schedule
C.3 - New Development and Redevelopment			
C.3.a	New Development and Redevelopment Performance Standard Implementation	Provide a brief summary of the method(s) of implementation of Provisions C.3.a.i (1)–(8) in the 2016 Annual Report.	2016 AR
C.3.b	Regulated Projects	All elements of Provision C.3.b.i.-ii shall be fully implemented immediately, including a database or equivalent tabular format that contains all the information listed under Reporting (Provision C.3.b.iv.)	implement immediately
C.3.c	Low Impact Development (LID)	For specific tasks listed that are reported using the reporting tables required for Provision C.3.b.iv, a reference to those tables will suffice.	2016 AR
C.3.d	Numeric Sizing Criteria for Stormwater Treatment Systems	Permittees shall use the reporting tables required in Provision C.3.b.iv.	2016 AR
C.3.g	Hydromodification Management	All HM Projects shall meet the HM Standard in Provision C.3.g.ii immediately. For Contra Costa Permittees, Projects receiving final planning entitlements on or before one year after the Permit effective date may be allowed to use the Contra Costa design standards from the Previous Permit.	immediate compliance
		Contra Costa Permittees shall, with the first Annual Report following the Permit's effective date, submit a technical report consisting of an HM Management Plan describing how Contra Costa will implement the Permit's HM requirements (e.g., how it will update or modify its practices to meet Permit requirements).	2016 AR
C.3.h	Operation and Maintenance of Stormwater Treatment Systems	Immediate implementation except for Provision C.3.h.ii (7) which is due within 12 months of the Permit effective date.	immediate compliance
		Each Permittee shall certify in the 2017 Annual Report that an ERP has been completed by 12 months after the Permit effective date.	12/1/2016
C.3.j	i. Green Infrastructure Program Plan Development	Prepare a framework for development of Green Infrastructure Plan. Each Permittee shall submit documentation that its framework for development of its GI Plan was approved by its governing body, mayor, city manager, or county manager by 12 months after Permit effective date, with the 2017 Annual Report.	12/1/2016
C.5 - Illicit Discharge Detection and Elimination			
C.5.c	Spill and Dumping Complaint Response Program	The Permittee's website shall be updated with the central contact point to report spills and dumping by June 30, 2016.	6/30/16

Attachment 1.6

Permit Section	Implementation Task	Implementation Level/Reporting	Schedule
C.5.e	Control of Mobile Sources	In the 2016 Annual Report, each Permittee shall provide the following: (a) minimum standards and BMPs for each of the various types of mobile businesses; (b) its enforcement strategy; (c) a list and summary of the specific outreach events and education conducted to the different types of mobile businesses operating within the Permittee's jurisdiction; (d) the number of inspections conducted at mobile cleaners' businesses and/or job sites in 2015-2016; (e) discuss enforcement actions taken against mobile businesses in 2015-2016; (f) a list of mobile cleaners operating within the Permittee's jurisdiction; and (g) a list and summary of the county-wide or regional activities conducted, including sharing of mobile business inventories, BMP requirements, enforcement action information, and education.	2016 AR
C.5.f	Municipal Separate Storm Sewer System (MS4) Map	In the 2016 and 2019 Annual Reports, Permittees shall discuss how they make MS4 maps available to the public and how they publicize the availability of the MS4 maps.	2016 AR
C.6 - Construction Site Control			
C.6.e	Inspections	By September 1st of each year, each Permittee shall remind all site developers and/or owners disturbing one acre or more of soil to prepare for the upcoming wet season.	9/1/16
		In the 2016 Annual Report, each Permittee shall certify the criteria it uses to determine hillside developments. If the Permittee is using maps of hillside developments areas or other written criteria, include a copy in the Annual Report.	2016 AR
C.7 - Public Information and Outreach			
C.7.d	Stormwater Pollution Prevention Education	In the 2016 Annual Report, each Permittee shall list the point of contact, discuss how this point of contact and stormwater pollution website are publicized and maintained, and certify that it has a website dedicated to providing and maintaining information on stormwater issues, watershed characteristics, and stormwater pollution prevention alternatives.	2016 AR
C.8 - Water Quality Monitoring			
C.8.e	Stressor/Source Identification (SSID) Projects	The Permittees shall develop a work plan for each SSID project and submit the work plans with the Urban Creeks Monitoring Report (UCMR) such that a minimum of half the required number of SSID projects are started (at a minimum, have a workplan) by the third year of the permit term.	3/15/16
		When a Permittee(s) determines that discharges to its stormwater collection system(s) contribute to an exceedance of a water quality standard or an exceedance of a trigger threshold such that the water body's beneficial uses are not supported, the Permittee(s) shall submit a report in the UCMR that describes BMPs that are currently being implemented, and the current level of implementation, and additional BMPs that will be implemented, and/or an increased level of implementation, to prevent or reduce the discharge of pollutants that are causing or contributing to the exceedance of WQSs. The report shall include an implementation schedule.	3/15/16
		The Permittees shall submit an SSID report in each UCMR which summarizes the actions taken in C.8.e.i-iii above. The SSID report shall include a running summary of all SSID projects (C.8.e.ii), including start date, brief problem definition, and schedule for each project. As projects progress, the SSID report shall describe findings and monitoring results and outline steps for the upcoming year for each ongoing project. The Permittees shall submit the SSID report with each UCMR.	3/15/16

Attachment 1.6

Permit Section	Implementation Task	Implementation Level/Reporting	Schedule
C.8.g	ii. Electronic Reporting	The Permittees shall submit to the California Environmental Data Exchange Network (CEDEN) all results from monitoring conducted pursuant to Provisions C.8.d. Creek Status, C.8.e. SSID Projects (as applicable), and C.8.f. Pollutants of Concern. Data that CEDEN cannot accept are exempt from this requirement. Data shall be submitted in SWAMP formats and with the quality controls required by CEDEN. Data collected during the previous October 1–September 30 period shall be submitted by March 15 of each year.	3/15/16
	iii. Urban Creeks Monitoring Report	The Permittees shall submit a comprehensive Creek Status Monitoring Report no later than March 15 of each year, reporting on all data collected during the foregoing October 1–September 30 period. (See C.8.g.iii for specifics)	3/15/16
	iv. Pollutants of Concern Monitoring Reports	By October 15 of each year of the permit (beginning in 2016), the Permittees shall submit a report describing the allocation of sampling effort for POC monitoring for the forthcoming year and what was accomplished for POC monitoring during the preceding Water Year. The report shall include (for preceding year and projected for forthcoming year): monitoring locations, number and types of samples collected, purpose of sampling (management question addressed), and analytes measured. Any data not reportable to CEDEN should also be included in this report.	10/15/16
C.10 - Trash Load Reduction			
C.10.a	i. Schedule	Permittees shall reduce trash discharges from 2009 levels, described below, to receiving waters in accordance with the following schedule:	
		60% by 7/1/16 (performance guideline)	7/1/16
	ii. Trash Generation Area Management	Permittees shall have an opportunity to correct and/or revise, based on improved information, the 2009 trash levels and trash generation areas in their February 2014 maps by submitting the correction and/or revision no later than the 2016 Annual Report deadline.	2016 AR
C.10.e	ii. Direct Trash Discharge Controls	A Permittee may offset an additional part of its provision C.10.a trash load percent reduction requirement by implementing a comprehensive plan approved by the Executive Officer for control of direct discharges of trash to receiving waters from non-storm drain system sources. The maximum offset that may be claimed is ten percent using the C.10.e.i formula. The plan shall be submitted with the 2016 Annual Report.	2016 AR
C.10.f	i. Summary and Areal Extent of Implementation	A summary of trash control actions within each trash management area, including the types of actions, levels of implementation, areal extent of implementation, and whether the actions are ongoing or new, including initiation date.	2016 AR
C.10.f	Ii Submittal of Updated Maps	An updated trash generation area map or maps and associated trash management areas including the locations and associated drainage areas of full trash capture systems and non-full trash capture system trash control actions, and the location of Trash Hot Spots, with highlight or other indication of any revisions or changes from the previous year map(s). These maps are separate and distinct from corrections and/or revisions of the 2009 trash levels in the February 2014 maps and shall illustrate progress toward achieving the trash reduction requirements in C.10.a.i.	2016 AR
C.11 - Mercury Control			
C.11.a	Implement Control Measures to Achieve Mercury Load	The Permittees shall report by February 1, 2016, a list of the watersheds (or portions therein) where mercury control measures are currently being implemented and those in which control measures will be implemented (C.11.a.ii(1)) during the term of this permit as well as the monitoring data and other information used to select these watersheds.	2/1/16

Permit Section	Implementation Task	Implementation Level/Reporting	Schedule
	Reductions.	The Permittees shall report in their 2016 Annual Report the specific control measures (C.11.a.ii(2)) that are currently being implemented and those that will be implemented in watersheds identified under C.11.a.iii(1) and an implementation schedule (C.11.a.ii(3)) for these control measures. (See C.11.a.iii (2) for report specifics).	2016 AR
C.11.b	Assess Mercury Load Reductions from Stormwater	The Permittees shall submit, for Executive Officer approval, by April 1, 2016, a full description of an adequate measurement and estimation methodology and rationale for the approaches used to assess mercury load reductions achieved through mercury source control, stormwater treatment, green infrastructure projects, and other stormwater management measures implemented during the term of this permit.	4/1/16
C.12 - Polychlorinated Biphenyls (PCBs) Controls			
C.12.a	Implement Control Measures to Achieve PCBs Load Reductions	Report list of the watersheds (or portions therein) where PCBs control measures are currently being implemented and those in which control measures will be implemented during the term of this permit as well as the monitoring data and other information used to select these watersheds.	2/1/16
		Report specific control measures that are currently being implemented and those that will be implemented in identified watersheds and an implementation schedule.	2016 AR
C.12.b	Assess PCBs Load Reductions from Stormwater	Submit, for Executive Officer approval, by, a full description of the measurement and estimation methodology and rationale for the approaches used to assess PCBs load reductions achieved through PCBs source control, stormwater treatment, green infrastructure projects, and other stormwater management measures implemented during the term of this permit.	4/1/16
C.12.g	Fate and Transport Study of PCBs: Urban Runoff Impact on San Francisco Bay Margins	Submit a workplan in 2016. Report on status of the studies in the 2017 Annual Report. Report in the 2019 IMR the findings and results of the studies completed, planned, or in progress as well as implications of studies on potential control measures to be investigated, piloted or implemented in future permit cycles.	2016 AR
C.13 - Copper Controls			
C.13.a	Manage Waste Generated from Cleaning and Treating of Copper Architectural Features...	In the 2016 Annual Report, the Permittees shall certify that legal authority currently exists to prohibit the discharge of wastewater to storm drains generated from the installation, cleaning, treating, and washing of copper architectural features, including copper roofs. In the 2016 Annual Report, the Permittees shall report how copper architectural features are addressed through the issuance of building permits.	2016 AR
C.13.b	Manage Discharges from Pools, Spas, and Fountains that Contain Copper-Based Chemicals.	In the 2016 Annual Report, the Permittees shall certify that legal authority currently exists to prohibit the discharges to storm drains of water containing copper-based chemicals from pools, spas, and fountains. In the 2016 Annual Report, the Permittees shall report how copper-containing discharges from pools, spas, and fountains are addressed to accomplish the prohibition of the discharge.	2016 AR
C.17 - Annual Reports			

Permit Section	Implementation Task	Implementation Level/Reporting	Schedule
C.17	Annual Reports	The Permittees shall submit Annual Reports electronically in all cases and in paper copy upon request by September 15 of each year. Each Annual Report shall report on the previous fiscal year beginning July 1 and ending June 30. The annual reporting requirements are set forth in Provisions C.1 – C.16.	9/15/16
		The Permittees shall collaboratively develop a common annual reporting format for acceptance by the Executive Officer by April 1, 2016.	4/1/16

Attachment 7.1

Petstircides Campaign Report FY 2014/15

PETSTIRCIDES CAMPAIGN

OVERVIEW

Purpose

The Petstircides campaign was launched in 2013 to promote the use of less toxic alternatives to traditional pesticides and herbicides. Following the pilot phase conducted early in FY14-15, we shifted the focus of the campaign to direct outreach while at the same keeping campaign reminders in stores so residents would be exposed to the message at the point of purchase.

Direct outreach was conducted at local farmer's markets across West and South Contra Costa County. At the events residents were asked to take a short survey and sign a pledge to use less toxic alternatives.

Goals

Collaborate and partner with local businesses and organizations to spread the message and increase engagement.

- Increase direct outreach and participate at 10 local events, such as farmer's markets, Earth Day events and popular local events;
- Update the campaign materials to encourage residents to take a pledge;
- Expand the campaign to more stores that sell non-toxic products, specifically covering stores without current Our Water Our World (OWOW) presence;
- Provide store employees with FAQ sheets to ensure that new employees are knowledgeable about goals of the Petstircides campaign (i.e., increasing the use of non-toxic alternatives to pesticide use), and
- Collect surveys from campaign participants and from residents who were not exposed to the campaign.

