



Countywide Program Annual Report
FY 2013-14

September 15, 2014

A Program of the City/County Association of Governments

Credits

This report is being submitted by the participating agencies in the



SAN MATEO COUNTYWIDE
**Water Pollution
Prevention Program**

Clean Water. Healthy Community.

www.flowstobay.org

Town of Atherton	City of Half Moon Bay	City of San Carlos
City of Belmont	Town of Hillsborough	City of San Mateo
City of Brisbane	City of Menlo Park	County of San Mateo
City of Burlingame	City of Millbrae	San Mateo County
Town of Colma	City of Pacifica	Flood Control District
City of Daly City	Town of Portola Valley	City of South San
City of East Palo Alto	City of Redwood City	Francisco
City of Foster City	City of San Bruno	Town of Woodside

Implementation of the Program Coordinated by:
San Mateo Countywide Water Pollution Prevention Program
555 County Center
Redwood City, California 94063
A Program of the City/County Association of Governments
(C/CAG)

Report Prepared by:
San Mateo County Environmental Health and
EOA, Inc.



September 15, 2014

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

SUBJECT: SUBMITTAL OF THE SAN MATEO COUNTYWIDE WATER POLLUTION PREVENTION PROGRAM'S FY 2013/14 ANNUAL REPORT

Dear Mr. Wolfe:

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is pleased to submit the enclosed Fiscal Year 2013/14 Annual Report. This report describes Municipal Regional Permit (MRP) compliance activities conducted at the regional and countywide levels on behalf of all of SMCWPPP's member agencies. It also incorporates by reference and includes as appendices several reports prepared by the Bay Area Stormwater Management Agencies Association (BASMAA) on behalf of all Bay Area MRP Permittees.

Please note that based on the lessons learned through the implementation of the Small Tributaries Loading Strategy Multi-Year Plan in Water Years 2012, 2013, and 2014, and the reprioritization of near-term information needs, SMCWPPP and its Regional Monitoring Coalition partners are implementing a revised approach to Pollutants of Concern loads monitoring in FY 2014-15. The revised monitoring approach was approved by the BASMAA Board of Directors on August 28, 2014. Section 8, C.8 Water Quality Monitoring, includes further details about the revised approach.

I certify under penalty of law that the SMCWPPP FY 2013/14 Annual Report and BASMAA's associated regional reports were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my enquiry of the person or persons who manage the system, or those 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.

SMCWPPP and its 22 member agencies look forward to continuing to work with you and your staff on implementation of the MRP. If you have any questions or comments, please call me at (650) 599-1419.

Sincerely,

A handwritten signature in cursive script that reads "Matthew Fabry".

Matthew Fabry
Program Coordinator

Attachment: SMCWPPP FY 2013/14 Annual Report

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LIST OF ACRONYMS

ABAG:	Association of Bay Area Governments
BASMAA:	Bay Area Stormwater Management Agencies Association
BASMAA MPC:	Bay Area Stormwater Management Agencies Association - Monitoring and Pollutants of Concern Committee
BASMAA RMC:	Bay Area Stormwater Management Agencies Association - Regional Monitoring Coalition
BMPs:	Best Management Practices
CASQA:	California Stormwater Quality Association
C/CAG:	City/County Association of Governments of San Mateo County
CEH:	County Environmental Health
CII:	Commercial/Industrial/Illicit (Subcommittee)
CW4CB:	Clean Watersheds for a Clean Bay
CWEA:	California Water Environment Association
DO:	Dissolved Oxygen
EPA:	Environmental Protection Agency
FY:	Fiscal Year
HHW:	Household Hazardous Waste
IPM:	Integrated Pest Management
IMS:	Information Management System
LID:	Low Impact Development
MRP:	Stormwater NPDES Municipal Regional Permit
MS4:	Municipal Separate Storm Sewer System
MSI:	Marine Science Institute
NDS:	New Development Subcommittee
NPDES:	National Pollutant Discharge Elimination System

OWOW:	Our Water Our World
PAPA:	Pesticide Applicators Professional Association
PBDEs:	Polybrominated Diphenyl Ethers
PCBs:	Polychlorinated Biphenyls
PIP:	Public Information and Participation
POTW:	Publicly-Owned Treatment Works (sewage treatment plants)
QAPP:	Quality Assurance Project Plan
RMP:	San Francisco Estuary Regional Monitoring Program for Trace Substances
RMP STLS:	Regional Monitoring Program - Small Tributaries Loading Strategy Work Group
RWQCB:	Regional Water Quality Control Board
SFEP:	San Francisco Estuary Partnership
SMC:	San Mateo County
SMCWPPP:	San Mateo Countywide Water Pollution Prevention Program
SOP:	Standard Operating Procedure
SWMP:	Stormwater Management Plan
SWPPP:	Stormwater Pollution Prevention Plan
TAC:	Technical Advisory Committee
TAPE:	Technology Assessment Protocol - Ecology
TMDL:	Total Maximum Daily Load
VSQG:	Very Small Quantity Generator
WAM:	Watershed Assessment and Monitoring

EXECUTIVE SUMMARY

INTRODUCTION

The FY 2013/14 Countywide Program Annual Report was developed in compliance with the National Pollutant Discharge Elimination System (NPDES) stormwater Municipal Regional Permit (MRP) adopted in October 2009. It summarizes stormwater management activities implemented by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) in FY 2013/14. SMCWPPP's activities benefit all 22 of its member agencies: 15 cities, five towns, the County of San Mateo, and the San Mateo County Flood Control District. Each member agency also separately submits an individual Annual Report to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) focusing on that agency's stormwater management activities during FY 2013/14.



SMCWPPP is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint Powers Authority (JPA) for issues of regional importance to San Mateo County jurisdictions. The C/CAG Board of Directors is comprised of a local elected city council representative from each city and town, a member of the County Board of Supervisors, and representatives from the transit district and transportation authority. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting member agencies with complying with the NPDES municipal stormwater permit, including its latest incarnation as the MRP. Stormwater management-related activities of C/CAG and its various related committees and workgroups are described below.

C/CAG Board

Throughout FY 2013/14, the C/CAG Board of Directors received presentations, updates, and took actions on various stormwater-related issues, as summarized below:

- August 2013: Amendment of funding agreement with San Mateo County Environmental Health for providing public education and outreach.
- September 2013: Update on potential countywide stormwater funding initiative.
- November 2013: Stormwater Committee appointments, unfunded mandate amicus brief.
- December 2013: Potential countywide stormwater funding initiative.
- February 2014: Stormwater Committee appointments.
- March 2014: Potential countywide stormwater funding initiative.
- May 2014: Potential countywide stormwater funding initiative, draft C/CAG budget.
- June 2014: Potential countywide stormwater funding initiative, final C/CAG budget.

City Managers Association

In August 2013 and May 2014, C/CAG staff spoke to the City/County Managers Association of San Mateo County regarding the potential countywide stormwater funding initiative.

Stormwater Committee

C/CAG's stormwater management-related decisions are assisted by the NPDES Stormwater Committee. At its November 2012 meeting, the C/CAG Board authorized reconvening this committee to include director-level appointees with decision-making authority for implementing stormwater management programs within the member agencies in compliance with requirements of the MRP. The Stormwater Committee met a total of five times during FY 2012-13 to assist with planning and organizing SMCWPPP's stormwater management activities including MRP compliance actions.

Technical Advisory Committee and Subcommittees

The Stormwater Committee provides direction to and receives feedback and recommendations from the Technical Advisory Committee (TAC). During FY 2012/13 the TAC transferred its former policy-related functions to the Stormwater Committee and transitioned to a quarterly workshop format. The new format allowed more detailed discussion of particular MRP compliance topics, including check-ins on what jurisdiction should be focused on in the coming quarter and what should have been accomplished and documented in the preceding quarter. The TAC met three times during FY 2013/14. In addition, in July 2013 SMCWPPP held a workshop (in lieu of the regularly scheduled quarterly TAC meeting) to help train municipal staff on completing the member agency Annual Reports. SMCWPP has also established various subcommittees and work groups to the TAC that continued to meet periodically throughout FY 2013/14 to help implement the different aspects of the MRP, as summarized below.

SUMMARY OF ACCOMPLISHMENTS

The FY 2013/14 Annual Report is structured around the following major provisions of the MRP:

- C.2. Municipal Operations
- C.3. New Development and Redevelopment
- C.4. Industrial and Commercial Site Controls
- C.5. Illicit Discharge Detection and Elimination
- C.6. Construction Site Control
- C.7. Public Information and Outreach
- C.8. Water Quality Monitoring
- C.9. Pesticides Toxicity Control
- C.10. Trash Load Reduction
- C.11. Mercury Controls
- C.12. PCBs Controls

- C.13. Copper Controls
- C.14. Polybrominated Diphenyl Ethers (PBDE), Legacy Pesticides and Selenium
- C.15. Exempted and Conditionally Exempted Discharges

The following sections briefly summarize how SMCWPPP provided assistance in FY 2013/14 in implementing the MRP for each of these provisions.

C.2 Municipal Operations

The objective of MRP Provision C.2 is to ensure development and implementation of appropriate BMPs by all Permittees to control and reduce discharges of non-stormwater and stormwater runoff pollutants to storm drains and watercourses during operation, inspection, and routine repair and maintenance activities of municipal facilities and infrastructure. Most MRP-required Provision C.2 Municipal Operations tasks are implemented individually by each SMCWPPP member agency. SMCWPPP helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance and the implementation of Municipal Operations tasks are coordinated through the SMCWPPP Public Works Municipal Maintenance Subcommittee.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.2, with input and assistance provided by the Public Works Municipal Maintenance Subcommittee. Accomplishments included the following:

- Held four Public Works Municipal Maintenance Subcommittee meetings.
- Engaged Subcommittee in the development of standard operating procedures for inspection and cleaning trash full-capture devices.
- Invited Stormwater BMP product vendors and County Mosquito and Vector Control District staff to Subcommittee meetings.
- Held a Municipal Maintenance Rural Roads Workshop in November 2013. The workshop was attended by 46 people and included classroom presentations on stormwater and sediment and erosion control related to rural roads, and a hands on field session with sediment and erosion control BMPs. The training provided participating municipalities with one of the two trainings required by the MRP for municipal maintenance staff that work with rural roads. The main focus of the workshop was rural road sediment and erosion control BMPs.

C.3 New Development and Redevelopment

In the reporting year FY 2013/14 projects regulated by Provision C.3 continued to meet stormwater treatment requirements using low impact development (LID) measures, including infiltration, evapotranspiration, rainwater harvesting and use, and biotreatment. During FY 2013/14, SMCWPPP provided compliance assistance with MRP Provision C.3 (and MRP Provision C.6 Construction Site Controls) through the New Development Subcommittee. The subcommittee met quarterly and enjoyed good participation.

SMCWPPP's accomplishments during FY 2013/14 include the following major tasks to assist member agencies with implementation of Provision C.3:

- Prepared and updated various implementation and outreach products, including flyers, checklists, and the Program's C.3 Technical Guidance Manual, to assist member agencies in complying with Provision C.3.
- Held a training on "Improving Your Stormwater Treatment System Construction and O&M Inspections" on December 5, 2013.
- Provided an opportunity for training on the update of the Bay Area Hydrology Model (hydromodification control sizing tool) on April 8, 9 and 10, 2014.
- Held the 2014 New Development Workshop, entitled "Current Trends in LID Implementation", on June 11, 2014.
- Participated in development of regional projects and MRP-required submittals through the BASMAA Development Committee.

C.4 Industrial and Commercial Site Controls

A primary goal of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist member agencies to control the discharge of pollutants in stormwater from commercial and industrial businesses to the maximum extent practicable. SMCWPPP member agencies are responsible for complying with various business inspection requirements under MRP Provision C.4. SMCWPPP's CII component assists member agency staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. SMCWPPP's assistance with MRP Provision C.4 is coordinated through the CII Subcommittee.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of MRP Provision C.4, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Held four CII Subcommittee meetings to share information about commercial/industrial inspection related MRP requirements and methods for achieving compliance. The meetings provided a forum to share experiences with implementing MRP Provisions related to the CII component, including Provision C.4. In addition, the meetings allow a forum for the San Mateo Health Services Agency, Environmental Health Services Division (County Environmental Health or CEH) representative to discuss the status of CEH inspections and hear member agency feedback on the process, since many of the member agencies have an agreement with CEH to conduct stormwater inspections of businesses.
- Coordinated a Work Group meeting among San Mateo Health Services Agency, Environmental Health Services Division (County Environmental Health or CEH) staff and staff from cities with agreements for CEH to perform stormwater inspections.
- Reviewed and updated commercial/industrial outreach materials available on SMCWPPP's website. This included revising BMP brochures for mercury recycling and grocery stores/supermarkets.
- Conducted a Commercial/Industrial Stormwater Inspector Training Workshop on April 17, 2014 that was attended by 53 people. The workshop included presentations on MRP business stormwater inspection program requirements, conducting a stormwater inspection, enforcement actions that may require working with your city's attorney and a

table top group exercise. The focus of the training was on the table top group exercise. Six illicit discharge scenarios were presented and inspectors were given the opportunity to discuss among themselves how they would approach the investigation, education, enforcement and abatement of the scenario. The approaches were discussed with the larger group and actual agency responses were shared. The emphasis on the exercise was for inspectors to share information and learn from other agencies' experiences. The group exercise also offered the opportunity to work towards enhanced consistency within and among SMCWPPP member agencies.

C.5 Illicit Discharge Detection and Elimination

Another primary goal of SMCWPPP's CII component is to assist member agencies effectively prohibit the discharge of illicit, non-stormwater discharges to the municipal storm drain system. SMCWPPP member agencies are responsible for controlling non-stormwater discharges prohibited by MRP Provision C.5. SMCWPPP's CII component assists member agency staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. SMCWPPP's assistance with MRP Provision C.5 is coordinated through the CII Subcommittee. The CII Subcommittee also has a Training Work Group that assists with the planning of trainings, developing educational outreach materials, and coordinating with the Public Information and Participation (PIP) Subcommittee on materials that affect businesses.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of MRP Provision C.5, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Developed a list of companies available for cleaning up illicit discharges as a tool for illicit discharge inspectors.
- Compiled a table of mobile businesses with stormwater enforcement actions to share regionally with stormwater inspectors.
- Provided comments to the BASMAA Municipal Operations Committee on mobile business BMPs and the enforcement tracking data entry tool.

C.6 Construction Site Control

During FY 2013/14, SMCWPPP continued to provide compliance assistance with MRP Provision C.6 (and MRP Provision C.3) through the New Development Subcommittee (described above under C.3. New Development and Redevelopment).

SMCWPPP's accomplishments during FY 2013-14 include the following major tasks to assist member agencies with implementation of Provision C.6:

- Conducted a construction site controls training for the California Building Inspectors Group (CALBIG) on October 9, 2013. SMCWPPP staff gave presentations on current stormwater requirements for construction sites, proper installation of construction BMPs, and tips for keeping construction inspection programs in compliance. Approximately 19 people attended the training, including agency inspectors, local stormwater program staff, and contractors.

- Updated the Enforcement Response Plan Template to address recent Regional Water Board staff comments and changes in annual reporting.
- Updated seven Construction Site BMP brochures and the Construction BMP Plan Sheet. The updated brochures and Plan Sheet are available on SMCWPPP's website at the following address: www.flowstobay.org/construction.
- Planned and conducted the April 23, 2013 Construction Site Inspector Workshop. The half-day workshop was attended by 37 people and covered the following topics: requirements of MRP Provision C.6; differences between Provision C.6 and the Construction General Permit; BMPs and inspections; a field demonstration of construction BMPs; and common issues in inspections of newly installed systems.

C.7 Public Information and Outreach

The primary goals of SMCWPPP's Public Information and Participation (PIP) component are:

- To educate the public about the causes of stormwater pollution and its adverse effects on the water quality in local creeks, lagoons, shorelines, and neighborhoods;
- To encourage residents to adopt less polluting and more environmentally beneficial practices; and
- To increase residents' hands-on involvement in SMCWPPP activities.

PIP is essential for controlling pollution at the source because many pollutants originate from preventable, everyday residential activities. Pollutants in stormwater may be reduced by motivating and educating residents about the benefits of preventing stormwater pollution. This approach is recognized as being both cost-effective and efficient in meeting the goal of reducing pollutants in stormwater to the maximum extent practicable.

The SMCWPPP PIP Subcommittee met six times in FY 2013/14 to oversee the development of educational materials and to guide the implementation of the PIP component of the program. SMCWPPP accomplished the following major PIP tasks during FY 2013/14:

- Maintained the www.flowstobay.org website, with an increase in the number of subscribers to the following pages: Community Events, Green Streets and Parking Lots, Resources for Teachers and Schools, Business New Development, Litter Reduction and Coastal Cleanup Day, Newsletter, Less Toxic Pest Control, Used Oil Recycling, and Press Room.
- Implemented a regional anti-littering campaign on a local level, focusing on youth participation in pollution prevention activities and affiliation with local and regional social media sites.
- Increased public participation in multiple platforms of social media through consistent posts, prompts, and contests aimed at educating the public about stormwater pollution prevention, and encouraging participation activities and actions that promote stewardship.
- Maintained the existing car wash discount campaign that includes 15 commercial car washes located throughout the county, in order to encourage residents to wash cars at commercial car washing facilities. Maintained a web page that provided a point of

contact to the public for the purpose of learning about the program and obtaining the discount coupon. Continued to educate the residents who choose to wash their cars at home to use minimal soap when washing cars and to divert the runoff to landscaped areas.

- Coordinated California Coastal Cleanup Day for San Mateo County, diverting an estimated 22,282 gallons of trash and 3,191 gallons of recyclables from waterways. An estimated 3,783 residents volunteered in 2013. Raised awareness of the event and litter issues through local media coverage and use of social media.
- Hosted an educational outreach booth at the nine-day County Fair and promoted a variety of stormwater pollution prevention messages.
- Supported collaborative watershed stewardship efforts by updating the online guide to local groups, promoting cleanup activities through continuing the “Spring Cleaning SMC” promotional campaign, and engaging citizens and civic groups not traditionally allied with water protection efforts, through the Team Effort campaign.
- Sponsored an educational assembly program for elementary-age students entitled “We All Live Downstream,” performed by the Banana Slug String Band. The program emphasizes the importance of not littering or dumping substances into the storm drain to protect the aquatic environment.
- Developed a middle school educational presentation entitled “Linking Litter to Critters.” The presentation emphasizes educating students on the impact of litter on the environment, and encourages them to become involved by participating in cleanup events.
- Continued conducting the high school educational presentation entitled “Water Pollution Prevention: Problems and Solutions.” The presentation emphasizes educating students on basic problems and solutions of stormwater pollution, and encourages them to become involved by educating others.

C.8 Watershed Quality Monitoring

On behalf of its member agencies, SMCWPPP performs water quality monitoring activities in compliance with MRP Provision C.8. Much of this work is accomplished through participation in BASMAA regional projects. Per Provision C.8, water quality monitoring activities conducted from the beginning of the permit term through September 30, 2013 were documented, summarized, and evaluated in the comprehensive Integrated Monitoring Report (IMR), which was submitted to the Regional Water Board on March 17, 2014. Per Provision C.8, a complete documentation of all water quality monitoring data collected from October 1, 2013 through September 30, 2014 will be presented in SMCWPPP’s Urban Creeks Monitoring Report, which will be submitted to the Water Board by March 15, 2015.

Based on the lessons learned through the implementation of the Small Tributaries Loading Strategy Multi-Year Plan in Water Years 2012, 2013, and 2014, and the reprioritization of near-term information needs, SMCWPPP and its Regional Monitoring Coalition partners are implementing a revised approach to Pollutants of Concern loads monitoring in FY 2014-15.

C.9 Pesticides Toxicity Control

The primary objective of MRP Provision C.9 is to prevent the impairment of urban streams by pesticide-related toxicity, and thereby implements requirements of the *TMDL for Diazinon and Pesticide-related Toxicity for Urban Creeks* in the region. Permittees are required to implement a pesticide toxicity control program that addresses their own and others' use of pesticides within their jurisdictions that pose a threat to water quality and that have the potential to enter the municipal stormwater conveyance system. Most MRP-required Provision C.9 tasks are implemented individually by each SMCWPPP member agency. SMCWPPP helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance with MRP Provision C.9 Pesticides Toxicity Control is mainly coordinated through the Parks Maintenance and Integrated Pest Management (IPM) Work Group.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.9, with input and assistance provided by the Parks Maintenance and IPM Work Group. Accomplishments included the following:

- Held three meetings of the Parks Maintenance and IPM Work Group.
- Conducted a Structural IPM Training Workshop in November 2014.
- Conducted SMCWPPP's Annual Landscape IPM Training Workshop in March 2014.
- Developed a draft "Orientation Piece" for the Parks Maintenance and IPM Work Group that can be used by Permittee staff to provide information about SMCWPPP and C.9 requirements to new and existing staff.
- Began developing periodic updates on pesticide regulatory activities for the Parks Maintenance and IPM Work Group.
- Partnered with BASMAA to submit a grant application to the California Department of Pesticide Regulations (DPR) to conduct IPM outreach to residents of multifamily dwellings. The grant application was selected for funding and will commence in September 2014.
- Participated in relevant BASMAA and CASQA activities.
- Participated in the region-wide Integrated Pest Management (IPM) "Our Water Our World" campaign by working with local retail stores to maintain point of purchase information on less toxic pest control.
- Promoted IPM courses to 80 structural and landscape pest control operators registered with the County Agricultural Commissioner. Maintained a web page identifying operators that are IPM-trained as a resource for the public.

C.10 Trash Load Reduction

MRP Provision C.10 Trash Load Reduction tasks are implemented by each SMCWPPP member agency. SMCWPPP helps agency staff to understand trash load reduction requirements and develops various tools needed to effectively plan, implement, and report on compliance with trash management activities. Provision C.10 requires Permittees (as applicable) to:

- Submit a Short-Term Trash Reduction Plan to the Water Board by February 1, 2012 that

is designed to attain a 40% reduction from its MS4 by July 1, 2014.

- Determine its baseline load of trash from its stormwater system and document the method used to demonstrate progress towards load reduction levels (e.g., 40% reduction).
- Identify and select a required number of trash hot spots in creeks or shorelines that will be the focus of required annual trash assessments and cleanups.
- Install and maintain full trash capture devices to treat runoff from a specified amount of land area.
- Submit a Long-Term Trash Reduction Plan to the Regional Water Board by February 1, 2014 that specifies actions designed to attain a 70% reduction from its MS4 by July 1, 2017, and a 100% reduction (i.e., “No Visual Impact”) by July 1, 2022.

During FY 2013/14, SMCWPPP completed the following tasks in support of member agency trash management activities conducted in compliance with the above requirements:

- SMCWPPP staff coordinated eight Trash Committee meetings. Committee members discussed and provided input on a range of topics/projects including Developing the FY 2013/14 Annual Report format for Provision C.10, coordinating on the ABAG/SFEP full trash capture demonstration project, developing the Long-Term Trash Load Reduction Plan template and guidance, delineating Trash Management Area (TMA) and creating associated maps, identifying and conducting on-land trash assessment locations in TMAs, identifying optimal locations for large full capture devices in member agency jurisdictional areas, participation in and tracking the BASMAA awarded State Water Board Proposition 84 Stormwater Monitoring and Planning grant project “Tracking California’s Trash”, and providing comments on the State Water Board Proposed Trash Amendments released on June 10, 2014.
- SMCWPPP staff assisted Permittees in finalizing baseline trash generation rates for SF Bay Area MS4s. The results from monitoring/characterization events were used to develop the *San Francisco Bay Area Stormwater Trash Generation Rates Report*, which includes all data and analyses used to develop final trash generation rates. The final report was submitted to the Water Board in June 2014. The final report includes the findings from the analysis of Los Angeles and San Francisco Bay Area trash data, and descriptions of how trash generation rates were transformed into the trash generation maps submitted with Permittee *Long-Term Trash Load Reduction Plans* submitted to the Water Board in February 2014.
- SMCWPPP assisted Permittees to develop and implement a framework for developing Long-Term Trash Reduction Plans. A work group of MRP Permittee, SMCWPPP and other Bay Area countywide stormwater program staff, and Regional Water Board staff met in FY 2013/14 to better define the process for developing the plans, methods for assessing progress toward reduction goals, and tracking and reporting requirements. The first step of the framework is the identification of very high, high, moderate, and low trash generating areas within each Permittee jurisdictional area. As part of this process, SMCWPPP staff developed guidance to assist Permittees in refining land uses classifications, and conducting assessments to confirm/refine trash generation levels depicted on draft trash generation maps, which will be the focal point of the Long-Term Plans. Final trash generation and TMA maps are included in each Permittee’s Long-Term

Trash Reduction Plans.

- SMCWPPP developed and began implementing the SMCWPPP Pilot Trash Assessment Strategy in FY 2013/14. The Strategy was submitted to the Water Board on February 3, 2014 as part of Long-Term Plan submittals. The Strategy is intended to provide information on magnitude and extent of trash reductions associated with stormwater in San Mateo County, and has two main (primary) indicators. The first, operation and maintenance verification program, is for areas treated by full capture devices.
- SMCWPPP made significant strides in FY 2013/14 toward developing a model operation and maintenance verification program for member agencies to utilize. The project was initiated in collaboration with the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and includes standard operating procedures for inspections and cleaning, training materials and an operation and maintenance plan template for use by member agencies. Materials are currently under development and are anticipated for completion in FY 2014/15. The second, on-land visual assessments, is applicable to land areas where trash control measures other than full capture devices are implemented. In FY 2013/14, SMCWPPP staff developed a randomized/probabilistic assessment approach that allows agencies to extrapolate data collected at assessment sites to an entire TMA. SMCWPPP staff and member agency staff began conducting on-land visual trash assessments in July 2014 at approximately 160 sites. Data generated through these assessments are incorporated into each member agency's trash reduction estimate included in Section 10 of their Annual Reports.
- In December 2013, SMCWPPP initiated a project to assist member agencies in their goals to reduce trash impacts from stormwater. The goal of the project was to identify and prioritize high trash generating storm drain catchment areas as a tool for identifying optimal locations large full- capture devices. The delineation of storm drain catchment areas also provides member agencies with an important GIS data layer that can be used to identify locations to implement potential control measures for other pollutants (e.g., PCBs). A final report documenting the process was completed in late FY 2013/14. Catchment areas were also finalized in GIS during the same time frame.
- Permittees are required to clean up trash hot spots to a level of "no visual impact" at least one time per year for the term of the permit. To assist Permittees in meeting this requirement, SMCWPPP staff developed the necessary tools (i.e., guidance memorandum, Trash Hot Spot Cleanup Data Collection Form and Trash Hot Spot Activity Reports) used to report trash hot spot assessment and cleanup activities conducted during the reporting period. Trash Hot Spot Activity Reports for individual Permittees are included in Permittee Annual Reports. During FY 2013/14, Permittees continued conducting annual cleanups and assessments required by the MRP. Results from this year's annual cleanups indicated that cleanups and assessments were conducted at 32 different sites within SMCWPPP member agency jurisdictions. In total, approximately 34.4 cubic yards of trash was removed from these sites during FY 2013/14.
- In an effort to increase coordination between solid waste and recycling programs and SMCWPPP member agency MS4 trash reduction activities, SMCWPPP formed the Litter Work Group in March of 2014. Representatives from the local hauling community; Rethink Waste (the South Bayside Waste Management Authority); stormwater and trash program municipal staff; and community members and consultants working on litter reduction efforts both in Santa Clara County and San Mateo County were invited to

attend the initial kick off meeting held on March 17, 2014. The goals of the group are to develop a litter reduction program related to waste issues for San Mateo County specific to its needs; develop best management practices for the waste collection industry; educate the public and those involved with litter control efforts; and to coordinate and share information with the Zero Litter Initiative in Santa Clara County. Five Work Group meetings were held both in-person and via conference calls in FY 2013/14. Additionally, the Work Group organized the County's first Litter Reduction Roundtable event for municipal staff and waste hauling company staff on June 25, 2014. The focus of the event was on waste container management. Based on the information gained through the Roundtable event, the Program plans to continue coordinating the Litter Work Group in FY 2014/15, with the focus on implementing projects designed to improve waste container management in the County.

C.11 Mercury Controls

MRP Provision C.11 Mercury Controls implements stormwater runoff-related actions required by the San Francisco Bay mercury Total Maximum Daily Load (TMDL) water quality restoration program. On behalf of its member agencies, SMCWPPP performs a variety of activities to address mercury in stormwater runoff in compliance with MRP Provision C.11. Much of this work is accomplished through participation in BASMAA regional projects that also address PCBs.

All mercury and PCB-related activities conducted through approximately the end of calendar year 2013 by SMCWPPP and BASMAA were documented, summarized, and evaluated in SMCWPPP's comprehensive IMR, which was submitted to the Regional Water Board on March 17, 2014.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.11 (many of these tasks are also applicable to Provision C.12):

- Provision C.11.a requires that Permittees report an estimate of the mass of mercury collected via mercury collection and recycling efforts. Using a spreadsheet calculator developed in collaboration with BASMAA, SMCWPPP staff calculated the mass of mercury collected during FY 2013/14 by the San Mateo County Household Hazardous Waste Program. The estimated mass of mercury collected is calculated based on the total amount of mercury-containing devices and equipment collected and the best available information from manufacturers and trade organizations regarding the amount of mercury contained in the devices and equipment.
- MRP Provision C.11.b requires Permittees to monitor methylmercury in runoff discharges by analyzing samples already being collected for total mercury analysis, consistent with provision C.8.e. In FY 2013/14, SMCWPPP continued to collect and analyze samples for methylmercury, consistent with the Small Tributaries Load Strategy (STLS) and the STLS multiyear monitoring plan. Data collected in compliance with this provision during FY 2013/14 will be included in SMCWPPP's Urban Creeks Monitoring Report, which will be submitted to the Regional Water Board by March 15, 2015.
- MRP Provisions C.11.c and C.12.c require Permittees to conduct investigations to attempt to identify PCB and mercury source properties discharging to their storm drain systems at five pilot watershed locations (region-wide). The pilot watershed in San Mateo County is the Pulgas Creek Pump Station watershed in the City of San Carlos. The investigation was nearly completed during FY 2013/14. SMCWPPP staff anticipates

finalizing the source property investigation report and submitting source property referrals to the Regional Water Board during FY 2014/15.

- MRP Provisions C.11.d and C.12.d require developing and pilot-testing methods to enhance removal of sediment with PCBs and mercury during municipal street and storm drain system operation and maintenance (O&M) activities. A pilot street flush and capture project was conducted in the Pulgas Creek Pump Station watershed in September 2013. Four flush and capture events were implemented by City of San Carlos staff, which entailed flushing approximately 500-1,000 feet of street (curb-to-curb) with water from a vacuum truck. Street dirt samples were collected before and after each flush and capture event to help estimate the mass of pollutants removed. SMCWPPP staff anticipates completing a final project report during FY 2014/15.
- Per MRP Provisions C.11.e and C.12.e, BASMAA is evaluating the effectiveness to remove PCBs and mercury of ten urban runoff treatment facilities retrofitted into existing storm drainage infrastructure in the Bay Area. One retrofit project is located in San Mateo County in the Pulgas Creek Pump Station watershed. This project is called the Bransten Road bioretention curb extensions and its construction was completed in November 2013. Effectiveness monitoring was conducted at the site during three storms of the 2013/14 rainy season. Monitoring of one additional storm at this project is currently planned for the 2014/15 rainy season.
- MRP Provisions C.11.f and C.12.f require pilot studies to evaluate the effectiveness at mercury and PCBs removal of diversion of dry weather urban runoff and first flush events into publicly owned treatment works (POTWs). One of the pilot diversion projects is located in San Mateo County at the Pulgas Creek Pump Station. Fieldwork for the project commenced during the 2012/13 rainy season but was very limited due to initial equipment problems and a general lack of rainfall. Stormwater diversion to the sanitary sewer and associated monitoring was conducted during three storm events in FY 2013/14. The project is also evaluating the projected costs and benefits of larger scale and more permanent dry and/or wet weather diversion scenarios at this pump station in order to scope potential implementation of such projects during future permit terms. SMCWPPP staff is working with City of San Carlos and SBSA staff to gather relevant information and develop reasonable diversion scenarios. Opportunities to piggyback future diversion work on already planned sanitary collection infrastructure improvements will be evaluated. SMCWPPP staff anticipates completing data quality review, data analysis, the cost-benefit analysis for diversion scale-up scenarios, and final project reporting during FY 2014/15.
- MRP provisions C.11.g and C.12.g require Permittees to develop and implement a monitoring program to quantify mercury and PCB loads reduced through the implementation of control measures and to compare these loads against the Waste Load Allocations (WLAs) described in the Bay mercury and PCBs TMDLs. During the term of the MRP, Permittees have conducted and continue to conduct studies to demonstrate loads reduced and progress towards WLAs. The results of initial quantification of loads reduced or avoided through pollution prevention, source controls, and treatment controls were provided in SMCWPPP's IMR (Part B). SMCWPPP staff will continue to participate in the RMP in FY 2014/15 to promote implementation of studies to address priority information needs for mercury and PCBs.
- MRP provisions C.11.h and C.12.h require Permittees to "conduct or cause to be

conducted studies aimed at better understanding the fate, transport, and biological uptake of mercury and PCBs discharged in urban runoff to San Francisco Bay and tidal areas.” Working through BASMAA, SMCWPPP Permittees in FY 2013/14 continued to comply with these provisions through their participation in the RMP. For further information, see SMCWPPP’s IMR.

- MRP Provisions C.11.i and C.12.i require development of a risk reduction program implemented throughout the region. This has been accomplished through the San Francisco Bay Fish Project, a two-year regional project to improve communication to the public about how to reduce their exposure to PCBs and mercury from consuming San Francisco Bay fish. The San Mateo County Environmental Health Department (SMCEHD) has distributed education materials created by the San Francisco Bay Fish Project, including posting signs along the Bay’s shore in most cities in San Mateo County. SMCEHD also has a program to provide educational materials (e.g., a Fish Project brochure entitled “Guide to Eating Fish and Shellfish from San Francisco Bay”) to at-risk populations (e.g., subsistence fisherman) by working with private marinas, public parks, and nurses with the San Mateo County Health System who serve appropriate communities. During FY 2014/15, SMCWPPP staff will work with SMCEHD staff to continue distributing in San Mateo County outreach materials from the San Francisco Bay Fish Project, as appropriate.
- MRP Provision C.11.j requires Permittees to develop an equitable mercury allocation sharing scheme, in consultation with Caltrans, to address runoff from the Caltrans facilities in the MRP footprint. To address this MRP provision, Permittee representatives and Caltrans met several times to review provision C.11.j and to discuss the manner by which the allocation would be shared. Those discussions led to a February 2014 Caltrans letter. In the letter Caltrans agrees (per MRP Provision C.11.j) to develop an equitable TMDL allocation sharing scheme with MRP Permittees and to implement mercury load reduction actions on a watershed or region-wide basis, consistent with TMDL implementation requirements in Caltrans’ MS4 Permit. Permittees intend to work with Caltrans to identify load reduction actions that can be implemented on a watershed or region-wide basis. For further information, see SMCWPPP’s IMR. During FY 2014/15, SMCWPPP will collaborate with BASMAA to develop an equitable TMDL allocation sharing scheme with Caltrans and identify load reduction actions that can be implemented on a watershed or region-wide basis.

C.12 PCBs Controls

MRP Provision C.12 PCBs Controls implements stormwater runoff-related actions required by the San Francisco Bay PCB Total Maximum Daily Load (TMDL) water quality restoration program. On behalf of its member agencies, SMCWPPP performs a variety of activities to address PCBs in stormwater runoff in compliance with MRP Provision C.12. Many of these projects address mercury in addition to PCBs and are described in the previous section (C.11 Mercury Controls).

All mercury and PCB-related activities conducted through approximately the end of calendar year 2013 by SMCWPPP and BASMAA were documented, summarized, and evaluated in SMCWPPP’s comprehensive Integrated Monitoring Report (IMR), which was submitted to the Regional Water Board on March 17, 2014.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.12:

- MRP Provision C.12.a, incorporating PCBs and PCB-containing equipment identification into existing industrial inspections, is implemented through SMCWPPP's CII component. The BASMAA Pollutants of Concern (POC) Commercial/Industrial Inspector Training Materials (June 2010) are available on the CII Subcommittee web page and identified in SMCWPPP guidance to stormwater inspectors on meeting MRP's annual training requirements. In FY 2013/14, PCBs and PCB-containing equipment identification was incorporated into the April 2014 inspector training workshop. SMCWPPP staff will continue to provide Permittees guidance and training on incorporating PCBs and PCB-containing equipment identification into existing industrial inspections through SMCWPPP's CII Subcommittee and/or inspector training workshops.
- Projects and actions conducted to fulfill MRP requirements in Provision C.12.b (Pilot Project to Evaluate PCBs in Building Materials) were completed in previous fiscal years. A description of the results of the projects conducted in fulfillment of this provision were included in SMCWPPP's IMR.
- MRP Provisions C.12.c through C.12.i address both mercury and PCBs and were discussed in the previous section (C.11 Mercury Controls).

C.13 Copper Controls

Provision C.13 of the MRP addresses copper control measures identified in the San Francisco Bay Basin Water Quality Control Plan (commonly referred to as the Basin Plan) that the Regional Water Board has deemed necessary to support copper site-specific objectives in San Francisco Bay. SMCWPPP's accomplishments during FY 2013/14 include the following tasks to assist member agencies with implementation of Provision C.13:

- Provision C.13.a requires Permittees to manage waste from cleaning and treating copper architectural features, including copper roofs, during construction and post-construction. SMCWPPP's main focus in FY 2013/14 was education and outreach to municipal inspectors about the MRP requirements and BMPs for architectural copper installation, cleaning, and treating. The education and outreach utilized a previously developed fact sheet entitled *Requirements for Architectural Copper: Protect water quality during installation, cleaning, treating, and washing!* Construction site inspectors received the information during the April 23, 2014 SMCWPPP Construction Site Inspection Workshop; and building inspectors received the information from a SMCWPPP staff presentation at the California Building Inspectors Group (CALBIG) meeting on October 9, 2013.
- Provision C.13.b requires Permittees to manage discharges from pools, spas and fountains that contain copper-based chemicals by adopting local ordinances. Guidance on these requirements for illicit discharge inspectors is provided through SMCWPPP's CII Subcommittee and public outreach on related BMPs is provided through SMCWPPP's PIP Subcommittee.
- Provision C.13.c (Copper Controls - Vehicle Brake Pads) requires Permittees to engage in efforts to reduce the copper discharged from automobile brake pads to surface waters via urban runoff. 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. In FY 2013-14, Permittees continued to track and support implementation of SB 346 through participation in CASQA.

- Provision C.13.d requires Permittees to ensure through routine industrial facility inspections that proper BMPs are in place at industrial facilities likely to use copper or have sources of copper. SMCWPPP's CII Subcommittee assists member agency staff with understanding this MRP requirement and program staff develops MRP compliance support materials as necessary. Pollutants of concern commercial/industrial inspector training materials and a guidance manual that address industrial sources of copper are available on SMCWPPP's website (www.flowstobay.org). Industrial sources of copper and roof runoff BMPs were incorporated into the April 17, 2014 Commercial/Industrial Stormwater Inspector Training Workshop.
- Provision C.13.e (Copper Controls - Studies to Reduce Uncertainties) requires Permittees to conduct or cause to be conducted technical studies to investigate possible copper sediment toxicity and technical studies to investigate sub-lethal effects on salmonids. MRP Permittee compliance with this provision has been achieved through continued participation in the RMP, whose multi-year planning process addresses these gaps through studies overseen by the Exposure and Effects Workgroup.

C.14 PBDEs, Legacy Pesticides and Selenium

MRP Provision C.14 requires San Mateo County and other MRP Permittees to work collaboratively to begin identifying, assessing, and managing controllable sources of the following lower priority pollutants that have been found in stormwater runoff: polybrominated diphenyl ethers (PBDEs), legacy pesticides, and selenium. During FY 2012/13, SMCWPPP staff worked with BASMAA on regional projects that addressed this provision. SMCWPPP's FY 2012/13 Annual Report, Appendix 16 (*Regional Pollutants of Concern Report for FY 2012-2013*) documented the results of these projects. MRP Provision C.14 does not include any further tasks or reporting requirements for FY 2013/14.

C.15 Exempted and Conditionally Exempted Discharges

The objective of MRP Provision C.15, Exempted and Conditionally Exempted Discharges, is to exempt unpolluted non-stormwater discharges from the MRP's general non-stormwater discharge prohibition (Provision A.1) and to conditionally exempt unpolluted non-stormwater discharges that are potential sources of pollutants. SMCWPPP assists municipal staff to understand the C.15 requirements and makes available for their use various MRP compliance support materials. The SMCWPPP CII Subcommittee facilitates and coordinates providing this assistance to the member agencies for a variety of different types of non-stormwater discharges that may be conditionally exempted.