FISCAL YEAR & SUMMARY

Goals & Activities

- Expanded the campaign to four additional stores and placed Petstircide campaign materials at nine stores in South and West Contra Costa:
    - Urban Farmer, Richmond
    - Moraga Garden Center, Moraga
    - Orchard Nursery and Florist, Lafayette
    - Navlet's Garden Center, Danville
    - Sloat's Gardens, Danville
    - Diamond K Supply, Lafayette
    - Rodeo True Value Hardware, Rodeo

  - The Watershed Nursery, Richmond
  - Pastime Ace Hardware, El Cerrito
- Distributed FAQ sheets about the campaign to participating stores;
- Updated the flyer to include a pledge. The updated flyer was used at events to promote the campaign message and collect pledges.
- Conducted nine tablings and administered surveys at the following events:

Date	Event	Surveys (Exposed)
9/27/2014	San Ramon Farmers Market	41
11/12/2014	Richmond Farmers Market	24
12/4/2015	San Ramon Farmers Market	12
1/30/2015	Richmond Farmers Market	18
2/14/2015	Danville Farmers Market	71
4/11/2015	Pinole Farmers Market	19
5/8/2015	Richmond Farmers Market	27
5/19/2015	El Cerrito Farmers Market	10
5/23/2015	Orinda Farmers Market	28
	Total	250

- We also collected an equal number of surveys from residents who were not exposed to the campaign in El Cerrito, San Ramon, Richmond, Danville, Orinda and Lafayette again a total of 250 surveys;

Date	Event	Surveys (Unexposed)
8/23/2014	San Ramon	20
9/17/2014	El Cerrito	57
1/24/2015	Richmond	29
3/28/2015	Danville	32
4/16/2015	San Ramon	31

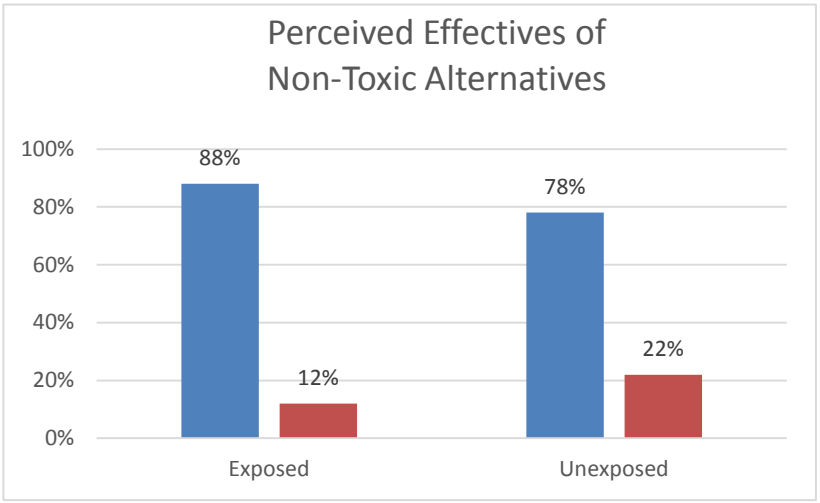
5/5/2015	Lafayette	24
5/6/2015	Orinda	22
5/9/2015	El Cerrito	35
	Total	250

- In total, we collected a total of 84 intercept surveys of exposed individuals at events since 2013 (250 of which were in this past fiscal year 2014-2015; and
- Collected 218 pledges from residents during this past fiscal year.

Survey Results

Since the campaign started in 2013, we collected 384 surveys of people who were exposed to the campaign (134 in FY 2013-14 and 250 in FY 2014-15) and 250 surveys of those who were not exposed (collected just in FY 2014-15). The sample was 50% male and 50% female.

Effectiveness



On a scale of 0 to 10 with 0 being "Not effective at all" and 10 being "Completely Effective," 88% of respondents who were exposed to the campaign rated less toxic pesticides as a "5" or more and 12% rated them as a "4" or less. Among the respondents who were not exposed to the campaign 78% (195) rated less toxic products as a "5" or more and 22% (55) rated them as a 4 or less. This suggests that the attitudes towards less toxic products are pointing in the right direction for both groups however the group that was exposed to the campaign ranked less toxic alternatives as more effective.

Willingness to purchase less toxic products

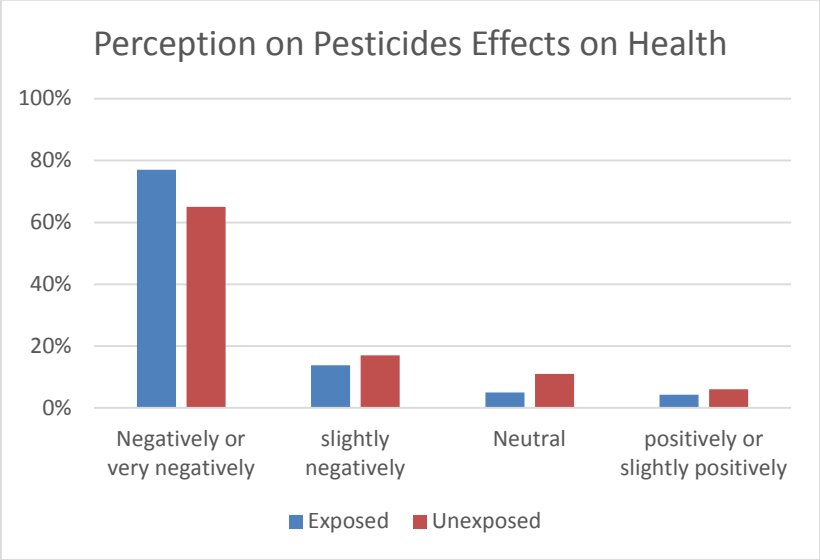
Those who were exposed to the campaign had 8.31 mean willingness score which is 0.68 points higher than our goal for the campaign (7.63 mean willingness score). For comparison, those who were not exposed to the campaign had a mean willingness score of 7.67 which is only

slightly higher than the baseline mean willingness. Willingness score gives us a good idea of what the behavior would be if residents decided to purchase a gardening product.

Discussing the use of less toxic products

56.4% of respondents who were exposed to the campaign indicated that they discussed the use of less toxic products with somebody. The total reported number of people that the less toxic message was shared with is 5,545, exceeding our goal of 3,240 discussions for the entire campaign period by 71.14%.

Attitudes toward pesticides and herbicides



Another interesting finding was the attitude towards traditional pesticides and their effect on health. 65% of respondents who were not exposed to the campaign indicated that traditional pesticides affect health "negatively" or "very negatively," 17% responded "slightly negatively," 11% said they do not affect health in any way and 6% responded that pesticides affect health "positively," "slightly positively" or "very positively." Of those who were exposed to the campaign 77% responded that traditional pesticides affect health "negatively" or "very negatively," 13.8% responded "slightly negative," 5% said they do not affect health in any way and 4.3% responded that pesticides affect health "positively," "slightly positively" or "very positively." More respondents who were exposed to the campaign responded that traditional pesticides affect health "negatively" or "very negatively" compared to those who were not exposed (12% more).

Attachment 7.2

My Green Garden Website Campaign Report FY 2014/15

MY GREEN GARDEN WEBSITE

OVERVIEW

Purpose

The overarching goal of the program is to protect water quality by successfully informing, engaging, and ultimately, changing the behavior of Contra Costa residents. The MyGreenGarden.org initiative aimed to encourage Contra Costa residents to try a non-toxic home remedy, rather than use chemical pesticides, when facing pest problems in their lawn or garden. The website was designed to address the specific barriers and motivators of the Contra Costa community, as described in the FY 12-13 strategic research and development plan.

Strategy

Based on findings from focus groups and surveys conducted in 2013, this initiative was created to primarily target home gardeners residing in the West, Central, and East regions of the County. Many of these gardeners are middle-aged, middle-class women who have kids or pets, living in single-family homes.

Target behaviors were fostered by lowering perceived barriers and enhancing perceived motivators:

- Emphasizing that the use of non-toxic alternatives will protect the health of their children and pets *(motivator: protect kids and pets)*
- Making a connection between keeping the yard looking lovely and using less toxic alternatives *(motivator: concern is to make sure the weeds don't take over)*
- Presenting information about efficacy of various non-toxic alternatives in a credible way *(barrier: difficulty trusting programs that automatically say a non-toxic alternative is effective)*
- Emphasizing that non-toxic alternatives can be just as effective as pesticides if the right ones are selected *(barrier: perception that they won't get the job done)*
- Raising awareness of non-toxic home remedies *(barrier: lack of knowledge of the remedies)*
- Promoting a sense of pride associated with being resourceful in applying creative household solutions to pest and weed control *(motivator: sense of community in swapping tips)*

The website MyGreenGarden.org was created as the platform that enabled community-created content* and engagement, where peer messaging and influence around home remedies could be exchanged.

*It was important that messaging come from people who felt like peers, in order to foster the social norm so people would take on desired actions. Also, recommendations had to be appropriate to the Contra Costa ecology. All home remedies presented to residents were to be concise, to avoid information overload. Also, they did not need to be framed as environmental actions; in fact, doing so could make people wary. Recommended activities were evaluated according to the following three filters: (1) *time involvement*; (2) *effectiveness*; and (3) *ease of use*. All answers to questions were moderated by SGA to ensure a level of quality.

FISCAL YEAR & SUMMARY

Goals

The following four goals were set in the original program plan:

- **Knowledge**
  Relative to the control group (people who do not participate in the program), 26% more people (in a group of campaign participants) know about one of the end-state behaviors.
- **Interpersonal Communication**
  A minimum of 9,720 incidences of people discussing the use of a non-toxic alternative for pest and/or weed control.
- **Willingness**
  Relative to the control group (people who do not participate in the program), people who engage with the website are more willing to try a non-toxic alternative.
- **Behavior Change**
  Relative to the control group (people who do not participate in the program), 13% more people (in a group of campaign participants) practice a non-toxic alternative.

Activities

The following four major activities were carried out this year to support the strategy:

- **Partnerships**
  - Formed partnerships with local gardening clubs, bloggers, and individuals to write and post hundreds of initial home remedies, to rate each other's posts, and to lend credibility to the new site. Partner relationships were maintained and can be leveraged in the future (the key organizations we worked with include: Ruth Bancroft Garden, Los Medanos College Nature Preserve, Plant Justice, Urban Farmer, UC Berkeley Student Organic Gardening Association, Bring Back the Natives, Pleasant Hill Instructional Garden, and Flora Shanti Gardens).
- **User Experience**
  - Pivoted the website's functionality to a new format that provides an improved user experience by allowing gardeners to not only share their expertise, but to ask specific pest management questions. Also designed the site to be more consistent with the Pesticides Linger look and feel.
- **Sustainable Youth Program**
  - Transitioned primary ongoing content management and site promotion duties to 100+ Antioch High School students in the academies of Media/Technology, Environmental Science, and Engineering/Design. School presentations and a User Manual were created for the students. With support from us and teachers, each year, students will train the next class to take it on.

- **Surveys**
  - To evaluate success thus far for the site, surveys were conducted with both people who had and had not been exposed to the site. Responses from the two groups were compared to determine the effect of the site in terms of both awareness of home remedies and willingness to act on that awareness.

Results

Survey Responses
We received 110 completed survey responses from people who had never been exposed to the MyGreenGarden.com website. As for people who had been exposed to the site, we received 53 survey responses. Zip codes were collected to ensure respondents were residents of Contra Costa County. Email addresses were also collected (optional) for future correspondence.

To determine if being exposed to the MyGreenGarden.org website had an effect on their awareness or willingness, we compared survey responses from people who had been on the site (Exposed group) vs. people who had never seen it (Non-Exposed Control Group).

- **Knowledge**

We asked respondents if they knew of any home remedies or organic solutions for managing pests or weeds. Of the 163 total respondents, 52 of them did not know any non-toxic pest management solutions. All other respondents responded with an example of a non-toxic solution they knew of or had used. Of the 52 people who said they did not know any, 45 were in the Non-Exposed Control group (41% of respondents in that group). Only 7 of the Exposed Group did not know any non-toxic pest management solutions (13% of respondents in that group).

	Non-Exposed Control Group	Exposed Group
Did NOT know any non-toxic alternative solution	41%	13%
Did know at least one non-toxic alternative solution	59%	87%

The Knowledge Objective has been met: well over 26% more people, relative to the control group, know about one or more end-state behaviors.

- **Interpersonal Communication**

In the original plan, Interpersonal Communication was defined to be incidences of people discussing the use of non-toxic alternatives. This is an outcome that our surveys could not measure. Metrics that feed into this goal include number of web pageviews (6,888), number of initial partners who helped seed content (115), whatever reach we had through those partners (unknown), emails exchanged between

MyGreenGarden community members (unknown), total number of students, teachers, and parents involved with the Antioch High School program who helped manage the site (140+). Ultimately, it cannot be definitely said that the Interpersonal Communication objective of was reached.

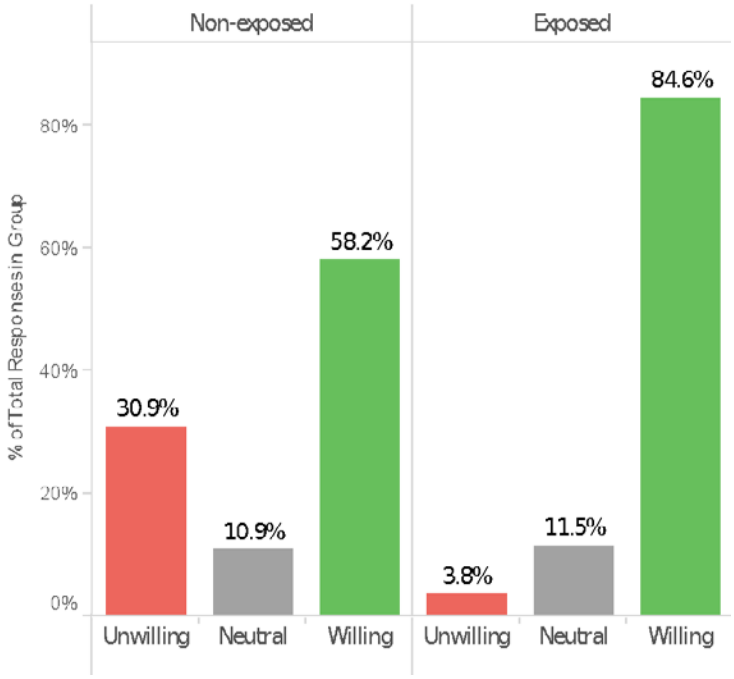
One sure way of reaching this goal in a way that can be tracked is if we can garner a total of over 9,720 questions and answers directly on the website. This will require intensive promotion of the website using a combination of methods including paid advertisements, social media, and grassroots partnerships. Now that the site has been built, the user experience optimized, and the projects effectiveness proven (Knowledge, Willingness, and Behavior Change objectives were all reached), it is time to invest in promotion. This is the plan for the upcoming contract year.

- **Willingness**

We asked people how willing they would be, on a scale from 0 to 10, to try a non-toxic alternative the next time they needed to take action. We found that there was a significant difference in willingness between the two groups (Non-Exposed Control Group vs. Exposed Group). The average 0-10 willingness score for the Non-Exposed Control Group was 8.03. The average 0-10 willingness score for the Exposed Group who had seen the site was 9.40.

	Non-Exposed Control Group	Exposed Group
Average Willingness Score	8.03	9.40

To better understand the significance of the finding, we can look at how the two groups compare after separating them into subgroups. We defined three subgroups: *Unwilling* (willingness score from 0-6), *Neutral* (willingness score of 7-8) and *Willing* (willingness score of 9 or 10). As shown in the chart below, the *Unwilling* group is nearly ten times smaller, proportionally, in the Exposed group compared to the Non-Exposed group. Also, the *Willing* group is significantly larger proportion in the group that had visited the site (84.6% of Exposed vs. 58.2% of Non-Exposed).

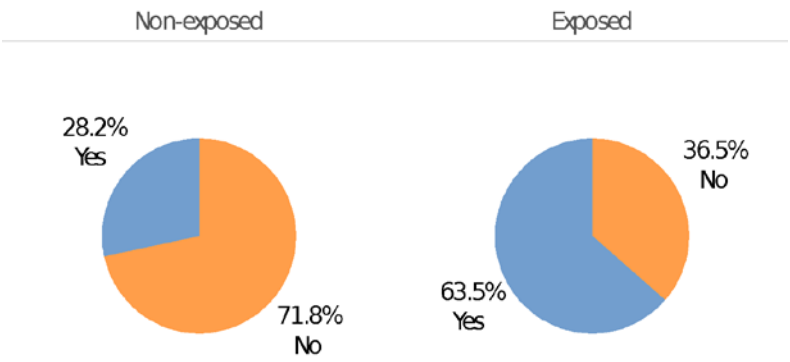


The Willingness Objective has been met: people who engaged with the website are more willing to try a non-toxic alternative, relative to people who were not exposed.

It is also interesting to see the relationship between awareness and willingness. Awareness was found to be directly proportional to Willingness. Two-thirds of those who were unwilling to try a non-toxic solution (67%) happened to not know of any non-toxic solutions to begin with. Nearly all people who were willing (81% of them) did know of at least one solution. As for the neutral group-those who might be on the fence about trying a non-toxic solution-39% did not know what to do. This finding underscores the importance of a website like MyGreenGarden.org, which gives people effective non-toxic solutions to try.

- **Behavior Change**

We asked people if they had, in the past month, actually used a non-toxic solution or home remedy to manage pests or weeds. In the Non-Exposed Control group, less than a third (28.2%) said that they had. In the Exposed group, nearly two thirds (63.5%) said that they had – more than double the proportion in the Control group. The following table shows responses for the question "Have you, in the past month, used a non-toxic solution or home remedy to manage pests or weeds (Y/N)."



The Behavior Change objective has been met: well over 13% more people who engaged with the website, relative to the control group of people who did not, practiced a non-toxic alternative.

Deliverables

- MyGreenGarden.org website
- Administration Handbook for content management and web maintenance
- School Presentation to inspire and train High School Students
- Dataset of 153 Completed Survey Responses

Attachment 7.3

Pesticides Linger Campaign Report FY 2014/15

PESTICIDES LINGER CAMPAIGN

OVERVIEW

Purpose

The purpose of the Pesticides Linger campaign is to encourage Contra Costa residents who currently outsource their pest control to consider hiring an eco-certified pest control operator (eco PCO) who practices environmentally sound pest management practices as certified by EcoWise, GreenPro or Green Shield. The campaign is designed to address the specific barriers and motivators of the Contra Costa community, established in the FY 12-13 strategic research and development plan on pesticide use (developed by SGA for the Contra Costa Clean Water Program's PIP Committee).

Strategy

The Pesticides Linger campaign focused on residents in Contra Costa's South, East and Central areas, as these areas were found to be most likely to hire PCOs. The campaign strategy sought to address the most common motivators and barriers to hiring an eco PCO:

- IPM protects the health of children and pets (motivator: protect kids and pets)
- IPM is effective (barrier: IPM won't get the job done)
- Conventional PCOs don't know the real toxicity of pesticides they use (barrier: belief that pest controllers are professionals and would only use chemicals that are safe)

To address these barriers and motivators, the Pesticides Linger campaign provided trustworthy facts about the dangers of conventional pesticides, offered straightforward reasons to choose an eco PCO and delivered information on how to find a local provider. Using these techniques, the campaign aimed to help stop the spread of potentially harmful chemicals in Contra Costa communities and local waterways.

The campaign had two phases:

Phase I digital activation. This integrated online marketing phase was designed to garner interest in the campaign message via targeted Google ads, Facebook ads and the campaign webpage (pesticideslinger.org). Our goal during this phase was to test tactics, track audience behavior and engagement in the campaign, and prompt answers to a simple question: On a scale of 1 to 5, how effective is eco pest control?

Phase II in-person activation. With a clear knowledge of our target audience established, the next phase focused on bringing our message into the physical world, via partnership building and in-person outreach. Our goal here was to expand the campaign profile and increase the number of residents interacting with the campaign. We forged partnerships with media outlets, home-owner associations (HOAs) and local parenting organizations that have influence with our target audience and can deliver the message of our campaign more effectively. We also used grassroots outreach tactics to personalize

the message and begin comparing the effectiveness reporting between people who have seen the campaign and those who have not.

Target Pollutants

- Organophosphorous pesticides: chlorpyrifos, diazinon, and malathion
- Pyrethroids: bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin
- Carbamates: carbaryl
- Fipronil

FISCAL YEAR & SUMMARY

Goals & Activities

- Motivate homeowners to consider the dangers of using conventional pesticides in their homes.
- Use a multi-layered program that provides education, inspiration and confidence in eco PCOs and IPM.
- Encourage homeowners to engage with our campaign and respond to our target question.
- Foster and develop partnerships with influential media outlets and local organizations.
- Conduct in-person outreach to personalize the message and increase engagement.

To accomplish this, we performed the following activities:

Phase I digital activation

- Created a strategy for Google and Facebook advertisements that A/B tested two versions of the Pesticides Linger ad.
- Integrated the survey question and optimized the design of pesticideslinger.org.
- Created and launched a visual and text only advertising campaign on Google.
- Created and launched a mobile and desktop advertising campaign on Facebook.
- Tracked performance, analyzed results and made any necessary adjustments to the strategy.
- Monitored webpage activity and adjusted as necessary.
- Submitted baseline, interim and final reports to the Contra Costa Clean Water PIP Committee (July 15, December 15 and June 30)

Phase II in-person activation

- Developed a database of potential media outlets and influential organization in Contra Costa County.
- Drafted and sent a press kit and e-blast to media outlets and garden related community organizations/blogs (such as Bringing Back the Natives).
- Followed up with interested media outlets and organizations.
- Created strategy for in-person outreach.

- Developed outreach materials (two-sided postcards, script for in-person outreach).
- Conducted in-person outreach in Danville, Lafayette, Concord, Walnut Creek, Antioch and Brentwood.
- Tracked and analyzed survey results.
- Submitted baseline, interim and final reports to the Contra Costa Clean Water PIP Committee (July 15, December 15 and June 30)

DELIVERABLES

- 250 questionnaires from people who have been exposed to the Pesticides Linger campaign (campaign participants
- 250 questionnaires from people who have not been exposed to the campaign (control group)
- 2 million impressions (indicates how wide an audience our message reached)
- 10,000 clicks (indicates deeper level of engagement and commitment)

Results

Phase 1 Digital Activation

SGA ran a pilot campaign for Pesticides Linger in the last month of FY13-14 to determine demographics, interests and behavior of our target audience.

We learned that the audience interested in Pesticides Linger was primarily

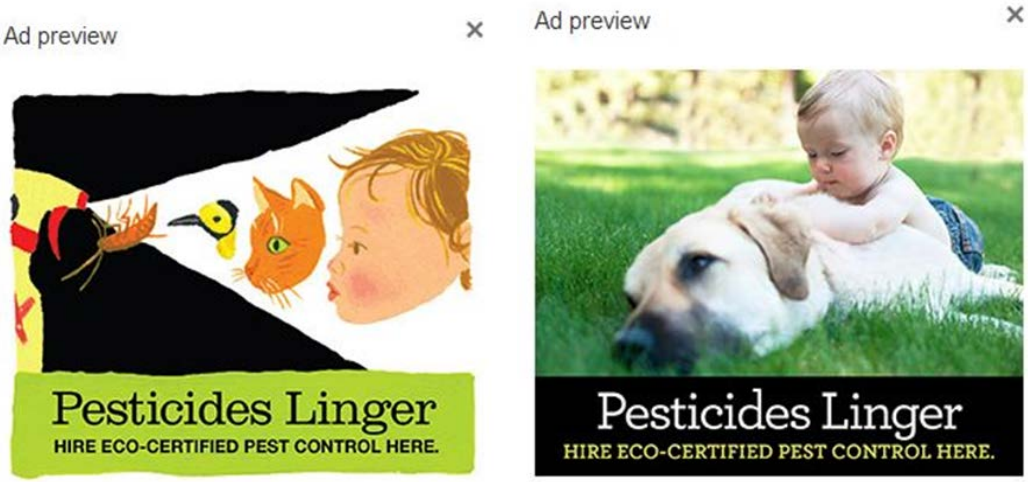
- Female
- Ages 35-44
- Parents
- Pet owners
- Used mobile devices to access the internet

Using what we had learned, SGA began a robust Google advertisement campaign in FY14-15, targeted specifically to residents of the South, Central and East regions of the County.

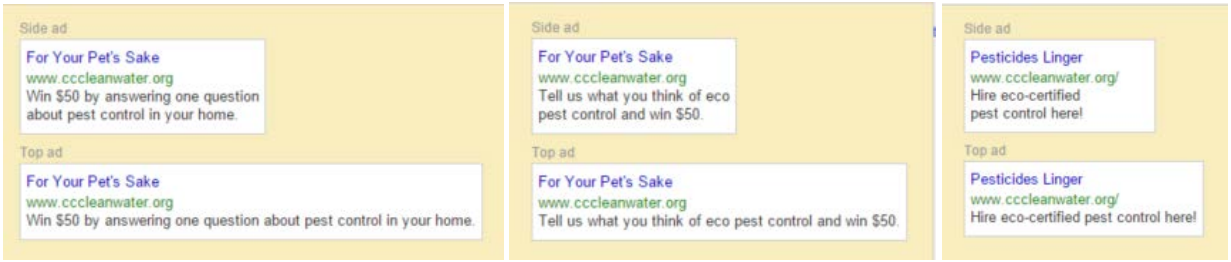
Google Advertisements

The Google advertisements consisted of image ads as well as text-only ads. Throughout FY14-15 we tested a total of 677 image and text-only Google advertisements.

The image ads used the following illustration and photographic versions:



The following three text-only advertisements performed the best:



A **B** **C**

There are a few ways to measure the success of Google ads.

Impressions: the number of people who saw the ad
Clicks: the number of people who clicked on the ad
CPC: cost-per-click (the lower the number the better)
Cost: the total amount spent on the ad campaign
Average position: how close to the top of the search engine results page the ad appeared (no. 1 is best)

In FY 14-15, the Pesticides Linger Google advertisements showed impressive results:

Impressions	Clicks	Cost per Click	Cost	Avg. Position
2,425,992	13,866	0.32	$3,338.19	1.2

PesticidesLinger.org Webpage

The Pesticides Linger webpage served as the hub of the campaign. Designed to automatically adjust to properly display on any electronic device, such as a desktop computer, tablet or smartphone, the website was equally visible to anyone with access to the internet.