The most extensive tracking, monitoring, and reporting requirements in Provision C.15 are for planned and unplanned potable water discharges by water purveyors. These requirements include documenting, monitoring, notifying, and reporting on various types of planned (e.g., fire hydrant flushing) and unplanned (e.g., water line breaks) potable water discharges. There are eleven SMCWPPP agencies that have identified themselves as water utilities in their Annual Reports. In April 2012 a Water Utility Work Group was temporarily formed to specifically address the Provision C.15.b.iii requirements related to conditionally exempt planned and unplanned potable water discharges.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.15, with input and assistance provided by the CII Subcommittee and Water Utility Work Group. Accomplishments included the following:

- Participate in Bay Area Water Agency Task Force meetings where eight water agencies meet with Regional Water Board staff to facilitate development of a regional general permit for water utility potable water discharges.
- Participated in two workshops held by the State Water Quality Control Board in January 2014 and the Regional Water Board in May 2014.
- Provided comments on the Regional Water Board May 8, 2014 Drinking Water Systems General Permit Tentative Order (TO).
- Provided draft comments on the State Water Board June 6, 2014 Drinking Water System Discharges General Permit TO due August 19, 2014.

SECTION 1

INTRODUCTION

BACKGROUND

This FY 2013/14 Countywide Program Annual Report was developed in compliance with the National Pollutant Discharge Elimination System (NPDES) stormwater Municipal Regional Permit (MRP) adopted in October 2009. It summarizes stormwater management activities implemented by the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) in FY 2013/14. SMCWPPP's activities benefit all 22 of its member agencies: 15 cities, five towns, the County of San Mateo, and the San Mateo County Flood Control District. Each member agency also separately submits an individual Annual Report to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) focusing on that agency's stormwater management activities during FY 2013/14.



The organizational structure of SMCWPPP is shown on Figure 1-1. SMCWPPP is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint Powers Authority (JPA) that addresses issues of regional importance to San Mateo County jurisdictions. The C/CAG Board of Directors is comprised of a local elected city council representative from each city and town in San Mateo County, a member of the County Board of Supervisors, and representatives from the transit district and transportation authority. A 1993 amendment to the JPA Agreement made C/CAG responsible for assisting member agencies with complying with the NPDES municipal stormwater permit, including its latest incarnation as the MRP. Stormwater management-related activities of C/CAG and its various related committees and workgroups are described below.

C/CAG Board

Throughout FY 2013/14, the C/CAG Board of Directors received presentations, updates, and took actions on various stormwater-related issues, as summarized below:

- August 2013: Amendment of funding agreement with San Mateo County Environmental Health for providing public education and outreach.
- September 2013: Update on potential countywide stormwater funding initiative.
- November 2013: Stormwater Committee appointments, unfunded mandate amicus brief.
- December 2013: Potential countywide stormwater funding initiative.
- February 2014: Stormwater Committee appointments.

- March 2014: Potential countywide stormwater funding initiative.
- May 2014: Potential countywide stormwater funding initiative, draft C/CAG budget.
- June 2014: Potential countywide stormwater funding initiative, final C/CAG budget.

City Managers Association

In August 2013 and May 2014, C/CAG staff spoke to the City/County Managers Association of San Mateo County regarding the potential countywide stormwater funding initiative.

Stormwater Committee

C/CAG's stormwater management-related decisions are assisted by the NPDES Stormwater Committee. At its November 2012 meeting, the C/CAG Board authorized reconvening this committee to include director-level appointees with decision-making authority for implementing stormwater management programs within the member agencies in compliance with requirements in the MRP. The Committee meets on an approximate bimonthly basis (depending on need) on the third Thursday of the month at the San Mateo County Transit District Office in San Carlos. Public notices for Committee meetings are posted in accordance with Brown Act requirements on the ground floor of the same location. The Stormwater Committee met five times during FY 2013/14 to assist with planning and organizing SMCWPPP's stormwater management activities including MRP compliance actions. Appendix 1 includes a table summarizing attendance at the Stormwater Committee meetings held during FY 2013/14.

The below sections describe the Stormwater Committee's mission statement, membership criteria, and roles and responsibilities.

Mission Statement

The Stormwater Committee provides policy and technical advice and recommendations to the C/CAG Board of Directors and direction to technical committees (described below) on all matters relating to stormwater management and compliance with associated regulatory mandates from the State Water Resources Control Board and Regional Water Board.

Membership

The Stormwater Committee is comprised of one director-level representative from each of the member agencies, recommended by City/Town/County Managers, with decision-making authority and primary responsibility for implementing stormwater management programs within their jurisdictions and one non-voting executive management representative from the Regional Water Board staff, all appointed by the C/CAG Board. There are no term limits and members may be removed and replaced as needed.

Roles & Responsibilities

The role of the Stormwater Committee is to provide policy and technical advice and recommendations to the C/CAG Board and direction to stormwater technical committees on matters related to stormwater management and associated regulatory requirements. While the Stormwater Committee may consider any item reasonably related to stormwater and associated

regulatory requirements, the following issues are the primary focus of the Stormwater Committee:

- Review and provide recommendations for SMCWPPP’s annual budget as part of the overall C/CAG budget approval process.
- Authorize submittal of countywide and regional compliance documents on behalf of their respective agencies for activities performed via C/CAG through SMCWPPP or the Bay Area Stormwater Management Agencies Association (BASMAA).
- Convey relevant program and compliance information and direction to appropriate staff and departments within their jurisdictions.
- Form ad-hoc work groups to address particular stormwater-related issues on an as-needed basis.
- Discuss and provide policy recommendations on stormwater issues, such as:
 - funding stormwater compliance activities at the local and countywide level;
 - unfunded mandate test claims;
 - permit appeals and litigation;
 - reissuance of the Municipal Regional Permit;
 - permit requirements, especially those related to new and redevelopment, monitoring, and pollutants of concern, including trash, mercury, PCBs, and pesticides;
 - training and technical support needs for municipal staffs; and
 - legislation and statewide policy issues impacting member agencies.

Technical Advisory Committee and Subcommittees

The Stormwater Committee provides direction to and receives feedback and recommendations from the Technical Advisory Committee (TAC). During FY 2012/13, the TAC transferred its former policy-related functions to the Stormwater Committee and transitioned to a quarterly workshop format. The new format allowed more detailed discussion of particular MRP compliance topics, including check-ins on what jurisdictions should be focused on in the coming quarter and what should have been accomplished and documented in the preceding quarter. The TAC met three times during FY 2013/14. Appendix 1 includes a table summarizing attendance at the TAC meetings held during FY 2013/14. In addition, in July 2013 SMCWPPP held a workshop (in lieu of the regularly scheduled quarterly TAC meeting) to help train municipal staff on completing member agency Annual Reports.

SMCWPPP has also established various subcommittees and work groups to the TAC to help implement the different aspects of the MRP, as shown on Figure 1-1. The subcommittees and work groups are discussed further in the remaining sections of this report.

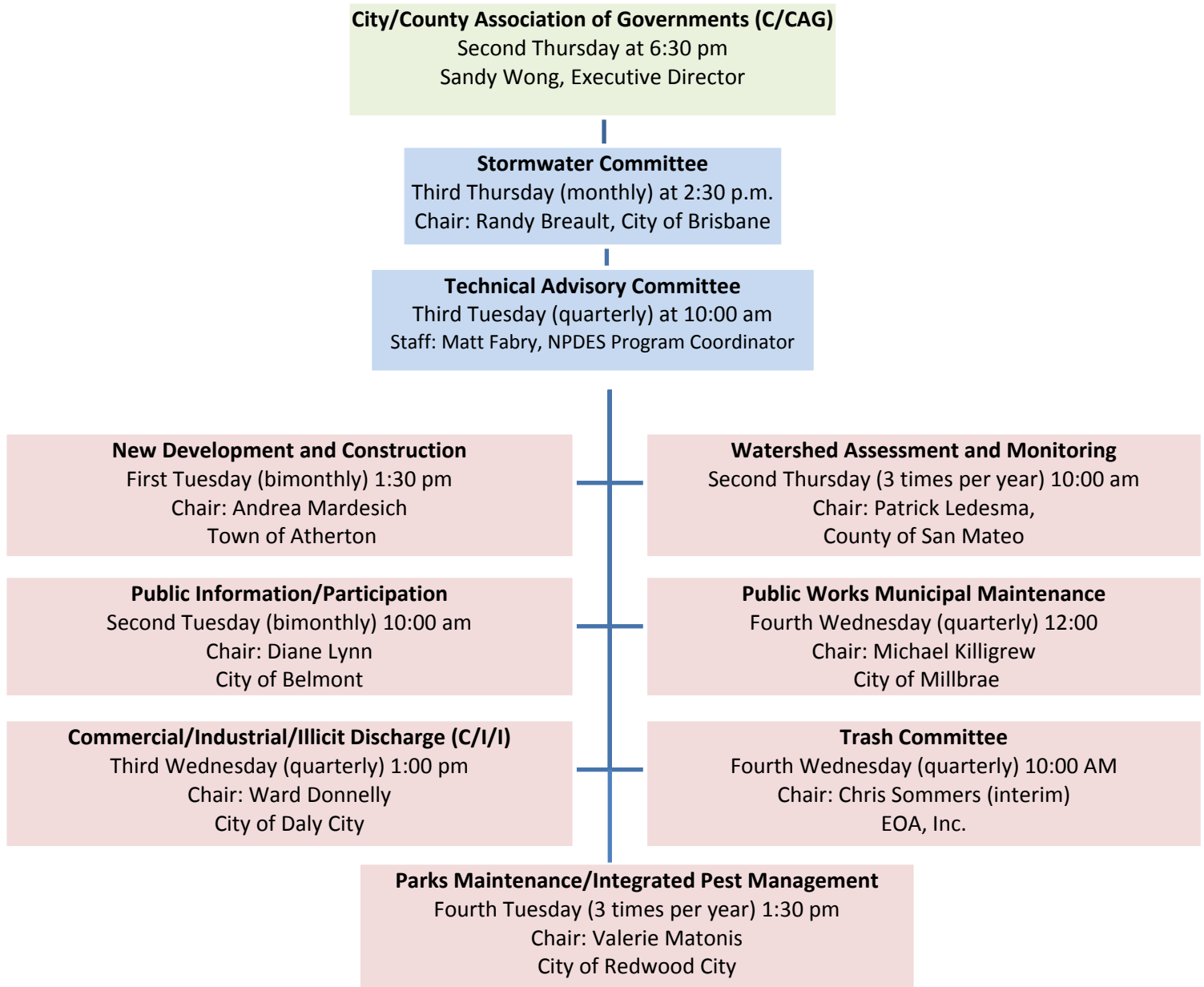
ORGANIZATION OF REPORT

This FY 2013/14 Annual Report is structured around the following major provisions of the MRP:

- C.2. Municipal Operations
- C.3. New Development and Redevelopment
- C.4. Industrial and Commercial Site Controls
- C.5. Illicit Discharge Detection and Elimination
- C.6. Construction Site Control
- C.7. Public Information and Outreach
- C.8. Water Quality Monitoring
- C.9. Pesticides Toxicity Control
- C.10. Trash Load Reduction
- C.11. Mercury Controls
- C.12. PCBs Controls
- C.13. Copper Controls
- C.14. Polybrominated Diphenyl Ethers (PBDE), Legacy Pesticides and Selenium
- C.15. Exempted and Conditionally Exempted Discharges

The following sections of this report summarize how SMCWPPP provided assistance in FY 2013/14 in implementing the MRP for each of the above provisions. Most of the following sections include three sub-sections: 1) Introduction, 2) Implementation of MRP Actions, and 3) Future Actions.

Figure 1-1. Organizational Structure and Meeting Schedule



SECTION 2

C.2 MUNICIPAL OPERATIONS

INTRODUCTION

The objective of MRP Provision C.2 is to ensure development and implementation of appropriate BMPs by all Permittees to control and reduce discharges of non-stormwater and stormwater runoff pollutants to storm drains and watercourses during operation, inspection, and routine repair and maintenance activities of municipal facilities and infrastructure.

Most MRP-required Provision C.2 Municipal Operations tasks are implemented individually by each SMCWPPP member agency. SMCWPPP helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance and the implementation of Municipal Operations tasks are coordinated through the SMCWPPP Public Works Municipal Maintenance Subcommittee.

IMPLEMENTATION OF MRP PROVISIONS

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.2, with input and assistance provided by the Public Works Municipal Maintenance Subcommittee. Accomplishments included the following:

- Held four Public Works Municipal Maintenance Subcommittee meetings;
- Engaged Subcommittee in the development of standard operating procedures for inspection and cleaning trash full-capture devices;
- Invited Stormwater BMP product vendors and County Mosquito and Vector Control District staff to Subcommittee meetings; and
- Held a Municipal Maintenance Rural Roads Workshop in November 2013.

More information on each of these accomplishments is provided below.

Public Works Municipal Maintenance Subcommittee

The Public Works Municipal Maintenance Subcommittee met four times during FY 2013/14 to share information about municipal operations-related MRP requirements and methods for achieving compliance. The meetings provided a forum to share experiences with implementing MRP provisions and applying associated BMPs related to activities such as:

- Street and road repair maintenance activities.

- Sidewalk/plaza maintenance and pavement washing.
- Graffiti removal.
- Corporation yard activities.
- Stormwater pump station monitoring and inspections.

Lou Duran from the City of San Carlos chaired the subcommittee up until December 2013. Michael Killigrew from the City of Millbrae has chaired the subcommittee since January 2014. A FY 2013/14 subcommittee attendance summary table is included in Appendix 2. A majority of the subcommittee's four meetings were attended by staff from the Cities of Belmont, Burlingame, Colma, Daly City, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Redwood City, San Bruno, San Carlos and San Mateo.

During FY 2013/14 the Program invited a stormwater BMP vendor and County Mosquito and Vector Control District staff to speak at the Subcommittee meetings. Program staff facilitated discussions at meetings regarding apps used by citizens to request maintenance activities (e.g., graffiti removal), mounting cameras on street sweepers, preventative maintenance programs to video storm drain lines, and graffiti prevention tools (e.g., surveillance cameras). The Municipal Maintenance Subcommittee was also informed of the trash full capture device O&M verification program under development by the Trash Work Group. The Municipal Maintenance Subcommittee requested standard operating procedures and training materials be developed as part of this program. Municipal maintenance staff began working with Program staff to develop these materials.

Municipal Maintenance Workshop

The Municipal Maintenance Subcommittee sponsored a Rural Roads workshop which was held November 14, 2013 in Half Moon Bay. The workshop was attended by 46 people and included classroom presentations on stormwater and sediment and erosion control related to rural roads, and a hands on field session with sediment and erosion control BMPs at the Half Moon Bay Corporation Yard. The workshop agenda, final attendance list and evaluation summary are included in Appendix 2.

The training provided participating municipalities with one of the two trainings required by the MRP for municipal maintenance staff that work with rural roads. The main focus of the workshop was rural road sediment and erosion control BMPs. There was a classroom session that reviewed the effects of uncontrolled stormwater, types of erosion, field assessments and sediment and erosion control BMPs. Then municipal staff gathered for a field exercise at the Half Moon Bay Corporation Yard to discuss and install different types of erosion and sediment control BMPs.

Based on the evaluation forms submitted following the workshop, attendees were satisfied with the training. Approximately 94 percent of the attendees who completed the workshop evaluation form indicated that the workshop met their expectations. The other respondents did not answer this question. As expected there were fewer evaluation forms submitted after the field exercise. However, a larger percentage found the field session "very helpful" in comparison with the percentage of returned evaluations who found the classroom session "very helpful".

Program Materials

Since the MRP was adopted, SMCWPPP staff has developed a number of materials to assist municipal maintenance agency staff with implementing Provision C.2. These materials are all available on the SMCWPPP website (www.flowstobay.org) for use by agency staff and are described below.

In FY 2009/10, SMCWPPP developed a Stormwater Pollution Prevention Plan (SWPPP) template for use by member agencies in tailoring, updating, or creating SWPPPs for their corporation yards, satellite facilities, and maintenance facilities.

In FY 2010/11, SMCWPPP prepared the “Municipal Corporation Yard Inspection Form.” This form provides detailed checklists for the types of BMPs recommended in the corporation yard SWPPP template. During FY 2010/11, SMCWPPP also prepared “Sources of Stormwater BMP information for Maintenance Activities Listed in MRP’s Provision C.2,” to assist member agencies with complying with the following Provision C.2 requirements: Provision C.2.a Street and Road Repair and Maintenance; Provision C.2.b Sidewalk/Plaza Maintenance and Pavement Washing; Provision C.2.c Graffiti Removal; and Provision C.2.f Corporation Yards. The sources of BMP information used to develop these materials are CASQA’s Stormwater BMP Handbook Maintenance and Caltrans’ Storm Water Quality Handbook Maintenance Staff Guidance.

The following twelve agencies in San Mateo County operate storm drain pump stations: Cities of Belmont, Burlingame, East Palo Alto, Foster City, Menlo Park, Millbrae, Pacifica, Redwood City, San Carlos, San Mateo, and South San Francisco, and the San Mateo County Flood Control District. During FY 2010/11, SMCWPPP developed the “Stormwater Pump Station Dry Season DO Monitoring and Inspection Form” to assist member agencies in developing a systematic and efficient way to collect MRP-required DO monitoring and inspection information.

FUTURE ACTIONS

FY 2014/15 activities planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.2 include the following:

- Hold up to four Public Works Municipal Maintenance Subcommittee meetings.
- Provide standard operating procedures and training materials for trash full capture device cleaning and inspections.

SECTION 3

C.3 NEW DEVELOPMENT AND REDEVELOPMENT

INTRODUCTION

This section describes SMCWPPP's activities to assist member agencies in complying with MRP Provision C.3 (New Development and Redevelopment).

SMCWPPP continued to provide compliance assistance with MRP Provision C.3 (and MRP Provision C.6 Construction Site Controls – see Section 6) through the New Development Subcommittee, which was chaired for the first half of the year by Jeannie Naughton, the Daly City representative, and the second half of the year by Andrea Mardesich, the Town of Atherton representative. SMCWPPP program staff also obtained input and direction from agency representatives through the Subcommittee. The Subcommittee met quarterly and enjoyed good participation, as shown by the FY 2013/14 attendance list, which is included in Appendix 3.

IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP's accomplishments during FY 2013/14 include the following major tasks to assist member agencies with implementation of Provision C.3:

- Prepared and updated various implementation and outreach products, including flyers, checklists, and the Program's C.3 Technical Guidance Manual, to assist member agencies in complying with Provision C.3;
- Held training on "Improving Your Stormwater Treatment System Construction and O&M Inspections" on December 5, 2013;
- Provided an opportunity for training on the update of the Bay Area Hydrology Model (hydromodification control sizing tool) on April 8, 9 and 10, 2014;
- Held the 2014 New Development Workshop, entitled "Current Trends in LID Implementation", on June 11, 2014; and
- Participated in development of regional projects and MRP-required submittals through the BASMAA Development Committee.

More information on each of these accomplishments is provided below.

Implementation and Outreach Products

With the assistance of the New Development Subcommittee, SMCWPPP program staff developed and/or updated the following technical and outreach products:

- C.3 Regulated Projects Checklist – In FY 2013-14, at the request of the New Development Subcommittee, SMCWPPP program staff formed and worked with the C3-C6 Checklist Work Group to update and reformat the existing checklists into a two-page form with the various other parts of the checklist organized as worksheets. The advantage of the new format is that all the required data for municipalities’ annual reports is summarized on the two-page form. The checklist was approved by the Subcommittee at its August 12, 2014 meeting.
- Biotreatment Soil Mix Vendor List and Verification Checklist – SMCWPPP staff created a list of biotreatment soil vendors in the Bay Area and a checklist to assist municipalities with verification that soil mix submittals for treatment measures at development projects are meeting the MRP biotreatment soil specifications. Guidance documentation was created to provide information on how to use the checklist and vendor list. The documents were posted on the SMCWPPP website.
- Updates to C.3 Technical Guidance Manual – The C.3 Technical Guidance was updated at the end of FY 2013-14. The update (Version 4.1, completed June 30, 2014) consisted mainly of updates to Chapter 5 and Chapter 6:
 - Chapter 5 – updated description of methodologies for hydraulic sizing of treatment measures;
 - Chapter 6 – updated the design guidance for treatment measures in locations where separation from groundwater less than 10 feet, and the section related to biotreatment soil mix infiltration rates.

The updates were approved by the Subcommittee at its August 12, 2014 meeting. The C.3 Technical Guidance Version 4.1 will be finalized and posted on SMCWPPP’s website in September 2014.

The above described information and outreach products are available on SMCWPPP’s website at <http://www.flowstobay.org/newdevelopment>

Stormwater Treatment Facility Inspection Workshop

A workshop on “Improving Your Stormwater Treatment System Construction and O&M Inspections” was held on December 4, 2013 at the Foster City Community Center and was attended by 45 people. The full-day workshop started with an overview of requirements for stormwater treatment systems including what to look for during and at the end of construction as well as during the operation and maintenance phase. Copies of the workshop flyer, agenda, sign-in sheet, and evaluation summary are provided in Appendix 3.

2014 New Development Workshop

The 2014 New Development Workshop, entitled “Current Trends in LID Implementation”, was held on June 11, 2014 at the San Mateo Public Library and was attended by 56 people. The full-day workshop started with “basic training” providing an overview of stormwater post-construction controls, and

then focused on new requirements that took effect during the fiscal year. The workshop included a group exercise to review an example special project, using the SMCWPPP checklist. The workshop also included presentations on Green Streets in the City of San Mateo and Emeryville and potential future permit requirements for green infrastructure. Copies of the workshop flyer, agenda, sign-in sheet, and evaluation summary are provided in Appendix 3.

Training on the Updated Bay Area Hydrology Model

In 2006, SMCWPPP collaborated with the Santa Clara and Alameda countywide stormwater programs to fund the development of the Bay Area Hydrology Model (BAHM), a tool for simulating pre- and post-project runoff conditions and sizing hydromodification control measures to meet MRP requirements. In 2013, the BAHM developer, Clear Creek Solutions, updated the BAHM to a Windows 7 platform and added functionality for LID treatment measures including bioretention, planter boxes, pervious pavement, infiltration basins and trenches, and dry wells. Trainings for municipal staff on the updated model were conducted by Clear Creek Solutions in April of 2014. SMCWPPP agencies were invited to attend trainings at locations in Fremont and Santa Clara.

Regional Collaboration

SMCWPPP program staff participated in BASMAA's Development Committee to work on regional tasks to assist SMCWPPP and its member agencies in meeting specific requirements of Provision C.3, as described below.

LID Feasibility/Infeasibility Status Report

During FY 2012/13, SMCWPPP program staff provided in-kind services to assist with the preparation of a regional "Status Report on Application of Feasibility and Infeasibility Criteria" for the LID treatment techniques of infiltration and rainwater harvesting and use, which was due to the Water Board on December 1, 2013. Work performed during FY 2012/13 included: compilation and analysis of data on the types of LID treatment measures reported for regulated projects in MRP Permittee FY 2011/12 Annual Reports; documentation of case studies of projects in which rainwater harvesting and infiltration measures were used; and presentation of information to the BASMAA Development Committee. During FY 2013/14, SMCWPPP staff assisted with review of the draft report and solicitation and incorporation of comments on the draft report from the SMCWPPP New Development Subcommittee and Stormwater Committee. The report was completed and submitted to the Water Board via BASMAA on time.

LID White Paper

In preparation for the reissuance of the MRP, SMCWPPP program staff provided assistance to BASMAA with the development of a scope of work for an LID White Paper which will lay out the vision for LID treatment requirements and thresholds appropriate to conditions in the San Francisco Bay Area. At its January 7, 2014 meeting, the BASMAA Development Committee engaged Water Board staff in considering: "What is the vision for this effort, what is the approach to achieving that vision, and how should permit provisions be designed to follow that approach?" The Committee then discussed data collection efforts that would be useful to inform and support future requirements and agreed to prepare a white paper on certain topics over the next few months. Water Board staff supported the concept of a white paper that could be referenced in the permit findings and fact sheet. The Committee prepared a draft outline and agreed on the key components of the white paper, and collected input from Steering Committee members and Water Board staff. The goal is to complete the White Paper in the Fall of 2014.

FUTURE ACTIONS

In FY 2014/15, SMCWPPP staff plans to work with the New Development Subcommittee to conduct the following activities to assist member agencies comply with MRP Provision C.3:

- Continue to exchange information with member agencies through quarterly New Development Subcommittee meetings and at the annual New Development Workshop.
- Update checklists, outreach flyers, and the C.3 Technical Guidance Manual as needed to respond to member agency issues, concerns and suggestions for improvement.
- Continue to collaborate with the Santa Clara Valley, Contra Costa County and Alameda County stormwater programs on updates to the list of biotreatment soil vendors and work with mulch suppliers to develop better specifications for that product.
- Plan and conduct a New Development Workshop for municipal staff, to build on the training conducted in 2014 and provide municipal staff opportunities to conduct practice reviews of development projects (Spring 2015).
- Continue working with BASMAA on issues related to MRP reissuance, particularly the Green Infrastructure proposals and LID White Paper.

SECTION 4

C.4 INDUSTRIAL AND COMMERCIAL SITE CONTROLS

INTRODUCTION

One of the goals of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist member agencies control the discharge of pollutants in stormwater from commercial and industrial businesses to the maximum extent practicable. SMCWPPP member agencies are responsible for complying with various business inspection requirements under MRP Provision C.4. SMCWPPP's CII component assists member agency staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. There are additional MRP provisions that are implemented through SMCWPPP's CII component that are discussed in other sections of this report (Sections 5, 12, 13 and 15).

SMCWPPP's assistance with MRP Provision C.4 is coordinated through the CII Subcommittee. The CII Subcommittee also has a Training Work Group that assists with the planning of trainings, developing educational outreach materials, and coordinating with the Public Information and Participation (PIP) Subcommittee on materials that affect businesses.

IMPLEMENTATION OF MRP PROVISIONS

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of MRP Provision C.4, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Held four CII Subcommittee meetings and four CII Training Work Group meetings.
- Coordinated a Work Group meeting among San Mateo Health Services Agency, Environmental Health Services Division (County Environmental Health or CEH) staff and staff from cities with agreements for CEH to perform stormwater inspections.
- Reviewed and updated materials on the SMCWPPP website.
- Updated two public outreach brochures.
- Held a workshop for industrial/commercial stormwater inspectors in April 2014.

More information on each of these accomplishments is provided below.

CII Subcommittee

The CII Subcommittee met four times during FY 2013/14 to share information about MRP requirements related to commercial/industrial inspections and methods for achieving compliance. The meetings provided a forum to share experiences with implementing MRP Provisions related to the CII component, including Provision C.4. In addition, the meetings allow a forum for CEH representative to discuss the status of CEH inspections and hear member agency feedback on the process, since many of the member agencies have an agreement with CEH to conduct stormwater inspections of businesses.

Ward Donnelly from the City of Daly City continued to chair the CII Subcommittee during FY 2013/14. Patrick Ledesma from CEH represented San Mateo County and some of the cities that have an agreement with CEH to conduct stormwater inspections of businesses.

A FY 2013/14 subcommittee attendance summary table is included in Appendix 4. A majority of the subcommittee's four meetings were attended by staff from the Cities of Belmont, Burlingame, Colma, Daly City, Menlo Park, Millbrae, San Mateo, and South San Francisco and San Mateo County. The Cities of Brisbane, East Palo Alto, Pacifica and Redwood City had representatives attend one to two meetings.

The CII Subcommittee also has a Training Work Group that assists with the planning of trainings, developing educational outreach materials, and coordinating with the PIP Subcommittee on materials that affect businesses. The Training Work Group includes representatives from the Cities of Burlingame, Hillsborough, and San Mateo, and the County of San Mateo, and met four times during FY 2013/14.

SMCWPPP program staff organized a CEH Work Group meeting on October 24, 2013. This meeting was held with the CEH stormwater representative and cities that have agreements with CEH to conduct stormwater business inspections in their cities. The meeting was organized to review the agreements and discuss opportunities for improving assistance to agencies in meeting MRP requirements.

Public Outreach Materials

During FY 2013/14, SMCWPPP program staff reviewed the brochures available on the SMCWPPP website that relate to the CII Subcommittee activities. Program staff surveyed the Subcommittee to determine which brochures could be removed, updated, revised or stay on the website. The brochures were prioritized based on the survey results and availability of editable files. The CII Subcommittee then reviewed and updated two brochures, one on mercury recycling and one on grocery stores and supermarkets BMPs. The updated brochures are included in Appendix 4.

Commercial/Industrial Stormwater Inspector Workshop

The Commercial and Industrial Stormwater Inspector Training Workshop was held on April 17, 2014 at the Foster City Library Community Center. The workshop was attended by 53 people and included presentations on MRP business stormwater inspection program requirements, conducting a stormwater inspection, enforcement actions that may require working with your city's attorney and a table top group exercise. The workshop agenda, final attendance list and evaluation summary are included in Appendix 4.

The workshop training was approved by the California Water Environment Association (CWEA) as providing three contact hours for Environmental Compliance Inspector certificate holders. These contact hours help to fulfill the continuing education requirements for inspector re-certification.

The primary objective of the training was to provide an orientation to new inspectors and a refresher to existing inspectors who are responsible for inspecting commercial and industrial facilities for compliance with local stormwater ordinances. The focus of the training was on the table top group exercise. Six scenarios were presented and inspectors were given the opportunity to discuss among themselves how they would approach the investigation, education, enforcement and cleanup of the business site. The approaches were discussed with the larger group and actual agency responses were shared. The exercise sharing of information among inspectors including learning from other agencies' experiences. The group exercise also offered the opportunity to work towards enhanced consistency within and among SMCWPPP member agencies.

Based on the evaluation forms submitted following the workshop, attendees were satisfied with the training. One hundred percent of the attendees who completed the workshop evaluation form indicated that the workshop met their expectations. The respondents comprised 83% of all workshop attendees.

FUTURE ACTIONS

FY 2014/15 activities planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.4 include the following:

- Continue holding quarterly CII Subcommittee meetings.
- Continue to update outreach materials as identified by the Subcommittee.
- Assist member agencies with the implementation of commercial and industrial stormwater inspection tasks, including continuing to assist with business inspection plans and priorities, data management and enforcement response plans.

SECTION 5

C.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION

INTRODUCTION

One of the goals of SMCWPPP's Commercial, Industrial and Illicit Discharge (CII) component is to assist member agencies effectively prohibit the discharge of illicit, non-stormwater discharges to the municipal storm drain system. SMCWPPP member agencies are responsible for controlling non-stormwater discharges prohibited by MRP Provision C.5. SMCWPPP's CII component assists member agency staff with understanding these MRP requirements and develops various related tools, templates, reporting forms, and other MRP compliance support materials. There are additional MRP provisions that are implemented through SMCWPPP's CII component that are discussed in other sections of this report (Section 4, 12, 13 and 15).

SMCWPPP's assistance with the MRP provisions listed above is coordinated through the CII Subcommittee. Further details about the CII Subcommittee are provided in Section 4 of this report. The CII Subcommittee also has a Training Work Group that was discussed in Section 4.

IMPLEMENTATION OF MRP PROVISIONS

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of MRP Provision C.5, with input and assistance provided by the CII Subcommittee. Accomplishments included the following:

- Developed a list of companies available for cleaning up illicit discharges as a tool for illicit discharge inspectors.
- Compiled a table of mobile businesses with stormwater enforcement actions to share regionally with stormwater inspectors.
- Provided comments to the BASMAA Municipal Operations Committee on mobile business BMPs and the enforcement tracking data entry tool.

More information on each of these accomplishments is provided below.

Illicit Discharge Contractor Responder List

The CII Subcommittee compiled a list of Bay Area companies that are available for cleaning up illicit discharges in San Mateo County. The list is a tool for illicit discharge inspectors who may require responsible parties to clean up illicit discharges. A responsible party may choose to hire a

company or clean up the discharge themselves. Inspector may choose to provide the list to a responsible party but it is not meant to be comprehensive or an endorsement of any listed company. The list was compiled from several sources. Potential companies were contacted and only those that responded and agreed to be included remained in the final version. The list is available on the password-protected section of the SMCWPPP website (www.flowstobay.org).

Control of Mobile Businesses

The previous fiscal year the CII Subcommittee adapted a Mobile Business BMP brochure developed by the Santa Clara Valley Urban Runoff Pollution Prevention Program for use in San Mateo County. The brochure is available on the SMCWPPP website (www.flowstobay.org).

This fiscal year the CII Subcommittee compiled information on mobile businesses that have been subject to stormwater enforcement actions during the last year. Agencies in San Mateo County were surveyed and provided enforcement information on mobile businesses. This information was compiled in a table and is available on the password-protected section of the SMCWPPP website. The table will be updated periodically. Program staff will inform the Subcommittee if there are companies that appear multiple times on the table or if there is a pattern of enforcement for certain types of mobile businesses. Next fiscal year the Subcommittee will work on compiling an inventory of mobile businesses in the County.

BASMAA has a long-standing Surface Cleaner Training and Recognition program that focuses on improving the use of BMPs for businesses that clean surfaces (i.e., sidewalks, plazas, parking areas and building exteriors). During FY 2013/14, SMCWPPP staff continued to support this program via participation in the BASMAA Municipal Operations Committee. BASMAA uses a regional approach to support surface cleaner businesses online as part of BASMAA's Recognized Surface Cleaners program. Cleaners may use BASMAA's website (www.basmaa.org) to get trained and recognized for the first time or renew their training and recognition, as required annually. SMCWPPP member agencies have continued to refer cleaners to BASMAA's website for surface cleaning training.

BASMAA continues to plan for an expansion of its surface cleaner training and recognition program to also include fleet washers and carpet cleaners. SMCWPPP program staff and Subcommittee members provided comments to the BASMAA Municipal Operations Committee on draft carpet cleaning and transportation related cleaning mobile business BMPs and a draft data entry page for a web-based application for sharing enforcement actions against mobile cleaners. SMCWPPP program staff participated in a June 2014 BASMAA Municipal Operations Committee conference call to discuss the next steps for this project.

FUTURE ACTIONS

FY 2014/15 activities planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.5 include the following:

- Continue holding quarterly CII Subcommittee meetings.
- Work with the Training Work Group to provide focused training for commercial and industrial facility and illicit discharge inspectors.

- Assist member agencies with the implementation of illicit discharge detection and elimination tasks, including continuing to assist with data management, enforcement response plans, complaint tracking and follow-up, and collection system screening programs.
- Help member agencies comply with the proposed requirements for controlling mobile sources described in MRP Provision C.5.d. This activity will include participating in BASMAA's project for training and recognition materials for carpet cleaners and fleet washers and continuing SMCWPPP's programs related to mobile business BMPs and sharing enforcement information.

SECTION 6

C.6 CONSTRUCTION SITE CONTROL

INTRODUCTION

This component of SMCWPPP assists member agencies in complying with MRP Provision C.6 (Construction Site Control). This assistance continued to be provided through the New Development Subcommittee (see Section 3 for more details about the Subcommittee). SMCWPPP program staff also obtained input and direction from agency representatives through the Subcommittee.

IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP's accomplishments during FY 2013/14 include the following major tasks to assist member agencies with implementation of Provision C.6:

- Conducted a construction site controls training for the California Building Inspectors Group (CALBIG) on October 9, 2013;
- Updated the Enforcement Response Plan Template to address recent Regional Water Board staff comments and changes in annual reporting;
- Updated seven Construction BMP Brochures and the Construction BMP Plan Sheet; and
- Planned and conducted the April 23, 2013 Construction Site Inspector Workshop.

CALBIG Training Meeting

In FY 2013/14, SMCWPPP continued its partnership with CALBIG, a group in which many building inspectors from SMCWPPP member agencies participate, and conducted a construction site controls training at the group's October 9, 2013 meeting. SMCWPPP staff gave presentations on current stormwater requirements for construction sites, proper installation of construction BMPs, and tips for keeping construction inspection programs in compliance. Approximately 19 people attended the training, including agency inspectors, local stormwater program staff, and contractors. The meeting announcement, agenda and sign-in sheet are provided in Appendix 6.

Update of the Enforcement Response Plan Template

The Enforcement Response Plan Template was updated to address recent Regional Water Board staff comments and changes in annual reporting. The Template was approved at the May 13, 2014 Subcommittee meeting.

Construction BMP Brochures and Plan Sheet Update

SMCWPPP program staff updated seven Construction BMP brochures and the Construction BMP Plan Sheet. The updated brochures and plan sheet are available on SMCWPPP's website at the following address: www.flowstobay.org/construction.

2014 Construction Site Inspector Workshop

The 2014 Construction Site Inspector Workshop was held on April 11, 2014 at the City of San Mateo Public Library's Oak Room and was attended by 37 people. The full-day workshop covered the following topics: requirements of MRP Provision C.6; differences between Provision C.6 and the Construction General Permit; a field demonstration of construction BMPs at the construction site of the new San Mateo County Jail; and common issues in inspections of newly installed systems. Appendix 6 includes a copy of the workshop flyer, agenda, sign-in sheet, and evaluation summary.

FUTURE ACTIONS

In FY 2014/15, SMCWPPP program staff plans to work with the New Development Subcommittee to conduct the following activities to assist member agencies comply with MRP Provisions C.6:

- Continue to exchange information with member agencies through quarterly New Development Subcommittee meetings and at the annual Construction Site Inspection Workshop.
- Plan and conduct a Construction Site Stormwater Control Workshop.
- Continue to coordinate with partner organizations, such as the California Building Inspectors Group (CALBIG), to provide additional training on construction-related issues.

SECTION 7

C.7 PUBLIC INFORMATION AND OUTREACH

INTRODUCTION AND SUMMARY

The primary goals of SMCWPPP's Public Information and Participation (PIP) component are:

- To educate the public about the causes of stormwater pollution and its adverse effects on the water quality in local creeks, lagoons, shorelines, and neighborhoods;
- To encourage residents to adopt less polluting and more environmentally beneficial practices; and
- To increase residents' hands-on involvement in SMCWPPP activities.

PIP is essential for controlling pollution at the source because many pollutants originate from preventable, everyday residential activities. Pollutants in stormwater may be reduced by motivating and educating residents about the benefits of preventing stormwater pollution. This approach is recognized as being both cost-effective and efficient in meeting the goal of reducing pollutants in stormwater to the maximum extent practicable.

This section describes SMCWPPP's PIP accomplishments and assesses the effectiveness of the PIP activities completed in FY 2013/14. Diane Lynn of the City of Belmont served as the chairperson this year for the SMCWPPP PIP subcommittee.

Summary of Accomplishments

The SMCWPPP PIP Subcommittee met six times in FY 2013/14 to oversee the development of educational materials and to guide the implementation of the PIP component of the program. SMCWPPP accomplished the following major PIP tasks during FY 2013/14:

- Maintained the www.flowstobay.org website, with an increase in the number of subscribers to the following pages: Community Events, Green Streets and Parking Lots, Resources for Teachers and Schools, Business New Development, Litter Reduction and Coastal Cleanup Day, Newsletter, Less Toxic Pest Control, Used Oil Recycling, and Press Room.
- Implemented a regional anti-littering campaign on a local level, focusing on youth participation in pollution prevention activities and affiliation with local and regional social media sites.

- Increased public participation in multiple platforms of social media through consistent posts, prompts, and contests aimed at educating the public about stormwater pollution prevention, and encouraging participation activities and actions that promote stewardship.
- Maintained the existing car wash discount campaign that includes 15 commercial car washes located throughout the county, in order to encourage residents to wash cars at commercial car washing facilities. Maintained a web page that provided a point of contact to the public for the purpose of learning about the program and obtaining the discount coupon. Continued to educate the residents who choose to wash their cars at home to use minimal soap when washing cars and to divert the runoff to landscaped areas.
- Coordinated California Coastal Cleanup Day for San Mateo County, diverting an estimated 22,282 gallons of trash and 3,191 gallons of recyclables from waterways. An estimated 3,783 residents volunteered in 2013. Raised awareness of the event and litter issues through local media coverage and use of social media.
- Hosted an educational outreach booth at the nine-day County Fair and promoted a variety of stormwater pollution prevention messages.
- Supported collaborative watershed stewardship efforts by updating the online guide to local groups, promoting cleanup activities through continuing the “Spring Cleaning SMC” promotional campaign, and engaging citizens and civic groups not traditionally allied with water protection efforts, through the Team Effort campaign.
- Sponsored an educational assembly program for elementary-age students entitled “We All Live Downstream,” performed by the Banana Slug String Band. The program emphasizes the importance of not littering or dumping substances into the storm drain to protect the aquatic environment.
- Developed a middle school educational presentation entitled “Linking Litter to Critters.” The presentation emphasizes educating students on the impact of litter on the environment, and encourages them to become involved by participating in cleanup events.
- Continued conducting the high school educational presentation entitled “Water Pollution Prevention: Problems and Solutions.” The presentation emphasizes educating students on basic problems and solutions of stormwater pollution, and encourages them to become involved by educating others.