The main features of the webpage included:

- **Home page**. The landing page for pesticideslinger.org featured a large image of a baby and dog, two of the main motivations for our target audience.
- **Choose eco**. This section gave four succinct reasons a resident should choose eco-certified pest control.
- **Survey**. Visitors to the webpage were encouraged to answer our simple survey for a chance to win $50.
- **Doesn't mean it is safe**. This section was design to dispel one of the most common misconceptions about conventional pesticides (conventional PCOs wouldn't use it if it wasn't safe). It lists out the widely used pesticides with trade and common names, explains what it is and provides health risks for each one.
- **Hire eco**. The map pins eco-certified pest controllers in Contra Costa County and provides address and contact information for each.

There are a number of ways to assess how well a webpage is engaging an audience.

Page views: the number of time the website was viewed
Unique page views: the number of individual visitors who have looked at a page
Average time per page: average time visitors spend on the site
New visitor page views: the number of people who are accessing the site for the first time
Returning visitor page views: the number of people who came back to visit the site again

Page Views	Unique Page Views	Average time per page	New Visitor (page views)	Returning (page views)
14,702	12,805	4:00 minutes	11,068	3,634

Phase II In-person Activation

Partnership Building

To help spread the word about the Pesticides Linger campaign message and survey, SGA developed a database of potential partners in the South, Central and Eastern parts of the County to inform them of the Pesticides Linger campaign and provide information and digital images. We reached out to 110 community organizations, including HOAs, PTAs, parent groups and churches. In addition, we corresponded with 21 local media outlets.

Surveys

The Pesticides Linger campaign surveyed equal numbers of people who had been exposed to the campaign (campaign participants) and those who hadn't been exposed (control group) a simple question, "On a scale of 1 to 5, how effective is eco pest control?"

Our goal was to show that relative to the control group, 26% more campaign participants rated eco pest control as more effective in treating pests. This result indicates an attitudinal shift toward eco pest control, influenced by the messaging of our campaign.

Surveys were collected during in-person outreach in 6 cities.

Date	City
10/9/2014	Concord
1/29/2015	Antioch, Brentwood
2/28/2015	Danville
3/11/2015	Walnut Creek, Lafayette

Surveys	Total	Average response
Campaign participants	252	3.86
Control group	250	3.29

To determine whether the campaign participants rated eco pest control more effective than the control group, we looked at the number of responses in each group that rated either a 4 (mostly effective) or 5 (always effective).

Group	Rated 4 or 5
Campaign participants	159
Control group	101
Percent difference	36.4%

Results At-a-Glance

Deliverable	Final Result	% of Goal
Impressions	2,018,123	101%
Clicks	12,249	122%
Average time on webpage	4:00	100%
Total webpage views	13,399	n/a
Surveys	502	100%
Emails collected	69	n/a

RECOMMENDATIONS FOR FY 15-16

Pesticides Linger achieved profound levels of engagement. While we cultivated strong website traffic and time spent on site, there wasn't a way to captivate the community and keep them returning to the site after they had internalized the message. Moving forward, we recommend that Pesticides Linger develop a social media aspect into the campaign. Social media is an effective way to build a more lasting community where Contra Costa residents can engage continually with other residents, find pollution prevention messages and actions and interact with the My Green Garden campaign and similar programs throughout Contra Costa County. In addition, we will look to develop stronger partnerships with the eco-certified pest control applicators to measure actual behavior change and residents use of these services as a result of the program's outreach efforts. To do this, we are looking to develop a coupon program to track use and will also do pre/post testing of the campaign via email marketing with residents to test awareness and intentions.

Attachment 7.4

Bringing Back the Natives Garden Tour Final Report FY 2014/15

Bringing Back the Natives Garden Tour

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mailto:Kathy@KathyKramerConsulting.net

http://www.BringingBackTheNatives.net

2015 Final Report

A nine-year study of water use, green waste generation, maintenance hours, and maintenance labor costs between a traditional garden and a California native plant garden was conducted by the City of Santa Monica between 2004 and 2013. The results of this study showed that the native garden uses 83% less water; generates 56% less green waste, and requires 68% less maintenance than the traditional garden.

from City of Santa Monica garden/garden

Why a Native Plant Garden Tour?

The spring 2015 Bringing Back the Natives Garden Tour was held in order to showcase pesticide-free, water-conserving gardens that provide habitat for wildlife, reduce solid waste, and contain 60% or more native plants.

The tour enlists local residents to demonstrate by example that seasoned and novice gardeners can garden with good results without the use of synthetic chemicals, and with minimal supplemental water, while providing food, shelter, and nesting areas for wildlife. The gardens on this tour show that it is possible to implement sustainable garden practices and still have beautiful places for people to relax in and enjoy. The goals of the Bringing Back the Natives Garden Tour are to motivate attendees to eliminate pesticide use, reduce water use, generate less solid waste, and provide habitat for wildlife in their own gardens.

Why California natives? Once established in the garden setting, California native plants need little or no summer water, as they survive naturally with only fall-to-spring rainfall. In addition to being water-conserving, California natives are hardy, and they do not require the use of pesticides and fertilizers, as many non-natives do. Native plants need less pruning than many non-natives, such as lawn, ivy, or cotoneaster, thus generating less green waste. As this terrific article demonstrates, native plants also provide the best habitat for birds, butterflies, beneficial insects, and other forms of wildlife.

A nine-year study of water use, green waste generation, maintenance hours, and maintenance labor costs between a traditional garden and a California native plant garden was conducted by the City of Santa Monica between 2004 and 2013. ***The results of this study showed that the native garden uses 83% less water;***

generates 56% less green waste, and requires 68% less maintenance than the traditional garden.

Bringing Back the Natives Garden Tour gardens contain minimal or no lawn. This is of particular value since the majority of the chemicals purchased by homeowners support lawn care, and the majority of water used in home gardens is applied to lawns. According to the U.S. Fish and Wildlife Service in their, "Homeowner's Guide to Protecting Frogs—Lawn and Garden Care," homeowners use up to ten times more chemical pesticides per acre on their lawns than farmers use on crops. In addition, half of the water used by the average household is applied to the landscape—with most of that water being applied to keep turf green.

2015 Bringing Back the Natives Garden Tour events: Tour; Native Plant Sale Extravaganzas; and Workshops

The Bringing Back the Natives Garden Tour has now expanded its offerings to include not only the spring Tour and Native Plant Sale Extravaganza, but also a Fall Native Plant Sale Extravaganza, and a Valentines Day Native Plant Sale, and a series of workshops that are offered in both the fall and spring. These are described below.

The Eleventh Annual Bringing Back the Natives Garden Tour, which took place on Sunday, May 3, 2015, showcased thirty eight gardens and nurseries located in eighteen cities and unincorporated areas in Alameda and Contra Costa counties (Berkeley, Castro Valley, Concord, El Cerrito, El Sobrante, Hayward, Kensington, Lafayette, Livermore, Moraga, Oakland, Orinda, Pleasant Hill, Pleasanton, Richmond, San Lorenzo, Union City, and Walnut Creek).

A variety of gardens were featured on the tour. The gardens ranged from Al Kyte's forty year old wildlife habitat to a number of gardens that had been recently installed, and from large lots in the hills to small front gardens in the flats. Tour gardens contained everything from local native plants to the horticulturally available suite of natives from throughout California. Twelve of the gardens were designed and installed by owners, and the rest were designed and installed by professionals. All of the gardens were landscaped with between 70% and 100% native plants.

The tour received overwhelming interest from the public; this year there were nearly 6,000 registrants. On the day of the tour walk-in registrants were accommodated at nine same-day walk-in registration sites, which were set up in Berkeley, Castro Valley, El Cerrito, Livermore, Moraga, Oakland, Pleasanton, Union City, and Walnut Creek.

This year 12,724 garden visits were made on the day of the tour. See the end of this report for a list of the number of visitors counted at each garden.

More than 150 volunteers either worked at gardens for a half-day shift on the day of the tour, or helped with tour preparation and clean-up, contributing more than

600 hours of time to the tour. The 41 hosts put in countless hours preparing for the tour, and nearly 300 hours on the day of the event.

More than $13,000 worth of native plants were sold in the spring Native Plant Sale Extravaganza, which took place on May 2 and 3, 2015. Nearly $19,000 worth of native plants were sold in the October, 2014 Native Plant Sale Extravaganza, and more than $12,000 worth of natives were sold during the Spring 2015 Valentines Day sale. The total of native plants sold in these three sales was $44,000.

Garden Talks
More than 50 garden talks and demonstrations on a plethora of topics were given throughout the week-end of the Tour. Talk topics included how to: retain stormwater on-site; remove a lawn; design and install a drip irrigation system; select and care for native plants; design and install native plant garden; attract wildlife; choose appropriate natives; create a low-maintenance native plant garden; maintain a native plant garden; garden on hillsides; and how to receive rebates from water districts for removing lawns, among other topics.

The website
The website contains numerous photographs of all of the gardens that have ever been on the tour (information on prior tours remains accessible on the website for future reference), extensive garden descriptions, plant lists for each garden, and some garden-specific bird, butterfly, mammal, reptile, and amphibian lists, as well as resource information on how to garden with California natives. The resource information includes contact information for landscaper designers with gardens on the tour, a list of Easy-to-Grow East Bay Natives, lists of nurseries that carry native plants, lists of reference books, "How I got started gardening with native plants" essays by a number of the host gardeners, and more.

In order to attract hosts and volunteers, and to thank them for their time, two Garden Soirees—free, private tours of native plant gardens—were held in 2015. Garden Soirees offer host gardeners and volunteers the opportunity to see tour gardens that they would otherwise miss. They also create a feeling of camaraderie between hosts and volunteers, and provide a venue for people who are both knowledgeable and passionate about gardening with natives to meet and exchange information.

Select Tours
In the fall of 2014 and the spring of 2015 a series of workshops were coordinated. These included hands-on sheet-mulching workshops; a how to install drip irrigation workshop; and a tour of a large organic garden that stores 10,000 gallons of rainwater on-site, has chickens, and contains extensive native and edible gardened areas.

This year all of the sheetmulching workshops filled, with thirty people each; the last sheetmulching workshop of the season filled five weeks ahead of time. The how to install drip irrigation workshop filled with thirty people six weeks ahead of time.

Tour Partnerships
The Bringing Back the Natives Garden Tour created partnerships with a variety of organizations that share common values—that chemical-free and water conserving gardening preserves water quality and quantity, and creates wildlife habitat. The list of major sponsors and supporters of this year's tour includes a flood control district, two county stormwater programs, three water districts, four cities, an unincorporated area, and a private foundation. The list of tour sponsors is provided below.

Sponsors of the 2014 tour

$15,000
Alameda County Flood Control and Water Conservation District

$10,000
Contra Costa Clean Water Program

$7,800
Jiji Foundation

$4,000
Contra Costa Water District

$2,500
County Clean Water Program (Alameda)

$2,000
East Bay Municipal Utility District

$1,600
California Native Plant Society (East Bay Chapter)

$1,500
City of El Cerrito

$1,000
Bay Area Water Supply and Conservation Agency
City of Antioch
City of Walnut Creek
Zone 7 Water Agency

$500
Alameda County Water Agency

Host Gardeners
The gardens selected to take part in the tour are chemical-free and water-conserving landscapes that provide habitat for wildlife. Hosts were chosen because of their willingness to be on site on the day of the tour to talk with

visitors about their gardens, and their enthusiasm for, and commitment to, educating others about how to garden in environmentally sensitive ways.

Host gardener recruitment began in the spring of 2014 for the 2015 tour. Potential candidates completed an application, and applicants who met the criteria received a site visit. Host criteria were as follows:

- Gardener must reside in Alameda or Contra Costa County.
- Gardener must use organic and/or natural techniques for pest control rather than synthetic pesticides.
- Garden must demonstrate water conservation techniques. Examples include mulches, groundcover plants, drip or soaker hose irrigation, and the use of plants that do not require excessive watering during the dry part of the growing season.
- Gardener must be a good ambassador for chemical-free, water-conserving gardening: enjoy educating the public; and have the knowledge base to employ natural gardening techniques and share this information with the public.
- Garden must provide food, shelter and nesting areas for wildlife.
- Garden must contain 60% or more California native plants.
- No invasive plants are found in the garden.

Host's gardening experience ranged from native plant novices to professional landscape designers. All of the host gardeners were good ambassadors for natural gardening techniques.

Host Comments from the 2015 evaluations:

- Over 500 people visited my garden. They listened and took notes and bought plants to get started on their own native gardens, with no pesticides and less water.
- There were many people new to native plant gardening this year.
- There were so many questions about reducing water and pesticide use!
- I had so many questions related to maintenance, especially given the size of our property. I could tell people that maintenance has gone way down since focusing on planting natives and drought tolerant plants. Mulch is my new best friend. And native grasses outcompete most weeds, so we're able control what weeds to make it by just hand-weeding. More importantly, I've found that my own attitude towards gardening has changed from cultivating pretty flowerbeds to considering the total environment. We aim to create a sense of place that is consistent with our location, attract wildlife, and consider the entire ecological chain.
- Folks asked tons of good questions, and said they wanted to give native plant gardening a go.
- Many people asked about how much water we saved.

- The overwhelming majority of the visitors were very interested in changing their landscaping to be drought resistant and include native plants.
- A number of people indicated to me that our garden has inspired them to do more with native plant gardening. One knowledgeable volunteer said that our charts and handouts also provided a lot of educational material for interested people.
- My conversations with people on the tour were frequently about water savings. People could hardly grasp how little water this garden used!