IMPLEMENTATION OF MRP PROVISION C.7

C.7.b.ii.1 Advertising Campaign

SMCWPPP, as a member of BASMAA, participates directly in the BASMAA PIP subcommittee by acting as chair of the committee and facilitating meetings, reviewing documents, and providing comments and feedback on campaigns and materials. During FY 2013/14, SMCWPPP took BASMAA-generated outreach materials pertaining to the Regional Youth Litter Campaign and developed them for local use. BASMAA’s Regional Supplement for Training and Outreach (Appendix 16) summarizes the regional activities and surveys of the Regional Youth Litter Campaign conducted in FY 2013/14.

While the BASMAA report summarizes activities of the campaign on a regional level, SMCWPPP also implemented local activities related to the campaign. SMCWPPP took the concept of the photo

booth that was supplied by BASMAA, and added a “mobile Be the Street” component, in which staff equipped themselves with costume items and signs and went to locations frequented by youth. The youth were asked to participate in a “photo shoot” in which they chose costume items and signs related to anti littering, and posed for photographs. After providing SMCWPPP with written permission, some photos were posted on the Flowstobay Facebook page. An example is presented in Appendix 7. Participants who supplied their contact information were mailed a printed copy of the photo in a Be The Street Photo Frame (Appendix 7) to remind them of their commitment to stop litter. All photos were also sent to the regional coordinator for posting on the Be the Street web site and Facebook page. The result of these efforts increased participation on both Be the Street and Flowstobay social media sites.

SMCWPPP is also actively involved in the Got Ants? Regional Pesticide Campaign. During the 2013/14 fiscal year, the San Francisco Estuary Partnership concluded work on a grant from the Department of Pesticide Regulation for the *Got Ants?* outreach campaign. This project addresses water quality impacts from current use patterns of pyrethroids, fipronil, and other broadcast or perimeter spray pesticides used in outdoor structural pest control to control ants in urban residential areas. The campaign provides easy-to-use information on ant control methods that do not harm water quality and shift users’ behavior to IPM. This project uses a social marketing approach to enlist the public who hire pest control operators and/or practice pest control at home, to change their pesticide use practices. SMCWPPP has participated in providing feedback for materials development and implementation of the campaign. SMCWPPP has provided links on the Flowstobay website, referenced the campaign on Facebook, and has used local channels to distribute outreach materials.

C.7.b.iii.1 Pre-Campaign Survey

- SMCWPPP is a participant of the BASMAA Youth Litter Campaign, “Be the Street.” Information on the pre-campaign survey for the BASMAA Regional Youth Litter Campaign was provided in the FY 2011/12 Annual Report.

C.7.b.iii.2 Post-Campaign Survey

- SMCWPPP is a participant of the BASMAA Youth Litter Campaign. BASMAA’s Regional Supplement for Training and Outreach (Appendix 16) summarizes a pre-campaign survey conducted in FY 2013/14.

C.7.c Media Relations

Regional Media Relations

SMCWPPP, as a member of BASMAA, participates directly in the BASMAA PIP Subcommittee’s media relations program by attending all meetings, reviewing articles and press releases, and providing comments and feedback. During FY 2013/14, SMCWPPP took three BASMAA-generated press releases and developed them for local use:

- October 25, 2013: “Got Ants? Get s.e.r.i.o.u.s. About Stopping Them This Rainy Season.
- November 5, 2013: “Green Streets Reduce Pollution, Enhance Pedestrian Safety”
- April 18, 2014: “Dig into Less Toxic Gardening with New App”

BASMAA's Regional Supplement for Training and Outreach (Appendix 16) summarizes the regional media relations efforts conducted during FY 2013/14, and includes a full description of the above-mentioned press releases.

County-wide Media Relations

SMCWPPP made all of its press releases available to the public as well as the media by posting them to <http://www.flowstobay.org/press>. In addition to traditional release methods, the link to each release was also broadcast to our followers on Twitter and Facebook. In addition to the regional releases listed above adopted for local use, one locally generated press release was sent out to local reporters, newspapers, newsletters, TV, and radio, with resulting articles in local newspapers.

California Coastal Cleanup Day Goes Social

Content: Details about the event, how to participate, and where to obtain more information.

Medium: Print and digital. **Date of publication:** Released August 20, 2013.

As a result, five local print newspapers ran stories or added the event to their calendars to promote it, as did six online papers and several non-profit partners' newsletters. In addition, one local television station provided coverage on the day of the event.

In addition, Facebook and Twitter accounts were used to share news stories related to local water quality, including Coastal Cleanup Day, plastic bags, marine debris, pharmaceutical disposal, and more. Media outlets shared our article links with their readers, bringing them to the attention of a wider audience.

C.7.d Stormwater Point of Contact

The Countywide Program website (www.flowstobay.org) and phone number (650-372-6200) is publicized on outreach materials and maintained by SMCWPPP. San Mateo County Permittees' points of contact for each jurisdiction are also publicized on the website, and are referred to when receiving calls from the public on the Countywide Program phone number. The website address and program phone number have not changed since the last Annual Report.

During FY 2013/14, the website was migrated from a software-based management system to an open-sourced content management system, resulting in a change in the look and feel of the website, and additional features that allow for ease of access. The overall structure of the website content was not changed, although some pages were combined or eliminated to bring the site up to date.

Website Statistics

The total number of people visiting www.flowstobay.org for the 2013/14 fiscal year was 46,048. Certain web pages have a subscription service, Gov Delivery, which sends updates to a given page to subscribers via email. Statistics for Gov Delivery are shown in Table 7-1. The website continues to be promoted during outreach events and citizen involvement activities, as well as through media advertising, promotional items, and literature. New web pages and features added this year include:

- Redesigned home and litter pages
- A page devoted to San Mateo County creek information: Creek of the Week (See description under the Social Media section below)

Gov Delivery emails were sent out to the list of subscribers whenever there were updates added to any of the pages with the subscription tag. Subscribers include local news media. Table 7-1 shows subscriptions in June 2014 and a comparison from the previous year. Two new pages were added to the Gov Delivery system in 2013/14, so no historical numbers of subscribers exist for them. Two other pages were eliminated from the website during the migration for design or content reasons.

Table 7-1. Gov Delivery Subscribers

Web Page with Gov Delivery Option	Subscriber Numbers June 30, 2014	Subscribers Numbers June 30, 2013
Community Events	551	317
New Information	Discontinued	322
Resources for Teachers and Schools	391	301
Community Action Grant	Discontinued	317
Litter Reduction & Coastal Cleanup Day	585	484
Newsletter: Pollution Prevention Post	1285	1052
Less Toxic Pest Control	382	293
Press Room/ In the News	442	335
Green Streets and Parking Lots	124	121
Business New Development	95	Added this FY
Used Oil Recycling	81	Added this FY

Top 4 Web Pages viewed in 2013/14, spanning all months in the year:

1. 4,230 views: Too Toxic to Trash
2. 4,060 views: Calendar of Events
3. 2,947 views: Sustainable Streets
4. 2,097 views: New Development , (business)

Top 4 Document downloads in 2013/14, spanning all months in the year:

1. 2,170: Sustainable Streets Regular Guide, Municipalities Section
2. 459: C.3 Technical Guidance, Municipalities Section
3. 392: 2008-2009 Annual Report, Municipalities Section
4. 279: 2006-2007 Annual Report, Municipalities Section.

Social Media

In addition to the web page, there are also established Facebook and Twitter accounts for Flowstobay, used to inform the public of outreach events and stormwater messages. These accounts continued to be used and maintained throughout the fiscal year. Table 7-2 shows current and historical numbers of followers for each platform. SMCWPPP created an Instagram account during FY 2013/14, and grew the followers to 208 by the end of the fiscal year.

Table 7-2 Social Media Followers for Flowstobay Accounts

Platform	Followers June 30, 2014	Followers June 30,2013
Facebook	736	191
Twitter	397	287
Instagram	208	NA

As part of the overall effort to enhance social media presence, several small campaigns were implemented during FY 2013/14. On Facebook, Fun Fact Friday is an open-ended thematic informational posting of facts on various pollution prevention tips such as homemade less-toxic cleaning products and water conservation. Stormdrain Sunday is an engagement tool where pictures of artistically modified storm drains from Brazil are posted and followers are prompted to give the storm drain a character name, or a pollution prevention fact is relayed (see Appendix 7). Creek of the Week is designed to highlight factual information about creeks throughout San Mateo County, providing followers with a link to a new web page created as a repository for each weekly posts (see Appendix 7) Facts such as location, vegetation, and volunteer opportunities for stewardship were presented. Promotional giveaway campaigns were conducted during the month of December and again in April. Prompts for comments or questions were posted, related to topics such as frequency of oil changes, product re-use, car washing, storm drains, and litter; with the first correct replies winning a prize such as a reusable bamboo utensil set or a stainless steel water bottle. All giveaways were embossed with the program logo and point of website contact. On Twitter, regular postings called Litter Free Wednesday provide tips on how to reduce the generation of litter, litter types, and actions people can take.

Other Media

SMCWPPP reached out to jurisdictions with community access television channels to arrange for broadcasting of informational slides related to stormwater pollution prevention. Topics include Our Water Our World, car washing, CFL disposal, cigarette butt waste, illegal dumping, and promotion of the Flowstobay point of contact. Ten of 21 jurisdictions in San Mateo County now participate in regular broadcasting of the slides, an example of which is shown in Appendix 7.

C.7.e Public Outreach Events

Coordination of California Coastal Cleanup Day in San Mateo County

See section C.7.g, as this event fulfills the requirement of both C.7.e and C.7.g.

San Mateo County Fair, June 7-15, 2014

SMCWPPP conducted a county-wide outreach event at the San Mateo County Fair, June 7-15, 2014. A booth was set up as part of the Sustainable Living Exhibit, which was dedicated to presenting projects, organizations, products, and services focused on pollution prevention, energy efficiency, recycling and creative re-use. SMCWPPP placed advertisements in local papers promoting the event, and developed a promotional poster that was provided to all jurisdictions in the county to use for local promotion.

The booth was located in Redwood Hall, which was open to the public for a total of 95 hours during the 9 days. Staff from 6 jurisdictions and County Environmental Health worked at the booth at select

times each day for a total of 49 hours of staffed time for the week. The booth was unstaffed for the remaining 46 hours, including night time hours when most of the public were at concerts. Approximately 1,200 people were spoken to during the entire event. Countless others had access to the booth during unstaffed times, and were guided by signs and posters to help themselves to outreach materials, all of which are listed below. A photo of the booth is presented in Appendix 7.

Outreach Materials and Giveaways

The following SMCWPPP items are given out at outreach events and by request to jurisdictions, organizations, and residents in San Mateo County (not including the less toxic pest control items listed in section C.9.h.ii).

- "You're the Solution" storm water brochure, English and Spanish
- Pocket Ashtray
- 4 children's activity books: Pest or Pal (OWOW), Watershed Protection, Stormwater, and Don't Be a Litterbug.
- Children's promotional materials with SMCWPPP logo/messages: fish sponge, bookmark, pencils, fish eraser, water drop eraser, crayons
- Flowstobay.org business card
- Flowstobay reusable nylon shopping bag
- OWOW business cards
- OWOW pocket guides
- OWOW Pest Bugging You booklet of fact sheets
- Car Wash Tip Card with attached Discount Coupon
- Got Ants? promotional campaign flyer
- Clean 15/Dirty Dozen pocket guide to pesticides and produce
- New outreach materials listed below

In addition, the following materials developed by San Mateo County Environmental Health related to the Household Hazardous Waste collection program and the Used Oil Recycling program, are provided at outreach events, and also supplied to jurisdictions, organizations, and the public:

- Comprehensive toxics disposal and pollution prevention guide "Too Toxic To Trash"
- Household Hazardous Waste brochure (English and Spanish) and business card
- Very Small Quantity Generator brochure for hazardous waste disposal for small businesses
- Used Oil Recycling brochure
- Used Oil Recycling children's coloring book
- Used Oil curbside options card
- Less Toxic Cleaning Alternatives recipes, in English and Spanish
- Newsletter: Pollution Prevention Post (see below)

During outreach events, Environmental Health used a spinning wheel question game developed for the County Fair during FY 2012/13, as an approach to increase engagement by offering attendees to spin to answer a stormwater-related question and win a prize that promotes pollution prevention. These prizes were also used for the Middle- and High School Outreach programs (described in section C. 7.h) and include:

- SMCWPPP water bottle
- SMCWPPP mug
- Be The Street lunch bag
- Be The Street mini recycling toter (pen holder)
- SMCWPPP keychain

New Outreach Materials Developed This Year

SMCWPPP developed and/or purchased the following new outreach materials, for use in promotional social media giveaways, school outreach, and outreach events:

- Bamboo Utensil Set
- “Litter Free San Mateo County” Sunglasses
- Globe Water Bottle
- Dog Bag Dispenser
- Water Drop Eraser

Newsletter

San Mateo County Environmental Health generated two issues of the “P3: Pollution Prevention Post” newsletter, published in August and March to coincide with Earth Day and Coastal Cleanup Day, respectively. SMCWPPP participated in the content and printing of these newsletters, and distributed them to local jurisdictions and to the public at outreach events. They were also posted to the Flowstobay website. Newsletter topics included: Coastal Cleanup Day, HHW and Realtors, Water Pollution Education goes to Schools, Recology and the San Mateo County Oil and Filter Recycling Program, Rider’s Recycle, Spring Cleanup Events, Making Used Oil as Good as New, Healthy Nail Salons, Ox Mountain Landfill IPM. A total of 3,500 hard copies were distributed at libraries, city halls, community centers, organizations, and outreach events. The newsletter is also directly mailed to over 400 residents.

Car Wash Outreach

As specified in section C.7.e of the MRP, SMCWPPP has developed specific outreach materials and efforts related to educating the public on car wash best practices. A car wash discount program was established in 2010-11 and has been expanded and maintained since then. The program now has 15 partnerships with commercial car washes around the county. The partners participate in a discount coupon which is attached to a car wash best management practice tip card for residents. A sample of this card was presented in the FY 2012/13 SMCWPPP Annual Report, and no changes were made during FY 2013/14. This program is in place until December 2015.

The tip card with coupon is handed out at outreach events to facilitate discussions of the topic with the public. Advertisements were also placed in local newspapers promoting car wash best practices and the discount program, as well as postings on the website and social media platforms.

C.7.f Watershed Stewardship Collaborative Efforts

Environmental Resource Guide of Groups and Organizations in San Mateo County with Watershed Stewardship Focus

SMCWPPP updated the online Resource Guide, created in 2009, of groups and organizations in San Mateo County that focus on watershed stewardship and encourage public involvement in watershed volunteer efforts. All groups were contacted to verify and update their information during this fiscal year. Groups are searchable by city or topic of interest. In addition, information on how to form a watershed group is available for interested residents, to encourage formation of groups in areas that do not currently have a local group.

Spring Cleanup Promotional Program

SMCWPPP once again promoted “Spring Cleaning SMC,” originally launched in FY 2011/12, which is an annual campaign designed to provide an outlet for watershed stewardship groups and jurisdictions to promote small local spring cleanup events. It is promoted as a cleanup “season,” from March 21 to June 21, including all Earth Day events that take place in late April. SMCWPPP revised a web page on Flowstobay.org dedicated to posting cleanup events during this time period. Newspaper advertisements were developed and placed in newspapers throughout the county, directing the public to the web page. A total of 20 spring cleanup events in 14 cities were posted during the spring season. The page had 246 visits in March, 234 visits in April, 236 visits in May, and 119 visits in June, for a total of 835 visits.

Team Effort Campaign

SMCWPPP continued the Team Effort Campaign, originally launched in FY 2012/13 to reach civic-minded County residents and organizations who may not historically have considered themselves to be watershed stewards. The campaign continued to FY 2013/14, and included the creation of an electronic newsletter and publication of four issues. Topics included water quality at the beach, community partners, Fitzgerald Marine Reserve, reduction of use of holiday decorations (Halloween and Christmas), Coastal Cleanup Day, Green Streets and Parking Lots, pet waste management, activities for kids at the beach and during Earth Day. These topics were also posted to social media, including Facebook, Twitter, and Instagram. The Flowstobay website home page was re-designed evoking the Team Effort theme and integrating the articles of the newsletter. A portal to allow web readers to sign up for the newsletter was created, and a constituent relationship management database (CRM) was developed. Attendees to outreach events were prompted to sign up for the newsletter. Neighborhood associations, civic clubs, and homeowners associations were contacted and added to the database. A presentation related to water quality was conducted to a local neighborhood association, and more are planned for the coming fiscal year. SMCWPPP also attend a regional watershed forum hosted by a local watershed group.

C.7.g Citizen Involvement Events

Coordination of California Coastal Cleanup Day, September 21, 2013

California Coastal Cleanup Day, held each year on the third Saturday in September, is the largest volunteer event in the state. The California Coastal Commission sponsors the event with the support

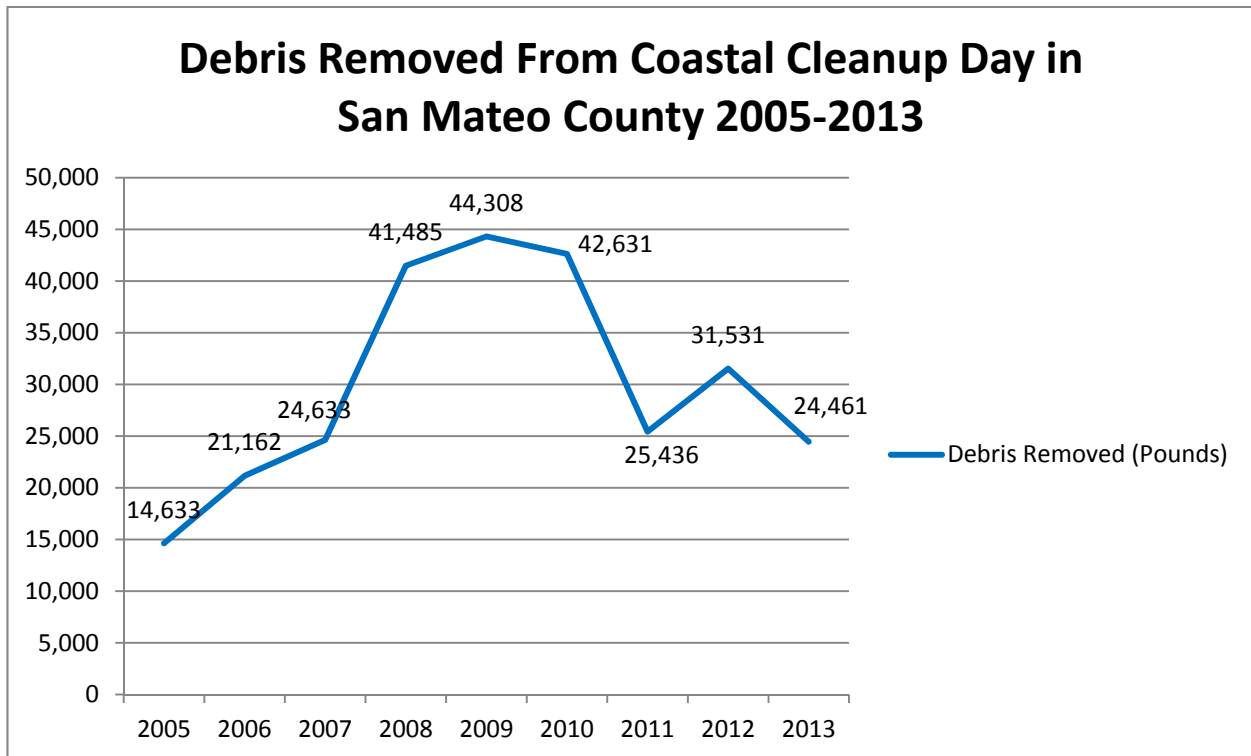
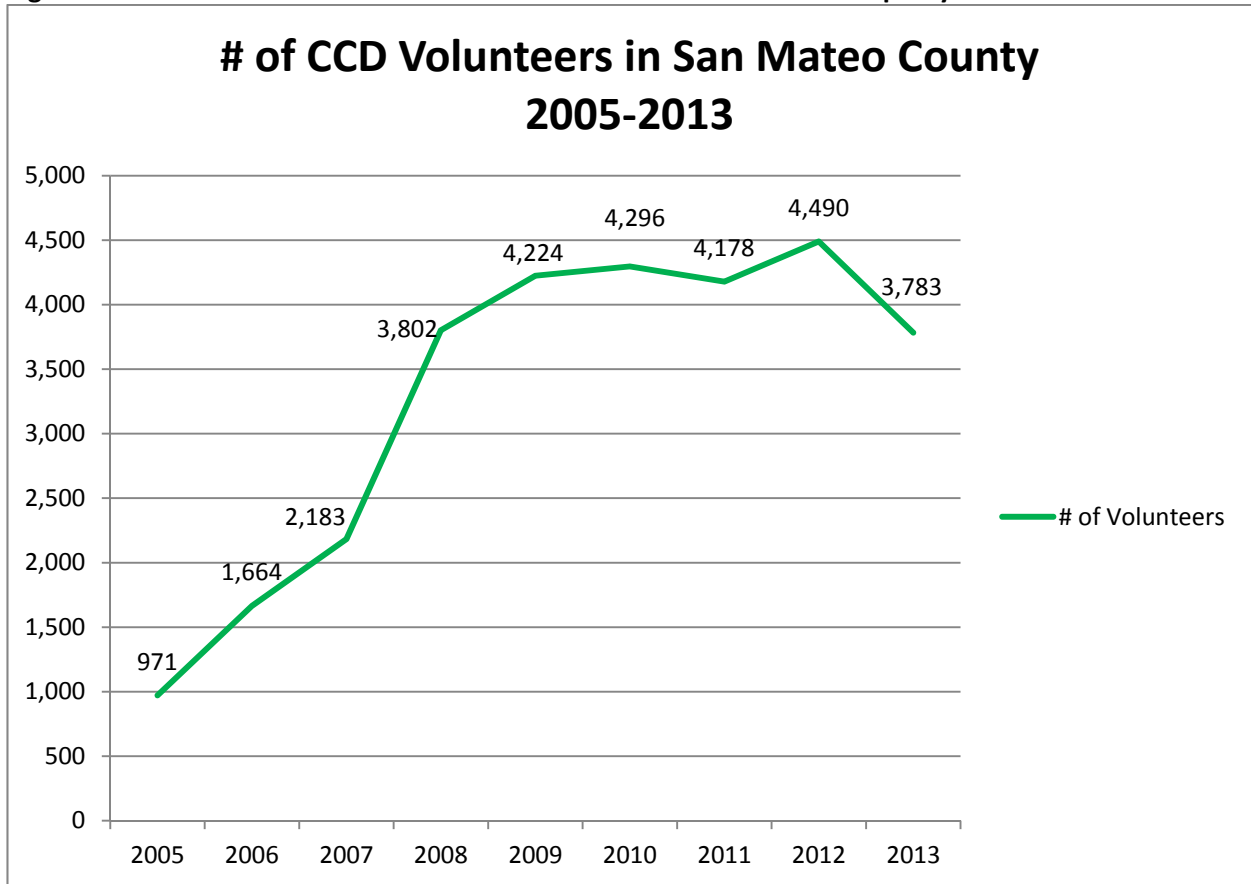
of County and Regional Coordinators. SMCWPPP coordinated the event for the ninth year for San Mateo County, recognizing that this event is a great opportunity to get many residents of all ages actively involved with the problems associated with litter. This event qualifies as both a Public Outreach Event (C.7.e.) and Citizen Involvement Event (C.7.g.). In preparation for the event:

- Outreach materials such as posters and postcards provided by the Coastal Commission were disseminated to public schools, libraries, community centers, non-profit organizations, churches, youth groups, site captains, and all jurisdictions in the County. These materials were also handed out at outreach events.
- An article was written in the San Mateo County Environmental Health newsletter, “Pollution Prevention Post” (Fall 2013) which informed residents about the event and where to find a location list of cleanup sites in San Mateo County. A total of 2,500 copies were distributed throughout the County to libraries, residents, and local businesses.
- A press release was developed and sent out on August 20, 2013 describing the event and encouraging readers to go to flowstobay.org to find out how to participate. The following papers picked up the press release and ran articles or added the event to their public calendars (or both): Pacifica Tribune, Half Moon Bay Review, In Menlo, Pacifica Riptide plus six local Patches (online news outlets by Patch.com, with a focus on a single city). Bay Area FOX affiliate, KTVU, did a television broadcast story on the cleanup effort at Ryder Park in San Mateo.
- The event was posted on the Flowstobay web site home page, as well as on the online calendar. A special webpage was set up with pages devoted to Coastal Cleanup Day that provided residents with logistical information for the event, including a Google map of sites. Many environmental groups, public schools and cities included the event on their web calendars.
- SMCWPPP used Twitter, Facebook and Instagram to draw attention to the event as the date approached. In all, **98** Twitter posts/shares/retweets, **103** Facebook postings/shares, and **19** Instagram posts were issued to promote the event.
- All public schools were sent a memo which contained information about two ways that schools could support CCD: by displaying posters on campus on the first day of school where staff, students, and parents would see them; and to participate in a school or classroom cleanup activity on Friday, September 20- the day before Coastal Cleanup Day. Participating students were asked to pick up litter around campus and record what they found on data cards. All the supplies were provided, and the students were counted among the thousands that participated. In 2013, over **368** students participated from a total of 13 public schools (8 elementary, 4 middle and 1 high school) from Daly City, La Honda, Menlo Park, Millbrae, Redwood City, San Bruno, San Carlos, San Mateo and South San Francisco.
- A site captain’s meeting was held to disseminate the latest information from the Coastal Commission to the site captains, along with materials that would be needed to conduct the event. They were trained on signing in volunteers and providing safety talks. In an effort to move toward a change in reporting methods, captains were also trained in how to report their findings using volume measurements and gallons. Both weight and volume numbers were provided in the final reporting to the Coastal Commission.
- There were three new sites established this year: Pomponio Beach in Half Moon Bay, Surfer’s Beach in El Granada, and Montara Beach in Montara.

On the actual day of the event, 26 site captains managed 49 sites throughout the county. There were 34 sites located on the coastal portion of the county (including 24 large and small sites in the City of Pacifica), and 15 sites were located bayside. A total of 3,783 volunteers were reported to have participated. A total of 21,661 pounds (22,282 gallons) of trash and 2,800 pounds (3,191 gallons) of recyclables were gathered. Coastal Cleanup Day runs for three hours, but because of heavy rain that hit the County, most sites ended after an hour to an hour and a half. A total of 50 miles of shoreline was cleaned. Because of the storm ending the event early, data for 2013 is significantly lower than the previous year.

Since SMCWPPP began coordinating the event for San Mateo County in 2005, the increase in volunteers who have turned out for Coastal Cleanup Day has grown by roughly 450%. The amount of debris removed from waterways has more than doubled (Figure 7.1). An estimated total of nearly 270,000 pounds of debris has been removed since 2005.

Figure 7-1. Historical Data for SMCWPPP Coordination of Coastal Cleanup Day.



Spring Cleaning SMC

See C.7.f Watershed Stewardship Collaborative Efforts, above.

C.7.h School-Age Children Outreach

Banana Slug School Assembly Program

SMCWPPP once again contracted with the Banana Slug String Band (a two to four-person musical theatrical team that specializes in school assemblies, originally contracted in 2010) to present interactive shows about stormwater. The show, entitled “We All Live Downstream,” provides information about storm drains, watersheds, the marine environment, and tips to keep water clean. The show uses songs and activities to engage students on the topic. In FY 2013/14, the Banana Slug String Band performed 48 assemblies at 26 elementary schools across the county, reaching nearly 9,345 students (Table 7-3). Surveys of the performance and its effectiveness were sent to a representative sample of 6 schools, and all 6 responded with 534 student responses. The results indicated the following:

- 74% understood that stormwater flows directly into the bay or ocean.
- 100% answered correctly on questions related to the type of pollution often impacting storm drains.
- 85% understand that pollution in the storm drain sickens or kills marine life.
- 83% chose not littering as a way to prevent pollution.
- 87% liked the presentation.

SMCWPPP Middle School Outreach

During FY 2013/14, SMCWPPP developed a presentation for middle school students that focused on litter education and reduction. The presentation consisted of images of litter in the environment, and ways in which students can become involved in litter reduction in their community. It included an active participation game with incentive rewards as a method of checking for understanding. The rewards are listed as outreach materials in Section C.7.e. A total of 13 presentations were conducted at 4 middle schools, reaching a total of 327 students (Table 7-4). Surveys were conducted in 11 classrooms to assess effectiveness. The results indicated the following:

- 99% understood that litter enters the storm drain system and impact wildlife.
- 99% understood that storm drains flow directly to the Bay or ocean without treatment
- 99% understand that plastic has negative effects on wildlife
- 96% chose not littering from a list of options as a way to prevent pollution.
- 88% liked the presentation.

Table 7-3. Banana Slug String Band School Assembly Performances 2013/14

School	City	Date	# shows	# students
Las Lomas Elementary	Atherton	9/25/13	2	625
Garden Village Elementary	Colma	9/26/13	2	345
Los Cerritos Elementary	South SF	9/26/13	2	325
Fair Oaks Head Start	Menlo Park	10/04/13	1	75
Meadows Elementary	Millbrae	10/09/13	2	400
Belle Air Elementary	San Bruno	10/09/13	2	225
Brisbane Elementary	Brisbane	10/18/13	1	225
Washington Elementary	Daly City	10/18/13	2	450
Portola Elementary	San Bruno	10/29/13	2	343
Skyline Elementary	Daly City	10/29/13	2	385
Crocker Middle School	Hillsborough	11/06/13	2	125
Woodside Elementary	Woodside	11/06/13	2	385
Sunset Ridge Elementary	Pacifica	11/07/13	2	700
Fox Elementary	Belmont	11/07/13	2	125
Pescadero Elementary	Unincorporated	11/14/13	1	225
Heather Elementary	San Carlos	12/12/13	2	550
Audubon Elementary	Foster City	1/09/14	2	570
Ormondale Elementary	Portola Valley	2/05/14	2	280
George Hall Elementary	San Mateo	2/11/14	2	450
Beresford Elementary	San Mateo	2/11/14	2	240
Adelante Elementary	Redwood City	3/05/14	2	519
La Honda Elementary	Unincorporated	3/05/14	1	125
Laurel Headstart	East Palo Alto	3/13/14	2	45
Hatch Elementary	Half Moon Bay	3/19/14	2	575
Franklin Elementary	Burlingame	4/21/14	2	683
Farallone View Elementary	Unincorporated	5/19/13	2	350

Table 7-4. SMCWPPP Middle School Presentations 2013/14

School	City	Date	# classes	Type	Grade	# Students
Fernando Middle School	Daly City	01/30/14	2	Sci & Math	6	48
Hillview Middle School	Menlo Park	02/06/14	1	Env Sci	6	14
Taylor Middle School	Millbrae	03/03/14	1	Earth Science	6	28
Taylor Middle School	Millbrae	03/06/14	2	Science	6	57
Burlingame Intermediate	Burlingame	04/09/14	3	Life Science	7	79
Burlingame Intermediate	Burlingame	04/10/14	3	Life Science	7	88
Hillview Middle School	Menlo Park	04/22/14	1	Env Sci	6 to 8	13

SMCWPPP High School Outreach

During FY 2013/14, SMCWPPP continued a high school outreach presentation developed in FY 2012/13. Content was focused on water pollution prevention problems and solutions, with an emphasis on litter prevention and student involvement. The presentation was conducted at 6 schools located throughout the County, reaching a total of 333 students (Table 7-5). Grades 9-12 received the presentations in science, environmental science, and small engine repair classes. Surveys of 34 students were conducted in two classrooms. Students were asked to give scaled responses to statements related to pollution prevention, with 1 meaning strongly disagree and 5 meaning strongly agree. The results indicate the following:

- 97% agreed or strongly agreed with the statement “I learned something new about watersheds, storm drains, and water pollution in the Bay and ocean.”
- 82% agreed or strongly agreed with the statement “I learned new ways to protect the San Mateo County watersheds.”
- 82% agreed or strongly agreed with the statement “I would recommend this presentation to my friends.”

In addition to rating these statements, students were given opportunities to write specific narrative comments to each statement, and wrote narrative responses to the question: “How will you apply the lessons that you learned in the presentation, specifically about actions you plan to take to prevent water pollution.” Narrative responses varied greatly, but showed students had an engaged interest in becoming active in preventing pollution.

Table 7-5. SMCWPPP High School Presentations 2013/14

School	City	Date	# classes	Type	Grade	# Students
Eastside College Prep	E. Palo Alto	7/16/13	1	Water Studies	10	18
Redwood High School	Redwood City	10/29/13	1	Social Science	10	17
El Camino High School	South SF	11/4/13	2	Engine Lab	9-12	70
Terra Nova High	Pacifica	12/9/13	2	Health	9	64
Terra Nova High	Pacifica	12/10/13	2	Health	10	64
Terra Nova High	Pacifica	1/7/14	1	Health	11,12	25
Woodside High	Woodside	1/28/14	1	Env. Studies	11,12	23
Aragon High	San Mateo	2/25/14	2	Env. Studies	11,12	52

Science Fair

On February 24, 2014 a SMCWPPP representative served as a judge in the special awards category, reviewing exhibits/projects in the category of Environmental Preservation. Special awards were given in two categories: Elementary School and Middle School.

For the elementary school category, a fifth grade student was selected for his project entitled “What’s the Catch with the Garbage Patch?” For the middle school category, an eighth grade student was selected for his project “Lead at the Beach.” SMCWPPP awarded both students with a framed certificate and a bag of program promotional student giveaway items. CSG Consultants contributed \$25 gift cards to both awards.

Safe Routes to School

SMCWPPP partnered once again with the San Mateo County Office of Education (SMCOE) to promote an event entitled “Be Seen Keepin’ It Clean” in which elementary-aged school children were coordinated in an effort to pick up trash on the way to school as part of SMCOE’s Safe Routes to School program. SMCWPPP also conducted a presentation to program coordinators on SMCWPPP public involvement activities.

C.7.i Outreach to Municipal Officials

As discussed near the beginning of this report (Section 1.0, Introduction), SMCWPPP is a program of the City/County Association of Governments (C/CAG) of San Mateo County. C/CAG is a Joint Powers Authority (JPA) for issues of regional importance to San Mateo County jurisdictions. The C/CAG Board is comprised of a local elected city council representative from each member agency (20 cities/towns), a member of the County Board of Supervisors, and representatives from the transit district and transportation authority. Throughout FY 2013/14, the C/CAG Board received presentations, updates, and took actions on various stormwater-related issues, as detailed below:

- August 2013: Amendment of funding agreement with San Mateo County Environmental Health for providing public education and outreach.
- September 2013: Update on potential countywide stormwater funding initiative.
- November 2013: Stormwater Committee appointments, unfunded mandate amicus brief.
- December 2013: Potential countywide stormwater funding initiative.
- February 2014: Stormwater Committee appointments.
- March 2014: Potential countywide stormwater funding initiative.
- May 2014: Potential countywide stormwater funding initiative, draft C/CAG budget.
- June 2014: Potential countywide stormwater funding initiative, final C/CAG budget.

In addition, in August 2013 and May 2014, C/CAG staff spoke to the City/County Managers Association of San Mateo County regarding the potential countywide stormwater funding initiative.

FUTURE ACTIONS

The following PIP activities are planned for FY 2014-15:

- Hold PIP Subcommittee meetings every quarter.
- Act as Chair of the BASMAA PIP subcommittee.
- Support and participate in the development of the Regional Ad Campaign and regional media relations pitches, both on a regional and local level.
- Support and participate in the Greener Pesticides for Cleaner Waterways grant.
- Conduct a minimum of two local media relations pitches.
- Maintain the www.flowstobay.org website, with a re-designed home page for easier access.

- Increase subscribers to specified web pages using a constituent relationship management system (CRM).
- Maintain and grow social media outlet accounts with Twitter, Instagram, and Facebook.
- Staff local public outreach events, including one Countywide event.
- Maintain stock of outreach materials and provide to jurisdictions and public upon request.
- Conduct outreach partnership projects with commercial car washes.
- Engage new community organization partners through the Team Effort campaign.
- Join and expand existing year-round litter campaign entitled “Be Seen Keepin it Clean” and promote local cleanups by watershed stewardship groups and local agencies under that branding umbrella.
- Coordinate the Coastal Cleanup Day event in San Mateo County.
- Offer school assemblies to K-5th graders.
- Offer classroom presentations at the Middle- and High School level.

SECTION 8

C.8 WATER QUALITY

MONITORING

On behalf of its member agencies, SMCWPPP performs water quality monitoring activities in compliance with MRP Provision C.8. Much of this work is accomplished through participation in BASMAA regional projects. Per Provision C.8, water quality monitoring activities conducted from the beginning of the permit term through September 30, 2013 were documented, summarized, and evaluated in the comprehensive Integrated Monitoring Report (IMR), which was submitted to the Regional Water Board on March 17, 2014. Per Provision C.8, a complete documentation of all water quality monitoring data collected from October 1, 2013 through September 30, 2014 will be presented in SMCWPPP's Urban Creeks Monitoring Report, which will be submitted to the Water Board by March 15, 2015.

C.8.e Pollutants of Concern Monitoring

Based on the lessons learned through the implementation of the Small Tributaries Loading Strategy (STLS) Multi-Year Plan in Water Years 2012, 2013, and 2014; and the reprioritization of near-term information needs, SMCWPPP and its Regional Monitoring Coalition (RMC) partners are implementing a revised approach to Pollutants of Concern (POC) Loads monitoring in FY 2014-15. The alternative monitoring approach was discussed at numerous STLS workgroup meetings during FY 2013-14¹ and was agreed upon by STLS members, including Regional Water Board staff, as the best approach to addressing near-term high priority information needs regarding PCB and mercury sources and loadings. The approach will be implemented in compliance with MRP provision C.8.e² beginning in the fall of 2014. The alternative approach includes the discontinuation of most POC loads monitoring stations sampled in previous Water Years and includes the implementation of the following activities by SMCWPPP and/or the Regional Monitoring Program (RMP) via the STLS workgroup:

- **Pulgas Creek Pump Station Watershed POC Loads Monitoring Station** – SMCWPPP has monitored a total of seven storms at this station during the past two years and is currently receiving, compiling and interpreting the results. This station drains a small drainage with mostly industrial land uses located at the margin of the Bay in San Carlos. SMCWPPP will report on this monitoring in the March 2015 Urban Creeks Monitoring Report but does not plan to monitor additional storms during the 2014/15 wet weather season.
- **PCB and Mercury Opportunity Area Analysis (SMCWPPP)** - As part of the development of PCB and mercury loading estimates presented in the Part C of the Program's Integrated Monitoring

¹Revised POC loads monitoring approaches for FY 13-14 (Water Year 2015) were discussed and ultimately agreed upon by Regional Water Board staff and other STLS and RMC partners at the following STLS meetings: October 13, 2013; March 19, 2014; April 1, 2014; April 16, 2014; May 15, 2014; and June 9, 2014.

²The FY 2014-15 revised alternative approach summarized in this section addresses each of the POC Loads Monitoring management information needs described in provision C.8.e and will be performed at an equivalent level of monitoring effort as the effort described in this MRP provision.

Report, SMCWPPP (in collaboration with the San Francisco Estuary Institute) developed preliminary GIS data layers illustrating potential PCB and mercury source areas. These data layers along with existing data on PCBs/mercury concentrations in sediment and stormwater represent the current state-of-knowledge of source areas for these pollutants in San Mateo County. These preliminary data layers, however, are based on limited and potentially outdated information on land uses and current activities at properties that may contribute or limit the level of pollutants transported to the Bay via stormwater. In an effort to collect additional information on current land uses, facility practices and contributions of PCBs and mercury from these properties, SMCWPPP is conducting a *PCB and Mercury Opportunity Area Analysis* as part of its revised POC loads monitoring approach in FY 2014-15 to assist Permittees in identifying source areas in San Mateo County. The outcome of this activity will be a refined understanding of PCB/mercury source area locations, which is anticipated to lead to further load reduction opportunities during future NPDES permit terms.

- **POC Monitoring (RMP/STLS)** - Through the STLS workgroup, SMCWPPP is also working with RMP staff on the implementation of a stormwater characterization field study that is intended to complement the opportunity area analysis described above. The goal of the project is to assist Permittees in identifying watershed sources of PCBs and mercury through sampling of stormwater and sediment transported from the watershed to stormwater conveyances during storm events. This monitoring will be funded through the RMP and will begin in the fall/winter of 2014.

In addition to these activities conducted as part of the revised POC loads monitoring approach for FY 2014-15, SMCWPPP also intends to continue participating in other STLS activities during this fiscal year.

The revised monitoring approach was approved by the BASMAA Board of Directors on August 28, 2014.

SECTION 9

C.9 PESTICIDE TOXICITY CONTROLS

INTRODUCTION

The primary objective of MRP Provision C.9 is to prevent the impairment of urban streams by pesticide-related toxicity, and thereby implements requirements of the *TMDL for Diazinon and Pesticide-related Toxicity for Urban Creeks* in the region. Permittees are required to implement a pesticide toxicity control program that addresses their own and others' use of pesticides within their jurisdictions that pose a threat to water quality and that have the potential to enter the municipal stormwater conveyance system.

Most MRP-required Provision C.9 tasks are implemented individually by each SMCWPPP member agency. SMCWPPP helps agency staff to understand MRP requirements and develops various tools that assist agency staff to effectively plan, implement, and report on compliance activities. SMCWPPP's assistance with MRP Provision C.9 Pesticides Toxicity Control is coordinated through SMCWPPP's Parks Maintenance and Integrated Pest Management (IPM) Work Group (except Provision C.9.h, the public outreach portion of Provision C.9, which is implemented through the SMCWPPP Public Information and Participation component - see Section 7 of this report).

IMPLEMENTATION OF MRP PROVISIONS

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.9, with input and assistance provided by the Parks Maintenance and IPM Work Group. Accomplishments included the following:

- Held three meetings of the Parks Maintenance and IPM Work Group.
- Conducted a Structural IPM Training Workshop in November 2014.
- Conducted SMCWPPP's Annual Landscape IPM Training Workshop in March 2014.
- Developed a draft "Orientation Piece" for the Parks Maintenance and IPM Work Group that can be used by Permittee staff to provide information about SMCWPPP and C.9 requirements to new and existing staff.
- Began developing periodic updates on pesticide regulatory activities for the Parks Maintenance and IPM Work Group.
- Partnered with BASMAA to submit a grant application to the California Department of Pesticide Regulations (DPR) to conduct IPM outreach to residents of multifamily dwellings. The grant application was selected for funding and will commence in September 2014.
- Participated in relevant BASMAA and CASQA activities.

- Participated in the region-wide Integrated Pest Management (IPM) “Our Water Our World” campaign by working with local retail stores to maintain point of purchase information on less toxic pest control.
- Promoted IPM courses to 80 structural and landscape pest control operators registered with the County Agricultural Commissioner. Maintained a web page identifying operators that are IPM-trained as a resource for the public.

More information on each of these accomplishments is provided below.

Parks Maintenance and IPM Work Group

The Parks Maintenance and IPM Work Group met three times during FY 2013/14 to share information about MRP requirements and methods for achieving compliance. Valerie Matonis from the City of Redwood City continued to chair the IPM Work Group. A FY 2013/14 work group attendance summary table is included in Appendix 9. A majority of the Work Group's three meetings were attended by staff from Colma, Foster City, Daly City, Hillsborough, Menlo Park, Redwood City, San Mateo County Parks, and South San Francisco. Other cities that attended at least one meeting were East Palo Alto and San Bruno. Participation on the Work Group has remained steady during the past few years. In addition, every meeting was attended by one or more staff from San Mateo County Agriculture/Weights and Measures.

In FY 2013/14, the Parks Maintenance and IPM Work Group developed the following:

- Orientation Piece - SMCWPPP staff worked with the Parks and IPM Work Group to develop a draft “Orientation Piece” that can be used to train and inform new and existing staff about SMCWPPP, MRP, and the role of the Parks and IPM Work Group. The draft Orientation Piece will be finalized early FY 2014/15.
- Regulatory Update - In FY 2013/14, the Parks and IPM Work Group recommended that prior to each of its meetings, SMCWPPP staff develop and distribute an update describing pesticide regulatory activities and upcoming IPM workshops and trainings. The first update was developed in April 2014.

Structural Integrated Pest Management Workshop

A Structural IPM Workshop was held on November 19, 2013 at the City of Redwood City's Community Activities Building. Forty-three people attended the workshop. The following topics were covered:

- Pesticides and Water Quality
- Current Issues, Trends, and New Pests for Bay Area Pest Management Professionals
- IPM Action Plans for Structural Pests
- Regulatory Update and Common Violations

Evaluation forms completed by workshop attendees indicated that staff found the workshop useful. Appendix 9 includes the workshop agenda, attendance list and a summary of the completed evaluation forms. Other workshop materials are available on the SMCWPPP website (www.flowstobay.org) for use by agency staff.

Thirteenth Annual Landscape Integrated Pest Management Workshop

The SMCWPPP annual Landscape IPM workshop was held on March 12, 2014 at the City of Foster City's Library Community Center. Eighty-one people attended and the following topics were covered:

- Pesticides and Water Quality
- Gopher, Squirrel, Mole, and Raccoon Control
- Adapting and Applying the Central Tenets of IPM to Landscape Pest Control
- Biopesticides, Reduced-risk Pesticides, and Organics in Turf and Ornamental Use
- Regulatory Update, Common Violations, and Online Pesticide Use Reporting

SMCWPPP worked closely with San Mateo County Agriculture/Weights and Measures staff to provide Department of Pesticide Regulations Continuing Education Credits for participants. Evaluation forms completed by the workshop's attendees included many positive comments and indicated that overall the workshop met their expectations. Appendix 9 includes the workshop agenda, attendance list and a summary of the completed evaluation forms. Other workshop materials are available on the SMCWPPP website (www.flowstobay.org) for use by agency staff.

Department of Pesticide Regulation Grant

In February 2014, BASMAA applied for a Department of Pesticide Regulation (DPR) grant to conduct Integrated Pest Management (IPM) outreach at multi-family units. The project will focus on structural pest control and be implemented in select apartment buildings located in San Jose, East Palo Alto, Palo Alto and San Francisco. SMCWPPP staff assisted with development of the grant application. DPR selected the project for funding and it will commence in September 2014.

Participation in BASMAA and CASQA

Provision C.9.e requires Permittees to track and participate in regulatory processes relevant to pesticide toxicity control. During FY 2013/14, SMCWPPP accomplished this task by working with BASMAA and CASQA. For additional information, see *Preventing Urban Pesticide Pollution in Stormwater, CASQA Pesticides Subcommittee Annual Report 2013-14 California Stormwater Quality Association, August 2014* (Appendix 16). In addition, SMCWPPP staff stayed current with pesticide regulatory work by participating in selected CASQA Pesticide Committee meetings.

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

Our Water, Our World Program

Since 1999, SMCWPPP has participated in the regional effort for the *Our Water Our World* (OWOW) program by attending all IPM partnership meetings with BASMAA and participating jurisdictions to coordinate the program in San Mateo County. There were 15 stores participating when the program began, and there are now 22 stores, three of which were added during the 2013/14 fiscal year (see Table 9-1). Regional program leaders continue to report an overall increase in sales of less toxic products as a result of the program's implementation.

Table 9-1. San Mateo County “Our Water, Our World” Partnership Stores 2013/14

Store	Address	City
Blue Sky Farms	3068 North Cabrillo Hwy	Half Moon Bay
Brisbane Hardware	1 Visitacion Ave	Brisbane
Carlmont Ace Hardware	1029 Alameda De Las Pulgas	Belmont
Carlmont Nursery	2029 Ralston	Belmont
El Granada Hardware	85 Avenue Portola	El Granada
Golden Nursery	1122 2nd Ave	San Mateo
Half Moon Bay Nursery	11691 San Mateo Rd.	Half Moon Bay
Home Depot	2 Colma Blvd	Colma
Home Depot	303 E. Lake Merced Blvd.	Daly City
Home Depot	1781 East Bayshore Road	East Palo Alto
Home Depot	1125 Old County Rd	San Carlos
Home Depot	2001 Chess Drive	San Mateo
Linda Mar Ace Hardware	560 San Pedro Ave	Pacifica
Hassett’s Hardware	111 Main Street	Half Moon Bay
Hassett’s Hardware	545 First Ave.	San Mateo
Lyngso Garden Materials	19 Seaport Blvd.	Redwood City
Orchard Supply Hardware	1010 Metro Center Blvd	Foster City
Orchard Supply Hardware	900 El Camino Real	Millbrae
Orchard Supply Hardware	2110 Middlefield Road	Redwood City
Orchard Supply Hardware	2245 Gellert Blvd	South San Francisco
Roger Reynolds Nursery	133 Encinal Ave	Menlo Park
Wegman's Nursery	492 Woodside Rd	Redwood City

Early in 2013, an IPM advocate was hired to devote her time to the program in San Mateo County, bringing with her specialized training and knowledge of the stores and the products in the program. Each store was visited a minimum of twice during this year, once in the fall and again in the spring. Several larger stores, such as all Home Depots, were visited more frequently. During each visit, communication with the store managers and employees was maintained, store displays were updated, and fact sheets restocked. Staff also noted any new less toxic products to report to BASMAA for investigation and inclusion on the master products list. Trainings have been offered to all store managers in order to better equip their employees with the knowledge needed to help the public. Tabling events have also been conducted to draw public attention to the resources that the program offers (See table 9-2).

To promote the OWOW program, SMCWPPP conducted the following outreach during FY 2013/14:

- Maintained distribution of materials through partner stores by purchasing the OWOW fact sheets, brochures, booklets, children’s activity books, pocket guides, and business cards available from BASMAA.
- Partnered with County RecycleWorks to use and distribute fact sheets. Additional materials were given out at events that RecycleWorks staffed throughout the year.
- Participated in the Greener Pesticides for Cleaner Waterways grant from the Environmental Protection Agency that placed an IPM advocate in two local stores, Home

Depot in San Carlos and Orchard Supply Hardware in Foster City. The advocate maintained working relationships with those store managers and enhanced the established program. Requirements of the grant included a minimum of two tabling events, one training, and no less than one monthly visit per store. The advocate also provided support to store management in dealing with pest problems presented by customers, including consulting and research. In conjunction with this program, suppliers such as Bayer and Kellogg partnered with OWOW in FY 2013/14 to develop an end cap display that features the less toxic products. They are showcased and framed by the OWOW banner and shelf talkers. These products now reportedly move so quickly that it is difficult to keep the inventory stocked. Further details regarding the IPM advocate program can be found in BASMAA's Regional Supplement for Training and Outreach (Appendix 16).

- Participated in a region-wide outreach enhancement pilot project with Home Depot, in which "Greener Gardener Specialist" positions were created among Home Depot staff, and these specialists were given in depth training to become experts at IPM point of purchase. The pilot also involved increased signage and training materials.
- Conducted outreach tabling events (see Table 9-2) promoting OWOW to customers at Home Depot and Orchard Supply Hardware. Staff answered questions, educated, and mentored customers at point of purchase for home and garden pest problems, and offered tips and solutions. Staff provided non-toxic and less-toxic options for problem solving through discussion and distribution of printed OWOW materials and resources, as well as other printed materials with stormwater pollution prevention messages. An estimated 240 residents were reached.
- Conducted trainings of store employees (see Table 9-2) at partner stores. During the fiscal year, a total of 93 store employees were trained in IPM strategies and product identification in order to help the public when making purchases of garden and pest products. The trainings resulted in team building and empowerment of employees to feel comfortable answering questions and helping the customer solve pest problems. Post-training surveys conducted of employees indicated that they found the training valuable and informative.
- Provided materials and information at the other (non-IPM) outreach tabling events hosted throughout the year.

Table 9-2: OWOW Tabling and Training Events

Tabling Events		
Date	Store	Notes
March 22, 2014	Orchard Supply Foster City	GPCW grant
May 9, 2014	Home Depot San Carlos	GPCW grant
May 23, 2014	Home Depot E. Palo Alto	Green Gardener Pilot
May 24, 2014	Home Depot San Mateo	Green Gardener Pilot
May 25, 2014	Orchard Supply Foster City	GPCW grant
June 13, 2014	Home Depot San Mateo	Green Gardener Pilot
June 15, 2014	Home Depot San Carlos	GPCW grant
June 27, 2014	Home Depot E. Palo Alto	Green Gardener Pilot
Employee Trainings		
Date	Store	Notes
October 16, 2013	Home Depot San Carlos	12 trainees
October 19, 2013	Home Depot San Mateo	6 trainees
October 30, 2013	Home Depot Colma	11 trainees
December 11, 2013	Home Depot Daly City	7 trainees
March 30, 2014	Home Depot San Mateo	10 trainees
April 2, 2014	Home Depot San Carlos	8 trainees
April 3, 2014	Orchard Supply Millbrae	11 trainees
April 13, 2014	Orchard Supply Foster City	10 trainees
May 9, 2014	Home Depot E. Palo Alto	13 trainees
June 10, 2014	Hassett's Half Moon Bay	5 trainees

C.9.h.v. Public Outreach: Pest Control Operators

SMCWPPP contacted the San Mateo County Agricultural Commissioner to obtain an updated list of Pest Control Operators in San Mateo County. Using this list, a mailing was sent out on November 14, 2013 and consisted of a packet with a cover letter explaining basic IPM and encouraging the operators to become IPM certified. Flyers and information were included in the packet for the following opportunities:

- A Pesticide Applicators Professional Association seminar for landscape pest control operators on December 12, 2013 in San Jose.
- Online training and certification program offered by EcoWise, designed for structural pest control operators.
- Online Green Pro training and certification program offered by the National Pest Management Association.
- Online Green Shield training and certification program offered by the IPM Institute of America

The cover letter also encouraged PCO's to contact SMCWPPP to be part of a web page dedicated to helping the public find IPM certified contractors on Flowstobay.org under the pest control tab. There are currently 6 contractors listed on this page. Contractors listed on the web page were asked to verify their IPM experience before being posted. The public was directed to it during outreach events beginning in FY 2013/14. The page also contains links to the OWOW program, the Got Ants campaign, and other pest-control resources.

FUTURE ACTIONS

SMCWPPP activities that are planned for FY 2014/15 to assist member agencies comply with MRP requirements in Provision C.9 include the following:

- Continue holding Parks Maintenance and IPM Work Group meetings;
- Finalize the draft Orientation Piece described above.
- Continue to assist member agencies with implementation of Provision C.9 including implementation of IPM programs and policies, with input and assistance provided by the Parks Maintenance and IPM Work Group.
- Assist with implementation of the DPR grant described above.
- Continue to track relevant regulatory processes and interface with County Agriculture/Weights & Measures staff to help implement MRP C.9 Pesticide Toxicity Control requirements.
- Consider holding additional IPM training workshops.
- Continue the IPM "Our Water Our World" partnership campaign.
- Continue outreach and education for pest control operators, and promote IPM-trained operators to the public via web promotions, social media, and tabling events.

SECTION 10

C.10 TRASH LOAD REDUCTION

INTRODUCTION

Provision C.10 Trash Load Reduction tasks are implemented by each SMCWPPP member agency. SMCWPPP helps agency staff to understand trash load reduction requirements and develops various tools needed to effectively plan, implement, and report on compliance with trash management activities.

More detailed information about SMCWPPP's assistance in helping member agencies comply with MRP requirements in Provision C.10 are included in the following sections. Details on tasks completed by member agencies can be found in each member agency's Annual Report.

IMPLEMENTATION OF MRP PROVISIONS

MRP Provision C.10 (Trash Load Reduction) requires Permittees (as applicable) to:

- Submit a Short-Term Trash Load Reduction Plan to the Water Board by February 1, 2012 that is designed to attain a 40% reduction from its MS4 by July 1, 2014.
- Determine its baseline load of trash from its stormwater system and document the method used to demonstrate progress towards load reduction levels (e.g., 40% reduction).
- Identify and select a required number of trash hot spots in creeks or shorelines to be the focus of required annual trash assessments and cleanups.
- Install and maintain full trash capture devices to treat runoff from a specified amount of land area.
- Submit a Long-Term Trash Load Reduction Plan to the Regional Water Board by February 1, 2014 that specifies actions designed to attain a 70% reduction from its MS4 by July 1, 2017, and a 100% reduction (i.e., "no adverse impacts") by July 1, 2022.

During FY 2013/14, SMCWPPP completed the tasks described below in support of member agency trash management activities conducted in compliance with the above requirements.

Participation and Coordination of the Trash Committee

SMCWPPP's Trash Committee assists member agencies with the implementation of new or enhanced trash control measures and actions required by the MRP. The Trash Committee generally meets four to six times a year. Additional meetings are scheduled as necessary to address high priority issues. During FY 2013/14, SMCWPPP staff coordinated eight Trash

Committee meetings, which were chaired by Jesse Myott from the City of Daly City and Chris Sommers, SMCWPPP staff. Jesse was the chair for the first three meetings. Chris filled in the position when the chair was vacated. The FY 2013/14 Trash Committee attendance list is included in Appendix 10. Staff from the following member agencies attended a majority of the committee's meetings during FY 2013/14: County of San Mateo and cities/towns of Belmont, Brisbane, Burlingame, Colma, Daly City, Half Moon Bay, Hillsborough, Millbrae, Pacifica, San Bruno, San Carlos, San Mateo and South San Francisco.

During the Trash Committee meetings in FY 2013/14, Committee members discussed and provided input on the following topics/projects:

- Developing the FY 2013/14 Annual Report format for Provision C.10.
- ABAG/SFEP full trash capture demonstration project, which is funded by a grant from the State Water Resources Control Board as part of the federal American Recovery and Reinvestment Act.
- Developing the Long-Term Trash Load Reduction Plan template and guidance (see below).
- Developing Long-Term Trash Load Reduction Plans and associated Trash Management Area (TMA) maps.
- Identifying on-land trash assessment locations in TMAs.
- Identifying optimal locations for large full capture devices in member agency jurisdictional areas.
- Participating in and tracking the BASMAA awarded State Water Board Proposition 84 Stormwater Monitoring and Planning grant project "Tracking California's Trash".
- Providing comments on the State Water Board Proposed Trash Amendments released on June 10, 2014.

Final Regional Trash Generation Rates for San Francisco Bay Area MS4s

In accordance with the MRP, Permittees are required to develop and report on baseline trash loads from their MS4s by February 1, 2012. To accomplish this task, in December 2010 the BASMAA Board of Directors approved the Preliminary Baseline Trash Generation Rates Project for developing regional trash generation rates used to develop preliminary baseline trash load estimates. As part of this project, SMCWPPP funded the installation of twelve connector pipe screens at selected land uses within the City of San Mateo. During FY 2011/12, SMCWPPP continued funding the maintenance of these devices as part of the project. Each device was cleaned in May 2011, September 2011, January 2012 and April 2012. The collected trash and debris was saved for characterization by BASMAA. The results from monitoring/characterization events were used to develop the *San Francisco Bay Area Stormwater Trash Generation Rates Report*, which includes all data and analyses used to develop final trash generation rates. The final report was submitted to the Water Board in June 2014. The final report includes the findings from the analysis of Los Angeles and San Francisco Bay Area trash data, and descriptions of how trash generation rates were transformed into the trash generation maps submitted with Permittee *Long-Term Trash Load Reduction Plans* submitted to the Water Board by February 1, 2014.

Long-Term Trash Load Reduction Plan Framework and Guidance

Provision C.10.c of the MRP requires each Permittee to submit a *Long-Term Trash Load Reduction Plan* (Long-Term Plan) by February 1, 2014. The Long-Term Plans must describe control measures that are currently being implemented, including the level of implementation, and additional control measures that will be implemented and/or increased level of implementation designed to attain a 70% trash load reduction by July 1, 2017, and 100% (i.e., “no adverse impact”) by July 1, 2022.

A work group of MRP Permittee, SMCWPPP and other Bay Area countywide stormwater program, and Regional Water Board staff met between October 2012 and November 2013 to better define the process for developing Long-Term Plans, methods for assessing progress toward reduction goals, and tracking and reporting requirements. Through these discussions, a framework for developing Long-Term Plans was developed. The first step of the framework is the identification of very high, high, moderate, and low trash generating areas within each Permittees jurisdictional area. Trash generation rates developed through the BASMAA regional study were used as a starting point for differentiating and delineating land areas with varying levels of trash generation. Permittees then used local knowledge and field and/or desktop assessments to confirm/refine the level of trash generation for specific areas (Figure 10-1). As part of this process, SMCWPPP staff developed guidance to assist Permittees in refining land use classifications, and conducting assessments to confirm/refine trash generation levels depicted on draft trash generation maps, which are the focal point of the Long-Term Plans.

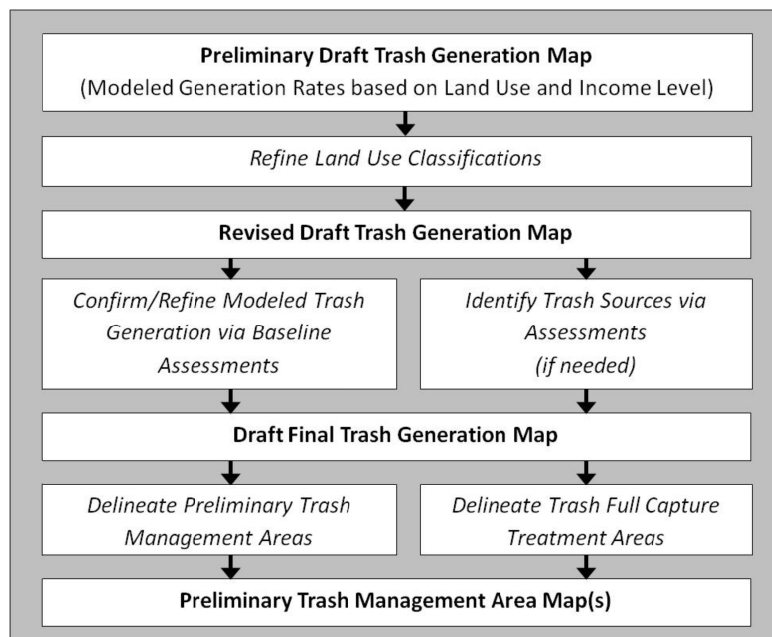


Figure 10-1. Trash generation and management area mapping process implemented by Permittees in FY 2012/13.

During FY 2013/14, SMCWPPP staff developed a Long-Term Plan template and guidance document to assist SMCWPPP member agencies. Long-Term Plans were submitted to the Regional Water Board on February 3, 2014 by SMCWPPP staff on behalf of all member agencies.

Pilot Trash Assessment Strategy

SMCWPPP developed and began implementing the Pilot Trash Assessment Strategy in FY 2013/14. The Strategy was submitted to the Regional Water Board on February 3, 2014 as part of Long-Term Plan submittals. The Strategy is intended to provide information on magnitude and extent of trash reductions associated with stormwater in San Mateo County. The Strategy uses information on four indicators:

1. Level of trash observed on-land and available to MS4s;
2. Areas effectively treated by full-capture devices;
3. Extent and magnitude of trash control measures implementation; and
4. Levels of trash in receiving waters.

Information on the results of implementing the Strategy in FY 2013/14 is included in Section 10 of each member agency's Annual Report. The following summarizes the two major activities in support of the Strategy that were conducted by SMCWPPP staff during FY 2013-14:

- **On-land Visual Assessments** – In FY 2013/14, SMCWPPP staff developed guidance for member agencies on the selection of TMAs considered high priority for on-land visual trash assessments. Based on the TMAs selected by member agencies, SMCWPPP staff developed a randomized/probabilistic assessment approach that allows agencies to extrapolate data collected at assessment sites to an entire TMA. SMCWPPP staff and member agency staff began conducting on-land visual trash assessments in July 2014 at approximately 160 sites. Data generated through these assessments are incorporated into each member agency's trash reduction estimate included in Section 10 of their Annual Report.
- **Full Capture Operation and Maintenance Verification Program** – In FY 2013/14, SMCWPPP made significant strides toward developing an operation and maintenance verification program for full-capture devices. Inspection and maintenance of these devices is required to maintain full-capture designation by the Regional Water Board. The program was initiated in collaboration with the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and includes standard operating procedures for inspections and cleaning, training materials and an operation and maintenance plan template for use by member agencies. Materials are currently under development and are anticipated for completion in FY 2014/15.

Prioritization of Trash Generating Areas at the Catchment Scale

In December 2013, SMCWPPP initiated a project to assist member agencies in their goals to reduce trash impacts from stormwater. The goal of the project was to identify and prioritize high trash generating storm drain catchment areas as a tool for identifying optimal locations for large full-capture devices. The delineation of storm drain catchment areas also provides member agencies with an important GIS data layer that can be used to identify locations to implement potential control measures for other pollutants (e.g., PCBs). A final report documenting the process was completed in late FY 2013/14. Catchment areas were also finalized in GIS during the same time frame.

Trash Hot Spot Cleanup and Assessment Guidance

Provision C.10.b(ii) of the MRP requires Permittees to clean up trash hot spots to a level of “no visual impact” at least one time per year for the term of the permit (December 1, 2009 through November 30, 2014). To assist Permittees in meeting this requirement, SMCWPPP staff developed the necessary tools (i.e., guidance memorandum, Trash Hot Spot Cleanup Data Collection Form and Trash Hot Spot Activity Reports) used to report trash hot spot assessment and cleanup activities conducted during the reporting period. Trash Hot Spot Activity Reports for individual Permittees are included in Permittee Annual Reports.

During FY 2013/14, Permittees continued conducting annual cleanups and assessments required by the MRP. Results from this year’s annual cleanups indicated that one cleanup/assessment was conducted at each of the 32 different sites within SMCWPPP member agency jurisdictions.¹ A total of approximately 34.4 cubic yards of trash was removed from these sites during FY 2013/14. The timing of annual assessments and cleanups varied among hot spots depending on the location of the hot spot, potential for natural resource impacts, crew availability and other site-specific factors.

Coordination with San Mateo Countywide Recycling Committee

In an effort to increase coordination between solid waste and recycling programs and SMCWPPP member agency MS4 trash reduction activities, SMCWPPP staff began attending Countywide Recycling Committee meetings in FY 2012/13. SMCWPPP continued to coordinate with the Recycling Committee in FY 2013/14, specifically targeting outreach and coordination with municipal solid waste/recyclable haulers in San Mateo County to reduce trash impacts associated with inadequate waste container management and dispersal from waste transfer vehicles.

Formation of the Litter Work Group of the Trash Committee

SMCWPPP’s Trash Committee formed the Litter Work Group in March 2014 to coordinate litter reduction efforts among the SMCWPPP program, waste and stormwater program staff from municipalities of San Mateo County, the San Mateo Countywide Recycling Committee and waste collection and processing companies serving those jurisdictions. Representatives from the local hauling community, Rethink Waste (the South Bayside Waste Management Authority), stormwater and trash program municipal staff, and community members and consultants working on litter reduction efforts both in Santa Clara County and San Mateo County were invited to attend the initial kick off meeting held on March 17, 2014. The goals of the group are to develop a litter reduction program related to waste issues for San Mateo County specific to its needs, develop best management practices for the waste collection industry, educate the public and those involved with litter control efforts, and to coordinate and share information with the Zero Litter Initiative in Santa Clara County.

¹Only hot spot cleanups and assessments conducted in compliance with MRP provision C.10.b.iii are included in the numbers presented in this paragraph. Many SMCWPPP member agencies conduct cleanups at trash hot spots more frequent than the MRP-required annual cleanup, and/or at more sites than the MRP requires. See Section 10, C.10.d – Part C of member agency Annual Reports for additional information.

The Litter Work group conducted the following tasks in FY 2013/14:

- Five Work Group meetings were held both in-person and via conference calls on the following dates: March 17, April 14, May 7, May 28 and June 9. Attendees represented the City of San Mateo, County of San Mateo, City of East Palo Alto, City of Brisbane, Recology San Mateo, South San Francisco Scavenger, South Bayside Waste Management Authority, For Sustainability Too Consulting, Cascadia Consulting, and SMCWPPP.
- The Work Group organized the County's first Litter Reduction Roundtable event for municipal staff and waste hauling company staff on June 25, 2014 at the San Mateo Public Library (see Appendix 10). The focus of the event was on waste container management. The Key Note address was given by the City Manager of the City of San Mateo, Larry Patterson. Additional presentations were made by Randy Breault from the City of Brisbane, Chris Sommers of SMCWPPP, Wanda Redic from the City of Oakland, and Robert Harvie and Elaine Marshall, City of Sunnyvale. At the end of the event, the forty-six attendees broke out into groups of municipalities and their respective waste haulers, and discussed opportunities and challenges for reducing litter focusing on waste container management issues. Based on the information gained through the Roundtable event, the Program plans to continue coordinating the Litter Work Group in FY 2014/15, with the focus on implementing projects designed to improve waste container management in the County.

FUTURE ACTIONS

FY 2014/15 activities that are planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.10 include the following:

- Continued coordination of SMCWPPP Trash Committee meetings.
- Continued implementation of the SMCWPPP pilot trash assessment strategy designed to demonstrate progress towards MRP trash load reduction goals.
- Completion of the trash full-capture operation and maintenance verification program, in coordination with SCVURPPP.
- Calculate and report on the amount and types of trash removed via creek and/or shoreline cleanups required by the MRP.
- Coordinate and plan up to two workshops with municipal solid waste/recyclable haulers, in coordination with the San Mateo Countywide Recycling Committee.
- Prepare a Best Management Practices Report for SMCWPPP on the subject of Litter Reduction and Waste Hauling in San Mateo County.
- Continue to coordinate the Litter Workgroup and share information with the Zero Litter Initiative in Santa Clara County.
- Active participation in implementing the Proposition 84 grant-funded "Tracking California's Trash" project.

SECTION 11

C.11 MERCURY CONTROLS

INTRODUCTION

MRP Provision C.11 Mercury Controls implements stormwater runoff-related actions required by the San Francisco Bay mercury Total Maximum Daily Load (TMDL) water quality restoration program. On behalf of its member agencies, SMCWPPP performs a variety of activities to address mercury in stormwater runoff in compliance with MRP Provision C.11. Much of this work is accomplished through participation in BASMAA regional projects. Many of these projects address PCBs in addition to mercury and are described in this section rather than Section 12 (PCBs Controls).

All mercury and PCB-related activities conducted through approximately the end of calendar year 2013 by SMCWPPP and BASMAA were documented, summarized, and evaluated in SMCWPPP's comprehensive Integrated Monitoring Report (IMR), which was submitted to the Regional Water Board on March 17, 2014.

IMPLEMENTATION OF MRP PROVISIONS

C.11.a Mercury Recycling

MRP Provision C.11.a requires member agencies to 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). To meet this requirement, member agencies continued to participate in San Mateo County Health Department's Household Hazardous Waste (HHW) Program and Very Small Quantity Generator Business Collection (VSQG) Program during FY 2013/14. The HHW Program offers residents the opportunity to drop-off mercury-containing devices and equipment and other hazardous wastes at designated drop-off points or drop-off events free of charge. The VSQG Program provides an inexpensive hazardous waste disposal option to eligible businesses, non-profits, and other government agencies that generate less than 100 kilograms of waste per month. It operates by appointment only and charges a fee to cover the cost of transportation and disposal. Many member agencies promote the availability of the HHW Program and VSQG Program on their agency websites. County programs assisted approximately 13,260 households and 230 businesses in disposing of their unwanted HHW. Descriptions of any member agency efforts to promote, facilitate and/or participate in collection and recycling of mercury-containing devices and equipment during FY 2013/14 are provided in individual Permittee Annual Reports.

C.11.a also requires that Permittees report an estimate of the mass of mercury collected via mercury collection and recycling efforts. During FY 2013/14, the HHW Program reported

collection of 61,284 linear feet of fluorescent lamps (tubes, u-shapes, circles¹, etc.) and 10,593 compact fluorescent lamps. In addition, the HHW Program also reported collection of the following mercury-containing devices and equipment:

- 9 thermostats;
- 68 thermometers; and
- 27 switches.

To assist with estimating the mass of mercury collected during FY 2013/14 by the HHW Program, SMCWPPP staff used a spreadsheet calculator developed earlier in the permit term in collaboration with BASMAA. The estimated mass of mercury collected is calculated based on the total amount of mercury-containing devices and equipment collected and the best available information from manufacturers and trade organizations regarding the amount of mercury contained in the devices and equipment. The estimated mass of mercury collected by the HHW Program during FY 2013/14 is provided in Table 11-1.

Table 11-1. Estimated mercury mass collected by SM County HHW Program in FY 2013/14.

Mercury Containing Device/Equipment	Total Amount of Devices Collected	Estimated Mass of Mercury Collected (kg)
Fluorescent Lamps (linear feet) ²	61,284	0.13
CFLs (each) ³	10,593	0.05
Thermostats (each) ⁴	9	0.04
Thermometers (each) ⁵	68	0.04
Switches (each)	27	0.08
Total Estimated Mass of Mercury Collected During FY 2013/14:		0.3

C.11.b. Monitor Methylmercury

MRP Provision C.11.b requires Permittees to monitor methylmercury in runoff discharges by analyzing samples already being collected for total mercury analysis, consistent with provision C.8.e. In FY 2013/14, SMCWPPP continued to collect and analyze samples for methylmercury,

¹The County HHW Program reported the number of circle tubes and U-bent lights. A conservative assumption was made that all U-bent tubes were 22 inches and all circle tubes were 8 inches based on the most available, smallest sizes found on Internet searches.

²The average mercury content for a four-foot linear fluorescent lamp is 8.3 milligrams (mg). This is equal to 2.075 mg per linear foot. Source: NEMA 2005. Fluorescent and Other Mercury-Containing Lamps and the Environment: Mercury Use, Environmental Benefits, Disposal Requirements. National Electrical Manufacturers Association. March 2005. 14p.

³The National Electrical Manufacturers Association (NEMA) announced that under the new voluntary commitment, effective October 1, 2010, participating manufacturers will cap the total mercury content in CFLs that are under 25 watts at 4 mg per unit, and CFLs that use 25 to 40 watts of electricity will be capped at 5 mg per unit. Each CFL recycled is assumed to have an average mass of 4.5 mg mercury. New CFLs are also assumed to have 4.5 mg mercury on average. Source: NEMA 2010. NEMA Lamp Companies Agree to Reduction in CFL Mercury Content Cap. Available at <http://www.nema.org/media/pr/20101004a.cfm>. Accessed April 11, 2012.

⁴The amount of mercury in a thermostat is determined by the number of ampoules. There are generally one or two ampoules per thermostat (average is 1.4) and each ampoule contains an average of 2.8 grams (g) of mercury. Therefore, each thermostat recycled is assumed to contain approximately 4.0 g of mercury. Source: TRC 2008. Thermostat Recycling Corporation's Annual Report for the U.S. Prepared by the Thermostat Recycling Corporation. [http://www.thermostat-recycle.org/files/u3/2008 TRC Annual Report.pdf](http://www.thermostat-recycle.org/files/u3/2008%20TRC%20Annual%20Report.pdf).

⁵ USEPA reports that glass mercury fever thermometers contain about 0.61 g of mercury. Source: USEPA 2012. Thermometers. Available at <http://www.epa.gov/mercury/thermometer-main.html>. Accessed April 11, 2012.

consistent with the Small Tributaries Load Strategy (STLS) and the STLS multiyear monitoring plan. Data collected in compliance with this provision during FY 2013/14 will be included in SMCWPPP's Urban Creeks Monitoring Report, which will be submitted to the Regional Water Board by March 15, 2015.

C.11/12.c. Mercury/PCBs Source Identification Pilot Project

MRP Provisions C.11.c and C.12.c require Permittees to conduct investigations to attempt to identify PCB and mercury source properties discharging to their storm drain systems at five pilot watershed locations (region-wide). Activities associated with this provision are being conducted through Clean Watersheds for a Clean Bay (CW4CB), a BASMAA project that is funded through a USEPA grant. Matching funds are provided by SMCWPPP and other BASMAA member agencies mainly via in-kind services. The pilot watershed in San Mateo County is the Pulgas Creek Pump Station watershed in the City of San Carlos. This source property investigation has been ongoing for several years and, in compliance with MRP provision C.11.c and C.12.c, consists of the following tasks:

1. Records review. Review general information (e.g., spill site databases) and records on specific properties/businesses in the watershed to begin identifying potential source properties.
2. Reconnaissance survey. Perform a driving/walking survey to further identify potential source properties and begin looking for evidence that runoff from such locations is likely to convey pollutants to storm drains.
3. Facility inspections. Perform inspections of selected facilities.
4. Surface soil/sediment testing. Test surface soils/sediments from the public right-of-way and private properties for PCBs, mercury and other particle-bound pollutants.
5. Property referrals. Where laboratory data confirm elevated pollutant concentrations, refer properties to regulatory agencies for cleanup and abatement.
6. Reporting. Write a comprehensive report to describe in detail the methods and results of the investigation.

The source property investigation in the Pulgas Creek Pump Station watershed was nearly completed during FY 2013/14. With the exception of one site (discussed in detail below), all surface soil/sediment testing in the watershed was completed in spring 2013 and the data quality review of all field and laboratory data was completed in spring 2014. The CW4CB QA Officer submitted the final data set along with a summary of the data quality to the project team in April 2014. SMCWPPP program staff began analyzing the monitoring data and developing a final report which will present the full results of the source property investigations (e.g., records review, reconnaissance, property inspections, and monitoring data) and identify private properties for referral to the Regional Water Board for follow-up abatement measures. SMCWPPP staff also continued to work with Regional Water Board staff to finalize the procedures for submitting private property referrals. SMCWPPP staff anticipates finalizing the source property investigation report and submitting source property referrals to the Regional Water Board during FY 2014/15.

A PG&E substation property on Industrial Road in San Carlos was previously selected as a site for soil testing. However, BASMAA and SMCWPPP staff have not yet obtained permission to conduct

monitoring at the site. Over the past year, BASMAA and SMCWPPP staff continued to pursue permission from PG&E to access the site to collect soil samples. A draft license agreement between PG&E and BASMAA to allow monitoring at the site was developed in fall 2013, but the details of the agreement are not yet final. Sampling will be performed at the site as soon as the license agreement has been finalized, which is anticipated during the next fiscal year.

C.11/12.d. Enhanced Operation and Maintenance Pilot Projects

MRP Provisions C.11.d and C.12.d require developing and pilot-testing methods to enhance removal of sediment with PCBs and mercury during municipal street and storm drain system operation and maintenance (O&M) activities. Region-wide, municipal O&M enhancement pilot projects are being implemented at a total of six locations, one of which is the Pulgas Creek Pump Station watershed. These projects are funded by SMCWPPP, other stormwater programs, and CW4CB.

A pilot street flush and capture project was conducted in the Pulgas Creek Pump Station watershed in September 2013. Four flush and capture events were implemented by City of San Carlos staff, which entailed flushing approximately 500-1,000 feet of street (curb-to-curb) with water from a vactor truck equipped with a wand attachment and using a second vactor truck to capture the debris and wash water for disposal to the sanitary sewer. A wastewater discharge permit was obtained from the South Bayside System Authority (SBSA) for the discharges. Street dirt samples were collected before and after each flush and capture event to help estimate the mass of pollutants removed. In addition, samples of the wastewater were collected from each flushing event and analyzed for pollutants. Sediment and water samples collected during the flushing study were analyzed for mercury, PCBs, total organic carbon, and grain size. All laboratory analysis was completed by March, 2014. A data quality review of the analytical results and field methods was initiated in spring 2014. SMCWPPP staff anticipates completing a final project report during FY 2014/15.

C.11/12.e. Stormwater Treatment Retrofit

Per MRP Provisions C.11.e and C.12.e, BASMAA is evaluating the effectiveness to remove PCBs and mercury of ten urban runoff treatment facilities retrofitted into existing storm drainage infrastructure in the Bay Area. These projects are funded by SMCWPPP, other Bay Area stormwater programs, and CW4CB. One retrofit project is located in San Mateo County in the Pulgas Creek Pump Station watershed. This project is called the Bransten Road bioretention curb extensions and its construction was completed in November 2013. Effectiveness monitoring was conducted at the site during three storms of the 2013/14 rainy season. During each of these storms, flow monitoring and water quality sampling of influent/effluent pairs from two selected bioretention areas were conducted. Water quality samples were submitted to the project laboratories for analysis of PCBs, mercury, total organic carbon, suspended sediment concentration, and particle size distribution. Monitoring of one additional storm at this project is currently planned for the 2014/15 rainy season.

C.11/12.f. Diversion of Flows to Publicly Owned Treatment Works

MRP Provisions C.11.f and C.12.f require pilot studies to evaluate the effectiveness at mercury and PCBs removal of diversion of dry weather urban runoff and first flush events into publicly owned treatment works (POTWs). The first deliverable required under these provisions was met

through submittal of BASMAA's Feasibility Evaluation Report (FER), which was submitted with SMCWPPP's FY 2009/10 Annual Report. The FER was revised in December 2010 in response to Regional Water Board staff comments. Preliminary descriptions of candidate diversion projects were then summarized by BASMAA on behalf of member programs in a brief memorandum to the Water Board in February 2011. In addition, updates were provided in stormwater program FY 2010/11 Annual Reports and a status report submitted by BASMAA to Regional Water Board staff in May 2012.