Volunteer Comments from the 2015 evaluations:

- There was a lot of discussion from the visitors about conserving water.
- A lot of people asked how often the garden is watered.
- Everyone was thinking about water this year and was amazed what would grow without much water.
- I think that this tour will influence many more people to ask for natives at all nurseries, and if people who plant them wisely lower water bills and save time and effort, neighbors may get educated as well.
- All comments from tour goers were extremely positive, and most were actively seeking ideas to implement in their own gardens.
- I liked being able to talk to people one-on-one and answer their questions.
- I think visitors found seeing what the plants look like in a garden, even if it was recently planted, was a really plus.

Pledges

This year, for the first time, during the registration process tour participants had the opportunity to pledge to undertake one or more environmental action. Research has shown that people who pledge to take an action are very likely to follow up and do it. The text on the website read:

> Might you be willing to take a healthy lawn and garden pledge?
>
> Garden chemicals can be harmful to humans, pets, wildlife, creeks, and the Bay. The good news is there are many surprisingly easy ways to care for your lawn and garden that avoid putting your family, pets, and neighbors at risk.
>
> All of the beautiful Bringing Back the Natives Garden Tour gardens are managed without the use of pesticides. If these hosts can garden without the use of pesticides, you can, too!
>
> Are you ready to join Bringing Back the Natives Garden Tour hosts in pledging to restore the Earth one garden at a time? Your family, pets, neighbors, and the birds and bees will thank you.
>
> If a pledge to eliminate pesticide use is too big a step to take right away, you can pledge to reduce your pesticide use instead.

❑ I pledge to reduce or eliminate pesticides like "weed and feed" on my lawn. *(Weed and feed products are persistent, bioaccumulative toxic substances linked to cancers and to reproductive, immunological, and neurological problems. Some of the herbicides in chemical weed and feeds—especially 2, 4-D—have been linked to increased rates of cancer in people and animals.)*

❑ I pledge to reduce or eliminate the use of rodenticides. *(Anticoagulant mouse and rat poison also kills dogs and cats, hawks and owls, and many other species of wildlife.)*

❑ I pledge not to use insecticides. *(A garden and lawn ecosystem in balance is home to birds, native plants, and insect life, which support each other and keep one another in check. Lawns and gardens free of synthetic chemicals provide much-needed habitat for wildlife, and they are much safer for you, your family, and your pets.)*

❑ I pledge to remove part or all of my lawn, eliminate pesticide and herbicide use, and create a wildlife habitat in part of my garden.

"I pledge to" results:

reduce or eliminate pesticide use	65%
reduce or eliminate the use of rodenticides	65%
not to use insecticides	61%
remove part or all of my lawn, eliminate pesticide and herbicide use, and create a wildlife habitat in part of my garden	55%

Tour Survey and Evaluation

Two surveys were offered to the tour's pre-registered participants. The first was available as part of the registration process. Below are some statistics taken from this survey.

The 2015 tour attendees were highly motivated to learn new gardening techniques. When asked what they would like to learn from the tour the majority of respondents (71%) wanted to learn how to select native plants; 62% wanted to learn how to conserve water; 46% wanted to learn how to garden for wildlife; 25% wanted to learn how to reduce pesticide use; 33% percent wanted to learn how to replace a lawn with a garden; and 17% wished to learn about composting.

What do you want to learn from the tour?	**2012 Responses**	**2013 Responses**	**2014 Responses**	**2015 Responses**
How to select native plants	72%	83%	69%	71%

How to reduce water use	51%	58%	57%	62%
How to garden for wildlife	51%	56%	45%	46%
How to reduce or eliminate pesticide use	30%	33%	25%	25%
How to replace a lawn with a garden	30%	33%	30%	33%
How to compost	19%	23%	18%	17%

Evaluations
There was a return of 344 registrant evaluations, with 97% of those filling out the evaluations rated the tour "Excellent" or "Good."

This year 62% of the registrants were repeat visitors, and 38% were attending the tour for the first time.

Motivation and Behavior Change

When asked if the Tour inspired people about how to garden without pesticides, while using less water, tour participants provided these comments:

- The California Native Bee Garden in Berkeley in particular is a powerful reminder not to use pesticides.
- I didn't know native plants could be beautiful, as well as water-friendly.
- I learned a great deal about native plants and am excited to make improvements in my garden.
- I already try to avoid pesticides and use less water, but the beauty of some of the gardens inspired and reinforced my dedication to those principles.
- I took a friend who lives in a gated community. She will propose to the Association to plant natives in their front yards and get rid of the grass.
- I am starting to convert my yard based on prior tours, using a landscaper whose work I had seen.
- It was great talking with the people there, both homeowners and the volunteers, about plants, sun vs. shade, amounts of water etc. Gardening without pesticides is a big part of that too!
- It's great having so many knowledgeable people right there to talk to.
- Very informative, well organized, and in this time of drought, utterly necessary!
- We were looking for, and found, information about sheet mulching, plant advice, and more.
- The Tour shows you gardens that have been able to thrive without pesticides and how beautiful native plants are.
- It was wonderful to have the homeowners and landscapers on site to answer questions. They are all so enthusiastic. It's contagious.

- The gardens were beautiful and inspiring. The designers were very knowledgeable and helpful, and the owners extremely gracious. Outstanding Tour; I learned a ton!

The registrant evaluations were split up into two groups—those who had attended the tour before, and those who had not. The data for repeat registrants and first-time Registrants was tabulated separately. Both of these categories are discussed below.

Repeat Registrants
84% of registrants who had attended a previous Bringing Back the Natives Garden Tour, and who filled out the evaluation form, said they had changed their gardening practices because of their participation in the Bringing Back the Natives Garden Tour.

The first column below shows the percentages of the repeat registrants who changed their gardening behaviors after attending the Bringing Back the Natives Garden Tour. The second column shows the percentage of repeat registrants who plan to change their gardening behaviors.

Evaluations of repeat registrants from the 2015 tour showed that after attending a prior Bringing Back the Natives Garden Tour:
19% of respondents had incorporated natives into their gardens (thereby reducing herbicide use and conserving water);
15% had incorporated drought-resistant plants into their gardens;
14% had increased the density of plantings to out-compete weeds;
12% had grouped plants of similar water needs:
11% were tolerating some insect damage;
11% were encouraging wildlife with plant choices;
9% had begun mulching;
8% had reduced or eliminated pesticide use;
7% had reduced the size of their lawn;
7% had installed efficient irrigation;
5% had amended their soil;
4% were composting;
1% were grasscycling and
1% had reduced the amount of hardscape in their gardens.

Repeat visitors were highly motivated to make changes in their gardens. When asked what they planned to do: 33% planned to increase the density of plantings to out-compete weeds; 31% to group plants of similar water needs; 24% to install efficient irrigation; 21% to reduce the size of their lawn, and to incorporate native plants into their gardens; 20% to encourage wildlife; 16% to amend their soil with compost; 13% to mulch; 11% to compost; 9% to minimize hardscapes; 8% to tolerate some insect damage to plants; 6% to grasscycle; and 5% to reduce or eliminate pesticide use.

How do you manage your garden? (This information was taken from evaluations filled out by repeat registrants.)

ITEM	Began after participation in a previous BBTN Tour	Plan to do this
1. Reduce/eliminate insecticide/ herbicide use.	8%	5%
2. Increase the density of plantings to out-compete weeds.	14%	33%
3. Encourage birds, butterflies, etc. with plant choices, food, shelter, and water.	11%	20%
4. Tolerate some insect damage to plants.	11%	8%
5. Incorporate native plants into our garden.	19%	21%
6. Group plants of similar water needs.	12%	31%
7. Incorporate drought-resistant plants into our garden.	15%	16%
8. Install efficient irrigation (such as drip, timers, soaker hoses).	7%	24%
9. Grasscycle (leave grass clippings on the lawn).	1%	6%
10. Reduce the size of our lawn.	7%	21%
11. Mulch with leaves, grass, wood chips, etc.	9%	13%
12. Amend soil with compost.	5%	16%
13. Minimize hardscapes (patios, decks).	1%	9%
14. Compost yard waste and kitchen scraps at home.	4%	11%

First-time registrants
The tour was highly motivating to the first time registrants who completed the evaluation. 57% of first time registrants planned to group plants by water needs; 52% of first-time registrants responded that they planned to increase the density of plants, thus helping to out-compete weeds and reduce water use; 51% planned to incorporate native plants into their gardens; 45% planned to install efficient

irrigation and encourage wildlife; 43% planned to incorporate drought-resistant plants into their gardens; 39% planned to reduce the size of their lawns; 30% planned to tolerate some insect damage to plants; 28% planned to mulch; 26% to amend their soils and 25% to reduce or eliminate pesticide use; 15% planned to reduce the amount of hardscape in their gardens; 14% to grasscycle; and 10% to compost kitchen scraps and yard waste.

How do you manage your garden? (These are responses from first-time registrants.)

ITEM	Plan to
1. Reduce/eliminate insecticide/herbicide use.	25
2. Increase the density of plantings to out-compete weeds.	52
3. Encourage birds, butterflies, etc. with plant choices, food, shelter, and water.	45
4. Tolerate some insect damage to plants.	30
5. Incorporate native plants into our garden.	51
6. Group plants of similar water needs.	57
7. Incorporate drought-resistant plants into our garden.	43
8. Install efficient irrigation (such as drip, timers, soaker hoses).	45
9. Grasscycle (leave grass clippings on the lawn).	14
10. Reduce the size of our lawn.	39
11. Mulch with leaves, grass, wood chips, etc.	28
12. Amend soil with compost.	26
13. Minimize hardscapes (patios, decks).	15
14. Compost yard waste and kitchen scraps at home.	10

Number of visits made to each garden

BAYSIDE CITIES

Berkeley

California Native Bee Garden	402
Joel Ginsberg	478
Steve and Judy Lipson	648
Mardi and Jeff Mertens	503
Glen Schneider	400

Castro Valley
Sharon Horgan 230
Randal and Azalea Ong 160

El Cerrito
Nalani and Anna Heath-Delaney 535
Michael Graf 356

El Sobrante
Karen Andersen 182

Hayward
Natalie Forrest and Douglas Sprague 184

Kensington
Seibi Lee and Joel Schoolnik 321

Oakland
Peg Farrell 289
Sandy Jaeger 287
Frannie Lewis and Mark Seaborn 277
Holly and Joe Maffei 505
Susan Weber 376

San Lorenzo
San Lorenzo High School 260

Union City
Louise Waters 73

INLAND CITIES
Lafayette
Richard and Sandy Brehmer 608

Livermore
Cindy Angers 251

Moraga
Al and Barbara Kyte 630
Megan McNealy 517

Orinda	
Barbara and Phil Leitner	496
Alma Raymond	158
Pat Rudebusch	654
Bob and Stephanie Sorenson	595
Pleasant Hill	
Jing Zhang and David Cooney	441
Pleasanton	
Melinda and Steve Ballard	196
Ward and Pat Belding	472
Janis and Chris Bufkin	194
Clark Family	472
Walnut Creek	
Trina and Jeff Horner	574
	12724

When planning for a year, plant corn. When planning for a decade, plant trees.

When planning for life, train and educate people.
(Chinese proverb)

Below are comments from garden tour attendees, either taken from registrant evaluation forms, or received via e-mail.

- It was superb! What a fantastic guidebook-- so well thought out, so helpful with all the maps and way of cross-indexing the gardens. Brilliant! Excellent! Thank you! And amazing that it was free!
- I didn't know native plants could be beautiful as well as water friendly.
- I learned a great deal about native plants and am excited to make improvements in my garden
- It's great having so many knowledgeable people right there to talk to.
- Very informative, well organized, and in this time of drought, utterly necessary!
- We were looking for, and found, information about sheet mulching, plant advice, and more.
- The gardens were beautiful and inspiring. The designers were very knowledgeable and helpful, and the owners extremely gracious.

Outstanding- I learned a ton! I also got tips from other people who were touring.
- Seeing others create native gardens is inspirational and encouraging.
- Great service to the community
- Great tour! The booklet was extremely helpful and complete.
- The hosts were very gracious and available. Also, their volunteers and designers were helpful.
- I enjoyed viewing the gardens and getting some great ideas for bringing natives to our landscape.
- Loved it! Will attend next year!
- Thank you for offering this educational and enjoyable tour for the cost of a donation!
- Thanks, we learned so much!
- Wonderful learning experience and encouraging for my own garden efforts.
- I would like to thank all of the people who worked so hard and volunteered their time to make this tour possible! You have been ahead of your time for so long, but hopefully the rest of us will catch up somewhat. 1 Everyone was friendly and helpful. I really enjoyed it and appreciate that the tour is funded by some tax dollars! Very good use of tax money!
- Big, Big compliments. As a neighbor who had attended in past years noted, this event is INSPIRING. That's important when lots of new learning, dollars, and long term work are required. Specifically: 1. Very helpful brochure introduction for new participants to plan their visits, also great gardens, and it helped seeing the gardens grouped in map blocks for easier viewing. 2. Lots of information and examples on gardening for beneficial insects 3. Garden talks added learning opportunities 4. Diversity of gardens in size and setting 5. It was great to see such a turnout of interest. THANK YOU!
- I want to commend whoever organized the tour, along with whoever put together the booklet. It was all very well thought out and easy to follow! And the homeowners who welcomed us all!
- The tour book was awesome; it was beautifully done, well organized, easy to use (even for a beginner!), and it was packed full of useful info.
- We loved it. It was so inspiring. We are re-doing our garden and learned so much that will help us and the environment. Please keep the diversity of styles and budgets. We appreciated that the tour was not a bunch of show-off gardens but rather reflected real gardens of varying sizes and grandness.
- This was the best organized garden tour I have done. And the depth of information made available was excellent. Having the plant lists for each garden was brilliant.
- Every garden helped me understand better how to garden with less water.
- I am starting to convert my yard based on prior tours, using a landscaper whose work I had seen.
- So many ideas! New lawn solutions, sheet mulching, drought tolerant plants!
- Very inspiring!