One of the pilot diversion projects is located in San Mateo County at the Pulgas Creek Pump Station. A workplan for this project was submitted to Regional Water Board staff in May 2012, along with the above BASMAA status report. Fieldwork for the project commenced during the 2012/13 rainy season but was very limited due to initial equipment problems and a general lack of rainfall.

Fieldwork continued during the 2013/14 rainy season. Stormwater diversion to the sanitary sewer and associated monitoring was conducted during three storm events in FY 2013/14. During each event, approximately 500 gallons of water was diverted from the storm drain to a holding tank using a submersible pump. Following each diversion event, City of San Carlos maintenance staff removed the water from the tank with a vactor truck for discharge to the sanitary sewer according to the terms of a SBSA wastewater discharge permit. Water quality samples collected during each event were analyzed for PCBs, mercury, metals, total organic carbon, suspended sediment, and particle size distribution. Continuous flow and turbidity measurements were also taken in the storm drain line throughout the 2013/14 rainy season. All laboratory results were finalized by May 2014 and the continuous data for the 2013/14 rainy season were uploaded.

The project is also evaluating the projected costs and benefits of larger scale and more permanent dry and/or wet weather diversion scenarios at this pump station in order to scope potential implementation of such projects during future permit terms. SMCWPPP staff is working with City of San Carlos and SBSA staff to gather relevant information and develop reasonable diversion scenarios. Opportunities to piggyback future diversion work on already planned sanitary collection infrastructure improvements will be evaluated.

SMCWPPP staff anticipates completing data quality review, data analysis, the cost-benefit analysis for diversion scale-up scenarios, and final project reporting during FY 2014/15.

C.11/12.g. Monitor Stormwater Pollutant Loads and Loads Reduced

MRP provisions C.11.g and C.12.g require Permittees to develop and implement a monitoring program to quantify mercury and PCB loads reduced through the implementation of control measures and to compare these loads against the Waste Load Allocations (WLAs) described in the Bay mercury and PCBs TMDLs. Consistent with the TMDLs, load reductions and progress toward urban stormwater runoff WLAs may be demonstrated through one of three methods:

1. Quantify through estimates the average annual load reduced by implementing pollution prevention, source control, and treatment control efforts required by the provisions of the MRP or other relevant efforts;

2. Quantify the load as a rolling five-year average using data on flow and water column PCB/mercury concentrations; or
3. Quantitatively demonstrate that the concentration of mercury on suspended sediment that best represents sediment discharged with urban runoff is below the target of 0.2 mg mercury/kg dry sediment.

During the term of the MRP, Permittees have conducted and continue to conduct studies to demonstrate loads reduced and progress towards WLAs using each of the methods described above. Water quality monitoring activities conducted through the Regional Monitoring Program for Water Quality in the San Francisco Bay (RMP) and the BASMAA Regional Monitoring Coalition (RMC) have attempted to quantify pollutant loads (Method No. 2) and sediment concentrations (Method No. 3). However, observable trends in loads and concentrations in creeks and rivers draining to the Bay may take decades to observe. The results of initial quantification of loads reduced or avoided through pollution prevention, source controls, and treatment controls (Method No.1) were provided in SMCWPPP's IMR (Part B). Methods described in the IMR are consistent with the preliminary methods described by BASMAA in 2010 and submitted to the Regional Water Board in compliance with MRP provision C.11/12.g.

C.11/12.h. Fate and Transport Study of POCs in Urban Runoff

MRP provisions C.11.h and C.12.h require Permittees to “conduct or cause to be conducted studies aimed at better understanding the fate, transport, and biological uptake of mercury and PCBs discharged in urban runoff to San Francisco Bay and tidal areas.” Working through BASMAA, SMCWPPP Permittees in FY 2013/14 continued to comply with these provisions through their participation in the RMP. SMCWPPP staff actively represented San Mateo County Permittees on various committees and work groups to oversee the implementation of studies, review results and comment on draft reports. For further information, see SMCWPPP's IMR.

C.11/12.i. Risk Reduction Program

MRP Provisions C.11.i and C.12.i require development of a risk reduction program implemented throughout the region. This has been accomplished through the San Francisco Bay Fish Project, a two-year regional project to improve communication to the public about how to reduce their exposure to PCBs and mercury from consuming San Francisco Bay fish. The San Francisco Bay Fish Project was partly funded through CW4CB and BASMAA was one of the project partners.

The San Mateo County Environmental Health Department (SMCEHD) has distributed education materials created by the San Francisco Bay Fish Project, including posting signs along the Bay's shore in most cities in San Mateo County. SMCEHD also has a program to provide educational materials (e.g., a Fish Project brochure entitled “Guide to Eating Fish and Shellfish from San Francisco Bay”) to at-risk populations (e.g., subsistence fisherman) by working with private marinas, public parks, and nurses with the San Mateo County Health System who serve appropriate communities.

C.11.j. Develop Allocation Sharing Scheme with Caltrans

The San Francisco Bay Mercury TMDL wasteload allocations for urban stormwater implicitly include California Department of Transportation (Caltrans) facilities located within the

geographic boundaries of Bay Area urban runoff management agencies. Caltrans manages roadways and other transportation facilities within the urban areas that are covered under both the MRP and the TMDL. Consistent with the TMDL, MRP Provision C.11.j requires Permittees to develop an equitable mercury allocation sharing scheme, in consultation with Caltrans, to address runoff from the Caltrans facilities in the MRP footprint. Caltrans may elect to pursue its own program of mercury load reduction, in lieu of sharing the allocation with the urban runoff management agencies, in which case the Regional Water Board may designate a separate mercury wasteload allocation for Caltrans.

To address this MRP provision, Permittee representatives and Caltrans met several times to review provision C.11.j and to discuss the manner by which the allocation would be shared. Those discussions led to a February 2014 Caltrans letter. In the letter Caltrans agrees (per MRP Provision C.11.j) to develop an equitable TMDL allocation sharing scheme with MRP Permittees and to implement mercury load reduction actions on a watershed or region-wide basis, consistent with TMDL implementation requirements in Caltrans' MS4 Permit. Permittees intend to work with Caltrans to identify load reduction actions that can be implemented on a watershed or region-wide basis. For further information, see SMCWPPP's IMR.

FUTURE ACTIONS

SMCWPPP activities that are planned for FY 2014/15 to assist member agencies comply with MRP requirements in Provision C.11 include the following:

- SMCWPPP staff anticipates finalizing the Pulgas Creek Pump Station source property investigation report and submitting private property referrals to the Regional Water Board during FY 2014/15.
- SMCWPPP staff anticipates completing a final project report on the pilot street flush and capture project conducted in the Pulgas Creek Pump Station watershed during FY 2014/15.
- Monitoring of one additional storm at the Bransten Road bioretention curb extensions stormwater treatment retrofit is currently planned for the 2014/15 rainy season.
- For the Pulgas Creek Pump Station pilot diversion project, SMCWPPP staff anticipates completing data quality review, data analysis, the cost-benefit analysis for diversion scale-up scenarios, and final project reporting during FY 2014/15.
- SMCWPPP staff will continue to participate in the RMP in FY 2014/15 to promote implementation of studies to address priority information needs for mercury and PCBs.
- During FY 2014/15, SMCWPPP staff will work with SMCEHD staff to continue distributing in San Mateo County outreach materials from the San Francisco Bay Fish Project, as appropriate.
- During FY 2014/15, SMCWPPP will collaborate with BASMAA to develop an equitable TMDL allocation sharing scheme with Caltrans and identify load reduction actions that can be implemented on a watershed or region-wide basis.

SECTION 12

C.12 PCBs CONTROLS

INTRODUCTION

MRP Provision C.12 PCBs Controls implements stormwater runoff-related actions required by the San Francisco Bay PCB Total Maximum Daily Load (TMDL) water quality restoration program. On behalf of its member agencies, SMCWPPP performs a variety of activities to address PCBs in stormwater runoff in compliance with MRP Provision C.12. Many of these projects address mercury in addition to PCBs and are described in the previous section (Section 11, Mercury Controls) rather than this section.

All mercury and PCB-related activities conducted through approximately the end of calendar year 2013 by SMCWPPP and BASMAA were documented, summarized, and evaluated in SMCWPPP's comprehensive Integrated Monitoring Report (IMR), which was submitted to the Regional Water Board on March 17, 2014.

IMPLEMENTATION OF MRP PROVISIONS

C.12.a. Incorporating PCBs into existing industrial inspections

MRP Provision C.12.a, incorporating PCBs and PCB-containing equipment identification into existing industrial inspections, is implemented through SMCWPPP's CII component. The BASMAA Pollutants of Concern (POC) Commercial/Industrial Inspector Training Materials (June 2010) are available on the CII Subcommittee web page and identified in SMCWPPP guidance to stormwater inspectors on meeting MRP's annual training requirements. In FY 2013/14, PCBs and PCB-containing equipment identification was incorporated into the April 2014 inspector training workshop. More information on this workshop is available in Section 4 and Appendix 4.

C.12.b. Pilot Project to Evaluate PCBs in Building Materials

Projects and actions conducted to fulfill MRP requirements in Provision C.12.b were completed in previous fiscal years. A description of the results of the projects conducted in fulfillment of this provision were included in SMCWPPP's IMR.

C.12.c through C.12.i.

MRP Provisions C.12.c through C.12.i address both mercury and PCBs and were discussed in the previous section of this report (Section 11, Mercury Controls).

FUTURE ACTIONS

SMCWPPP activities that are planned for FY 2014/15 to assist member agencies comply with

MRP requirements in Provision C.12 include the following:

- SMCWPPP staff will continue to provide Permittees guidance and training on incorporating PCBs and PCB-containing equipment identification into existing industrial inspections through SMCWPPP's CII Subcommittee and/or inspector training workshops.
- Many of SMCWPPP/BASMAA's regional PCB projects address mercury in addition to PCBs and related future activities are described in the previous section (Section 11, Mercury Controls).

SECTION 13

C.13 COPPER CONTROLS

INTRODUCTION

Provision C.13 of the MRP addresses copper control measures identified in the San Francisco Bay Basin Water Quality Control Plan (commonly referred to as the Basin Plan) that the Regional Water Board has deemed necessary to support copper site-specific objectives in San Francisco Bay. C.13 includes the following sub-provisions:

- C.13.a. Manage waste generated from cleaning and treating copper architectural features, including copper roofs, during construction and post-construction;
- C.13.b. Manage discharges from pools, spas and fountains that contain copper-based chemicals;
- C.13.c. Vehicle Brake Pads;
- C.13.d. Industrial Sources; and,
- C.13.e. Studies to Reduce Copper Pollutant Impact Uncertainties.

In FY 2013/14, activities associated with Provision C.13 were conducted at the Permittee, SMCWPPP and regional levels. Local actions are documented in each Permittee's individual Annual Report. This section summarizes copper control activities conducted at the SMCWPPP and regional levels.

IMPLEMENTATION OF MRP PROVISIONS

C.13.a. Copper Architectural Features

Provision C.13.a requires Permittees to manage waste from cleaning and treating copper architectural features, including copper roofs, during construction and post-construction. In FY 2011/12, SMCWPPP developed a Fact Sheet entitled *Requirements for Architectural Copper: Protect water quality during installation, cleaning, treating, and washing!*

The main focus in FY 2013/14 was education and outreach to municipal inspectors about the MRP requirements and BMPs for architectural copper installation, cleaning, and treating. Construction site inspectors received the information during the April 23, 2014 SMCWPPP Construction Site Inspection Workshop (see Section 6) and building inspectors received the information from a SMCWPPP staff presentation at the California Building Inspectors Group (CALBIG) meeting on October 9, 2013 (see Section 6).

C.13.b. Manage Discharges from Pools, Spas and Fountains

Provision C.13.b requires Permittees to manage discharges from pools, spas and fountains that contain copper-based chemicals by adopting local ordinances. These requirements are implemented by individual Permittees and were reported on in the FY 2010/11 and FY 2011/12 Permittee Annual Reports, but were not included in the FY 2012/13 or FY 2013/14 Annual Report forms. Guidance on these requirements for illicit discharge inspectors is provided through SMCWPPP’s CII Subcommittee and public outreach on related BMPs is provided through SMCWPPP’s PIP Subcommittee.

C.13.c. Vehicle Brake Pads

Provision C.13.c (Copper Controls - Vehicle Brake Pads) requires Permittees to engage in efforts to reduce the copper discharged from automobile brake pads to surface waters via urban runoff. 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)¹. 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.

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. 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	Cal-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 & 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)

¹Full text of the legislation was submitted with the FY 2010-11 Regional POC Report. The law is the Brake Friction Material Law (Health and Safety Code sections 25250.50 et seq.).

In FY 2013-14, 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
- Memorandum of Understanding

Legislation

California's car dealers sought to make a change to SB 346 (2010) in the 2013 legislative session requiring CASQA and its BPP partners to track and participate in the legislative process. Ultimately, the Governor signed AB 501 Vehicles (2013), Nazarian, making a slight change ([see below](#)) in SB 346. The slight change allows used vehicles to be re-sold with the brake pads that were on the vehicle when it was purchased by a dealer or a private person. SB 346 technically would have required these brake pads be checked for compliance with the phase out of copper and other heavy metals, and potentially replaced. The change made by AB 501 will negligibly affect brake pad copper reduction, while eliminating an unintended task for vehicle resellers.

Health & Safety Code Section 25250.51

(b) Motor vehicle manufacturers and distributors, wholesalers, or retailers of replacement brake friction materials may continue to [sell or](#) offer for sale brake friction materials not certified as compliant with subdivision (a) solely for the purpose of depletion of inventories until December 31, 2023.

[*\(c\) Notwithstanding subdivision \(b\), motor vehicle dealers may continue to sell or offer for sale brake friction material not certified as compliant with subdivision \(a\) if the brake friction material was installed on a vehicle before the vehicle was acquired by the dealer.*](#)

With assistance from the lobbyist that assisted the Brake Pad Partnership, CASQA and its BPP partners were able to ensure the bill made only the very narrow change intended by its author and its sponsor, California's car dealers.

Regulations

CASQA continued to engage in the potential development of regulations for SB 346 by the Department of Toxic Substances Control (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 respects². CASQA's engagement included tracking developments and regular check-ins with key staff at California DTSC, and at Washington DOE as needed.

²SB 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>

This year, 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 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 will use to provide extensions to the January 1, 2025 restrictions, and approve certification requirements used by the testing certification agencies.

DTSC will be holding a series of workshops in the summer of 2014 designed to receive comments from stakeholders on the proposed informal regulations and to address potential issues before initiating the formal rulemaking process later this year. It could take up to a year after the rulemaking is formally announced for it to become effective. CASQA will continue to participate in the regulatory process – conducting reviews and analyses and preparing and delivery comments – to try to ensure the full intent and letter of SB3 46 is implemented as designed.

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. As of January 1, 2014, the concentrations of asbestos and other non-copper constituents were to be certified as being less than limits set in the law.

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 on marking requirements](#) under the Washington Better Brakes Law.

The industry has 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 is required 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.



Certification

The sole independent certification organization NSF began to certify pads for compliance with the toxic metals, asbestos, and copper standards in preparation for the January 1, 2014 certification deadline (see the certification website [here](#) and certified product list [here](#)).

On December 20, 2013, an updated version of [SAE Standard J2975, Measurement of Copper and Other Elements in Brake Friction Materials](#) was approved.

DTSC assigned enforcement staff to this new 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. 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 [here](#)).

Education

Both states have developed websites ([California](#)) ([Washington](#)) that 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 has also:

- Completed guidance documents for marking, analysis, and compliance.
- Drafted various fact sheets for outreach (release pending regulation adoption).
- Coordinated and trained DTSC’s Regional Assistance Officers.

DTSC also plans to provide materials to support industry's compliance education efforts.

CASQA has funded a project expected to start in later 2014 to promote shifting the brake pad manufacturers’ move to <0.5% copper content in advance of the statutory deadlines to facilitate achievement of copper TMDL waste load allocations.

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 Memorandum of Understanding – 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 appears Washington DOE and California DTSC have been consulted regularly during the negotiations since that time, while CASQA and other stakeholders have been consulted less regularly.

CASQA representatives participated in a conference call with EPA staff in early April and followed that up with a comment letter³. 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. So CASQA also made specific recommendations to bring the language of the draft MOU as close as possible to the stated intent. Negotiations continued into the new fiscal year but it appears most of CASQA’s recommendations will be accepted, and there will be additional opportunity for review and input. A final MOU is expected by the end of 2014.

C.13.d. Industrial Sources

Provision C.13.d requires Permittees to ensure through routine industrial facility inspections that proper BMPs are in place at industrial facilities likely to use copper or have sources of copper. SMCWPPP’s CII Subcommittee assists member agency staff with understanding this MRP requirement and program staff develops MRP compliance support materials as necessary. In addition, in June 2010 BASMAA developed pollutants of concern commercial/industrial inspector training materials and a guidance manual that address industrial sources of copper. These materials are available on SMCWPPP’s website (www.flowstobay.org). In FY 2013/14, industrial sources of copper and roof runoff BMPs were incorporated into the April 2014 Commercial/Industrial Stormwater Inspector Training Workshop. More information on this workshop is available in Section 4 and Appendix 4.

C.13.e. Studies to Reduce Uncertainties

This MRP provision requires Permittees to conduct or cause to be conducted technical studies to investigate possible copper sediment toxicity and technical studies to investigate sub-lethal effects on salmonids. These uncertainties regarding copper effects in the Bay are described in the amended Basin Plan’s implementation program for copper site-specific objectives. MRP Permittee compliance with this provision has been achieved through continued participation in the RMP, whose multi-year planning process addresses these gaps through studies overseen by the Exposure and Effects Workgroup. While the MRP does not require reporting for this provision in FY 2013/14, the RMP’s efforts to-date to address these uncertainties include:

- A study of the olfactory effects of copper on seawater-phase salmonids was completed in 2012 and found inhibition of the olfactory nerves of young (smolt stage) Chinook salmon in salt water was induced at higher copper concentrations than in previous freshwater studies. The study concluded that existing regulatory thresholds for copper in San

³ CASQA Comments to EPA on Proposed MOU regarding Brake Pad Copper Content (April 15, 2014)

Francisco Bay are likely to be protective for salmonids. The study results are available at http://www.sfei.org/sites/default/files/SeawaterEOG2012report12202012_final.pdf.

- In 2013, additional external funding was provided to the RMP for further evaluation of the copper olfactory effects at intermediate salinities. Due to the effect of federal budget cuts on study facilities, the additional tests will be conducted with coho salmon instead of Chinook salmon used in previous tests, resulting in extension of the project timeline into 2014.

Ongoing exploration of the causes of moderate sediment toxicity in San Francisco Bay included an expert workshop in November 2012, the second in a series of discussions on stressor identification. Workshop participants identified a number of possible chemical and non-chemical stressors that could affect the laboratory organisms used for the toxicity tests (the amphipod *Eohaustorius estuarius*), and a follow-up proposal to test the effects of sediment particle size and shape was recommended for 2014 pilot/special studies funding.

FUTURE ACTIONS

FY 2014/15 activities planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.13 include the following:

- Conduct outreach to local vendors of copper roofing materials and local contractors that install copper roofs, including mailing or emailing them copies of the SMCWPPP's fact sheet on architectural copper BMPs.
- Continue to provide information on MRP requirements regarding architectural sources of copper to construction site and building inspectors at SMCWPPP's Construction Site Inspection Workshop and at presentations to CALBIG or other partner organizations.
- Provide guidance via SMCWPPP's CII Subcommittee and/or workshops to San Mateo County Permittees to assist them ensure through routine industrial facility inspections that proper BMPs are in place at industrial facilities likely to use copper or have sources of copper.
- Continue working with BASMAA and CASQA to participate in the Brake Pad Partnership process.
- Continue participation in the RMP to oversee technical studies to investigate possible copper sediment toxicity and technical studies to investigate sub-lethal effects on salmonids.

SECTION 14

C.14 PBDEs, LEGACY PESTICIDES AND SELENIUM

MRP Provision C.14 requires San Mateo County and other MRP Permittees to work collaboratively to begin identifying, assessing, and managing controllable sources of the following lower priority pollutants that have been found in stormwater runoff: polybrominated diphenyl ethers (PBDEs), legacy pesticides, and selenium. During FY 2012/13, SMCWPPP staff worked with BASMAA on regional projects that addressed this provision. SMCWPPP's FY 2012/13 Annual Report, Appendix 16 (*Regional Pollutants of Concern Report for FY 2012-2013*) documented the results of these projects. MRP Provision C.14 does not include any further tasks or reporting requirements for FY 2013-14.

SECTION 15

C.15 EXEMPTED AND CONDITIONALLY EXEMPTED DISCHARGES

INTRODUCTION

The objective of MRP Provision C.15, Exempted and Conditionally Exempted Discharges, is to exempt unpolluted non-stormwater discharges from the MRP's general non-stormwater discharge prohibition (Provision A.1) and to conditionally exempt unpolluted non-stormwater discharges that are potential sources of pollutants. This section describes SMCWPPP's countywide activities conducted to help its member agencies to implement this provision. SMCWPPP's role is to help municipal staff to understand the MRP's requirements and to make available for their use various MRP compliance support materials. The SMCWPPP CII Subcommittee, discussed in Section 4, facilitates and coordinates providing this assistance to the member agencies for a variety of different types of non-stormwater discharges that may be conditionally exempted.

The most extensive tracking, monitoring, and reporting requirements in Provision C.15 are for planned and unplanned potable water discharges by water purveyors. There are eleven SMCWPPP agencies that have identified themselves as water utilities in their Annual Reports. In April 2012 an ad hoc Water Utility Work Group was formed to specifically address the Provision C.15.b.iii requirements related to conditionally exempt planned and unplanned potable water discharges.

SMCWPPP and regional activities that address outreach requirements for C.15.b.iv (Individual Residential Car Washing Discharge) are discussed in Section 7 (Public Information and Outreach) of this report.

IMPLEMENTATION OF MRP PROVISIONS

SMCWPPP member agencies are responsible for complying with managing certain non-stormwater discharges exempted or conditionally exempted by the MRP (Provision C.15). SMCWPPP's CII component assists member agency staff with understanding these MRP requirements and developing various tools, templates, reporting forms, and other MRP compliance support materials.

During FY 2013/14, SMCWPPP performed a number of tasks to assist member agencies with implementation of Provision C.15, with input and assistance provided by the CII Subcommittee and Water Utility Work Group. Accomplishments included the following:

- Participated in the Water Agency Task Force (WATF);
- Kept Water Utility Work Group members apprised of state and regional activities regarding development of a general permit; and
- Prepared comments on draft regional and statewide General Permits for potable water discharges.

More information on each of these accomplishments is provided below.

Water Utility Work Group

MRP Provision C.15.b.iii Planned and Unplanned Potable Water Discharges has a number of monitoring and reporting requirements for Permittees that are also potable water purveyors. Municipal potable water purveyors in San Mateo County are: Cities of Brisbane, Burlingame, Daly City, Foster City, Hillsborough, Menlo Park, Millbrae, Redwood City, and San Bruno and San Mateo County. These requirements include documenting, monitoring, notifying, and reporting on various types of planned (e.g., fire hydrant flushing) and unplanned (e.g., water line breaks) potable water discharges.

During FY 2011/12, the CII Subcommittee recommended to SMCWPPP's Technical Advisory Committee that an ad hoc Water Utility Work Group be temporarily formed to facilitate any training needs identified by SMCWPPP's member agencies. The eleven agencies that identified themselves as a water utility in their Annual Report were invited to participate in the Work Group. The Work Group developed guidance materials in FY 2012/13. The four Fact Sheets that were developed are available on the SMCWPPP website (www.flowstobay.org). A Training Workshop was also held during FY 2012/13.

General Permits

SMCWPPP program staff is also following the progress of the Bay Area Water Agency Task Force (WATF), comprised of eight water agencies that are funding a Regional Water Board staff position to facilitate development of a regional general permit for water utility potable water discharges. Water Utility Work Group members were informed of and encouraged to participate in two Workshops held by the State Water Quality Control Board in January 2014 and the Regional Water Board in May 2014.

The Regional Water Board released a Tentative Order (TO) General Permit for Discharges of Water from Drinking Water Supply Distribution, Transmission, and Groundwater Systems in May 2014. SMCWPPP provided comments on the TO in June 2014. The State Water Resources Control Board released a Tentative Order (TO) General Permit for Drinking Water System Discharges on June 6, 2014. SMCWPPP plans on commenting on the State Board TO by the August 19, 2014 deadline. During FY 2013/14, SMCWPPP staff prepared various informational documents to assist municipal staff participate in the permit development process.

FUTURE ACTIONS

FY 2014/15 activities planned by SMCWPPP to assist member agencies comply with MRP requirements in Provision C.15 include the following:

- Continue to assist member agency staff with understanding MRP Provision C.15 requirements including developing various tools, templates, reporting forms, and other MRP compliance support materials as appropriate;
- Hold quarterly CII Subcommittee meetings; and
- Track development of the Region 2 and Statewide General Permits for potable water discharges and work with the Water Utility Work Group to assist Permittees to respond accordingly.



Appendix 1

- Stormwater Committee – Attendance List – FY 2013-14
- Technical Advisory Committee – Attendance List – 2013 and 2014

FY 2013-14 Stormwater Committee Attendance			2013			2014	
Agency	Representative	Position	Aug	Oct	Nov	Feb	Apr
Atherton	Gordon Siebert	Public Works Director				X	X
Belmont	Afshin Oskoui	Public Works Director	X	X	X	X	X
Brisbane	Randy Breault	Public Works Director/City Engineer	X	X	X	X	X
Burlingame	Syed Murtuza	Public Works Director	X		X	X	X
Colma	Brad Donohue	Director of Public Works and Planning	X	X	X	X	
Daly City	Patrick Sweetland	Director of Water & Wastewater	X	O	O	O	X
East Palo Alto	Kamal Fallaha	City Engineer		O	O		
Foster City	Brad Underwood	Director of Public Works		X	X	X	
Half Moon Bay	Mo Sharma	City Engineer	X	X		X	
Hillsborough	Paul Willis	Public Works Director	X		X	X	
Menlo Park	Charles Taylor	Public Works Director		X		X	O
Millbrae	Khee Lim	City Engineer			X		
Pacifica	Van Ocampo	Public Works Director/City Engineer	X	X	X	X	X
Portola Valley	Howard Young	Public Works Director	X	X			
Redwood City	Shobuz Ikbal	City Engineer/Engineering Manager	X				
San Bruno	Klara A. Fabry	Public Services Director	X	X	X	X	X
San Carlos	Jay Walter	Public Works Director	X	O		X	
San Mateo	Larry Patterson/Ray Towne	Interim Public Works Director			X	X	X
South San Francisco	Terry White/Brian McMinn	Public Works Director	O	O	O	X	X
Woodside	Paul Nagengast	Deputy Town Manager/Town Engineer		X	O	O	
San Mateo County	Jim Porter	Public Works Director	X	X		X	
Regional Water Quality Control Board	Tom Mumley	Assistant Executive Officer		O	X	O	

"X" - Committee Member Attended

"O" - Other Jurisdictional Representative Attended

2013/14 NPDES TAC Attendance Record			
AGENCY AND NAME	Oct	Jan	Apr
SMCWPPP/ CCAG			
Matt Fabry	X	X	X
Sandy Wong			
EOA, Inc.			
Jon Konnan	X	X	X
Regional Board			
Dale Bowyer	X		
Atherton			
Steve Tyler			
Belmont			
Gilbert Yau			
Leticia Alvarez			
Brisbane			
Randy Breault			
Karen Kinser			
Burlingame			
Victor Voong	X	X	X
Eva Justimbaste			
Steve Daldrup			
Colma			
Muneer Ahmed		X	X
Brad Donohue			
Saied Mostafavi			
Daly City			
Cynthia Royer	X	X	X
John Fuller		X	
East Palo Alto			
Michelle Daher	X	X	X
Vivian Ma		X	
Foster City			
Norm Dorais			
Mike McElligott			
Half Moon Bay			
Muneer Ahmed		X	X
Mark Lander		X	
Hillsborough			
Dave Bishop			
Jen Chen			
Catherine Chan	X		
Menlo Park			
Rebecca Fotu			
Fernando Bravo	X	X	
Millbrae			
Khee Lim		X	
Anthony Riddell			
Kelly O'Dea			

2013/14 NPDES TAC Attendance Record			
AGENCY AND NAME	Oct	Jan	Apr
Pacifica			
Raymund Donguines		X	X
Portola Valley			
Howard Young			
Redwood City			
Adrian Lee	X		
Harry Kwong			
Terence Kyaw			
Charlie Drechsler			
San Bruno			
Joseph Cervantes			
Will Li		X	
San Carlos			
Matt Lee		X	X
Paul Baker	X		
San Mateo, City			
Debra Bickel	X	X	
Sarah Scheidt		X	X
San Mateo, County			
Dermot Casey			
Julie Casagrande	X	X	
Patrick Ledesma	X		X
Tim Swillinger			
Jim Eggemeyer			
So. San Francisco			
Rob Lecel		X	X
Andrew Wemmer			X
Daniel Fulford	X		
Woodside			
Dong Nguyen			
Caltrans			
Karen Mai			
Guests/Public			
Attendance	14	19	13



Appendix 2

- Municipal Maintenance Subcommittee – Attendance List– FY 2013-14
- Municipal Maintenance Workshop – November 14, 2013
 - Agenda
 - Attendance List
 - Summary of workshop evaluations

Municipal Maintenance Subcommittee Meetings - FY 2013/14

NAME	MUNICIPALITY	Aug 28	Oct 23	Jan 22	Mar 26
David Huynh	Atherton				✓
Steve Tyler	Atherton				✓
Randy Ferrando	Belmont		✓	✓	✓
Ryan Moran	Belmont	✓			
Tim Murray	Belmont	✓	✓		✓
Keegan Black	Brisbane			✓	
Peter Gaines	Burlingame		✓	✓	
Steve Daldrup	Burlingame	✓	✓		
Vince Falzon	Burlingame	✓			✓
Louis Gotelli	Colma	✓	✓	✓	✓
Jeff Fornesi	Daly City	✓	✓	✓	✓
Joe Stabile Sr.	Daly City	✓			
Michelle Daher	East Palo Alto			✓	
Mike McElligott	Foster City			✓	
Frank Schoering	Foster City				✓
Larry Carnahan	Half Moon Bay	✓		✓	✓
Gary Francis	Hillsborough			✓	✓
Irv Meachum	Menlo Park		✓	✓	✓
Hugo Torres	Menlo Park		✓	✓	✓
Nelson Guitierrez	Menlo Park		✓		
Gabriel Ortiz	Menlo Park		✓	✓	✓
Natividad Alamo	Menlo Park		✓	✓	✓
Heather Henwood	Millbrae	✓	✓	✓	✓
Michael Killigrew	Millbrae	✓	✓	✓	✓
Cipriano Romero	Millbrae			✓	
R. Clark	Millbrae			✓	
Bernie Mau	Pacifica	✓	✓	✓	✓
Ron Fascenda	Pacifica	✓			
Howard Young	Portola Valley				
Tony Macias	Portola Valley				
Albert Munguis	Redwood City	✓		✓	✓
Eddy Lopez	Redwood City	✓		✓	✓
Rich Del Ben	Redwood City	✓		✓	
Adrian Lee	Redwood City		✓		
Philip Woffenden	San Bruno	✓			
Rob Hensel	San Bruno	✓			
Ted Chapman	San Bruno	✓	✓	✓	✓
Frank Amoroso	San Carlos	✓	✓		
Jean St. Martin	San Carlos	✓	✓		
Lius Estrada	San Carlos	✓			

Municipal Maintenance Subcommittee Meetings - FY 2013/14

NAME	MUNICIPALITY	Aug 28	Oct 23	Jan 22	Mar 26
Lou Duran	San Carlos	✓		✓	
Paul Baker	San Carlos	✓	✓	✓	
Ron Mareno	San Carlos		✓		
Rick Viles	San Carlos				✓
Stephen Fischer	San Mateo County				✓
Debra Bickel	City of San Mateo	✓	✓		
Ray Jackson	City of San Mateo		✓		
James Hardie	South San Francisco		✓		
Eunejune Kim	Woodside				
Casey Stevenson	San Mateo County Mosquito & Vector Control District				✓
Kristin Kerr	EOA, Inc.	✓	✓	✓	✓
Sue Ma	Regional Board				
Matt Fabry	SMCWPPP Coordinator				



Rural Roads Workshop
SMCWPPP Municipal Maintenance Subcommittee
Thursday, November 14, 2013
8:00 a.m. – 12:00 noon

Classroom: Council Chambers, 537 Kelly Ave., Half Moon Bay
Field Exercise: HMB Corp Yard, 880 Stone Pine Road, Half Moon Bay

WORKSHOP AGENDA

Registration and Refreshments <i>Registration</i>	8:00 – 8:30
Welcoming Remarks Kristin Kerr, <i>San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Program Staff</i>	8:30 – 8:35
Stormwater/ Erosion Control Kathy Moley/Tara Zuroweste, <i>Pacific Watershed Associates (PWA)</i>	8:35 – 9:00
Effects of Uncontrolled Stormwater Kathy Moley/Tara Zuroweste, <i>PWA</i>	9:00 – 9:10
Types of Erosion – Intro to Field Assessments Kathy Moley/Tara Zuroweste, <i>PWA</i>	9:10 – 9:30
The BMP Tool Bag Kathy Moley/Tara Zuroweste, <i>PWA</i>	9:30 – 9:45
Hands on BMPs Kathy Moley/Tara Zuroweste, <i>PWA</i>	9:45 – 10:00
Break – Travel to Field Segment	10:00 – 10:20
Field Segment – Hands on BMPs and Field Assessment Kathy Moley/Tara Zuroweste, <i>PWA</i>	10:20 – 11:55
Closing Remarks	11:55 – 12:00

SMCWPPP Rural Roads Workshop
November 14, 2013
Attendance

	<i>Last Name</i>	<i>First Name</i>	<i>Municipality</i>
1	Tyler	Steve	Atherton
2	Renteria	Estevan	City of Pacifica
3	Vasquez	Juan	City of Pacifica
4	Abbott	Tom	County of San Mateo
5	Allen	Catherine	County of San Mateo
6	Balestieri	Steve	County of San Mateo
7	Bertao	Daniel	County of San Mateo
8	Cervantes	Joel	County of San Mateo
9	Coggins	Corey	County of San Mateo
10	Costa	Joe	County of San Mateo
11	Davenport	Tom	County of San Mateo
12	Dexter	Bryan	County of San Mateo
13	Donegan	Brendon	County of San Mateo
14	Escoto	Greg	County of San Mateo
15	Lujan	Will	County of San Mateo
16	Marelich	Mark	County of San Mateo
17	Modena	Dave	County of San Mateo
18	Murray	Jeff	County of San Mateo
19	Pacini	Jeff	County of San Mateo
20	Rasmussen	Ryan	County of San Mateo
21	Scott	Kevin	County of San Mateo
22	Stanfield	Tim	County of San Mateo
23	Foster	Carole	County of San Mateo
24	Cassagrande	Julie	County of San Mateo DPW
25	Brien	Jason	County of San Mateo Parks
26	Cardoza	Ron	County of San Mateo Parks
27	Christopher	Brian	County of San Mateo Parks
28	Cross	Steve	County of San Mateo Parks
29	Di Lorenzo	Lisa	County of San Mateo Parks
30	Diaz	Pedro	County of San Mateo Parks
31	Finnegan	Laurel	County of San Mateo Parks
32	Gatt	Brian	County of San Mateo Parks
33	Kang	Ty	County of San Mateo Parks
34	Kraemer	Steve	County of San Mateo Parks
35	Lundgaard	Ryan	County of San Mateo Parks
36	Nastari	Mario	County of San Mateo Parks
37	Carnahan	Larry	Half Moon Bay
38	Chan	Catherine	Town of Hillsborough
39	Fehr	Kevin	Town of Hillsborough
40	Weber	Scott	Town of Portola Valley
41	Hernandez	Ignacio	Town of Woodside
42	Pineda	Solomon	Town of Woodside



Evaluation Form Summary
46 Attendees
31 Classroom Evaluations
20 Field Evaluations

Rural Roads Maintenance Workshop
Thursday, November 14, 2013

What Did You Think of the Following Presentations and Activities?

CLASSROOM SESSION

1. Stormwater/Erosion Control - PWA

very helpful **19** somewhat helpful **12** not helpful **0**

Comments:

- Real/actual photographs helpful.
- Good refresher.

2. Effects of Uncontrolled Stormwater – PWA

very helpful **19** somewhat helpful **12** not helpful **0**

Comments:

- Helpful having phrases that stick with the participants of the training like “Hydrologically invisible” Nice to imagine with BMP’s on projects.
- Good refresher.

3. Types of Erosion - Intro to Field Assessment – PWA

very helpful **17** somewhat helpful **14** not helpful **0**

Comments:

- Nice to have cross sections of roads as well as a diagram of common names or terms identified on a diagram.
- Good refresher.

4. The BMP Tool Bag – PWA

very helpful **16** somewhat helpful **14** not helpful **0**

Comments:

- Good refresher.

5. Hands of BMPs - PWA

very helpful **16** somewhat helpful **14** not helpful **0**

Comments:

- Good refresher.

General Comments:

- Great location
- Good Training – good presenters – very familiar material
- Good presentation, enthusiastic presenters. Good job!
- Sounds good, may not be practical
- Very informative & great presenters (Kathy & Tara).
- Helpful feedback and visuals to help understand responsibility to storm water & erosion control.
- Need to talk more about the Permit Process and why its so difficult to get permits to replace culvert pipe.
- Good to reinforce what we have been taught before.
- Good photos showing examples.

FIELD SESSION

1. Field Segment – Hands on BMPs - PWA

very helpful **13** somewhat helpful **5** not helpful **0**

Comments:

2. Field Segment –Field Assessment – PWA

very helpful **13** somewhat helpful **5** not helpful **0**

Comments:

Did this workshop meet your expectations? Yes **18** No **1**

What parts of the workshop were most useful to you?

- To practice.
- Hands on approach.
- All of it.
- Hands on.
- Learning all the different types of margrid.
- Hands on practice was good.
- Good info on practical exercise.
- Going over the scenarios & using materials based on education.
- The install of equipment.

What would have made this workshop more useful?

- Looking at jobs/BMPs in the area.
- More crowd participation.
- Worked well in my opinion.

What topics would you recommend for a future workshop?

- Not a big group of talkers but good class.
- None.
- Lunch.
- Include how trail maintenance is similar.
- Fish ladders.

General Comments:

- Thanks to the county for giving us training.
- This was a good refresher. Good product demo.



Appendix 3

- New Development Subcommittee – Attendance List– FY 2013-14
- Stormwater Treatment System Inspection Workshop – December 4, 2013
 - Announcement flyer
 - Agenda
 - Attendance List
 - Summary of workshop evaluations
- New Development Workshop – June 11, 2014
 - Announcement flyer
 - Agenda
 - Attendance list
 - Summary of workshop evaluations

New Development Subcommittee FY 2013/14 Meeting Attendance

Representing	Name	Phone Number	Meetings Attended			
			Sept	Nov	Feb	May
Atherton	David Huynh	650/752-0555				
	Andrea Mardesich	650/752-0544	X	X		
Belmont	Gilbert Yau	650/595-7467	X	X		
	Dalia Manaois	650/595-7468			X	
Brisbane	Ken Johnson	415/508-2120	X	X	X	X
Burlingame	Eva Justimbaste	650/342-3727				
	Stephen Daldrup	650/342-3727	X	X	X	X
Colma	Michael Laughlin	650/757-8896				
	Turhan Sonmez			X	X	X
	Muneer Ahmed	650/757-8894	X			X
	Brad Donahue					
Daly City	Jeanne Naughton	650/991-8035	X		X	
	Mike Van Lonkhuysen				X	
East Palo Alto	Michelle Daher	650/853-3197	X	X	X	
	Bret Swain	650/853-3159				
EOA/SMCWPPP	Jill Bicknell	408/720-8811 x 1	X	X	X	X
	Peter Schultze-Allen	510/832-2852 x128		X	X	X
Foster City	Kohar Kojayan	650-286-3237		X		
	Norm Dorais			X		
	Christina Horrisberger	650-286-3242				X
Half Moon Bay	Mark Lander	925/785-4518				
	Muneer Ahmed	650/757-8894				X
Hillsborough	Catherine Chan	650/579-3353		X	X	
	Kevin Fehr	650-375-7444				X
Menlo Park	Shaun Mao	650/330-6740	X	X	X	X
	Roger Storz	650-330-6740			X	
Millbrae	Khee Lim	650/259-2347				
	Tanya Benedik	650/259-2339				
	Doug Rider					
Pacifica	Kathryn Farbstein	650/738-7361				X
	C.H./Ray Donguines	650/738-7444	X		X	
Portola Valley	CheyAnne Brown	650/851-1700		X	X	X
Redwood City	Saber Sarwary					
	Harris Siddiqui	650-780-7362		X	X	X
	Patti Schrottenboer	650/780-7368				
San Bruno	Laura Russell	650/616-7038				
	Matt Neuebaumer	650-616-7042		X	X	X
San Carlos	Gavin Moynahan	650/802-4267	X	X		
San Mateo	Ken Pacini	650/522-7333	X	X	X	X
	Debra Bickel					X
County of San Mateo	Camille Leung	650/363-1826	X	X	X	
	Steve Rosen					X
	Diana Shu	650/599-1414				
Countywide Program	Matt Fabry	650/599-1419				
South S.F.	Andrew Wemmer	650/829-3883		X	X	
	Rob Lecel	650/829-3882				X
Woodside	Dong Nguyen	650/851-6790				
	Doug Rider					
Water Board	Sue Ma	510/622-2386				



Stormwater Treatment System Inspection Workshop

Foster City Community Center, Wind Room

1000 E. Hillsdale Blvd, Foster City

Wednesday, December 4, 2013

8:00 am – 3:00 pm

This workshop is for:

- ✓ Municipal Engineers
- ✓ Municipal Inspectors

*There will be **no charge** to agency staff for the workshop. Continental breakfast and box lunch will be provided. Please pass this flyer to appropriate staff within your organization.*



Bioretention Area, Brisbane

Workshop Highlights:

- What's Required by the Stormwater Permit
- Overview of Stormwater Treatment Measures
- What to Inspect during Construction and during 45 day Inspections
- Post-Occupancy O&M Inspections and Issues
- Vector Control Considerations

REGISTRATION FORM

Name: _____

Title: _____

Agency: _____

Phone: _____

Email: _____

Please complete and send to Lori Baumgartner by email <LoriB@eoainc.com> or fax (408-720-8812) no later than Wednesday, November 27, 2013. Questions? Call Lori at 408-720-8811 ext 2.