- I took a friend who lives in a gated community. She is going to propose that the Association plant natives in the front yards and get rid of the grass.
- Just excellent and great directions. A+!
- KUDOS for existing features: Geographic maps, excellent descriptions, hints of terrain challenges, and different kinds of gardens in different stages of maturity.
- The booklet with all the details of the tour is just marvelous. Excellently presented, clear, precise, a pleasure to read and easy to use.
- It is always a pleasure to anticipate and view the lovely website, as well as the brochure.
- Can't possibly thank you enough for this tour! And for the wonder resources online.
- Excellent guide book and website.
- Extremely well organized. Hats off!
- Great event every year; it's inspirational.
- Great event, and a great booklet and website.
- The tour is a great asset to our gardening community. I always urge more friends to attend.
- Lots of fun and inspiring.
- Thank you for making this great educational opportunity available to the public.
- Thanks for all the hard work! Wonderful tour!
- The gardens were wonderful, as usual. Everyone was very helpful, answering my questions.
- The yards were all unique and lovely. The owners were very enthusiastic about their yards.
- Very well organized. Beautiful tour book.
- Volunteers are great; love the informative talks. Very well planned and orchestrated.
- I REALLY enjoyed the variety of "bugs" I saw at different gardens: spiders,caterpillars, different bees, butterflies, lady bugs, flitting critters too small to ID. These gardens are truly gifts to us and our fellow travelers.;-)
- As always, this tour is equal parts inspiration and delightful beauty. I love seeing how others have created beautiful plantings and how they incorporate art into the garden. I like seeing old familiar flowers mixed in with flowers I am just "meeting" for the first time. Every year I learn something new from the tour. Thank you for organizing this wonderful event!
- Your organization of the tour is a masterpiece in nearly every way. The booklet and website are outstanding. I'm deeply impressed by your attention to detail. I have much gratitude for all you do in helping raise consciousness about the use of natives and other ecological gardening practices.
- Thank you to the organizers and to the people who shared their gardens and experiences with native plants!
- Great preparation, great website. I like that I can view gardens ahead of time to determine which ones I want to view

- The booklet is excellent. The T-shirts for the owners and volunteers are helpful for finding someone to ask questions of. It was nice to have the Bee book for sale.

Attachment 7.5

Stressor Source Identification Studies Outreach Report

FY 2014/15

STRESSOR SOURCE IDENTIFICATION STUDIES (SSID) OUTREACH

OVERVIEW

Purpose

The purpose of this effort was to increase public awareness of the elevated levels of pesticides in local Contra Costa creeks by educating and offering solutions to residents for ways to reduce their use of pollutant pesticides. CCCWP, at the request of the Regional Water Board, publicized the results of the studies' findings in a number of ways discussed below. The outreach was designed to address the specific barriers and motivators of the Contra Costa community, established in the CCCWP Outreach Plan, (May 2013).

Strategy

In 2014, water quality monitoring was conducted by CCCWP that revealed elevated levels of common pesticides, particularly pyrethroids and fipronil, in two local creeks (Grayson Creek and Dry Creek). As a follow-up action required by Provision C.8.d.i. of the MRP, CCCWP developed and conducted two Stressor Source Identification (SSID)Studies to try to identify the chemical source of the toxicity, and the potential sources of those pollutants. Independently, in June 2014, the *Contra Costa Times* reported on the presence of pesticides in local creeks and the consequence to aquatic life. As an important part of our outreach strategy, CCCWP took the opportunity to build on that initial media coverage by emphasizing the studies, which documented the presence of pesticides in our creeks and to explain to the public how these pesticides are affecting our environment, people and pets, and to offer some solutions for residents to prevent pollution.

The media relations strategy included three key objectives:

- **Reach diverse communities**. We ensured media coverage reached multiple communities and demographics throughout Contra Costa County.
- **Inspire action**. Media coverage increased awareness and provided residents with ways they could help resolve the pesticide problem in local creeks.
- **Integrate with existing campaigns**. Media pitches, education and outreach leveraged existing CCCWP outreach campaigns, such as Pesticides Linger, Petstircides and My Green Garden.

Strategic Approaches:

EARNED MEDIA

Earned media is defined as publicity gained from promotional efforts other than advertising. In this media relations campaign, we focused on earned media in local outlets. It is generally thought that when people hear information via newspapers, TV, radio and online sites (third parties) they tend to trust and accept the information more readily.

SGA developed a comprehensive database of local media outlets that were likely to be receptive to the study findings. Working with CCCWP, we created a press release detailing results of the studies, developed media-specific pitches and identified resident, stakeholder and County contacts to provide to journalists. SGA helped coordinate interviews and data gathering between journalists and spokespeople such as City Council members.

In addition, SGA worked with CCCWP to identify key stakeholders who created editorial content. SGA then worked with the identified stakeholders to develop and place editorial content in local media outlets.

FAQ/Fact Sheet
The goal of this effort was to support local stormwater coordinators when engaging with their local community about pesticides and water pollution. SGA created a fact sheet containing answers to frequently asked questions for local stormwater coordinators to have a concise reference when speaking about pesticides and water pollution to community members, stakeholders and local media, or to use in their own publications or web sites. The fact sheet developed answers that briefly explained the current situation with pesticides being identified in local creeks, potential sources and actions that contribute to the problems, potential strategies to prevent pesticide runoff and then finally a table to help residents identify products and sources of the two key chemical pyrethroids and fipronil.

FISCAL YEAR & SUMMARY

Goals & Activities

Media Relations
SGA set the goal of generating the following media assets and results in six months:

- Create press release for the SSID study
- Create media-specific pitches related to the study
- Develop a database of local media outlets receptive to the cause
- Develop a database of spokespeople for media stories
- Reach out to 25 local media outlets
- Generate 5 media placements in local press

FAQ/Fact Sheet
SGA set the goal of providing the following deliverable for the fact sheet:

- Create a frequently asked questions reference guide for local stormwater coordinators
- Develop a one page fact sheet regarding the SSID studies that could be used by local media or published in a city communication outlets

Results

SGA constructed two press releases, one version would be information specific for journalists and another version would be used for the Contra Costa Clean Water Program to give out to the public. SGA then reached out to 49 local media outlets, surpassing our goal of 25. Our efforts resulted in generating 7 media placements in local press.

SGA also created a FAQ/Fact Sheet with the answers to frequently asked questions about the SSID studies that could be used by local stormwater coordinators, local media or published in a city communication outlet.

The following are a number of ways to assess how well a press release is engaging an audience:

- **Reach**: the demographic area that is being exposed to the press release
- **Impressions:** the number of unique visitors per month
- **Facebook Page Likes**: number of people who like, follow and see posts from a specific Facebook page
- **Facebook Likes/Comments/Shares**: number of people who have either liked, commented, or shared the press release

Of the 7 media placements, 4 were on local news sites, 2 on Facebook, and one on an educational website, referenced below.

Press Releases:

1. **KGO 810 News/Information**:
   Date: 1/9/15
   Reach: Countywide
   Monthly Impressions: 2.6% radio audience share (166,000) + 14 million unique monthly visitors
   URL:http://www.kgoradio.com/common/page.php?pt=Contra+Costa+County+Creeks+Contain+Unsafe+Pesticide+Levels&id=104542&is_corp=0

2. **Claycord News & Talk:**
   Date: 1/8/15
   Reach: Concord, Clayton, Pleasant Hill, Martinez, Walnut Creek
   Monthly Impressions: 130,000+
   URL:http://claycord.com/2015/01/08/dangerous-levels-of-pesticides-found-in-two-contra-costa-creeks-including-one-in-claycord/

3. **Topix; Pleasant Hill News:**
   Date: 1/8/15
   Reach: Countywide
   Monthly Impressions: 11.6 million

URL:http://www.topix.com/city/pleasant-hill-ca/2015/01/dangerous-levels-of-pesticides-found-in-two-contra-costa-creeks-including-one-in-claycord

4. **thepress.net:**
   Date: 1/15/15
   Reach: Brentwood, Antioch, Discovery Bay, Oakley
   Monthly Impressions: 14,028
   URL:http://www.thepress.net/news/press_releases/article_370d2004-9cec-11e4-bdde-1f4781486756.html

5. **Facebook Page- Contra Costa County Climate Leaders Program:**
   Date: 1/11/15
   Page likes: 678
   URL:https://www.facebook.com/cccclimateleaders/posts/10153050224644393

6. **Facebook Page-Claycord.com:**
   Date: 1/8/15
   Page likes: 38,202
   Likes/Comments/Shares: 14/5/11
   URL: n/a

7. **Mt.Diablo Unified School District; Regional Education News:**
   Date: 1/8/15
   Reach: Pleasant Hill
   URL:http://webschoolpro.com/CA07617546004253/local-school-news.html

Attachment 7.6

2015-2016 Community Watershed Stewardship Grants

Community Watershed Stewardship Grants 2015-16

Applicant	Project	Requested	Awarded		
Friends of Marsh Creek Watershed	Promote watershed stewardship/restoration efforts in Marsh Creek	$20,000	$16,500		
CCRCD-Alhambra	Watershed Coordination for Alhambra Creek and Peyton Slough Warersheds	$19,975	$16,500		
CCRCD-Rodeo Creek	Rodeo Creek Community Watershed Stewardship Program	$19,688	$16,500		
SPAWNERS	General support of all programs	$20,000	$16,500		
The Gardens at Heather Farm	Support for Water Education Programs	$20,000	-		
Earth Team	Watershed Learning Center at Richmond High School	$17,200	$14,000		
Earth Team	Zero Litter Internship at Pinole Valley High School	$10,543	$8,000		
Save Mount Diablo	Marsh Creek Water Quality and Riparian Stewardship Project	$10,000	$7,000		
Bringing Back the Natives Garden Tour	Support for the Bringing Back the Natives Garden Tour	$3,000	-		
Citizens for a Greener El Sobrante	Introduce sustainable landscape to downtown El Sobrante	$13,330	$5,000		
Clean Water Fund	ReThink Disposable	19,555	-		
		$173,291	$100,000		

Attachment 9.1

Contra Costa County, Our Water-Our World Store Partnership Program Report, 2014-2015

Our Water - Our World

Contra Costa County
Our Water Our World Store Partnership Program Report
2014---2015

Report prepared by Debi Tidd

This information changed my views about pesticides and I'm going to start recommending less---toxic products.
From training evaluation, Home Depot, Brentwood

I will think about what I put down the drain and pass on all the good information.
From training evaluation, Ace Hardware, Martinez

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Our Water - Our World

PROGRAM OVERVIEW

This year, a total of twenty---nine stores throughout Contra Costa participated in the OWOW Store Partnership Program. Three new stores were added to the program: Morgan's Home & Garden in Antioch, ACE Hardware in Oakley, and Home Depot in Hercules. Two additional stores in Richmond were added as a contract extension with limited visits: Annie's Annuals and Urban Farmer Store

Debi Tidd was the lead on the contract, with sub---contractors Steve Griffin, Patrice Hanlon, and Annie Joseph working at some stores and events.

Tasks for the program included:

- Store---set ups with shelf talkers and fact sheet racks.
- Store trainings for staff.
- Store mentoring – replacing shelf talkers and fact sheets, working with staff and customers, following up on staff questions and bringing in new resources.
- Outreach: tablings at stores for customers and presentations/booths at public events.
- End Cap Displays: Developing and/or labeling end caps and less---toxic product displays, including working with vendors on their displays.
- Program assessment through evaluations and surveys.

SPECIAL PROJECTS IN CONTRA COSTA STORES

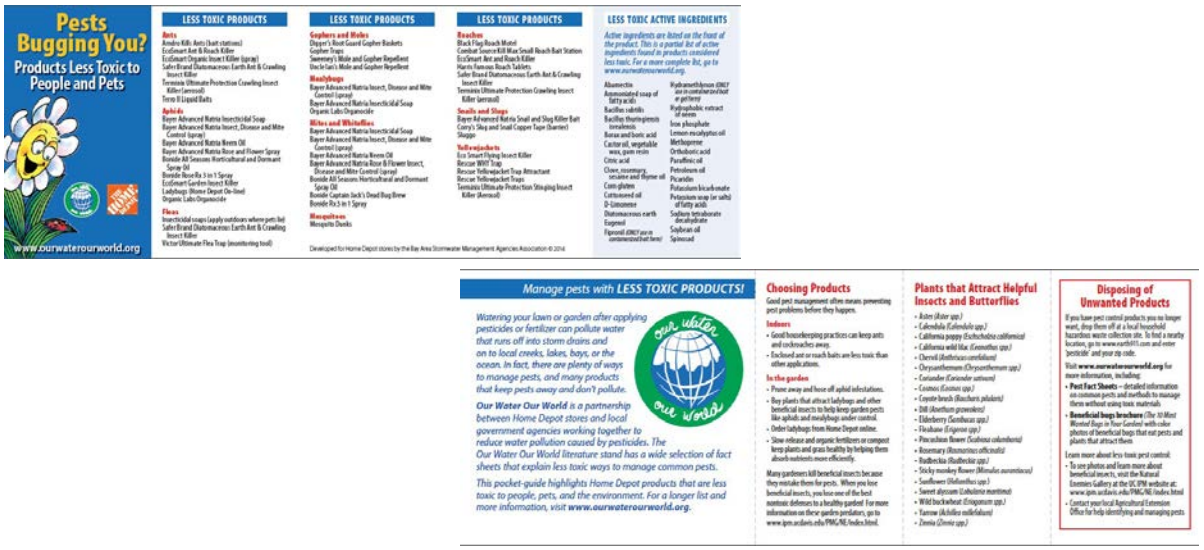
Over the past couple of years, several of the Contra Costa OWOW stores have been part of grant programs that have allowed us to offer extended services and resources to stores without cost to the Clean Water Program. In addition, we were able to use many of the materials developed for these grants for all of our OWOW stores. All of these grants were completed this year, but we are continuing to look for grant money that will allow us to continue to offer special programs and additional services for our stores.

Greener Pesticides for Cleaner Waterways Grant: This EPA grant was completed in fall of this year. It covered the costs for an IPM Advocate to provide OWOW services to selected stores. Two of our Contra Costa stores, OSH in San Ramon and ACE Hardware in Concord, were part of this program. The bulk of the hours spent at these stores from July to October were not charged to this contract, which gave us extra hours to spend mentoring other stores.

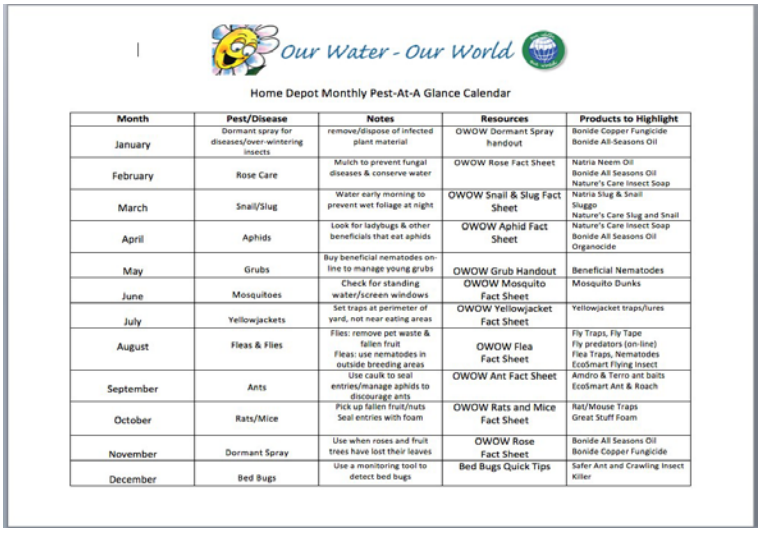
Home Depot Pilot Project Grant: This grant program was completed in December, and focused on providing extended OWOW services to Home Depot stores throughout the Bay Area. The

Home Depot in San Ramon was part of this grant, and as a result the bulk of the work done at this store before December was not charged to the contract. In addition to the basic OWOW program components and services, this project included identifying and training a Green Garden Specialist at each store, providing stores with an enhanced training and more frequent store mentoring visits, and sets of books and materials for identifying pests and diseases and choosing appropriate planting materials.

As part of this grant, we developed new materials that will be used as templates to revise materials for all of the stores. One of these new handouts is an IPM pocket guide specific to Home Depot, designed to highlight their products and services. Another is a pest calendar designed to promote pest management when it is most effective.



Pests Bugging You? pocket guide for Home Depot Associates and customers



Our Water - Our World

Home Depot Monthly Pest-At-A Glance Calendar

Month	Pest/Disease	Notes	Resources	Products to Highlight
January	Dormant spray for diseases/over-wintering insects	remove/dispose of infected plant material	OWOW Dormant Spray handout	Bonide Copper Fungicide Bonide All-Seasons Oil
February	Rose Care	Mulch to prevent fungal diseases & conserve water	OWOW Rose Fact Sheet	Natria Neem Oil Bonide All Seasons Oil Nature's Care Insect Soap
March	Snail/Slug	Water early morning to prevent wet foliage at night	OWOW Snail & Slug Fact Sheet	Natria Slug & Snail Sluggo Nature's Care Slug and Snail
April	Aphids	Look for ladybugs & other beneficials that eat aphids	OWOW Aphid Fact Sheet	Nature's Care Insect Soap Bonide All Seasons Oil Organocide
May	Grubs	Buy beneficial nematodes on-line to manage young grubs	OWOW Grub Handout	Beneficial Nematodes
June	Mosquitoes	Check for standing water/screen windows	OWOW Mosquito Fact Sheet	Mosquito Dunks
July	Yellowjackets	Set traps at perimeter of yard, not near eating areas	OWOW Yellowjacket Fact Sheet	Yellowjacket traps/lures
August	Fleas & Flies	Flies: remove pet waste & fallen fruit Fleas: use nematodes in outside breeding areas	OWOW Flea Fact Sheet	Fly Traps, Fly Tape Fly predators (on-line) Flea Traps, Nematodes EcoSmart Flying Insect
September	Ants	Use caulk to seal entries/manage aphids to discourage ants	OWOW Ant Fact Sheet	Amdro & Terro ant baits EcoSmart Ant & Roach
October	Rats/Mice	Pick up fallen fruit/nuts Seal entries with foam	OWOW Rats and Mice Fact Sheet	Rat/Mouse Traps Great Stuff Foam
November	Dormant Spray	Use when roses and fruit trees have lost their leaves	OWOW Rose Fact Sheet	Bonide All Seasons Oil Bonide Copper Fungicide
December	Bed Bugs	Use a monitoring tool to detect bed bugs	Bed Bugs Quick Tips	Safer Ant and Crawling Insect Killer

Monthly Pest---At---A---Glance Calendar developed for Home Depot stores. We used this template to develop a calendar specific to OSH stores, and a general calendar for all other stores.

Home Depot Regional Training Program Grant: This grant ran from February to March of 2015, and allowed us to provide three regional trainings for staff from Home Depot stores throughout the Bay Area. The focus was on providing more in---depth information about products and pests, and additional resource materials to help Home Depot Associates become more knowledgeable about answering customer questions and directing customers to less---toxic products. Associates from Contra Costa stores attended this training and were able to network with Associates from a number of Bay Area Home Depot stores.

NUMBERS AT A GLANCE

- 29 stores participating in the partnership
- 29 store set---ups with shelf talkers and fact sheet racks
- 11 store trainings provide to 13 key stores.
- 87 staff trained at formal staff trainings; 60+ additional staff trained in---aisle during informal, mentoring visits.
- 9 outreach/tabling events for stores (approximately 540 people)
- 6 additional outreach/publicity events (5,500+ see locations and numbers in additional programs and publicity below).

PARTICIPATING STORES

Here is the complete roster of stores participating in the 2014 – 2015 program.

- Home Depot, 11939 San Pablo Ave., El Cerrito
- Home Depot, 2090 Meridian Park Blvd., Concord
- Home Depot, 2750 Crow Canyon Road, San Ramon
- Home Depot, 2300 N Park Blvd., Pittsburg
- Home Depot, 5631 Lone Tree Way, Brentwood
- Home Depot, 1624 Sycamore Ave., Hercules
- Ace Hardware, 1530 Contra Costa Blvd., Pleasant Hill
- Ace Hardware, 3610 Pacheco Blvd., Martinez
- Ace Hardware, 4451 Clayton Rd., Concord
- Ace Hardware, 3211 Danville Blvd., Alamo
- Ace Hardware, 8900 Brentwood Blvd., Brentwood
- Ace Hardware, 510 Sunset Drive, Antioch
- Ace Hardware, 10057 San Pablo Ave., El Cerrito
- Ace Hardware, 3100 Main Street, Oakley
- OSH, 1041 Market Place, San Ramon
- OSH, 2050 Monument Blvd., Concord
- OSH, 5400 Ygnacio Valley Rd., Concord
- OSH, 1440 Fitzgerald Dr., Pinole
- Navlet's Garden Center, 1555 Kirker Pass Rd., Concord
- Navlet's Garden Center, 2895 Contra Costa Blvd., Pleasant Hill
- Navlet's Garden Center, 800 Camino Ramon, Danville
- Navlet's Garden Center, 6740 Alhambra Valley Rd., Martinez

- Orchard Nursery and Florist, 4010 Mt. Diablo Blvd., Lafayette
- Moraga Garden Center, 1400 Moraga Rd., Moraga
- McDonnell Nursery, 196 Moraga Way, Orinda
- Sloat Gardens, 828 Diablo Rd., Danville
- Morgan's Home and Garden, 2555 E. 18th Street, Antioch
- Urban Farmer Store, 2121 Joaquin St., Richmond
- Annie's Annuals, 740 Market Ave., Richmond

PROGRAM COMPONENTS

PROGRAM ADMINISTRATION

Tasks here include inventorying materials, ordering and picking up training materials, making copies for training packets and handouts, collating and creating training packets, preparing materials and powerpoints for store trainings, making labels for shelf talkers, researching pests & products and following up on questions and concerns from store staff, working with store management to get new stores into the program, and writing up reports.

In addition, a variety of new materials were created throughout the year in response to store staff and customer questions and concerns. Here are some of the new handouts provided to stores this year:

- Protecting Landscapes During a Drought
- Ten Tips for Water---wise Gardening
- Revised monthly pest calendar
- Bay Area Landscape Irrigation Rebates

STORE SET---UPS

A complete store set up occurs once the stores receive their pesticide products for the spring season and re---organize their shelves. Each OWOW shelf talker has a printed label with the name of a product so that if products are moved around on shelves, the label does not end up under a product not considered less---toxic. The products are labeled using the "Less---Toxic Product List" developed by OWOW as a guideline. In addition to pesticides and fertilizers, other sustainable products are labeled, including weed block, mouse/rat traps, mulch, etc. During store set---ups we also work with store staff and customers in aisle to answer pest management and sustainable landscaping questions.

Shelf Talker

Fact Sheet Rack

Shelf talkers at OSH

Laminated shelf talkers at Home Depot stores

NEW SHELF TALKERS

This year many of the OWOW materials were re---designed, including the logo and the shelf talkers. The new shelf talkers arrived in time for us to use them in setting up stores that were added to the program. This new design has brighter colors, the new logo, and is slightly smaller. In addition, on one side of the new shelf talker the logo says "eco---friendly less toxic." This is a helpful feature, because when we have limited space and have to put the shelf talker behind a price tag or hanging peg, the product can still be identified as less---toxic. As we begin doing store set---ups this fall, we will add the new shelf talkers to all the stores.

New shelf talkers, front and back sides

STORE TRAININGS

As part of the OWOW program, stores are offered trainings for their staff with detailed information about pesticides and water pollution, identification of beneficials and pests, pest management strategies, and tips for using less---toxic products and working with customers. Trainings are held in---aisle or off the floor in a training room.

This year, providing trainings proved to be a challenge. Stores are very short staffed, and with sales down due to a drought year they do not want staff taken off the floor or away from customers. In stores where I was not able to do a structured training, I spoke with individual staff as they became available in the aisle to talk with them about the program and the products. Even when I was not able to give a formal training, I made sure the store received training packets so that they could pass the information on to new employees, or use the packets as in---store reference guide.

I was able to present much of the training information this year through the 'lens' of how to keep up their sales of products during a drought year. It provided an opportunity to talk about efficient irrigation systems, organic fertilizers, and the importance of mulch. I also discussed how the dry weather impacts plants and pest populations, and the pests they were more likely to see during a drought year. The training packets included two handouts on landscaping during a drought that stores can copy to give out to customers: *Ten Tips for Water---Wise Gardening*, and *Protecting Landscapes During a Drought*.

We provided formal trainings to 13 key stores this year. Trainings include information on:

- The connection between pesticide pollution and water quality; how pesticides enter water through storm drains and sewers; pesticides of particular concern; how and where to dispose of pesticide products no longer wanted.
- Common beneficials in the landscape, resources for identifying pests/beneficials and how to use them; incorporating insectary plants into the landscape to attract beneficials; new and invasive pests/diseases.
- The benefits of organic fertilizers (especially during drought years), compost and mulch; nutrient run---off; chemical salt build---up from fertilizers; the importance of building up the soil foodweb.
- Techniques and resources for managing specific pest problems; tips for working with customers on how to use products; basic less---toxic chemical ingredients and how they work on pests; tips for using/selling the less---toxic products and working with customers
- Using on---line resources, including the OWOW 'Ask the Expert' feature and the UC IPM website.

Store Training, OSH, Pinole

Store training for 3 Ace Stores, held in Martinez

STORE TRAINING PACKETS

All of the material in the training packets was updated this year, and some new handouts were included. In addition to training packet materials, stores were provided with additional laminated bug guides to post, newsletters for retail stores from the UC Statewide Integrated Pest Program, and information on new pests.

Stores that participated in trainings were also given a hand lens and a copy of *Landscape Pest Identification Cards*, a laminated set of cards to help identify pests, diseases and beneficials. In a few stores, managers and staff asked for some additional information or copies of some of my training materials, which I provided.