There will be a similar workshop on December 16th in Santa Clara County. If you would prefer to attend that workshop, please call Lori for more details.



INSPECTOR WORKSHOP:
**“Improving Your Stormwater Treatment System
 Construction and O&M Inspections”**

December 4, 2013

Foster City Community Center, Wind Room

WORKSHOP AGENDA

8:00 a.m.	Registration and Continental Breakfast	
8:30	Welcome and Introduction	Jill Bicknell EOA
8:35	Why Do We Do Inspections? – A Review of Stormwater Permit Requirements	Jill Bicknell EOA
8:50	What Are We Inspecting? – An Overview of Stormwater Treatment Measure Type, Design, & Maintenance Required	Jill Bicknell EOA
9:20	What Do We Look For During Construction? Key Elements to Inspect and Common Issues	Peter Schultze-Allen EOA
9:50	What Do We Look For During a “45 Day” Inspection? Key Elements to Inspect at Completed Facilities	Peter Schultze-Allen EOA
10:15	Break	
10:30	What Do We Look For During Routine O&M Inspections? Common Problems and Solutions	Peter Schultze-Allen EOA
11:00	Panel – Experience from the Field	Kevin Fehr, Hillsborough Michelle Daher, East Palo Alto Daniel Fulford, South SF Levon Jalalian, City of San Mateo
12:00	Lunch	
12:30	What About Mosquitos? – Vector Control Considerations	Brian Weber San Mateo County Vector Control District
1:00	Data Collection and Management, and Tools for Compliance	Jill Bicknell EOA
1:30	Group Exercise – How Would You Handle These Inspection Situations?	Peter Schultze-Allen EOA
2:30	Adjourn	

SMCWPPP BMP Inspector Workshop
December 4, 2013
8:00 a.m. - 3:00 p.m.

Last Name	First Name	Title	Municipality	Phone Number	E-Mail
Ahmed	Muneer	Associate Engineer	Town of Colma	650-757-8888	muneer.ahmed@colma.ca.gov
Bickel	Debra	Env. Compliance Inspector	City of San Mateo		dbickel@cityofsanmateo.org
Bozhena	Palatnik	Engineer	City of Belmont	650-595-7463	bpalatnik@belmont.gov
Breault	Randy	Director of Public Works	City of Brisbane	415-508-2130	rbreault@ci.brisbane.ca.us
Chan	Catherine	Assistant Engineer	Town of Hillsborough	650-375-7516	cchan@hillsborough.net
Chen	Eric	Associate Civil Engineer	County of San Mateo	650-363-4100	echen@smcgov.org
Choi	Carter	Associate Civil Engineer	County of San Mateo	650-363-4100	cchoi@smcgov.org
Daher	Michelle	Environmental Programs	City of East Palo Alto	650-853-3197	mdaher@cityofepa.org
Daldrup	Steve		City of Burlingame		
Dillon	Michael		City of San Carlos		
Edwards	Leah	Associate Civil Engineer	City of Foster City	650-286-3277	ledwards@fostercity.org
Fehr	Kevin		Town of Hillsborough		Kfehr@hillsborough.net
Font	Kristen	Env. Compliance Inspector	City of South San Francisco	650-829-3880	kristen.font@ssf.net
Fulford	Dan	Env. Compliance Inspector	City of South San Francisco	650-829-3880	kristen.font@ssf.net
Hathaway	Mark	Public Works Inspector	City of San Mateo		hathaway@cityofsanmateo.org
Hinkley	Eric	Construction Inspector	City of Menlo Park	650-330-6749	emhinkley@menlopark.org
Huynh	David	Associate Engineer	Town of Atherton	650-752-0555	dhuynh@ci.atherton.ca.us
Jalalian	Levon	Project Manager	City of San Mateo - Bay Meadows II	415-310-9723	Levon.jalalian@yahoo.com
Kenyon	Michelle	Public Works Inspector	City of San Mateo		kenyon@cityofsanmateo.org
Kim	Philip	Assistant Engineer II	City of Redwood City	650-780-7395	pkim@redwoodcity.org
Lee	Richard	Associate Engineer	San Mateo County	650-363-1852	rlee@smcgov.org
Leung	Camille	Planner	San Mateo County	650-363-1826	cleung@smcgov.org
Lindquist	Laurent	Engineering Intern	City of Menlo Park	650-330-6740	ljindquist@menlopark.org
Lisaj	Krzysztof	Assistant Engineer	County of San Mateo		klisaj@smcgov.org
Lor	Chai	Building Inspector	City of Millbrae	530-531-5343	chail@csgengr.com
Manaois	Dalia	Engineer	City of Belmont	650-595-7468	dmanaois@belmont.gov
Mardesich	Andrea	Associate Planner	Town of Atherton	650-752-0544	amardesich@ci.atherton.ca.us
Moralos	Rene		City of Menlo Park		



**INSPECTOR WORKSHOP:
"Improving Your Stormwater Treatment System
Construction and O&M Inspections"**

Wind Room, Foster City Community Center

Wednesday, December 4, 2013

Number of Attendees: 45
Number of Evaluations: 32

- 1. Why Do We Do Inspections? – A Review of Stormwater Permit Requirements - Given by Jill Bicknell, EOA**

Very Useful 24 Somewhat Useful 6 Not useful 0

Comments:

- Providing the history of why we are doing what we are doing puts the topic in perspective.
- I didn't realize all that information had to be in the tracking table.
- Good overview.

- 2. What Are We Inspecting? – An Overview of Stormwater Treatment Measure Type, Design, and Maintenance Required - Given by Jill Bicknell, EOA**

Very Useful 25 Somewhat Useful 7 Not useful 0

Comments:

- Permeable pavement slide - concrete under brick used to prevent rodents from stealing sand from the brick under pavement is a long-term maintenance issue.
- Good overview.
- Not having trees in bioretention areas is near impossible to get through planning.
- Good, helpful distinction between pre-LID and post-LID options. Thanks for explanation of why pre-LID are no longer allowed (except for special projects) and thanks for explaining the difference between treatment and infiltration design.
- Good to know which measures we can and cannot use.
- A confusing topic. Jill's presentation clarified a lot!

3. **What Do We Look For During Construction? Key Elements to Inspect and Common Issues -**
Given by Peter Schultze-Allen, *EOA*

Very Useful 24

Somewhat Useful 8

Not useful 0

Comments:

- Good outline and examples of common issues/elements.
- Example of gross violations and how they were rectified will help participants address future problems.
- Great photos - very helpful to illustrate common problems.
- Would have been good for our city's contracted plan reviewer to have come to this training. We have absolutely no help or cooperation from our city building inspectors. Please get building inspectors and building officials on board!
- Great presentation! Not dry, not boring, very hands on. The presenter was very experienced and familiar with the topic. Thank you!

4. **What Do We Look For During a "45 Day" Inspection? Key Elements to Inspect at Completed Facilities California -**
Given by Peter Schultze-Allen, *EOA*

Very Useful 24

Somewhat Useful 8

Not useful 0

Comments:

- Why spend money to clean water just to dump it into the street where it is dirty?
- Good use of photos and examples.
- What is a 45 Day inspection?
- Thanks for this list of common problems. Great photos - easy to understand.
- Great presentation! Not dry, not boring, very hands on. The presenter was very experienced and familiar with the topic. Thank you!

5. **What Do We Look For During Routine O&M Inspections? Common Problems and Solutions -**
Given by Peter Schultze-Allen, *EOA*

Very Useful 20

Somewhat Useful 9

Not useful 2

Comments:

- Why spend money to clean water just to dump it into the street where it is dirty?
- Very good photo examples used.
- Was great to see photos of facilities over time and how problems differ over time.
- Good checklist.
- Signage is a good idea. Never heard of it before.
- It was good knowledge for inspectors.
- Great presentation! Not dry, not boring, very hands on. The presenter was very experienced and familiar with the topic. Thank you!
- A lot of duplicate photos from previous presentations.

6. Panel – Experience from the Field

Very Useful 15

Somewhat Useful 10

Not useful 4

Comments:

- Nice examples of what can be encountered in the field.
- Very good.
- Too all over the place.
- Would have been nice to have pictures of Bay Meadows detention pond and retention basins at curbs.
- Presentations were not articulated very well.
- Very useful to have.
- We do surprise inspections - pros and cons of sending a letter notifying that the inspection is coming up.
- Good knowledge for site inspectors only. I am not a site inspector therefore it was not useful to me.
- Could you email Michelle's East Palo Alto Installation Permit to all of us? The C.3. group should discuss how cities catch regulated projects that don't require building permits.
- Interesting to hear what other issues other cities are experiencing with these issues.
- Little to no exhibits. Difficult to understand.

7. What About Mosquitos? - Vector Control Considerations - Given by Jill Bicknell, *EOA*

Very Useful 5

Somewhat Useful 19

Not useful 5

Comments:

- Good reminder.
- What are they using to spray in the storm drains?
- Needed a lot of info that relates to stormwater treatment.
- Original presenter couldn't come, but good basic information on slides.
- Probably would have been better if given by Vector Control.
- County expert would better contribute.
- Need to add what months are at highest risk. If water doesn't drain within 72 hours in December or January, is there still a risk?

8. Data Collection and Management, and Tools for Compliance - Given by Jill Bicknell, *EOA*

Very Useful 16

Somewhat Useful 12

Not useful 0

Comments:

- Forms were useful to bring back to office.
- Nice templates used.
- I liked the San Jose forms.

9. **Group Exercise – How Would You Handle These Inspection Situations?** - Given by Peter Schultze-Allen, *EOA*

Very Useful 14

Somewhat Useful 8

Not useful 0

Comments:

- Inspectors should not be redesigning systems.
- Good ideas presented.

GENERAL COMMENTS

Did this workshop meet your expectations? (circle one)

Yes 25

No 1

- Exceeded it.

What parts of the workshop were most useful to you?

- Group exercises.
- Talking situations through with colleagues.
- Seeing photos and diagrams of the different stormwater treatment devices.
- Discussion.
- Inspection worksheets.
- The overall practical field examples.
- Photos and experience of speakers.
- I am new to this so most of it was very useful.
- All of it. Especially inspections and what to look for.
- 45 day, routine inspection and data collection presentations.
- Panel presentations and overviews.
- Morning presentations.

What would have made this workshop more useful?

- More hands-on inspections.
- Soil specification - plant requirements list; season to plant - summer, spring, fall, or winter?
- More interactive in the beginning.
- Nothing.
- Little hard to see the slides, especially photos.
- Longer and go more into detail/technical/reason for a lot of what's required.
- Better handouts.
- Some of the information on the slides was too small. Perhaps putting these presentations online would help.
- Have the whole training on what we look for during construction.

What topics would you recommend for a future workshop?

- Landscaping plants, terminology - weirs, etc. Many people don't know what these mean.
- What to look for during plan check. How to determine C.3. compliance.
- Recommendations on distribution of authority among City departments for O&M inspections and stormwater treatment devices.
- Could you set up a workshop on the design aspects when C.3. is a requirement? What would be done with regulatory agencies to meet permitting requirements?
- Video clip.
- More in-depth information on stormwater treatment measures, challenges associated with implementation and inspections, based on experience.
- It would be good to develop a detailed toolbox/algorithm for designers on what measure to install in what situation.

General Comments?

- Really hard to see photos on projector.
- Love all the countywide trainings!
- Thank you!
- Great lunch.
- The panel presentations were monotone, too many unknowns, basically read a PowerPoint presentation.
- Good breakfast and lunch.
- Good exercises.
- Some of the information by Peter could have been combined to prevent repetition and create a start to finish for each slide. Some slide was repeated and became disjointed. Overall information and what to look for was very informative and I will be looking at our current systems and any future systems with better understanding.
- Try to compress to a half-day workshop.



Annual C.3 Stormwater Workshop

Current Trends in LID Implementation

This workshop is for:
✓ Municipal Engineers, Planners,
Building and Stormwater Staff

San Mateo Public Library – Oak Room
55 W. 3rd Avenue, San Mateo

Wednesday, June 11, 2014
9:00 am – 3:00 pm

*There will be **no charge** to agency staff for the workshop. Continental breakfast and lunch will be provided. Please pass this flyer to appropriate staff within your organization.*



Bioretention Area, Brisbane

Workshop Highlights:

- **Stormwater Permit Basic Training (Optional Morning Session)**
- **Overview of LID Requirements and Checklist**
- **LID Plan Check Examples**
- **Special Projects Requirements and Reporting**
- **What to Expect in the Next Permit**
- **Green Streets Projects and Planning**

REGISTRATION FORM

Name: _____

Title: _____

Agency: _____

Phone: _____

Email: _____

Please complete and send to Melissa Morgan by email <melissa@eoainc.com> or fax (510-832-2856) no later than Wednesday, June 4th, 2014.

Questions? Call Peter Schultze-Allen at 510-832-2852 ext. 128.



2014 New Development Workshop

Current Trends in LID Implementation

San Mateo Public Library
55 W. 3rd Ave, San Mateo
June 11, 2014

Agenda

Early Registration for Basic Training (and Refreshments)	9:00 – 9:15
Basic Overview of Stormwater Post-Construction Controls <i>Learn (or refresh your memory) about current stormwater requirements and key concepts</i> Jill Bicknell, <i>EOA, Inc.</i>	9:15 – 10:00
Registration and Refreshments (for those not attending Basic Training)	10:00 – 10:15
Introductory Remarks Jill Bicknell, <i>EOA, Inc.</i>	10:15 – 10:20
Update on Current and Future Stormwater Permit Requirements Jill Bicknell, <i>EOA, Inc.</i>	10:20 – 11:00
Experiences Reviewing Stormwater Control Plans and Conducting Treatment Measure Inspections Caitlin Gilmore and Robin Lee, <i>Schaaf & Wheeler</i>	11:00 – 11:40
Stormwater Review of Example Regulated Project Peter Schultze-Allen and Jill Bicknell, <i>EOA, Inc.</i>	11:40 – 12:15
LUNCH - provided on site	12:15 – 1:00
The City of San Mateo's Green Streets Plan Ken Chin, <i>City of San Mateo</i>	1:00 – 1:30
Green Streets in the City of Emeryville Peter Schultze-Allen, <i>EOA, Inc.</i>	1:30 – 2:00
Integrated Green Infrastructure Planning, Funding & Implementation Peter Schultze-Allen, <i>EOA, Inc.</i>	2:00 – 2:50
Closing Remarks	2:50 – 3:00

SMCWPPP Current Trends In LID Implementation New Development Workshop
June 11, 2014

<i>Last Name</i>	<i>First Name</i>	<i>Municipality/Firm</i>
Middleton	Michael	Bureau Veritas
Johnson	Ken	City of Brisbane
Voong	Victor	City of Burlingame
Gardiner	Kevin	City of Burlingame
Vanlonkhuysen	Michael	City of Daly City
Horrisberger	Christina	City of Foster City
Galli	Laura	City of Foster City
Dorais	Norm	City of Foster City
Ahmed	Muneer	City of Half Moon Bay
Hoang	Son	City of Half Moon Bay
Mao	Shaun	City of Menlo Park
Storz	Roger	City of Menlo Park
Farbstein	Kathryn	City of Pacifica
Panza	Lee	City of Pacifica
Rider	Elizabeth	City of Pacifica
O'Connell	James	City of Redwood City
Siddiqui	Harris	City of Redwood City
Le	Grace	City of Redwood City
Schrotenboer	Patti	City of Redwood City
Zahori	Sayed	City of Redwood City
Cervantes	Joseph	City of San Bruno
Atkinson	Kian	City of San Mateo
Swenson	Mark	City of San Mateo
Quan	Martin	City of San Mateo
Walker	Jocelyn	City of San Mateo
Pacini	Ken	City of San Mateo
Ung	Mario	City of San Mateo
Lam	Aaron	City of San Mateo
Vo	Jimmy	City of San Mateo
Homayoun	Ariasp	City of San Mateo
Chin	Ken	City of San Mateo
Lecel	Rob	City of South San Francisco
Fulford	Daniel	City of South San Francisco
Rozzi	Tony	City of South San Francisco
Font	Kristen	City of South San Francisco
Chan	Catherine	CSG Consultants

SMCWPPP Current Trends In LID Implementation New Development Workshop
June 11, 2014

<i>Last Name</i>	<i>First Name</i>	<i>Municipality/Firm</i>
Schultze-Allen	Peter	EOA, Inc.
Bicknell	Jill	EOA, Inc.
Leung	Camille	San Mateo County
Burlison	Summer	San Mateo County
Yee	Theresa	San Mateo County
Kalkbrenner	Rob	San Mateo County
Ng	Wency	San Mateo County
Stillman	Ann	San Mateo County
Casagrande	Julie	San Mateo County
Choi	Carter	San Mateo County
Rasmussen	Ryan	San Mateo County
Marellich	Mark	San Mateo County
Dickinson	Rebecca	San Mateo County
Gilmore	Caitlin	Schaaf & Wheeler
Lee	Robin	Schaaf & Wheeler
Mardesich	Andrea	Town of Atherton
Hakamaneshi	Rambod	Town of Colma
Seto	David	Town of Colma
Daldrup	Stephen	Veolia Water/Burlingame WWTF
Justimbaste	Eva	Veolia/Burlingame WWTF



Evaluation Form Summary

2014 NEW DEVELOPMENT WORKSHOP

San Mateo, CA

Wednesday, June 11, 2014

1. **Basic Overview of Stormwater Post-Construction Controls** – Given by Jill Bicknell, EOA/SMCWPPP Program

Very Useful 26 Somewhat Useful 7 Not useful

Comments:

**Informative overview for first timer.
Good refresher.
Good refresher/anecdotal accounts useful.
Good overview for someone who is not very familiar.
Nice overview.
Really good overview of history up to current standards.
Went over requirements very thoroughly, spoke loudly and clearly!**

2. **Update on Current and Future Stormwater Permit Requirements** - Given by Jill Bicknell, EOA/SMCWPPP Program

Very Useful 27 Somewhat Useful 7 Not useful

Comments:

**Special projects overview good.
Update helpful, whereas future is hard to definitively grasp.
Very helpful to know what is changing.
Essential info.
A little heavy on what “might” happen.
Jill did a good job again.
Some questions put talk overtime by just 5 minutes or so.
Did a great job of wrapping things up quickly.
Interesting to hear of a possible requirement for a Green Streets plan as trade-off for roadway project exemptions.
Good to hear of examples pros & cons.**

3. **Experiences Reviewing Stormwater Control Plans and Conducting Treatment Measure Inspections** – Given by Caitlin Gilmore and Robin Lee, Schaaf & Wheeler

Very Useful 18 Somewhat Useful 15 Not useful 1

Comments:

**At this time city not looking toward 3rd party inspector.
Both very knowledgeable and well communicated.
Sounded like a sales pitch.
Too advertisey (sp). More forms on installation issues.
Great reality check.
Felt more like selling their service.
Good info, especially the inspection procedures. Don't overdo the marketing pitch.
Robin and Caitlin were good. Useful info and answered questions well.**

4. **Stormwater Review of Example Regulated Project** - Given by Jill Bicknell and Peter Schultze-Allen, EOA/SMCWPPP

Very Useful 25 Somewhat Useful 7 Not useful 1

Comments:

**Shows how difficult checklist is.
Additional time to be accounted for to actually review the plans. Enough time for only checklist it seems.
Useful to see how others evaluate.
It would have been helpful to spend more time on the checklist. Perhaps going through review of the entire sheet.
Very good!
I liked the form for special projects.
Very helpful. Went over by 15 minutes but I really benefit from going thru an actual project.**

5. **The City of San Mateo's Green Streets Plan** - Given by Ken Chin, City of San Mateo

Very Useful 14 Somewhat Useful 12 Not useful 2

Comments:

**Would have been nice to have included more "lessons learned".
Interesting ideas.
Great presentation!
Ken is a good speaker, animated, moved away from podium.**

Please submit at the end of the workshop. *Thank You for Your Comments!*

6. **Green Streets in the City of Emeryville** - Given by Peter Schultze-Allen, EOA/SMCWPPP

Very Useful 12 Somewhat Useful 8 Not useful 2

Comments:

Maybe a little redundant from City of San Mateo presentation?

Good ideas.

7. **Integrated Green Infrastructure Planning, Funding & Implementation** - Given by Peter Schultze-Allen, EOA/SMCWPPP

Very Useful 14 Somewhat Useful 10 Not useful 2

Comments:

Needed info.

6 and 7 could be combined.

Good to see how it is all related.

General Comments:

Good lunch.

Excellent session. Thank you.

Very monotonous format by teaching with the use of PowerPoint presentation, then no Power Point for the complex portions of training. More practical example would have been more appropriate.

Print out of the slides are wonderful. The healthy snacks and drinks were nice to keep me focused.

Thank you. I would like to see, if possible, a flowchart about this. Can we see these online somewhere? Allen was great.

Lunch was the bomb.

Very informative.

Good training.

Great sandwiches.

Great Sandwiches! Coffee at lunch would be nice.

Thanks for the training!

Excellent workshop!

Please submit at the end of the workshop. *Thank You for Your Comments!*



Appendix 4

- CII Subcommittee – Attendance List– FY 2013-14
- Mercury recycling outreach brochures
- Grocery stores and supermarkets BMPs outreach brochure
- Commercial and Industrial Stormwater Inspector Training Workshop – April 17, 2014
 - Agenda
 - Attendance list
 - Summary of workshop evaluations

**SMCWPPP Commercial/Industrial/Illicit Discharge (CII) Subcommittee Attendance
FY 2013/14**

Name	Agency	Sept. 18th	Dec. 18th	March 19th	June 18th
Steve Tyler	City of Atherton				
Bozhena Palatnik	City of Belmont	✓	✓	✓	✓
John Tallitsch	City of Belmont	✓			
Randy Breault	City of Brisbane		✓	✓	
Eva Justimbaste	City of Burlingame				
Stephen Daldrup	City of Burlingame	✓	✓		✓
Louis Gotelli	City of Colma	✓		✓	✓
Ward Donnelly	City of Daly City	✓	✓	✓	✓
Cynthia Royer	City of Daly City				
Michele Daher	City of East Palo Alto	✓			
John Doughty	City of East Palo Alto				
Sharon Jones	City of East Palo Alto				
Salani Wendt	City of East Palo Alto				
Norm Dorais	City of Foster City				
Allan Shu	City of Foster City				
Larry Carnahan	City of Half Moon Bay				
Mark Lander	City of Half Moon Bay				
Jen Chen	Town of Hillsborough				
Dave Bishop	Town of Hillsborough				
Kevin Fehr	Town of Hillsborough				
Virginia Parks	City of Menlo Park	✓	✓		✓
Catherine Allin	City of Millbrae	✓			
Kevin Cesar	City of Millbrae		✓	✓	✓
Raymund Donguines	City of Pacifica	✓			✓
Christina Horrisberger	City of Pacifica				
Eduardo Franco	City of Pacifica				
Howard Young	Town of Portola Valley				
Terence Kyaw	City of Redwood City				
Adrian Lee	City of Redwood City	✓		✓	
Peter Vorametsanti	City of Redwood City				
Jim Burch	City of San Bruno				
Mike Dillon	City San Carlos				
Chris Valley	City San Carlos				
Denny Phan	City San Carlos				
Debra Bickel	City of San Mateo		✓	✓	
Sarah Scheidt	City of San Mateo				
Mark Swenson	City of San Mateo				✓
Kian Atkinson	City of San Mateo				✓
Pete	City of San Mateo	✓			
Rob Lecel	South San Francisco				

Name	Agency	Sept. 18th	Dec. 18th	March 19th	June 18th
Andy Wemmer	South San Francisco	✓	✓	✓	✓
Kristen Font	South San Francisco				
	Town of Woodside				
Pat Ledesma	County of San Mateo	✓	✓	✓	✓
Tim Swillinger	County of San Mateo			✓	
Kathryn Cooke	County of San Mateo			✓	
Matt Fabry	SMCWPPP Coordinator				
Susan Hiestand	SBSA				
Norman Domingo	SBSA				
Kristin Kerr	EOA, Inc.	✓	✓	✓	✓

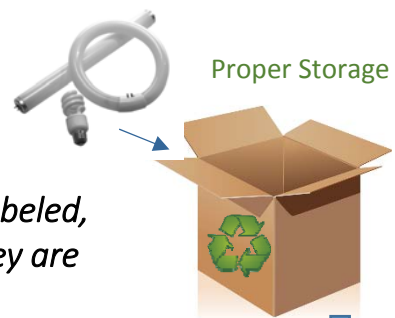
Properly Recycle Mercury Containing Lamps – *It's the Law!*



Mercury is a highly toxic metal that is polluting San Francisco Bay. Both the U.S. and California Environmental Protection Agencies have listed the Bay as polluted due to unsafe levels of mercury found in fish.



Do not place used lamps in the trash.



Store lamps in a labeled, safe place until they are

disposed of to a Mercury Recycler Service



Broken lamps may release mercury posing health and environmental risks. Clean up and dispose of broken lamps properly.



Fluorescent lamps use less energy than incandescent bulbs. Consider using fluorescent lamps whenever possible.

Visit www.flowstobay.org for information on how to properly handle, store, and dispose of mercury-containing waste.

Visit www.baywise.org and enter your zip code to find the nearest recycling or household hazardous waste collection center or call **1-800-CLEAN-UP**



It's the Law to Recycle Fluorescent Lamps

Fluorescent lamps and high-intensity discharge (HID) lamps, including mercury vapor, high-pressure sodium, and metal halide lamps are banned from regular trash disposal in California because they contain mercury. Even low-level mercury lamps with green markings sold as "TCLP (Toxicity Characteristic Leaching Procedure)-compliant" are banned from disposal in regular trash.

Ballasts from fluorescent lamps are assumed to contain polychlorinated biphenyls (PCBs) unless they are marked or tested to show they do not contain PCBs. Ballasts that contain PCBs must be disposed of as a hazardous waste.

When Possible, Buy Low Level Mercury Fluorescent Lamps

Major lighting manufacturers now produce fluorescent lamps with approximately 80% less mercury than the standard fluorescent lamp. Less mercury used in the production phase means less mercury in our water and environment. Low level mercury lamps can be found or ordered in most hardware and lighting stores. Some examples of low level mercury containing fluorescent lamps are:

GE "Ecolux", Philips "Alto", Sylvania "Ecologic"

Although these lamps contain less mercury, remember they still need to be handled as hazardous waste!

Energy Efficiency

Fluorescent lamps use less energy than incandescent bulbs. Less energy use means lower lighting costs for your business, and also fewer air pollutants emitted by power plants. Even though fluorescent lamps contain mercury, when managed properly, they have less impact on our environment than conventional incandescents. Consider using fluorescent lamps whenever possible.

Businesses Must Recycle All Fluorescent and HID Lamps



Proper Lamp Handling

- Do not place used lamps in the trash.
- Fluorescent lamps are very delicate. Applying excess force may cause the lamp to break. *Broken lamps may release mercury posing health and environmental risks.*
- Store lamps in appropriate containers to prevent breakage.
- Keep containers in a secure, dry area until you are ready to recycle them.
- Some mercury recyclers rent or provide cylindrical cardboard boxes for safe transportation of fluorescent lamps.
- Most large hardware stores collect limited quantities of lamps for recycling.
- Provide personnel training about the techniques and hazards of handling lamps.
- Maintain records for three years documenting how many and from whom lamps are received and when and to where they are shipped for recycling.

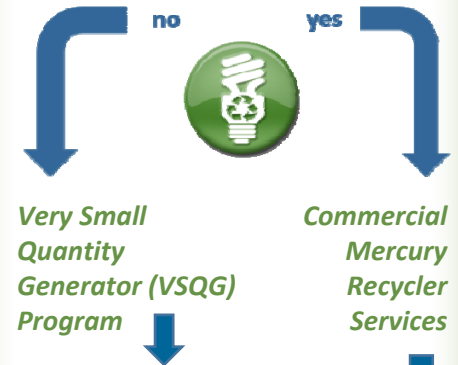


Cleanup

If lamps are accidentally broken:

- Contain spill by using rags or other disposable items to prevent spreading.
- Open windows and keep area restricted until spill is cleaned up.
- Store all clean-up debris in a heavy plastic bag inside a box or rigid plastic container that can be sealed.
- Label container *Accidentally Broken Fluorescent Lamps*. You may send broken lamps to a recycling facility or manage them according to hazardous waste rules.

Do you use more than 100 kilograms of hazardous waste per month?



A VSQG (as the law states) is any business that generates less than 100 kilograms (about 220 pounds or 27 gallons) of hazardous waste per calendar month. San Mateo County businesses that qualify as VSQG may use the VSQG program to drop off used fluorescent and HID lamps. For more information contact the San Mateo County Health Services Agency's Household Hazardous Waste Hotline at (650) 363-4718 or visit <http://www.smchealth.org/vsqs>

Businesses that generate more than 100 kilograms of hazardous waste per calendar month are considered large quantity generators and may contact their district inspector in the San Mateo County Environmental Health Department at (650) 363-4305 for additional information, or call a certified hauler to recycle their mercury containing lamps and other devices such as thermometers, thermostats, switches, and relays. Alternatively, you may obtain a list of lamp recyclers or hazardous waste haulers at www.flowstobay.org.

Mercury Recycler Services

Household

San Mateo Door-to-Door Household
Hazardous Waste Program
(800) 449-7587

Home Depot
(650) 525-9343
2001 Chess Dr., San Mateo, CA 94404

Home Depot
(650) 592-9200
1125 Old County Rd., San Carlos, CA 94070

Commercial

AERC Recycling Solutions
30677 Huntwood Ave, Hayward
(800) 628-3675; (510) 429-1129

EasyPak
<http://www.lamprecycling.com/>
(888) 640-6700

Lighting Resources, Inc.
<http://www.lightingresourcesinc.com/>
(888) 923-7252

Shoreway Environmental Center
(650) 802-8355
333 Shoreway Rd., San Carlos, CA 94070

Or visit www.baywise.org
And enter your zip code to find the
nearest recycling or household
hazardous waste collection center.

Or Call **1-800 CLEAN UP**

Company names are provided for information
purposes and are not endorsed by SMCWPPP.

For More Information...

San Mateo County Environmental Health
Division's **Household Hazardous Waste Hotline**
includes information for businesses who qualify
for the Very Small Quantity Generator Program:
(650) 363-4718

For additional information visit the
www.flowstobay.org or contact **your local
stormwater program:**

Town of Atherton	(650) 752-0541
City of Belmont	(650) 595-7427
City of Brisbane	(415) 508-2130
City of Burlingame	(650) 558-7230
Town of Colma	(650) 757-8888
City of Daly City	(650) 991-8200
City of East Palo Alto	(650) 853-3189
City of Foster City	(650) 286-3270
City of Half Moon Bay	(650) 726-8260
Town of Hillsborough	(650) 375-7411
City of Menlo Park	(650) 330-6740
City of Millbrae	(650) 259-2339
City of Pacifica	(650) 738-3767
Town of Portola Valley	(650) 851-1700
City of Redwood City	(650) 780-7464
City of San Bruno	(650) 616-7160
City of San Carlos	(650) 802-4361
City of San Mateo	(650) 522-7350
City of S. San Francisco	(650) 829-3848
Town of Woodside	(650) 851-6790
County of San Mateo	(650) 363-4305



Last Updated May 2014

Properly Recycle Mercury Containing Lamps – *It's the Law!*




SAN MATEO COUNTYWIDE
Water Pollution
Prevention Program
www.flowstobay.org

Updated May 2014

Supermarkets and Grocery Stores Stormwater Best Management Practices



www.flowstobay.org

Updated June 2014

Storm Drain Pollution Prevention

In San Mateo County, all storm drains flow directly to creeks and to either San Francisco Bay or the Pacific Ocean with no treatment. Some common sources of stormwater pollution include waste or washwater generated by grocery stores and supermarkets containing materials such as food, oil, grease, detergents, and degreasers.

All municipalities in San Mateo County have joined together to educate local residents and businesses to fight stormwater pollution. Join us, and avoid penalties for noncompliance, by following the Best Management Practices (BMPs) described in this pamphlet.

Maintenance Practices

- Maintain equipment regularly. Check for leaks or stains. Fix leaks.
- Capture leaks and drips during maintenance activities with a drip pan.
- If equipment is stored outdoors, store under a roof or tarp during the rain.



Dumpsters and Compactors

- Drain liquid food wastes to the sanitary sewer and place only solid wastes in the dumpster or compactor.
- Keep dumpster lids closed to keep out rainwater.
- Control litter. Make sure waste is contained in dumpsters/compactors and sweep those areas regularly.
- If others are putting trash in or around your bins, contact your City's Stormwater Coordinator or local police department.
- Inspect areas for leaks, stains and litter regularly.
- Route leaks and other wastewaters from dumpsters and compactors to the sanitary sewer system.
- Immediately replace leaking dumpsters and compactors.

Spill Control

- Develop spill procedures for different types of spills (e.g., garbage, liquid food waste, fuel, etc.)
- Train employees on spill cleanup procedures.
- Use absorbents (such as rags, absorbent mats or cat litter) to pick up greasy or oily spills.
- Keep cleanup kits in well-marked, easily accessible areas.
- Dry sweep or vacuum all litter, debris, or saturated absorbent.
- If you mop up a spill, dispose of mop washwater in indoor sink/drain for discharge to the sanitary sewer.

Proper Storage and Disposal

- ❑ Store products containing toxic substances (cleaners, solvents, detergents) indoors or in a covered, spill containment area, to prevent exposure of these materials to stormwater.
- ❑ Dispose of all unwanted toxic materials through a hazardous waste hauler. These items cannot be disposed of in the trash.
- ❑ Recycle fluorescent lamps, batteries and electronics.
- ❑ Use non-toxic cleaning products whenever possible.
- ❑ Recycle oil and grease wastes. Never dump them down the storm drain, on the ground, or into sinks.
- ❑ Collect grease in containers and contact a grease removal/recycling company to haul them away. Go to <http://www.calfog.org/Hauler.html> for a list of grease haulers. Secondary containment for grease bins is recommended.
- ❑ Do not store grease waste near storm drains.

Visit www.baywise.org and enter your zip code to find the nearest recycling or household hazardous waste collection center or call **1-800 CLEAN UP**

Small Business Hazardous Waste Disposal Program

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use San Mateo County's Very Small Quantity Generator Program. Call (650) 655-6217 for a quote, more information or guidance on disposal.

Cleaning and Washing Activities

- ❑ Clean equipment (including carts, floor mats, garbage cans, and tray racks) in a designated wash area that prevents discharge to the storm drains.
- ❑ The best place to clean equipment is a wash pad with a sanitary sewer connection. If your facility does not have a wash pad, you can create a designated wash area that prevents washwater from discharging to storm drains.
 - ✓ Create a collection area with booms or take advantage of a low spot to keep washwater contained.
 - ✓ Block flow to storm drains with an impervious barrier such as sandbags or booms, OR
 - ✓ Seal the storm drain with plugs or rubber mats.
 - ✓ Pump collected washwater to the sanitary sewer (e.g., mop sink or sewer cleanout).
- ❑ Discharge washwaters to the sanitary sewer system when cleaning flat surfaces (e.g., loading dock, store, windows, parking areas, driveways, etc.). Minimize amount of washwater used.
 - ✓ Sweep area before washing.
 - ✓ If wet cleaning is required, block the storm drain or contain all washwaters, and discharge to the sanitary sewer system.
 - ✓ If no soap is used, washwaters from the following types of surfaces may be discharged to landscaping after screening the washwater to catch debris: sidewalks, plazas, building surfaces, decks, etc. without loose paint. Dispose of debris in the trash.

Remember, your facility is responsible for the actions of contractors you hire. Ask your contractor if they have received training for surface cleaners from the Bay Area Stormwater Management Association of Agencies (BASMAA). Be sure you know how your contractor will be cleaning your equipment and disposing of washwater. Cleaning activities that occur after hours must adhere to these BMPs.

For More Information...

For stormwater pollution prevention information and additional brochures visit the San Mateo Countywide Pollution Prevention Program's web site at www.flowstobay.org or contact local stormwater programs (see list below).

Town of Atherton	(650) 752-0541
City of Belmont	(650) 595-7425
City of Brisbane	(415) 508-2130
City of Burlingame	(650) 558-7230
Town of Colma	(650) 757-8888
City of Daly City	(650) 991-8200
City of East Palo Alto	(650) 853-3189
City of Foster City	(650) 286-3270
City of Half Moon Bay	(650) 726-8260
Town of Hillsborough	(650) 375-7411
City of Menlo Park	(650) 330-6740
City of Millbrae	(650) 259-2339
City of Pacifica	(650) 738-3767
Town of Portola Valley	(650) 851-1700
City of Redwood City	(650) 780-7464
City of San Bruno	(650) 616-7160
City of San Carlos	(650) 802-4361
City of San Mateo	(650) 522-7350
City of S. San Francisco	(650) 829-3848
Town of Woodside	(650) 851-6790
County of San Mateo	(650) 363-4305



Last updated: June 2014



AGENDA
Commercial/Industrial Stormwater Inspector Workshop
SMCWPPP CII Subcommittee
Wind Room, Library Community Center
1000 E. Hillsdale Blvd., Foster City, CA 94404
Thursday, April 17, 2014
8:00 a.m. – 12:00 noon

Refreshments <i>Registration</i>	8:00 – 8:30
Welcoming Remarks <i>Ward Donnelly, City of Daly City, Commercial, Industrial, and Illicit Discharge Control Subcommittee Chair</i>	8:30 – 8:35
Regulatory Refresher <i>Kristin Kerr, EOA, Inc.</i>	8:35 – 9:00
Performing Stormwater Inspections <i>Patrick Ledesma, County Environmental Health</i>	9:00 – 9:45
Your City Attorney's Role in Enforcement Actions <i>Lance Bayer, Attorney for City of San Mateo</i>	9:45 – 10:35
Break	10:35 – 10:50
Group Table Top Exercise: Discussing Inspection Scenarios <i>Facilitator</i>	10:50 – 11:50
Closing Remarks <i>Ward Donnelly, CII Chair</i>	11:50 – 11:55

SMCWPPP Commercial/Industrial Stormwater Inspector Workshop

April 17, 2014 Attendance

	<i>Last Name</i>	<i>First Name</i>	<i>Municipality</i>
1	Breault	Randy	City of Brisbane
2	Morris	Greg	City of Brisbane
3	Donnelly	Ward	City of Daly City
4	Canahan	Larry	City of Half Moon Bay
5	Schaek	Jerry	City of Half Moon Bay
6	Cesar	Kevin	City of Millbrae
7	Donguines	Raymund	City of Pacifica
8	Chapel	Justin	City of Redwood City
9	Del Ben	Rich	City of Redwood City
10	Heavenston	Paul	City of Redwood City
11	Lee	Adrian	City of Redwood City
12	Lopez	Eddie	City of Redwood City
13	Munguia	Albert	City of Redwood City
14	Phan	Denny	City of San Carlos
15	Riddel	Anthony	City of San Carlos
16	Font	Kristen	City of South San Francisco
17	Wemmer	Andrew	City of South San Francisco
18	Casagrande	Julie	County of San Mateo
19	Foster	Carole	County of San Mateo
20	Huynh	Michael	County of San Mateo
21	Bayer	Lance	Presenter
22	Fang	Allison	San Mateo County
23	Rompt	Dan	San Mateo County
24	Boado	Eufresina	San Mateo County Environmental Health
25	Casey	Dermot	San Mateo County Environmental Health
26	DeMasi	Amy	San Mateo County Environmental Health
27	Elgin	Kate	San Mateo County Environmental Health

SMCWPPP Commercial/Industrial Stormwater Inspector Workshop

April 17, 2014 Attendance

	<i>Last Name</i>	<i>First Name</i>	<i>Municipality</i>
28	Ernest	Frobie	San Mateo County Environmental Health
29	Gorecho	Jeanette	San Mateo County Environmental Health
30	Guier	Brent	San Mateo County Environmental Health
31	Hum	Cristina	San Mateo County Environmental Health
32	Jarin	Joanne	San Mateo County Environmental Health
33	Khine	Christine	San Mateo County Environmental Health
34	Ledesma	Patrick	San Mateo County Environmental Health
35	Liang	Herbert	San Mateo County Environmental Health
36	Lowe	Steve	San Mateo County Environmental Health
37	McEntee	Cheri	San Mateo County Environmental Health
38	McLaughlin	Joan	San Mateo County Environmental Health
39	Mejia-Barbaran	Liliana	San Mateo County Environmental Health
40	Mih	Sabrina	San Mateo County Environmental Health
41	Milch	Allison	San Mateo County Environmental Health
42	Nichols	Kameisha	San Mateo County Environmental Health
43	Patel	Priyansi	San Mateo County Environmental Health
44	Patino	Bernardo	San Mateo County Environmental Health
45	Reed	Robert	San Mateo County Environmental Health
46	Sekhon	Amrinder	San Mateo County Environmental Health
47	Terrell	Marjorie	San Mateo County Environmental Health
48	Tong	Edmond	San Mateo County Environmental Health
49	Tubig	Ezra	San Mateo County Environmental Health
50	Wong	Ngai	San Mateo County Environmental Health
51	Gotelli	Louis	Town of Colma



Evaluation Summary
44 Summaries
53 Attendees
83% completed evaluation forms

Commercial/Industrial Stormwater Inspector Training Workshop
SMCWPPP CII Subcommittee
Thursday, April 17, 2014
8:00 a.m. – 12:00 noon

What Did You Think of the Following Presentations and Activities?