Here are the contents of the store training packets:

- An Introduction to the OWOW Store Partnership Program
- IPM Basics
- Reading a Pesticide Label
- How Less---Toxic Products Work
- *Ten Tips for Water---Wise Gardening* and *Protecting Landscapes During a Drought*
- Applying Beneficial Nematodes
- Laminated Good Bug/Bad Bug ID
- Lose Your Lawn the Bay---Friendly Way (sheet mulching instructions for lawn reduction projects)
- Monthly Pest---At---A---Glance Calendar
- *Pests Bugging You Pocket Guide*
- Sucking – Chewing Insect Damage
- *10 Most Wanted Bugs in Your Garden* brochure
- Samples of some of the fact sheets
- Additional pest management information sheets on: citrus leaf miner, dormant spraying, whitefly, and bed bugs.

- OWOW Resources (websites, books, and the location of local Household Hazardous Waste Collection Sites.)

STORE MENTORING AND RETURN VISITS

On continued visits to stores we add or replace shelf talkers, refill fact sheet racks, set---up end caps and displays, talk with store staff about new products and pests, make recommendations about new products, research and answer any staff questions, and work with customers in---aisle. These return visits are essential for maintaining our relationship with the stores and keeping the materials stocked. Some stores completely redesign their shelves during the year, and this means that we sometimes have to re---label all of the products. This also allows us time to informally train any new staff in---aisle.

OSH, San Ramon staff with resource materials

STORE DISPLAYS AND END CAPS/PARTNERSHIPS WITH VENDORS

Whenever possible, we try to help stores choose products for end caps that help customers identify seasonal pest problem, and to highlight less---toxic products. In some cases, stores will provide us with dedicated end cap space that we can stock with less---toxic products. Another important development has been a partnership we have developed with pesticide vendors such as Scotts, Bayer and Kellogg. They alert us to new products, and we work with them to put shelf talkers up on their new wingstack displays and end caps and help promote new less---toxic products. This year saw a huge rise in new, less---toxic and organic products.

Less---toxic end cap, Ace, Concord

Seasonal pest handouts on end cap

Sloat end cap with OWOW seasonal signage

OSH less---Toxic product end cap

OUTREACH EVENTS

This year we participated in 15 outreach events, with 9 events held I stores. These events/tablings allow us to work with the public at the point of purchase, to help them identify and solve pest/disease problems, to advise them on less---toxic products and how to use them, and to provide a wide variety of informational materials. It is also an opportunity to remind staff about the program and to answer their questions about pest management and products.

OSH, Pinole tabling

ACE, Brentwood tabling

In addition, a number of special events come up each year that allow us to publicize the OWOW Store Partnership program. Many of these events are not charged to the contract. These events help us to promote and strengthen the OWOW program in several ways. They allow us to:

- Influence the choices store managers and buyers make in placing orders for less---toxic products for their shelves.
- Promote the stores that are part of the partnership in the community for more visibility.
- Work with the public to disseminate fact sheets and information on less---toxic products.
- Provide additional information and training to store managers and staff that have not gone through a formal training.
- Network with stores that would like to become a part of the store partnership program.

Here are some of the outreach events that we were able to be part of this year:

- L & L Trade Show (3,000+ participants)
  This is one of the largest trade shows for the West Coast where many Bay Area stores order their pesticide products for the year. We were the only non---vendor allowed to participate. The OWOW booth included fact sheets and handouts, photos of partner stores, samples of less---toxic products and information on less---toxic products. During the shows, we were able to work with owners and managers of several of our partner store in Contra Costa to make recommendations for products that would meet the less---toxic criteria.

OWOW booth at the L&L Trade Show

- NorCal Trade Show (1000+ participants)
  Another large trade show, this one is held is San Mateo every year. Many Bay Area nurseries and hardware stores attend to place orders for pesticide and fertilizer

products. We set up an OWOW booth to direct attendees to less---toxic products and to provide pest management solutions.

- Sloat Garden Center – Meet with Corporate Manager, and Vendor Night (60 participants)
  Each year, we meet with the corporate management for the Sloat stores to recommend new less---toxic products to carry, and make recommendations about products that should be discontinued because of toxicity. In addition, we set up a tabling each year at a vendor night where Sloat offers staff from all of its stores the opportunity to meet and learn about new products. We were able to meet with the staff from the Danville store that is part of our program, as well as store management.

- Bay---Friendly Landscape Maintenance Training (120 participants)
  Bay---Friendly provides a series of classes on sustainable landscaping techniques to professional landscapers. This year we were able to provide a speaker on the topic of IPM at three trainings where we provided OWOW materials and taught about IPM basics, water quality issues, using less---toxic products and pest management solutions.

- Sloat Garden Center Speaker Series (30 participants)
  OWOW provided a speaker for the Danville Sloat store on the topic of beneficial insects and how to attract them to the garden. We were able to provide OWOW materials, promote the use of less---toxic products, and introduce customers to shelf talkers and fact sheets.

- Contra Costa Sustainability Fair (500 participants)
  We set up an OWOW booth at this yearly fair that was organized by the Master Gardeners to educate the public by bringing together community groups that promote sustainable landscaping techniques. This was a great opportunity to promote the OWOW program and stress visual recognition of OWOW materials in stores.

OWOW booth at the Contra Costa Sustainability Fair

PROGRAM ASSESSMENT

Each year we try to build several assessment tools into the program to help us determine what changes to make, which products/pests we need to promote, and how effective the program is at disseminating information to store staff and reaching the public. Here are some of the tools we use:

- Pre---Surveys:
  Everyone attending trainings is asked to fill out a brief pre---survey form. This pre--- survey helps us to determine the level of knowledge about pesticides and water quality issues before this information is provided in the training. Comparing these results to the answers on the final evaluations helps us to determine if this information is clearly presented in the trainings. A summary of this year's pre---survey results is included below.

- Evaluations:
  Each staff member is also asked to fill out a final evaluation form at the end of the training. This final survey includes questions to help us determine their understanding of water quality issues and less---toxic products, how effective the training information was, and how the training could be adjusted to provide the most relevant and understandable information. The results of these evaluations can be seen below, and were overwhelmingly positive.

- Numbers of customers reached by tablings and special events:
  Throughout the year, we keep track of the customers we reach at tablings, classes and events, which products/pests they ask about the most, and which products we are steering them toward as we work with them in---aisle. This year we reached about 540 customers at tablings, and provided outreach at events where more than 5,500 people were in attendance. In addition, we work with a large number of customers in---aisle whenever we are visiting stores, which adds another 300+ contacts.

- Sales of less---toxic products:
  Each year we try to get sales numbers from participating stores so that we can see if there has been an increase in the sales of less---toxic products. We worked with Bayer on an end---cap promotion of their Natria product line, putting up shelf talkers and OWOW posters. These displays ran until fall, and resulted in a 20% increase in sales. Home Depot has given us some numbers for the last two years, and so far their less---toxic products have shown an average of 10% --- 12% increases each year. We have also been working with Scott's to promote their new line of less---toxic products (Nature's Care), and they showed a 50% increase in pesticide sales and 20% increase in fertilizers.

Summary of Store Training
Pre---Training Surveys

A total of 60 pre---training surveys were returned. Here are the results of those surveys.

Survey Question	Yes	No	Don't Know
When water runs into a storm drain in the street, is it treated before it reaches a stream or the Bay?	4%	88%	8%
When water enters the sewer system from a house drain, are pesticides removed at the sewage treatment plant before the treated water enters the Bay?	18%	80%	2%

How do you dispose of leftover pesticides after you finish applying them, or when you no longer need the pesticides? (Number indicates number of answers for each method of disposal.)

- Household Hazardous Waste Sites: 73%
- Don't know: 15%
- Keep it safe: 1%
- Put in trash: 7%
- Use them until they are gone: 3%
- Rinse equipment, dump on ground: 1%

Do you know where your local Household Hazardous Waste facility is located?

YES: 63% NO: 37%

Summary of End of Training Evaluation Form

A total of 74 final evaluations were returned. Here are the results of those surveys.

Survey Question	Disagree	Neutral	Agree
The information was well organized and interesting	0%	1%	99%
The instructor was responsive to questions	0%	1%	99%
I learned at least one new thing by coming today	0%	0%	100%
The training will help me recommend and/or sell less---toxic products	0%	5%	95%
I intend to share at least some of what I learned with friends and/or co---workers	0%	7%	93%
The resources from this training will be useful to me in the future	0%	1%	99%
I understand the connection between "runoff" of pesticides/fertilizers and water pollution.	0%	1%	99%

Did the information change your views about pesticides? How? Or, were you already recommending less---toxic products?

YES – changed views: 58%

- Because pesticides can be hard on our water.
- I will be leaning more towards less---toxic products.
- I learned new things that help me understand pesticides.
- Am able to go deeper to explain to customers.
- It confirms that it's the way to go.
- I already liked less toxic methods, liked getting good info.
- I've been anti---pesticide.
- I try to use as few pesticides as possible.
- Gave me better information on products.
- I knew most of it, but learned some new information.
- This information changed my views about pesticides and I'm going to start recommending less---toxic products.
- Everything has an impact even when we're not aware.
- I can use soap.
- I will think about what I put down the drain and pass on all the good information.
- No toxic chemicals.
- Learning the impact on the Bay and how to dispose of them properly.
- Get the timing more accurate on applying, full understanding of life cycles.
- Didn't realize how important good bugs were.
- Organic = better, healthy environment.
- This instructor was far better than out usual on=line training.
- Will be more pro---active.
- I learned about the organic stuff that I've been recommending to customers.
- We should always try organic.

NO – already recommending less---toxic: 42%

- I already recommend less---toxic products when available.
- I am very organic oriented already.
- Already as green and can be.
- Gave me a refresher.
- Already recommending the less---toxic, organic products.

NO – did not change views: 0%

What part of the training was most helpful?

- Insect ID/beneficial insects: 21%
- All: 17%
- Learning about products: 17%
- Visuals/powerpoint: 13%
- Hands---on/examples/samples: 5%
- Info/discussion on water: 5%
- Shelf talkers: 4%
- Importance of organics: 4%
- Interactive questioning: 3%
- Instructor: 3%
- Laminated MAC's Insect ID Guide: 3%
- Organic info: 1%
- Info about runoff: 1%
- Pest management: 1%
- Handouts: 1%
- Understanding why less---toxic products should be recommended: 1%

Is there anything that could be done to improve the training?

NO: 80%

- Just right (3 responses)
- Great class (4 responses)

YES: 20%

- More time/longer training (10 responses)

Additional Comments

- It was very informative and personal.
- There were visuals and examples and pk (product knowledge) was the perfect length. Can't think of anything to improve – great pk.
- A great amount of info in too short a time. But great info – need time to assimilate.
- Debi and Annie are awesome
- Debi is so interesting – she will find new things every year.
- Fabulous
- Will now sell Dr. Earth products that are organic.
- It was extremely informative. (2 responses)

PROGRAM RECOMMENDATIONS

Here are last year's goal/recommendations, and how we followed up on them:

- Continue to pursue contacts with the Lowe's corporate office with the goal of partnering with a Contra Costa store in a pilot program: We met with managers from Lowe's stores in Concord and Cotati and they brought the information about OWOW to higher management. At this point in time, Lowe's is having issues with regulations concerning store labeling and is unwilling to add another form of labeling. But they like the idea of promoting less---toxic products, and there is still the possibility that they will become a program partner in the future.

- Work with stores to develop information and/or end caps to highlight specific pest problems that are time sensitive: At several stores we were able to develop seasonal end caps that included handouts on time sensitive pest management issues such as dormant spraying.

- Revise trainings and training packet information to include new pests of special concern in the area: All of the materials in the training packets were revised/updated this year, and new handouts were included with information on new pests and drought considerations.

- Continue to develop ways to promote the program and reinforce the 'visuals,' including the OWOW logo and shelf talkers, and banners in the pesticide aisles. Additional signage was added in some stores stressing seasonal pest management information, and small OWOW posters were added to some end caps and wing stacks. A new logo, shelf talkers, and pest guides were developed this year, and we are currently working on revisions to fact sheets and developing "wobblers" to place on shelves that would highlight the OWOW program materials.

Here are some recommendations for the 2015 to 2016 program:

- Continue to pursue contacts with the Lowe's corporate office to include these stores in the OWOW store partnership program.

- Update all OWOW materials in stores with new shelf talkers, and new fact sheet headers, and add pocket guides to in---store materials.

- Continue to look for ways to promote the program and create greater visual awareness of the OWOW logo and shelf talkers.

- Look into the possibility of including two additional stores that have a large customer base: Home Depot in Martinez and OSH in Moraga.

- Continue to revise/develop OWOW materials.

CLOSING

I was impressed by the large selection of less---toxic products I saw in the stores in our program this year. Everyone I spoke with was happy to learn about OWOW, enthusiastic about the program, and excited that their stores were involved in promoting sustainable landscaping practices in their communities. The training materials were much appreciated, especially the set of *Landscape Pest Identification Cards*.

Stores were especially happy to hear about how to promote less---toxic products and practices during a drought year when sales are slow. With less staff available to help customers in most stores, our mentoring visits where we worked with customers in---aisle were especially appreciated this year. Moving into next year, we will continue to stress helping stores promote their less---toxic products and educating customers on water---wise landscaping techniques.

Thanks for the opportunity to work with such a wonderful group of people!

Debi Tidd
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Working with customers at Ace, Oakley

Staff and customer at Home Depot, Brentwood tabling