1. Regulatory Refresher –Kristin Kerr, EOA

very helpful **35** somewhat helpful **8** not helpful **1**

Comments:

- Did a good job of explaining our authority.
- It is difficult to cover the info in the allotted amount of time.
- Good overview of NPDES/regulatory umbrella.
- Good.
- Thanks for breaking it down for us. Good to know more about NOIs. More info on updates and new requirements please. QISP training??
- Great overview, especially for new inspectors. Good review of major industrial permit changes.
- Good to know the latest updates on the permit.
- Did a great job.
- I needed to know why we are inspecting. MS4 Permit good overview of the MS4.
- Very informative but screen is hard to read and type on handout is too small.
- Would like to have asked questions during presentation.

2. **Performing Stormwater Inspections** – *Patrick Ledesma, County Environmental Health*
very helpful **38** somewhat helpful **4** not helpful **1**

Comments:

- I like the pictures.
- Good and fun speaker.
- Good examples.
- Pictures and descriptions of issues were very helpful in showing big picture.
- Pretty good actually.
- The projector was not too bright.
- Good.
- Great humor and example photos. Very engaging. More info on utility box discharges. Ok? With BMPs? Car washing with “Just water”? Ok? More info.
- He clarified important concepts and showed applicable examples.
- Very nice job. Simple and direct.
- Lots of good information. Will help when doing inspections. Great pictures.
- Very good presentation and lots of good info. Still too light in room for PowerPoint presentation and pics on handout are too small.
- Gave good examples of Illicit Discharge where you do not see.

3. **Your City Attorney’s Role in Enforcement Actions** – *Lance Bayer, Attorney for City of San Mateo*

very helpful **31** somewhat helpful **10** not helpful **0**

Comments:

- Coverage is too broad and scattered. Needs more time.
- Very informative on enforcement actions.
- Great Info.
- Good story.
- Good.
- Wow! Interesting. Cool to hear from an attorney about enforcement and liability. Pictures and PowerPoint would have been good to outline points. Necessary evidence. Engaging speaker.
- It was good to discuss the pertinent actions and how a violation can escalate to enforcement.
- I think most inspectors don’t want to go this far with enforcement. Info supplied was informative if this turns into an investigation for enforcement.

- Good information, basic knowledge that everyone should be aware of and know as inspectors.
- Mr. Bayer explained himself thoroughly and simplified things. Gave good understanding of the land and what can be done against violators.
- Would like to hear additional cases of incidents where D.A. gets involved in Stormwater violations.

4. **Group Exercise: Inspection Scenarios**

very helpful **28** somewhat helpful **5** not helpful **0**

Comments:

- Did not attend this portion.
- Helps put things into prospective before going out to the field. Scenarios really helped with getting to understand the levels of enforcement, violations and documentation.
- Realistic.
- Useful.
- Good.
- It was interesting to hear different perspectives and feedback from the group.
- Spent a little too much time on each scenario. Maybe do 5 minute to 10 minutes.
- It's productive to get other inspector views and ideas.
- Good scenarios/good input.

Did this workshop meet your expectations? Yes **42** No **0**

Exceeded

What parts of the workshop were most useful to you?

- PowerPoint/visual media.
- The photos and PowerPoint slides with explanations.
- Pictures.
- Enforcement action; performing inspections.
- Example pictures were very helpful.
- Photos, exercise etc.
- Inspection process examples.
- Scenarios (3)
- Table top examples (2)
- Inspection scenarios.
- Group scenarios.

- Real examples.
- Real-world examples
- Discussions of real world scenarios.
- Exercises (3)
- Group Exercise.
- Feel more confident and well-informed about approaching grey area that may fall in between a verbal warning and written warning.
- Picture examples, group activities, developing case on stormwater violation.
- Inspection and enforcement presentations provide reference for my job.
- I found the group exercises the most useful because it was good to discuss with different people their opinions/thoughts.
- Having exercises and attorney speak about regulations and laws.
- Attorney.
- Lance Bayer.
- All of it.
- Required refresher (make new permit requirements)
- The Refresher
- The inspection scenarios and regulatory update.
- Inspection training.
- Updates on CII requirements for reporting.
- Performing Stormwater inspections talk and regulation review.
- The workshop was very interesting and useful.
- All 3 parts were beneficial/informative. Patrick's part was most immediately useful.

What would have made this workshop more useful?

- The entire workshop was very useful.
- Colored PowerPoint pictures.
- Discussion on options available to cities to staff for these inspections.
- Darker room so we can see slides.
- Better projector/Less sunlight glare.
- Very difficult to see slides.
- Being able to better see slides or handouts.
- Hard to see the slides.
- Lighting in room made it difficult to see screen/photos.
- Better media, less light.
- I had trouble seeing the PowerPoint. Lighting too low on projector.
- Fresh fruits.
- More stories – they help you remember, and reinforce or remind us of the importance of what we do.
- More examples of violations and corrective actions.
- More exercises.
- More examples and actual enforcement scenarios.
- N/A
- More videos (2)
- Lighting is bad for PowerPoint's. Maybe use better colors or brighter screen. More on recognizing PCB era equipment.

- Provide the material (online) before the training so we can generate more discussion or more questions.
- Maybe better PowerPoint. Hard to see screen.
- Just right.

What topics would you recommend for a future workshop?

- Go over more “Best Management Practices” so that we can educate further, and help to be more of a resource for helpful situations.
- Sampling of discharges/hydrocarbon filters.
- More videos and pictures.
- Specific examples and follow through on different kinds of violations.
- Where is the line? When does it become an illicit discharge? Emptying utility boxes? Washing cars without soap? Volume?
- You had a pretty good variety.

General Comments

- Very well put together.
- Good food.
- Food (fruit) is bad, rancid. Bagel not as good.
- Please find a quality cater next time.
- Ask food team for help.
- Good job!
- Great video on spills from Seattle Public Works. Good to switch up presentation media and get us involved.
- It was better than last year.
- #2 presentation is very useful in a day to day.
- Great training.
- Thank you for providing food.



Appendix 6

- CalBig Meeting: Construction Site Stormwater Compliance – October 9, 2013
 - Announcement Flyer
 - Agenda
 - Attendance list
- Stormwater Training for Construction Site Inspectors – April 23, 2014
 - Announcement Flyer
 - Agenda
 - Attendance list
 - Summary of workshop evaluations

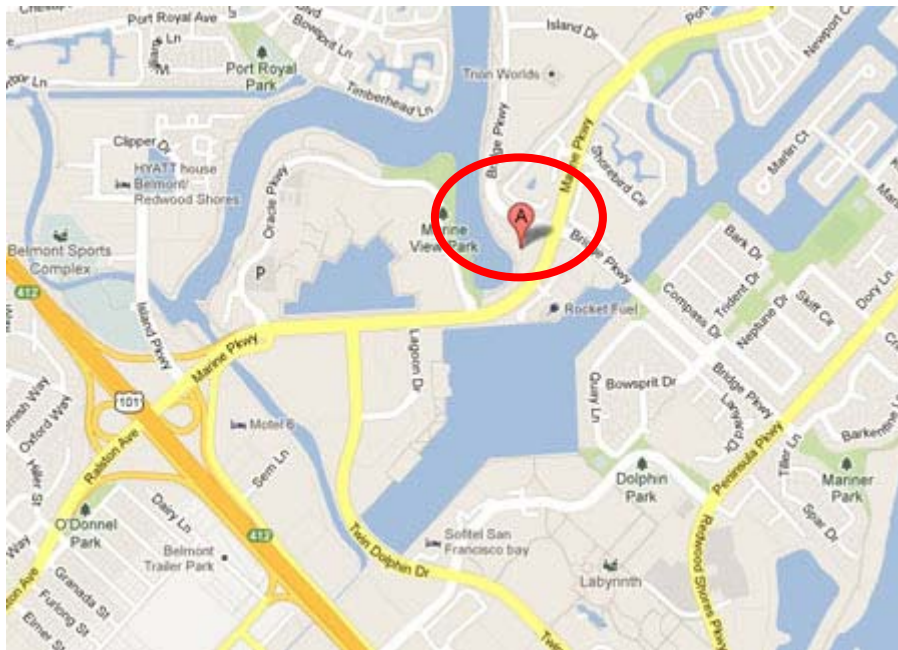


CALBIG MEETING ANNOUNCEMENT

Construction Site Stormwater Compliance

This month's CALBIG meeting will be on Wednesday, October 9, 2013 from 11:30am to 1pm at the Redwood Shores Library, located at 399 Marine Parkway, Redwood City, CA.

For directions, see map below.



Directions: Take US 101 to the Marine Parkway exit (eastbound), The library is at 399 Marine Parkway beyond the Oracle complex.

Fee: \$20 per attendee (cash or check payable to CALBIG) will be taken at the door.

Catered Barbeque by Special Event Catering & Party Company

Grilled chicken, beef, and sausage brochettes
Rice pilaf
Mixed grilled vegetables
Tossed green salad, vinaigrette dressing
Garlic bread
Bottled water



Speaker: Matt Fabry, Program Coordinator
San Mateo Countywide Water Pollution Prevention Program
Kristin Kerr, Managing Engineer
EOA, Inc.

Topic: Review of stormwater requirements for construction sites,
documenting and tracking inspections, when to take enforcement
actions, inspecting your own municipal CIP sites and tips for
keeping your stormwater program in compliance

Redwood Shores Library
399 Marine Parkway, Redwood City, CA
October 9, 2013

Agenda

Registration/Seating	11:30 - 11:45
Michael Dillon, President - Welcome and Pledge of Allegiance	11:45 - 11:46
Old Business - Approval Treasurer's Report	11:46 - 11:52
New Business - Upcoming educational opportunities	11:52 - 12:00
Featured Speakers - Matt Fabry, SMCWPPP and	12:00 - 12:10
Kristin Kerr, EOA, Inc.	12:10 - 1:00
Michael Dillon, President - Closing	1:00

Please RSVP to Michael Gorman (mgorman@smcgov.org) by Monday, October 7. Out of consideration for the speakers and caterer, we need an accurate head count.

Thank you !

	A	B	C	D	E
3	First	Last	City or Business	Email	Initial
4	Timothy	Anderson	City of Hillsborough	Tanderson@Hillsborough.net	
5	Kathy	Anderson	City of Atherton	Kanderson@ci.atherton.ca.us	
6	Greg	Anderson	City of Los Altos	Greg.anderson@ci.los-altos.ca.us	
7	Les	Arias	City of Redwood City	Larias@redwoodcity.org	
8	Vince	Badillo	V.B. Electric	vince@vbelectric.com	
9	Kirk	Ballard	City of Los Altos	Kirk.Ballard@ci.los-altos.ca.us	
10	Tanya	Benedik	City of Millbrae	Tbenedik@ci.millbrae.ca.us	
11	Gordon	Blancher	City of Sunnyvale	Gblancher@ci.sunnyvale.ca.us	
12	Paul	Bosman	City of Los Altos	Paul.bosman@ci.los-altos.ca.us	
13	Kirk	Buckman	City of Belmont	Kbuckman@Belmont.Gov	
14	James	Caccia	Caccia Plumbing Inc	Jc@cacciaplumbing.com	
15	Henry	Calilong	Bay Area Builders	Hvcalilong@gmail.com	
16	Benjamin	Campbell	Co. of San Mateo	Bcampbell@co.sanmateo.ca.us	
17	Rigoberto	Caro	City of San Mateo	Caro@cityofsanmateo.org	
18	Marco	Cavelieri	City of Burlingame	Mcavelieri@burlingame.org	
19	Stephen	Chan	Co. of San Mateo	Sxchan@Co.sanmateo.ca.us	
20	Kevin	Cittadini	City of Atherton	Kcittadini@ci.atherton.ca.us	
21	Michael	Clarke	CSG	mclarkeasc@gmail.com	
22	Martin	Cooper	City of Foster City	Mcooper@Fostercity.org	
23	Joseph	Cyr	City of Burlingame	Jcyr@burlingame.org	
24	Bob	Davies	Pen Buiders Exchange	Rcdginc@aol.com	
25	Connie	Davies	City of Burlingame	Cdavies@burlingame.org	
26	June	De Castro	One Energy Solution	Jvdecastro@sbcglobal.net	
27	Jay	de Wolf	de Wolf Inspection Services	Jaydewolf@aol.com	
28	Michael	Dillon	City of San Carlos	Mdillon@cityofsancarlos.org	M.D
29	Toni	Dini	Cal Electric Company	Tdini@calelectric.com	
30	Eric	Dreesman	City of Foster City	Edreesman@fostercity.org	Etc
31	Don	Dutcher	City of Sunnyvale	Ddutcher@ci.sunnyvale.ca.us	
32	Robert	Dunbar	City of Palo Alto	Robert.Dunbar@cityofPaloAlto.org	
33	Gary	Fitzer	Town of Portola Valley	Gfitzer@portolavalley.net	
34	Jeff	Frishof	Eagle One Services LLC	Jfrishof@yahoo.com	
35	Dino	Francesconi	City of Belmont	Dfrancesconi@belmont.gov	WZ
36	Michael	Gorman	Co. of San Mateo	MGorman@co.sanmateo.ca.us	WZ
37	Patrick	Haniger	City of E Palo Alto	Phaniger@cityofepa.org	
38	Miles	Hancock	City of So San Francisco	Miles.hancock@ssf.net	
39	Chuck	Haney	City of Foster City	Chaney@Fostercity.org	
40	Douglas	Hansen	CodeCheck	Douglas@codecheck.com	
41	Hector	Hernandez	City of Burlingame	Hhernandez@burlingame.org	
42	Farris	Hix	City of Redwood City	Fhix@redwoodcity.org	
43	Brent	Hipsher	City of Palo Alto	Brent.Hipsher@cityofpaloalto.org	
44	Kenneth	Hou	City of Atherton	Khuo@ci.atherton.ca.us	
45	Garrett	Jones	City of Los Altos	Garrett.jones@ci.los-altos.ca.us	
46	Jim	Kirkman	City of So San Francisco	Jim.Kirkman@SSF.net	
47	Daniel	Kulda	Derek Kulda Const.	Dkulda@hotmail.com	
48	JoAnn	Kurz	City of Woodside	Jkurz@woodsidesideton.org	
49	BRIAN	FAUGHT	City of Redwood City	inspector.brian1@yahoo	BIF
50	HARRY	HINTON	" " "	hhinton@redwoodcity.org	
51	First	Last	City or Business	Email	Initial

Laura Soranson JOHNSTONE MOTOR, INC 150ranson@johnstonemotor.com ds
 Roy Bronold City of San Bruno rbronold@sanbruno.ca.gov
 RKB

	A	B	C	D	E
52	John	La Torra	CSG Consultants, Inc.	johnl@csgengr.com	
53	Diane	Laughridge	City of Burlingame	Dlaughridge@burlingame.org	
54	Christina	Lucchini	City of Redwood City	CLucchini@redwoodcity.org	
55	Chai	Lor	Csg Consultants	Chail@Csgengr.com	
56	Umesh	Maharaj	City of San Bruno	Umaharaj@sanbruno.ca.gov	
57	Brooks	MacNeel	City of Burlingame	Bmacneel@burlingame.org	
58	Charlie	Maloney	City of Mountain View	charles.maloney@mountainview.gov	
59	Barry	Mammini	City of So San Francisco	Barry.mammini@SSF.net	BM
60	Jeanne	Mangerich	San Francisco State Univ	Jmangerich@comcast.net	
61	Debbie	Martinez	City of Atherton	Dmartinez@ci.atherton.ca.us	
62	Daniel	Mauldin	City of San Carlos	dmauldin@cityofsancarlos.org	
63	Mark	Matthews	City of Millbrae	Mmatthews@ci.millbrae.ca.us	
64	Tom	McGinley	Pen.Bldrs Exchange	Tom@ConstructionPlans.org	
65	Luca	Miranda	City of San Bruno	lmiranda@sanbruno.ca.gov	
66	David	Newton	College of San Mateo	dana1028@yahoo.com	
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68	Stacey	Olgado	Residential Property Manager	staceyolgado@gmail.com	
69	Andrei	Oustinov	City of Santa Clara	Aoustinov@santaclaraca.gov	
70	Tino	Padilla	City of San Bruno	Tpadilla@sanbruno.ca.us	
71	Rhonda	Parkhurst	City of Palo Alto	Rhonda.Parkhurst@CityofPaloAlto.org	
72	Diana	Perkins	City of Sunnyvale	Dperkins@ci.sunnyvale.ca.us	
73	Michael	Richards	City of Foster City	Mrichards@Fostercity.org	
74	Elizabeth	Rider	City of South San Francisco	Elizabeth.Rider@ssf.net	ER
75	Ryan	Rucher	Town of Woodside	rrucker@woodsidetown.org	
76	Amery	Sandoval	Co. of San Mateo	Asandoval@sanmateo.ca.us	
77	John	Sayers	City of Palo Alto	John.Sayers@CityofPaloAlto.org	
78	Jerry	Schaell	City of Redwood City	Jschaell@redwoodcity.org	
79	Thomas	Silipin	Co. of San Mateo	Tsilipin@co.sanmateo.ca.us	
80	Leigh	Simpson	Bay Area Electric	Lacasame@aol.com	
81	Joe	Travers	City of Daly City	jtravers@dalycity.org	
82	Chris	Valley	City of San Carlos	cvalley@cityofsancarlos.org	
83	Ken	Vitorelo	City of San Carlos	Kvitorelo@cityofSanCarlos.org	
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86	Mike	Wayne	City of Redwood City	Mwayne@redwoodcity.org	
87	Skip	Walker	Walker Prop. Evaluation	HomeInspection@SanBrunoCable.com	
88	R. Bruce	Welch	City of Daly City	rbwelch@dalycity.org	
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90	Nolan	Wilson	City of San Carlos	Nwilson@CityofSanCarlos.org	
91	Ray	Yniguez	City of Hillsborough	Ryniguez@Hillsborough.net	
92	Wing	Yee	CSG Consultants, Inc.	MichelleCheung074@hotmail.com	
93	Homer	Yim	Simpson StrongTie	Hyim@strongtie.com	
94	Camille	Leung	County of San Mateo	Cleung@smc.gov.org	CHL

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Fredy Collum 4Leaf Inc. fcollum@a.el-comito.ca.us
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Matthew Farrell City of San Carlos mfarrell@cityofsan-carlos.org

Michael Cully Colma/CSG Mike@Csgengr.com
Muneer Ahmed Colma mahmed@colma.ca.gov



Construction Site Stormwater Compliance: Training for Municipal Inspectors

*Sponsored by the San Mateo Countywide Water Pollution Prevention Program's
 New Development Subcommittee*

Attention:

- **Do you inspect construction sites for stormwater compliance?**
- **Do you need training on:**
 - **Construction BMPs?**
 - **Permit requirements?**
 - **Enforcement of violations?**

Wednesday, April 23, 2014
 San Mateo Public Library – Oak Room
 55 W. 3rd Avenue, San Mateo
 8:30 a.m. to 3:00 p.m.



This training workshop is for municipal staff who inspect construction sites for compliance with stormwater requirements. Workshop topics include:

- ✓ Regulatory refresher of Municipal Regional Stormwater Permit (MRP) requirements for construction site inspections,
- ✓ Review of the statewide Construction General Permit and its relationship to the MRP,
- ✓ Construction BMPs and recognizing issues,
- ✓ Field exercise for hands on installation and critique of field BMPs.

Registrations Due April 16!

Email or fax this RSVP to Melissa Morgan, melissa@eoainc.com, fax: 510-832-2856, by **Thursday, April 17, 2014**. For additional information, contact Melissa at 510-832-2852 ext. 101.

Name: _____

Agency: _____

Phone: _____

Email: _____

Please pass this flyer along to appropriate staff within your organization.

This training is FREE and will include a lunch.

You will be sent a confirmation, including an agenda and directions, one week prior to the workshop.



**CONSTRUCTION SITE
STORMWATER COMPLIANCE WORKSHOP**
*Implementing the requirements in Provision C.6
of the Municipal Regional Stormwater Permit (MRP)*

Wednesday, April 23, 2014

San Mateo Public Library – Oak Room
55 W. 3rd Avenue, San Mateo

WORKSHOP AGENDA

9:00 AM	Registration and Refreshments	Vendors
9:30 AM	Welcome Remarks	
9:40 AM	Overview of Requirements in Provision C.6 of the MRP	Peter Schultze-Allen SMCWPPP/EOA
10:10 AM	Statewide Construction General Permit: What Does Municipal Staff Need to Know	Kristin Kerr SMCWPPP/EOA
10:30 AM	Group Discussion - Municipal Experience with the Statewide Construction General Permit and the MRP	All
10:45 AM	Break	Vendors
11:00 AM	Temporary Best Management Practices (BMPs) for Construction Sites	David Franklin EnviroTech NPDES Services
12:30 PM	Lunch	Vendors
1:30 PM	Temporary Control Measures: Field Demonstrations	David Franklin EnviroTech NPDES Services
3:00 PM	Adjourn	

*** Attendance at this workshop is acceptable for 4 PDUs toward maintaining CPESC, CESSWI and/or CPSWQ certifications. ***

SMCWPPP 2014 Construction Site Stormwater Compliance for Municipal Inspector Workshop
Attendance April 23rd

<i>Last Name</i>	<i>First Name</i>	<i>Organization</i>
Abdollahi	Amir	Half Moon Bay
Azzari	Zack	County of San Mateo Public Works
Breault	Randy	City of Brisbane
Cambpell	Benjamin	Planning and Building Dept.
Casagrande	Julie	County of San Mateo DPW
Chan	Allan	San Mateo County, Planning and Building Dept
Chirco	Mark	San Mateo County Planning and Building
Choi	Carter	San Mateo County Department of Public Works
Chow	Sydney	City of Millbrae
Cully	Michael	Town of Colma
Enriquez	Robert	County of San Mateo Public Works
Foster	Carole	San Mateo County
Franklin	David	EnviroTech
Furnas	Scott	California Lab Services
Hannigan	John	City of San Bruno
Harper	Robert	Town of Los Gatos
Hill	Matt	County of San Mateo
Hillabrandt	Mark	Town of Los Gatos
Hinkamp	James	San Mateo County
Hunt	Corey	World Textile and Bag
Huynh	Michael	County of San Mateo DPW
Jackson	Emmett	County of San Mateo
Kenyon	Michelle	City of San Mateo
Kerr	Kristin	EOA, Inc.
Kmak	Rocelia	County of San Mateo
Lee	Richard	San Mateo County
Leung	Camille	San Mateo County
Luna	Robert	City of East Palo Alto
McLean	Skyelar	City of Saratoga
Morris	Greg	City of Brisbane
Patel	Vatsal	County of San Mateo
Schultze-Allen	Peter	EOA, Inc.
Shu	Diana	San Mateo County
Smiley	Beth	Thunder Mountain
Wahidi	Syed	City of Campbell
West	Gary	San Mateo County Building Department
Yau	Gilbert	City of Belmont



Evaluation Summary

CONSTRUCTION SITE STORMWATER INSPECTOR WORKSHOP

San Mateo, CA

Wednesday, April 23, 2014

CLASSROOM SESSION 25 Evaluations

1. **Overview of Requirements in Provision C.6 of the MRP** – Given by Peter Schultze-Allen, EOA/SMCWPPP Program

Very Useful 8 Somewhat Useful 17 Not useful

Comments:

Good job.
Not everyday examples. Don't just read slides. Monotone.
Seemingly uninspired presentation: Differentiation between C.3 and C.6 helpful.
Good basic review of C.6 MRP.

2. **Statewide Construction General Permit: What Does Municipal Staff Need to Know -**
Given by Kristin Kerr, EOA/SMCWPPP Program

Very Useful 15 Somewhat Useful 9 Not useful

Comments:

Good job.
Useful information.
Very helpful layout of federal, state, and local regulatory processes.
Lots of good information.
Good info/history.

3. **Municipal Experience Complying with the Statewide Construction General Permit and MRP** – Group Discussion

Very Useful 8 Somewhat Useful 13 Not useful 2

Comments:

Not enough participation.
Good job.
No discussion took place.
Like this! Good break and chance for group interaction.

Please submit at the end of the workshop. *Thank You for Your Comments!*

Inadequate context in local examples; lacking participation.
Lots of good info.

4. **Temporary Best Management Practices (BMPs) for Construction Sites** - Given by David Franklin, EnviroTech NPDES Services

Very Useful **20** **Somewhat Useful** **5** **Not useful**

Comments:

Slower presentation, less slides to understand to BMPs, controls, and explanations.
Very engaging, kept my attention the examples were very helpful and useful.
Too long of presentation > 1.5 hours. David was in a hurry, while going thru the presentation, but overall did a good job.
Rushed through background info. Would have been helpful to give a brief overview of BMPs - definition purpose etc.
Good job.
Makes a dry subject. Somewhat new/exciting, great communication skills/enthusiasm/audience connection.
Very knowledgeable. Training approach excellent. Thinking outside the obvious. Great insight. I learned a totally new perspective and I will use inspect erosion measures w/new outlook. Thank you.
Great examples and scenario descriptions.
Great slides, great presenter. Best SMCWPPP presentation on erosion control's BMPs yet.
Good speaker and very knowledgeable about BMPs.

General Comments:

Useful and beneficial to gain greater level and understanding regarding SWPPP.
Good job.
Time too late for lunch.
This is the first SWPPP training that I, as a Building Inspector, has gained knowledge that can be sued in the field.

Please submit at the end of the workshop. ***Thank You for Your Comments!***

FIELD SESSION 16 Evaluations

1. **Temporary Control Measures: Field Demonstration** – Given by David Franklin, EnviroTech NPDES Services

Very Useful 14 Somewhat Useful 2 Not useful

Comments:

Really found Mr. Franklin to be extremely knowledgeable and entertaining!

2. **Did this training meet your expectations? Yes: 16 No:**

3. **What parts of the training were most useful to you?**

Proper ways of installation.

All of it.

Everything.

Examples/product info.

The various products and seeing the applications being used on site. The correct uses of the products.

All.

Temp. BMP slides and field demo.

The new products.

Every.

Presentation regarding temporary BMPs by David.

Visual display.

Temporary BMP for construction sites.

Explaining various BMPs. Applications and when most appropriate.

Actual field visit to see various components in place. Discussion format.

Actually seeing the things mentioned during the classroom.

Less so the “new products” part (useful buy was too long) more the on-site visual evaluation.

4. **What would have made this training more useful?**

Practical experience.

More time; more examples of poor installation.

More products?

More proper application Type vs. Situations.

Nothing.

Slides could have been a bit bigger. Cannot read the handouts and slide presentations are a bit blurry.

More BMPs.

Closed location.

Maybe seeing actual conditions and applications.

5. **What topics would you recommend for a future training?**

More presentation on actual installation of BMPs.

Please submit at the end of the workshop. *Thank You for Your Comments!*

Yes.

Plan review techniques and proper applications.

None.

Spray water to test measures.

Private developments C.3 inspections.

How to inspect on-site.

6. General Comments?

Very good class. Effective speaker and kept the class interesting.

Have more work site visits with SWPPP.

State problem for each photo, for reference.

This is the first SWPPP training I, as a Building Inspector, have gained knowledge that can be used in the field.

Overall beneficial training and great to see class into practice.

Thanks for the sodas at the site!



Appendix 7

- Public Information and Participation Subcommittee – Attendance List– FY 2013-14
- Be The Street event photo and photo frame example
- Stormdrain Sunday Facebook page
- Creek of the Week web page
- Community slide example
- County Fair booth

Public Information and Participation Subcommittee				FY 2013-2014					
AGENCY	NAME	ALTERNATE	PHONE	Jul-13	Sep-13	Nov-13	Jan-14	Mar-14	May-14
Prog. Coordinator	Matthew Fabry		415-599-1419	1					
Atherton	Andrea Mardesich		752-0544	1	1	1		1	
Belmont	Diane Lynn		595-7425	1	1	1	1	1	1
Brisbane	Shelley Romriell	Diane Cannon	415-508-2128	1					
Burlingame	Stephen Daldrup	Eva Justimbaste	342-3727	1	1	1	1	1	1
Colma	Muneer Ahmed	Jason Chen	757-8888	1	1	1	1	1	
Daly City	Ward Donnelly		991-8200	1	1			1	1
East Palo Alto	Michelle Daher		853-3197	1					
Foster City	Mike McElligot	Norm Dorias	286-3546	1	1	1	1	1	
Half Moon Bay	Mark Lander	Muneer Ahmed	522-2562	1			1	{1}	
Hillsborough	Rachelle Ungaretti		375-7444	1	1	1	1	1	
Menlo Park	Rebecca Fotu	Vanessa Marcadejas	330-6765	1	1			1	
Millbrae	Shelly Reider		259-2444	1	1	1	1		1
Pacifica	Ray Donguines		738-3768	1	1		1		
Portola Valley	Brandi de Garmeaux	Howard Young	851-1700	1			1	1	
Redwood City	Terence Kyaw	Adrian Lee	780-7466		1	1	1		1
San Bruno	William Li		616-7069	1	1	1	1	1	1
San Carlos	Jill Lewis	Gavin Moynahan	802-4361	1	1	{1}		{1}	1
San Mateo City	Debra Bickel	Sandy Mathews	522-7343	1	1	1	1		1
San Mateo County	Carole Foster		599-1448	1	1	1		1	1
S. San Francisco	Daniel Fulford	Andrew Wemmer	829-3840	1	1	1	1	1	1
Woodside	Dong Nguyen		851-6790						

TOTAL CO-PERMITTEES IN ATTENDANCE	20	16	12	13	12	10
--	-----------	-----------	-----------	-----------	-----------	-----------

PIP Consultants:

Environ. Health	Waymond Wong		372-6248						
Environ. Health	Timothy Swillinger		372-6245	1	1	1	1	1	1
Environ. Health	Mary Bell Austin		372-6259						
Environ. Health	Ana Clayton		372-6214		1				
Environ. Health	Julia Au		372-6250		1	1	1		
Environ. Health	Kathryn Cooke		372-6227	1	1		1	1	1
Environ. Health	Suzanne Bontempo		372-6252						
Environ. Health	Allison Milch		372-6252						

Resident/Guest						
----------------	--	--	--	--	--	--

Total Attendance	22	20	14	16	14	12
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1 - Attendance

{1} - Duel Coverage







POSTS TO PAGE



Pacific Coast Conservancy

June 8 at 12:39pm

This year's Santa Cruz Beach Cleanup will take place on June 28. Las... See More

Like · Comment · Share

1



Open the SF Watershed to hikers

April 1 at 12:57pm

You guys are great!!! Much love!!

Like · Comment · Share

2 2



Céline Maublanc Gerakin

February 6 at 2:10pm

Hello! I am glad I found your facebook page! I currently live in Pil... See More

Like · Comment · Share

3 2

LIKED BY THIS PAGE



Half Moon Bay Coastside Chambe...

Like · Comment · Share

FlowstoBay
May 25

Stormdrain Sunday: Unlike pigs, stormdrains are picky eaters. They are on a strict water diet!

Artwork by: "SÃO" and "Delafuente"



Like · Comment · Share

4 1 Share

FlowstoBay shared a link.
May 24

How are coral reefs holding up in the wake of climate change? What can you do to help save these reefs?

<http://climatedesk.org/2014/05/watch-these-reefs-are-beautiful-but-most-of-the-coral-is-dead/>

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2013

2012

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SAN MATEO COUNTYWIDE Water Pollution Prevention Program

Community Business Municipalities

GET INVOLVED!



DOWNLOAD THE BE THE STREET APP
ON GOOGLE PLAY
& APPLE APP STORE!

Play a game that actually
does something good
for the world!



Sign Up For News & Events!

Join

Participate In An Event

Nursery Workday (Brisbane)

July 23, 10 am to 12 pm

[MORE INFO >](#)

HHW Collection Event (San Mateo)

July 24, 08 am to 02 pm

[MORE INFO >](#)

Redwood Hike (Coastside)

July 24, 01 pm to 05 pm

[MORE INFO >](#)

More Events

[Report illegal dumping](#) in your area

[Properly dispose](#) of your toxic waste

Search:

Se

Creek Of The Week

"Creek of the Week" features a different watershed on the [San Mateo Countywide Water Pollution Prevention Program's Facebook page](#) each week. Weekly highlights will help residents get familiar with local watersheds in the County, and provide contact information to get involved and volunteer with the non-profits that host events dedicated to conserving and restoring the waterways.

Pilarcitos Creek - Week 6



(Photo credit: Coastside Land Trust)

Where is the creek located?

Unincorporated San Mateo County and the City of Half Moon Bay.

Where does the creek flow?

Pilarcitos Creek originates on the eastern side of the Montara Mountain. The creek flows for about 12 miles and then drains into the Pacific Ocean in the City of Half Moon Bay.

Interesting facts:

- The natural plant communities found on the watershed range from coastal strand vegetation near the Pacific Ocean to Redwood forest in the Upper Pilarcitos area.
- The creek is relied on for a great variety of services-it is a source of clean drinking water for residents of the central coast and San Francisco Bay Area, it supports agriculture and recreational tourism, and it is crucial to the survival of many threatened/endangered species.
- There are seven main tributaries that flow into the creek.
- The red-legged frog, San Francisco garter snake, snowy plover, the tidewater goby, and the steelhead trout all rely on Pilarcitos Creek for the natural habitat that it provides.
- Agricultural run-off is a major cause of concern for the watershed. Much of the floodplain in the Middle Pilarcitos Creek is used for agricultural purposes.

The main stem of the Pilarcitos Creek flows parallel to Highway 92. Because of this and its proximity to urban and residential areas, the creek is strongly impacted by storm runoff.

Volunteer opportunities:

Coastside Land Trust is a non-profit organization that is actively working to restore Pilarcitos Creek in Half Moon Bay. Litter and the dumping of household/industrial items are major issues in the Lower Pilarcitos Creek region. For upcoming volunteer opportunities, contact info@coastsidelandtrust.org or visit coastsidelandtrust.org

Millbrae Creek- Week 5



(Photo Credit: EOA – August 2008 Stream Assessment Report)

Where is the creek located?

City of Millbrae and Burlingame

Where does the creek flow?

Millbrae Creek drains to the Bay below Palm Avenue

Interesting Facts:

- Approximately 1/4 of the creek has been urbanized
- Millbrae creek is surrounded by residential homes, with pockets of vacant urban and park spaces
- Millbrae Creek is over 75% shaded with greenery, mostly covered by ivy
- Upper Millbrae creek generally has a low flow and is dry in the lower reach
- From a 2008 study, no fish were observed in this creek
- About 41% of the Millbrae Creek is under roads and residential homes
- Millbrae Creek has 13 outfalls (points where water flows into the bay) – 10 of which had no flow, and 3 with trickle flow from a 2008 study

Volunteer Opportunities:

Email sreider@ci.millbrae.ca.us and visit www.ci.millbrae.ca.us/sustainablemillbrae for information about Earth Day 2014 litter cleanups. Be sure to sign up for Coastal Clean Up Day this September! Visit <http://www.coastal.ca.gov/publiced/ccd/locations.html> for more information.



(Photo Credit: EOA – August 2008 Stream Assessment Report)

Where is the creek located?

City of Pacifica

Where does the creek flow?

The creek drains through roughly eight square miles of the western side of the Montara Mountain and has five major tributaries, all of which contain perennial (*year round*) flows fed by springs.

Interesting Facts:

- Unlike many other creeks in San Mateo County that flow into San Francisco Bay, San Pedro Creek flows into the Pacific Ocean.
- San Pedro Creek and San Mateo Creek (*described below*) is host to Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) populations.
- Approximately 1/4 of the creek has been urbanized.
- 15 stormdrains flow into the creek.
- Due to extensive restoration work, including the creation of a "naturally meandering" channel, this creek hosts one of the healthiest habitats for migrating Steelhead Trout populations.

Volunteer Opportunities:

[San Pedro Creek Watershed Coalition](#) hosts a litter cleanup event once a month at San Pedro Creek throughout the year.

Lower San Mateo Creek - Week 3



Where is the creek located?

City of San Mateo

Where does the creek flow?

The creek originates near Sweeny Ridge between Pacifica and Millbrae, and flows through parts of Unincorporated San Mateo County, the Town of Hillsborough, and the City of San Mateo into San Francisco Bay.

Interesting Facts:

- Trout and Stickleback fish inhabit upper parts of the creek.
- Trash and litter impacts this creek the most between Delaware and Claremont Street.
- 51 stormdrains use this creek to transport water from roads into San Francisco Bay.
- The creek is host to Crystal Springs Reservoir Dam.
- The creek flows into San Francisco Bay at City of San Mateo's Ryder Park.

Volunteer Opportunities:

The City of San Mateo hosts one of the biggest [Coastal Cleanup Day](#) sites in the County on an annual basis. For more information on litter cleanup events taking place in San Mateo, visit the City's [website](#).

To help keep water that goes into the stormdrain pollution free, take your car to a car wash. Email pollutionprevention@smcgov.org for a FREE car wash coupon valid at over 12 locations throughout San Mateo County.

Arroyo ojo de Agua - Week 2



(Photo Credit: Acterra)

Where is the creek located?

Redwood City

Where does the creek flow?

Arroyo Ojo de Agua is a tributary to Redwood Creek that flows into San Francisco Bay. Arroyo Ojo Agua flows for almost a mile in a mostly natural channel through Stulsaft Park, a 42 acre Redwood City park with a beautiful riparian corridor.

Interesting Facts:

Unlike most creeks in urban areas of the peninsula, this creek is "perennial" meaning that it flows year round. The creekside vegetation in Stulsaft Park include many native trees and understory plant species, including the beautiful flower pictured above called the San Franciscian Onion [Wikicommons](#).

Volunteer Opportunities:

Acterra, a non-profit, involves community members and works hard to remove invasive species on the creeks and banks. Help keep Stulsaft Park and Arroyo Ojo Agua Creek clean by volunteering with [Acterra](#).

Colma Creek - Week 1



Where is the creek located?

South San Francisco, Daly City, Colma and Unincorporated San Mateo County.

Where does the creek flow?

Colma Creek runs to San Francisco Bay from the San Bruno Mountains.

Interesting Facts:

In 2006, 448 volunteers dedicated 1,278 hours to restoring the upper watershed of Colma Creek by planting 8,700 native plants within the San Bruno State and County Park. Restoration efforts also consisted of the removal of invasive plants, including 50 large and 100 small eucalyptus and cypress trees, the English and Cape Ivy, and the Himalayan blackberry.

Also in 2006, the San Mateo County Flood Control District created 3.7 acres of upland and salt marsh habitat at the mouth of Colma Creek, and continues to plant native species and remove invasive species from the restoration site. This habitat restoration area can be enjoyed by walking, jogging, or biking along the adjacent San Francisco Bay Trail.

Volunteer Opportunities:

Invasive plants are not Colma Creek's only problem! Despite aggressive restoration efforts, litter continues to remain a pollution issue (shown in the picture above). For volunteer opportunities to help keep this creek clean, email cfooster@smcgov.org

Program - A Program Of The City/County Association Of
Governments Of San Mateo County (C/CAG)

10 Most Wanted Bugs

Did you know?

One ladybug can eat **5,000**
aphids in its lifetime!

Think twice before using
chemicals.



For a list of all the bugs you want in your garden, visit www.ourwaterourworld.org







Appendix 9

- Parks Maintenance & IPM Work Group Attendance List FY 2013-14
- Structural Integrated Pest Management Workshop – November 19, 2013
 - Agenda
 - Attendance list
 - Summary of workshop evaluations
- Landscape Integrated Pest Management Workshop – March 12, 2014
 - Agenda
 - Attendance list
 - Summary of workshop evaluations

**San Mateo Countywide Water Pollution Prevention Program
Parks Maintenance & IPM Work Group Attendance List - FY 2013/14**

Contact Information			Attendance			
MUNICIPALITY	REPRESENTATIVE	EMAIL	TELEPHONE NO.	8/27/2013	1/28/2014	4/22/2014
Atherton	Steve Tyler	styler@ci.atherton.ca.us				
Belmont	Daniel Ourtiague	dourtiague@belmont.gov	650/595-7441			
	Jonathan Gervais	Jgervais@belmont.gov				
Brisbane	Joe Friars	jfriars@ci.brisbane.ca.us	650-786-4353	X		
Burlingame	Greg Foell	gfoell@burlingame.org				
	Bob Disco	bdisco@burlingame.org		X		
Colma	Louis Gotelli	Louis.Gotelli@colma.ca.gov	650/333-0295	X	X	X
	Brian Dossey	brian.dossey@colma.ca.gov				
Daly City	Paul Thompson	pthompson@dalcycity.org	650/991-8006	X		X
	Dennis Bray	dbray@dalcycity.org				
East Palo Alto	Jay Farr	jfarr@cityofepa.org	650/853-3105			
	Michelle Daher	mdaher@cityofepa.org				X
Foster City	Dorte Drastrup	ddrastrup@fostercity.org	650/286-3553	X	X	X
Half Moon Bay	Larry Carnahan	larryC@hmbcity.com	650/726-7177			
	Mark Lander	markl@csgengr.com				
Hillsborough	Garry Francis	gfrancis@hillsca.org	650/375-7506		X	
	John Mullins	jmullins@hillsborough.net				
Menlo Park	David Mooney	damooney@menlopark.org	650/330-6794	X	X	
Millbrae	Ken Crosetti	kcrosetti@ci.millbrae.ca.us				
	John Gianoli	jgianoli@ci.millbrae.ca.us				
Pacifica	Ron Fascenda	fascendar@ci.pacifica.ca.us	650-738-3760			
	A. Clark	clarka@ci.pacifica.ca.us				
	Jean Pierre Elisselide			X		X
	Raymond Donguines	donguinesr@ci.pacifica.ca.us				
Portola Valley	Howard Young	hyoung@portolavalley.net	650/851-1700 x.214			
	Tony Macias	tmacias@portolavalley.net				
Redwood City	Valerie Matonis	vmatonis@redwoodcity.org	650/780-7280	X	X	X
	Terence Kyaw	TKyaw@redwoodcity.org				
	Daniel Burton	dburton@redwoodcity.org				
	Francisco Espinoza	fespinoza@redwoodcity.org	650-280-5094			
San Bruno	Rene Walsh	rwalsh@ci.sanbruno.ca.us	650/616-7193			
	Dan Barros	Dbarros@sanbruno.ca.gov			X	X
San Carlos	Arturo Burgueno	aburgueno@cityofsancarlos.org	650.802.4140		X	
City of San Mateo	Debra Bickel	dbickel@cityofsanmateo.org				
	Mike Blondino	mblondino@cityofsanmateo.org				
	Bruce Reed	breed@cityofsanmateo.org				
	Dennis Pawl	dpawl@cityofsanmateo.org				
San Mateo Co. Parks	Stephen Kraemer	SKraemer@smcgov.org		X	X	
	Maria Mastrangelo	mmastrangelo@co.sanmateo.ca.us				
	Sam Herzberg	SHerzberg@co.sanmateo.ca.us				
	Scott Lombardi	slombardi@co.sanmateo.ca.us				
	Ramona Arechiga	TRArechiga@smcgov.org	650/599-1375			X
	J Hannen	jhannen@co.sanmateo.org				
	Julie Casagrande	jasagrande@co.sanmateo.ca.us				
	Matthew DelCarlo	madelcarlo@smcgov.org				
Suzanne Bontempo	suzannebontempo@gmail.com					
SM County PW	Jeff Pacini	JPacini@co.sanmateo.ca.us				
County Agriculture Weights and Measures	Jeremy Eide	jeide@co.sanmateo.ca.us	650/363-4700	X		
	Ricard Garcia	rgarcia@co.sanmateo.ca.us			X	
	Jeremy Wagner	JWagner@smcgov.org			X	X
	Koren Widdel	kwiddel@smc.gov.org				
	Fred Crowder	fcrowder@co.sanmateo.ca.us				
SSF	Donald Louie	douie@ssf.net	650/829-3837		X	X
	Brian Brunelli	brian.brunelli@ssf.net	650/829-3837		X	
	Andrew Arzaga	andrew.arzaga@ssf.net				
Woodside	Eunejune Kim	EKim@woodsidesidtown.org	650/851-6790			
UCCE/UC IPM	Andrew Sutherland	amsutherland@ucanr.edu	510/499-2930			
EOA	Jon Konnan	jkonnann@eoainc.com	510/832-2852 x.111	X	X	
	Vishakha Atre	vatre@eoainc.com	408/720-8811	X	X	X
SMCWPPP	Matt Fabry	mfabry@smcgov.org	415/508-2134			
SM County	Tim Swillinger	tswillinger@smcgov.org				
	Kathryn Cooke	kcooke@smcgov.org				



AGENDA

Integrated Pest Management for Structural Pest Control Workshop

SMCWPPP Parks Maintenance and IPM
Community Activities Building
1400 Roosevelt Ave., Redwood City
Tuesday, November 19, 2013
11:00 a.m. – 3:00 p.m.

Lunch <i>Registration</i>	11:00 – 11:30
Welcoming Remarks <i>Valerie Matonis, City of Redwood City</i>	11:30 – 11:35
Pesticides and Water Quality <i>Jon Konnan, EOA, Inc.</i>	11:35 – 11:45
Current Issues, Trends, and New Pests for Bay Area Pest Management Professionals <i>Andrew Sutherland, UC Cooperative Extension</i>	11:45 – 12:45
IPM Action Plans for Structural Pests <i>Luis Agurto, Pestec</i>	12:45 – 1:45
Break	1:45 – 1:55
Respirator Regulatory Refresher and Online Pesticide Use Reporting, New Regulations for Pyrethroids <i>Jeremy Eide, San Mateo County Agricultural Weights and Measures</i>	1:55 – 2:55
Adjourn	2:55 – 3:00

SMCWPPP IPM Workshop
FINAL ATTENDANCE
November 19, 2013 11:00 a.m. - 3:00 p.m.

Last Name	First Name	Title	Municipality
Agurto	Lois		Pestec - speaker
Aizawa	Brian	Landscape Gardener	City of Redwood City
Atre	Vishakha		EOA
Bray	Dennis	Maintenance Supervisor	City of Daly City
Brunelli	Brian	Senior Parks Maintenance Worker	City of South San Francisco
Burgueño	Arturo	Senior Maintenance Worker	City of San Carlos
Clark	Brittany		Pestec
Delaney	James		City of Burlingame
Drastrup	Dorte		City of Foster City
Eide	Jeremy		Dept of Agriculture - speaker
Espinoza	Francisco	Landscape Supervisor	City of Redwood City
Forks	Venne	Senior Bulding Maintenance Wrkr	City of San Carlos
Fornesi	Jeff	Superintendent	City of Daly City
Friars	Joe	Maintenance Team Leader	City of Brisbane
Fukudome	Glenn	Landscape Gardener	City of Redwood City
Gibbons	Mike	ROW Superintendant	City of Redwood City
Gostisha	Sheila	Ranger	County of San Mateo
Gotelli	Louis		Town of Colma
Henry	Alex	Craftworker	City of South San Francisco
Herbert	Dominique	Lead Landscape Gardener	City of Redwood City
Hollis	Mike	Lead Landscape Gardener	City of Redwood City
Konnan	Jon		EOA - speaker
Kraemer	Steven	Park Ranger IV	County of San Mateo
Louie	Donald	Parks Craftworker	City of South San Francisco
Mailau	Paul		City of Burlingame
Matonis	Valerie		City of Redwood City
Moll	Karl	Maintenance Supervisor	City of Daly City
Mooney	David	Park Supervisor	City of Menlo Park
Ourtiague	Daniel	Parks Manager	City of Belmont
Perez	Martin	Lead Building Maintenance	City of South San Francisco
Rancatore	Mike		City of Burlingame
Romero	Rob	Lead Building Maintenance	City of South San Francisco
Sutherland	Andrew		UC Davis - speaker
Teo	Al		City of East Palo Alto
Thomas	Carl	Facilities Supervisor	City of Menlo Park
Tomayo	Joe	Facilities Maint. Worker II	City of Foster City
Tyler	Steve		City of Atherton
Urruty	Alain		City of Belmont
Valencia	Miguel		City of East Palo Alto
Vaplon	Richard		City of Burlingame
Walsh	Rene	Facilities Supervisor	City of San Bruno
Ward	Matt		City of Belmont
Zander	Kurt	Building Manager	City of Foster City



Integrated Pest Management Workshop
SMCWPPP Parks Maintenance and IPM
Tuesday, November 19, 2013
11:00 a.m. – 3:00 p.m.

Number of Attendees: 43
Number of Evaluations: 20

What Did You Think of the Following Presentations and Activities?

- 1. Pesticides and Water Quality – Jon Konnan, EOA**
11 very helpful 7 somewhat helpful 1 not helpful

- 2. Current Issues, Trends, and New Pests for Bay Area Pest Management Professionals and Applying the Central Tenets of IPM to Urban Ecosystems – Andrew Sutherland, UC Cooperative Extension**
17 very helpful 3 somewhat helpful 0 not helpful

- 3. IPM Action Plans for Structural Pests – Luis Agurto, Pestec**
18 very helpful 2 somewhat helpful 0 not helpful

- 4. Respirator Regulatory Refresher and Online Pesticide Use Reporting – Jeremy Eide, San Mateo County Agricultural Weights and Measures**
14 very helpful 2 somewhat helpful 1 not helpful

Did this workshop meet your expectations? 20 Yes 0 No

Suggestions for future workshop topics:

- Add additional classes year round.
- More workshops.
- Shorten a little bit.

General Comments:

- Well organized and helpful information.
- Very helpful.
- Good food, drink, and information.
- Great job.
- Thank you.
- Luis and Jeremy did a good job.
- Nice lunch, thank you.
- Andrew Sutherland was a very good speaker. I would like for him to come back next time. Luis Agurto is also a very good speaker and I would like to have him back next time too.

Please submit at the end of the workshop. *Thank You for Your Comments!*



AGENDA
Landscape Integrated Pest Management (IPM) Workshop
(Sponsored by SMCWPPP Parks Maintenance and IPM Workgroup)
Wind Room, Library Community Center
1000 E. Hillsdale Blvd.
Foster City, CA 94404
Wednesday, March 12, 2014
11:00 a.m. – 3:00 p.m.

Lunch <i>Registration</i>	11:00 – 11:30
Welcoming Remarks	11:30 – 11:35
Pesticides and Water Quality Jon Konnan, <i>EOA</i>	11:35 – 11:50
Gopher, Squirrel, Mole, and Raccoon Control Steven Hebert, <i>Swat Pest Control</i>	11:50 – 12:30
Adapting and Applying the Central Tenets of IPM to Landscape Pest Control Andrew Sutherland, <i>UC Cooperative Extension</i>	12:30 – 1:20
Break	1:20 – 1:30
Biopesticides, Reduced-risk Pesticides, and Organics in Turf and Ornamental Use David Moore, <i>Neudorff</i>	1:30 – 2:10
Regulatory Update, Common Violations, and Online Pesticide Use Reporting Jeremy Eide, <i>San Mateo County Agricultural Weights and Measures</i>	2:10 – 3:00
Closing Remarks	3:00

**SMCWPPP
Landscape IPM Workshop
Wednesday, March 12, 2014**

Last Name	First Name	Title	Municipality
Acker	Alan		City of Menlo Park
Aizawa	Brian		City of Redwood City - Parks
Atre	Vishakha	EOA Staff	EOA, Inc.
Barros	Dan	Parks Field Supervisor	City of San Bruno
Bergstrom	Paul	Accounts Manager	Loral Landscaping
Bravo	Omar		City of Redwood City - Parks
Brunelli	Brian		City of South San Francisco
Cardenas	Jorge	Supervisor	Loral Landscaping
Chagniot	Micheline		Frank and Grossman Landscape Contractors
Chiamos	Peter	Parks Lead Maintenance Worker	City of Foster City
Ciardi	Guido	Lead Arborist	SF Water
Clark	Aren		City of Pacifica
Cornell	Patrick		City of Belmont
Cronin	Kieran		City of Belmont
Del Carlo	Matthew		San Mateo County Parks
Delgadillo	Cesar	Service Manager	Serpico Landscaping
Deras	Miguel		City of Redwood City - Parks
Dowdell	Keith		City of Menlo Park
Drastrup	Dorte	Parks Manager	City of Foster City
Eide	Jeremy	Speaker	SMC Ag. Weights & Measures
Ellissetche	Jean Pierre		City of Pacifica
Espinoza	Francisco		City of Redwood City - Parks
Espinoza	Jesus		City of Redwood City - Parks
Fa	Matiu	Parks Maintenance Worker II	City of Foster City
Fanara	Frank		City of Belmont
Fascenda	Ron	Supervisor	City of Pacifica
Fukudome	Glenn		City of Redwood City - Parks
Gomba	William	Parks Maintenance Worker II	City of Foster City
Gotelli	Louis	Maintenance Technician II	Town of Colma
Gotthardt	Garrett	Parks Maintenance Worker II	City of Foster City
Grunwald	Kingsley	Landscape Maint. II	City of San Mateo
Haena	Todd	Parks Maintenance Worker II	City of Foster City
Harmison	Richard	Parks Lead Maintenance Worker	City of Foster City
Harmison	Robin	Parks Maintenance Worker II	City of Foster City
Hastings	Rhett	Enhancement Manager	Serpico Landscaping
Hebert	Steven	Speaker	Swat Pest Control
Hebert	Steven	Speaker guest	Swat Pest Control
Herbert	Dominique		City of Redwood City - Parks
Hernandez	Manuel	Parks Manager	City of Foster City
Hernandez	Martin		City of Redwood City - Parks
Hollis	Mike		City of Redwood City - Parks
Hummel	Gordon		City of Menlo Park
Jimenez	Oswald	Parks Maintenance Worker II	City of Foster City
Jimenez	Miguel		City of Redwood City - Parks

**SMCWPPP
Landscape IPM Workshop
Wednesday, March 12, 2014**

Last Name	First Name	Title	Municipality
Johnson	David		City of Belmont
Joo	Grant		County of San Mateo
Kieffer	Ed		City of Menlo Park
Konnan	John	Speaker/EOA Staff	EOA, Inc.
Lamb	David	Gardener	SF Water
Lipinski	Paul	Landscape Maint. II	City of San Mateo
Louie	Donald		City of South San Francisco
Lyman	Justin	Parks Supervisor	SF Water
Matonis	Valerie		City of Redwood City - Parks
Montoya	Mario	Service Manager	Serpico Landscaping
Mooney	David	Parks Supervisor	City of Menlo Park
Moore	David	Speaker	Neudorff
Moreno	Leonardo		City of Redwood City - Parks
Murphy	Robert	Parks Lead Maintenance Worker	City of Foster City
Nicholls	Ed	Parks Maintenance	City of San Bruno
Niehuser	Paul	Parks Maintenance	City of San Bruno
Ortiz	Andres	Sr. Landscape Maint. Worker	City of San Mateo
Palmini	Mari	Parks Maintenance	City of San Bruno
Perez	Leno		City of Menlo Park
Pimentel	Scott		County of San Mateo
Reed	B		City of San Mateo
Rosewicz	John	Parks Maintenance	City of San Bruno
Ross	Tobin		Frank and Grossman Landscape Contractors
Sanchez	Robert	Landscape Maint. II	City of San Mateo
Schroeder	Nazmeen	Parks Maintenance Worker II	City of Foster City
Solis	Dennis		City of Foster City
Sutherland	Andrew	Speaker	UC Cooperative Extension
Takehara	Russell		New Image Landscape Company
Thompson	Tim	Parks Maintenance	City of San Bruno
Trese	Andrea	EOA Staff	EOA, Inc.
Vela	Salvador		Frank and Grossman Landscape Contractors
Venezia	Dan	Parks Maintenance	City of San Bruno
Vetter	Steve	Parks Maintenance	City of San Bruno
Walsh	Rene	Parks Field Supervisor	City of San Bruno
Weber	Daniel	Parks Maintenance Worker	City of Foster City
Wheeler	Howard	Operations Manager	Loral Landscaping
Wright	Eugene		Frank and Grossman Landscape Contractors



Evaluation Form Summary

Attendees: 81

Evaluations: 32

**Landscape Integrated Pest Management Workshop
SMCWPPP Parks Maintenance and IPM
Wednesday, March 12, 2014
11:00 a.m. – 3:00 p.m.**

What Did You Think of the Following Presentations?

1. **Pesticides and Water Quality – Jon Konnan, EOA**
22 very helpful 7 somewhat helpful 1 not helpful

2. **Gopher, Squirrel, Mole, and Raccoon Control – Steven Hebert, Swat Pest Control**
26 very helpful 5 somewhat helpful 0 not helpful

3. **Adapting and Applying the Central Tenets of IPM to Landscape Pest Control - Andrew Sutherland, UC Cooperative Extension**
27 very helpful 4 somewhat helpful 0 not helpful
 - excellent

4. **Biopesticides, Reduced-risk Pesticides, and Organics in Turf and Ornamental Use - David Moore, Neudorff**
17 very helpful 13 somewhat helpful 0 not helpful
 - okay

5. **Regulatory Update, Common Violations, and Online Pesticide Use Reporting – Jeremy Eide, San Mateo County Agricultural Weights and Measures**
22 very helpful 8 somewhat helpful 0 not helpful

Did this workshop meet your expectations? 31 Yes 0 No

Suggestions for future workshop topics:

- Malathion, nematodes, tiphid wasps, pitch moths, bagrada bugs.
- Goose control.
- Organic rose maintenance.
- More on trees and drought.
- Gophers and moles in turf.

Please submit at the end of the workshop. *Thank You for Your Comments!*

General Comments:

- Andrew Sutherland did a great job. I would like to have him come back again.
- The room was warm. It is warm outside - makes us sleepy. The AC needs to be turned on sooner.
- Lunch was delicious. Needed more water though.
- A fast moving seminar with good information, thank you!
- Good topic and presentation by David Moore.
- Have Steven Hebert come again.
- Thank you for the invitation.
- Louder microphone.



Appendix 10

- Trash Work Group Attendance List- FY 2013-14
- Litter Reduction Roundtable – June 25, 2014
 - Announcement Flyer
 - Agenda
 - Attendance list

Trash Work Group Meeting Attendance – FY 2013/14

Name	Agency	07/02/13	08/06/13	10/08/13	11/21/13	01/22/14	03/04/14	04/30/14	06/27/14
Steve Tyler	Town of Atherton								
Andrea Mardesich	Town of Atherton			X			X	X	
Randy Ferrando	City of Belmont		X	X	X	X	X	X	
Tim Murray	City of Belmont	X	X	X	X		X	X	
Leticia Alvarez	City of Belmont	X							
Dianne Lynn	City of Belmont								X
Matt Fabry	SMCWPPP Program Coordinator					X			
Diane Cannon	City of Brisbane	X	X						
Shelley Romriell	City of Brisbane								
Keegan Black	City of Brisbane	X	X			X		X	X
Karen Kinser	City of Brisbane								
Randy Breault	City of Brisbane	X	X	X			X		X
Jerry Flanagan	City of Brisbane							X	
Vincent Falzon	City of Burlingame					X			X
Peter Gaines	City of Burlingame	X							
John Baack	City of Burlingame								
Stephen Daldrup	City of Burlingame	X	X	X		X		X	X
Rob Mallick	City of Burlingame			X					
Eva Justimbaste	City of Burlingame				X			X	
Louis Gotelli	Town of Colma		X	X	X	X	X	X	X
Phil Scramaglia	Town of Colma								
Muneer Ahmed	Town of Colma	X		X	X	X	X		X
Brad Donohue	Town of Colma	X	X						
Jeff Fornesi	City of Daly City			X					
Jesse Myott	City of Daly City	X	X	X					
John Fuller	City of Daly City			X				X	X
John Sanchez	City of Daly City				X	X	X	X	X
Michelle Daher	City of East Palo Alto	X	X	X			X	X	
Jay Farr	City of East Palo								
Norm Dorais	City of Foster City			X	X		X		
Larry Carnahan	City of Half Moon Bay	X	X		X	X			
Mo Sharma	City of Half Moon Bay								
Mark Lander	City of Half Moon Bay	X	X	X			X	X	X
Gary Francis	Town of Hillsborough						X	X	
Catherine Chan	Town of Hillsborough	X	X	X	X		X		
Rebecca Fotu	City of Menlo Park			X					
Vanessa Marcadejas	City of Menlo Park	X	X	X					
Craig Centis	City of Millbrae								
Mike Killigrew	City of Millbrae		X		X	X	X	X	X
Heather Henwood	City of Millbrae	X	X	X	X	X	X	X	X
Raymund Donguines	City of Pacifica		X	X	X		X		
Ron Fascenda	City of Pacifica	X	X	X	X		X	X	

Name	Agency	07/02/13	08/06/13	10/08/13	11/21/13	01/22/14	03/04/14	04/30/14	06/27/14
Bernie Mau	City of Pacifica	X	X		X				
Howard Young	Town of Portola Valley								
Terrance Kwan	City of Redwood City								
Adrian Lee	City of Redwood City		X	X	X		X		
Jim Burch	City of San Bruno						X		
Robert Wood	City of San Bruno								
Ted Chapman	City of San Bruno			X	X	X	X	X	X
Paul Baker	City of San Carlos	X	X	X	X	X	X	X	X
Lou Duran	City of San Carlos			X					
Rick Viles	City of San Carlos								X
Sarah Scheidt	City of San Mateo						X		X
Roxanne Murray	City of San Mateo								X
Kristine Corneillie	LWA/City of San Mateo	X	X	X	X	X		X	X
Rob Lecel	City of So. San Francisco		X		X	X	X		
Cassie Prudhel	City of So. San Francisco	X							
Andrew Wemmer	City of So. San Francisco	X	X	X	X	X	X	X	X
Stephen Fischer	County of San Mateo - DPW	X			X				X
Julie Casagrande	County of San Mateo - DPW	X	X	X	X	X	X	X	X
Dewayne Johnson	County of San Mateo - DPW							X	
Diana Shu	County of San Mateo								
Lillian Clark	County of San Mateo								
Steve Balestieri	County of San Mateo						X		
Cara Bautista	County of San Mateo				X	X	X		
Stephen Stolte	County of San Mateo				X	X	X		
Tim Swillinger	County of San Mateo- Environmental Health		X						
James Counts	SMC Mosquito and Vector Control District								
Chindi Peavey	SMC Mosquito and Vector Control District								
Dong Nguyen	Town of Woodside	X	X	X		X			
Monica Devincenzi	SBWMA/RethinkWaste			X					
Chris Sommers	EOA, Inc.	X	X	X	X	X	X	X	X
John Fusco	EOA, Inc.	X	X	X	X	X	X	X	X
Kristin Kerr	EOA, Inc.					X	X		
No. Attending		27	29	31	26	23	30	24	23



San Mateo County Litter Roundtable

This workshop is for:
 ✓ Municipal Waste and Stormwater staff, and staff from Municipal Waste Hauling Companies

San Mateo Public Library – Oak Room
 55 W. 3rd Avenue, San Mateo

Wednesday, June 25, 2014
8:30 am – 12:00 pm

*There will be **no charge** for the workshop. A Continental breakfast will be provided.
 Please pass this flyer to appropriate staff within your organization.*



Collection Day, City of San Mateo

Roundtable Highlights:

- Overview of Litter Issues and Regulations
- Regional Coordination Update
- Container Management Best Practices
- Experience with Data Collection & Enforcement
- Stormwater Litter Management Planning

REGISTRATION FORM

Name: _____

Title: _____

Agency: _____

Phone: _____

Email: _____

Please complete and send to Melissa Morgan by email melissa@eoainc.com
 or fax (510-832-2856) by Thursday, June 19th, 2014.

Questions? Call Peter Schultze-Allen at 510-832-2852 ext. 128.



Countywide Litter Work Group

Litter Roundtable

San Mateo Public Library
55 W. 3rd Ave, San Mateo
June 25, 2014

Agenda

Registration and Refreshments	8:30 – 8:45
Welcome Matt Fabry, <i>SMCWPPP</i>	8:45 – 8:50
Introductory Remarks Larry Patterson, <i>City Manager, City of San Mateo</i>	8:50 – 9:10
Overview of Litter Issues in the Bay Area Chris Sommers, <i>EOA, Inc.</i>	9:10 – 9:30
Franchised Waste Hauler Service Changes Randy Breault, <i>City of Brisbane</i>	9:30 – 9:45
Enforcement Coordination and Technology Wanda Redic, <i>City of Oakland</i>	9:45 – 10:00
Implementation of an Enhanced Container Management Program Robert Harvie and Elaine Marshall, <i>City of Sunnyvale</i>	10:00 – 10:15
BREAK	10:15 – 10:30
Break Out Sessions Facilitated brainstorming discussion and reporting of issues, benefits and constraints associated with reducing litter associated with container management	10:30 – 11:55
Closing Remarks Monica Devincenzi, <i>Rethink Waste</i>	11:55 – 12:00

June 25 SMCWPPP 2014 Litter Roundtable San Mateo Public Library Oak Room

Last Name	First Name	Municipality	Sign Name
Au	Julia	San Mateo County	
Bernardini	Barbara	SSF Scavenger Co.	
Black	Keegan	City of Brisbane	
Breault	Randy	City of Brisbane	
Casagrande	Julie	San Mateo County	
Chapman	Ted	City of San Bruno	
Chow	Sydney	City of Millbrae	
Clark	Lillian	Recycle Works	
Cooke	Kathryn	San Mateo County	
Daldrup	Stephen	Veolia/City of Burlingame	
Devincenzi	Monica	Rethink Waste	
Donnelly	Ward	City of Daly City	
Fabry	Matt	SMCWPPP	
Fascenda	Ron	City of Pacifica	
Ferrando	Randy	City of Belmont	
Foster	Carole	San Mateo County	
Francis	Gary	Town of Hillsborough	
Gaines	Peter	City of Burlingame	
Gasparini	Gino	Recology	
Gertman	Richard	For Sustainability Too	
Gibbons	Mike	Redwood City	
Gibson	Chris	Recology San Mateo County	
Harvie	Robert	City of Sunnyvale	
Henwood	Heather	City of Millbrae	
Hester	Tim	Recology	
de Garneau	Brandi	Town of Portola Valley	
Kasper	Ron	City of San Mateo	
Kennedy	Susan	SSF Scavenger Co.	
Killigrew	Michael	City of Millbrae	
La Mariana	Joe	Recycle Works	
Lee	Adrian	City of Redwood City	
Lucero	Jeanette		
Lynn	Diane	City of Belmont	
Marshall	Elaine	City of Sunnyvale	

June 25 SMCWPPP 2014 Litter Roundtable San Mateo Public Library Oak Room

Last Name	First Name	Municipality	Sign Name
Mau	Bernie	City of Pacifica	
McKinney	Misty	Recology San Mateo County	
Medina	Patty	GreenWaste Recovery, Inc.	
Minnix-Kingston	Jeannene	Allied Waste Services	
Murray	Tim	City of Belmont	
Mutata	Faustina	RethinkWaste	
Patterson	Larry	City of San Mateo	
Pinochi	Kirsten	Recology San Bruno	
Ragler	Stephanie	Allied Waste Service	
Redic	Wanda	City of Oakland	
Rentaria	Jerame	Zanker Recycling	
Renteria	Estevan	City of Pacifica	
Sage	Bob	City of Brisbane	
Scheidt	Sarah	City of San Mateo	
Schultze-Allen	Peter	EOA/SMCWPPP	
Sommers	Chris	EOA/SMCWPPP	
Stolte	Stephen	San Mateo County	
Storz	Roger	City of Menlo Park	
Swillinger	Timothy	San Mateo County	
Viles	Rick	City of San Carlos	
Wemmer	Andrew	City of South San Francisco	
Wilkin	Gerald	City of Brisbane	

Reider Shelly city of Millbrae
 Dorais Norman CITY OF FOSTER CITY

Shelley Reider
 @ Dorais
 Sreider@ci.millbrae.ca.us
 send follow up emails



Appendix 16

- MRP Regional Supplement for Training and Outreach: Annual Reporting for FY 2013-2014
- Preventing Urban Pesticide Pollution in Stormwater: CASQA Pesticide Subcommittee Annual Report, FY 13-14



B A S M A A

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

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To Whom It May Concern:

We certify under penalty of law that this document was prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our 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 our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Annual Reporting for FY 2013-2014

Regional Supplement for Training and Outreach

San Francisco Bay Area Municipal Regional Stormwater Permit



September 2014

**MRP Regional Supplement for Training and Outreach
Annual Reporting for FY 2013-2014**

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C.7.b. Advertising Campaign

BASMAA Final *Be the Street* Evaluation Report

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

BASMAA Media Relations Campaign Final Report

C.9.h.i. Point of Purchase Outreach

Photos of *Our Water, Our World* displays at major chains

Photos of training at major chains

Copies of *Our Water, Our World* advertisements

Description of pilot enhanced program at Home Depots

Screen shots of Mobile app and web advertisement/link

Photo of joint display with Scotts-Miracle Gro

Got Ants Final Report

Greener Pesticides for Cleaner Waterways Progress Report

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INTRODUCTION

This Regional Supplement has been prepared to report on regionally implemented activities complying with portions of the Municipal Regional Stormwater Permit (MRP), issued to 76 municipalities and special districts (Permittees) by the San Francisco Bay Regional Water Quality Control Board (Water Board). The Regional Supplement covers training and outreach activities related to the following MRP provisions:

- Provision C.5.d., Control of Mobile Sources,
- Provision C.7.b., Advertising Campaign,
- Provision C.7.c., Media Relations – Use of Free Media,
- Provision C.7.d., Stormwater Point of Contact, and
- Provision C.9.h.i., Point of Purchase Outreach.

These regionally implemented activities are conducted under the auspices of the Bay Area Stormwater Management Agencies Association (BASMAA), a 501(c)(3) non-profit organization comprised of the municipal stormwater programs in the San Francisco Bay Area. Most of the 2013-2014 annual reporting requirements of the specific MRP Provisions covered in this Supplement are completely met by BASMAA Regional Project activities, except where otherwise noted herein or by Permittees in their reports. Scopes, budgets and contracting or in-kind project implementation mechanisms for BASMAA Regional Projects follow BASMAA's operational Policies and Procedures as approved by the BASMAA Board of Directors. MRP Permittees, through their program representatives on the Board of Directors and its committees, collaboratively authorize and participate in BASMAA Regional Projects or Regional Tasks. Depending on the Regional Project or Task, either all BASMAA members or Phase I programs that are subject to the MRP share regional costs.

Training

C.5.d. Control of Mobile Sources

This provision requires Permittees to develop and implement a program to reduce the discharge of pollutants from mobile businesses, including development and implementation of minimum standards and BMPs, and outreach to mobile businesses. BASMAA's long-standing Surface Cleaner Training and Recognition program addresses these aspects of the provision by focusing on the most common type of outdoor cleaning – cleaning of flat surfaces like sidewalks, plazas, parking areas, and buildings. Individual Permittees address the inspection and enforcement aspects of the provision.

Previously, BASMAA, the Regional Water Board, and mobile businesses jointly developed best management practices. The BMPs were packaged and delivered in training materials (e.g., *Pollution from Surface Cleaning* folder), and via workshops and training videos. The folder and the training video have since been translated into Spanish. Cleaners that take the training and a self-quiz are designated by BASMAA as Recognized Surface Cleaners. BASMAA also created and provides marketing materials for use by Recognized Surface Cleaners. Previously, BASMAA converted the delivery mechanism to being online so that mobile businesses would have on-demand access

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to the materials and the training. BASMAA continues to maintain the [Surface Cleaner Training and Recognition](#) program. Cleaners can use the website to get trained and recognized for the first time or renew their training and recognition, as required annually. Recognized cleaners can also download marketing materials from the website. Potential customers, including Permittees can use the site to verify the recognition status of any cleaner, as can municipal inspectors.

Subsequent to the development and implementation of the existing program, BASMAA and the Permittees scoped and budgeted for a new project to enhance the existing Surface Cleaner Training and Recognition program in the following ways.

1. Expand the existing Surface Cleaner Training and Recognition Program to include two new mobile business categories - automotive washing and carpet cleaning;
2. Utilize existing resources that are available to complete the necessary tasks;
3. Develop marketing materials, training videos and self-test applications for the new categories;
4. Create Spanish tracks of the information; and
5. Create a web-based application to share information about mobile businesses.

A consultant team with expertise in best management practices and commercial training programs, videography, graphic design, web design, and translation has initiated work on the enhancements.

In FY 2013-2014, the following was accomplished:

- BMPs – Draft best management practices were developed for vehicle-related cleaning and carpet cleaning based on existing sets from BASMAA member agencies, other public agencies, and the trade association. These draft BMPs are being reviewed and finalized.
- Enforcement sharing – BASMAA reviewed the option of member agencies sharing enforcement information. However, since cleaners operate regionally, there is a concern that reporting or sharing information on local violations could be unfair and misleading when viewed regionally. Meanwhile, at least while the State Water Board's [emergency drought regulations](#) are in effect, some reporting may be required on a reporting website being developed by the State Water Board. While the regulations are aimed at water supply agencies, there is some possibility enforcement will be delegated to municipalities as a "local discretionary action" (see http://waterboards.ca.gov/publications_forms/publications/factsheets/docs/fs072914manwaterreg.pdf). Based on these factors, BASMAA is postponing development of elective regional enforcement reporting and continues to monitor developments at the State Water Board.
- Outreach – To incorporate information for vehicle-related cleaning and carpet cleaning, BASMAA conducted a review of the existing Recognized Cleaners Program, which was first developed in the mid-1990s and last refined in the mid-2000s. The review covered the existing BMPs for surface cleaners, print and video outreach materials, recognition items, and the training and recognition portion of

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the BASMAA website. Not surprisingly, the review identified needed and opportunistic tasks to integrate the two new categories of cleaning activities and generally update the program. These tasks are underway and will be completed by fall 2014.

Public Information and Outreach

C.7.b. Advertising Campaign

This provision requires Permittees to participate in or contribute to advertising campaigns on trash/litter in waterways and pesticides with the goal of significantly increasing overall awareness of stormwater runoff pollution prevention messages and behavior changes in target audience. Through the BASMAA Public Information / Participation (PI/P) Committee, Permittees previously decided to take a broader view of some of its regional tasks (e.g., Regional Advertising Campaign, Regional Media Relations, *Our Water, Our World* program) to ensure that work on individual MRP provisions was coordinated and part of an overall strategy.

In FY 2010-2011, working with SGA, Inc., BASMAA developed broader Regional Strategic Outreach Plans – one for litter and one for pesticides – that include audiences related to the MRP provisions and ways of reaching them regarding trash/litter and pesticides (e.g., advertising, media relations, schools outreach, events). Although the scopes of the strategies are broad, the level of stormwater agency (regional, areawide program, city) implementing each part varies (i.e., each part is not implemented via BASMAA). The strategies are multi-year and also include recommendations for creative, media placement, media relations, partnerships, and evaluation.

In FY 2011-2012, BASMAA, again working with SGA, Inc., finished developing an Implementation Plan for the litter strategic plan, which provides more detailed tasks and budgets for the multi-year project. Five BASMAA member programs chose to implement the strategic plan over three-years:

- Alameda Countywide Clean Water Program
- Fairfield-Suisun Urban Runoff Management Program
- San Mateo Countywide Water Pollution Prevention Program
- Santa Clara Valley Urban Runoff Pollution Prevention Program
- Vallejo Sanitation and Flood Control District

Implementation of the “*Be the Street*” anti-litter Youth Outreach Campaign also began in FY 2011-2012. *Be the Street* takes a Community Based Social Marketing approach to encourage youth to keep their community clean. The intent of the campaign is to make “no-littering” the norm among the target audience (youth between the ages of 14 and 24). The *Be the Street* Campaign is using online social marketing tools to conduct outreach.

Activities in FY 2013-2014 included: maintaining a website, Facebook page, and YouTube Channel; developing and releasing a mobile application (app); developing and conducting a meme contest; and conducting a post-project evaluation (see attached *Be the Street* BASMAA Final Evaluation Report for details).

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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 Annual Reporting requirement includes providing the details of each media pitch, such as the medium, date, and content of the pitch. BASMAA has conducted a Regional Media Relations project since FY 1996-1997 that assists Permittees in complying with this type of provision. The FY 2013-2014 BASMAA Regional Media Relations project made six pitches (see attached Media Relations Campaign Final Report FY 2013-2014 for details):

- Green Streets,
- Ants / Pesticides,
- Holiday pollution,
- IPM Advocates / DPR Award,
- Our Water, Our World app, and
- Trash.

C.7.d. Stormwater Point of Contact

This provision requires Permittees to individually or collectively create and maintain a point of contact, e.g., phone number or website, to provide the public with information on watershed characteristics and stormwater pollution prevention alternatives. The Annual Reporting requirement states that any change in the contact be reported in annual reports subsequent to FY 2009-2010 annual report. There was no change in FY 2013-2014 to the point of contact provided by BASMAA. BASMAA assists with this provision by using the regional website: BayWise.org to list or link to member programs' lists of points of contact and contact information for the stormwater agencies in the Bay Area (<http://baywise.org/about-us>).

Pesticides Toxicity Control

C.9.h.i. Point of Purchase Outreach

This provision requires Permittees to:

- Conduct outreach to consumers at the point of purchase;
- Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control; and
- Participate in and provide resources for the "Our Water, Our World" program or a functionally equivalent pesticide use reduction outreach program.

The Annual Reporting requirement allows Permittees who participate in a regional effort to comply with C.9.h.i. to reference a report that summarizes these actions. Below is a report of activities and accomplishments of the *Our Water, Our World* program for FY 2013-2014.

- Coordinated program implementation with major chains Home Depot, Orchard Supply Hardware (OSH), and Ace Hardware National. Corporate office of OSH

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(San Jose) and Home Depot (Atlanta) directed support of the program with their stores.

- Coordinated updates as needed to and master print run of the following: fact sheets, shelf talkers, literature rack signage, beneficial bug brochure, magnet, Pest or Pal activity guide for kids, pocket guide, and Pests Bugging You? booklet.
- Updated less-toxic Product Lists: general plus OSH and Home Depot-specific lists/labels.
- Maintained [Our Water, Our World website](#).
- Provided [Ask-the-Expert](#) service—which provides 24-hour turnaround on answers to pest management questions.
- Provided and staffed exhibitor booths.
 - Excel Gardens Dealer Show, Las Vegas (August 2013)
 - L&L Dealer Show, Reno (October 2013)
 - NorCal trade show, San Mateo (February 2014)
- Provided on-call assistance (e.g., display set-up, training, IPM materials review) to specific stores (e.g., OSH, Home Depots) (see photos attached).
- Provided print and web advertising – [Bay Nature magazine](#) (see ad attached); [Bringing Back the Natives Garden Tour's garden guide](#) (see ad attached), and [Chinook Coupon Book](#) (see ad attached).

New for FY 2013-2014, BASMAA and its member agencies and partners in *Our Water, Our World*:

- Worked with select local agencies to fund and with Home Depot to develop and initiate a pilot enhanced program in 10 Home Depots in the greater Bay Area and Sacramento. The enhanced program is being implemented primarily by the IPM Advocates (see attached description).
- Created and launched mobile application (app) – [OWOW mobile app](#) (see attached screen shots of app and web advertisement/link).
- Worked with Scotts-Miracle Gro to set up eco-friendly displays of less-toxic products in 50 Home Depots (see photo attached).

Additionally in FY 2013-2014, BASMAA continued work on two other projects related to *Our Water, Our World*:

Got Ants – This DPR funded grant project was led by the San Francisco Estuary Partnership and BASMAA was a sub-recipient of a portion of the grant funds. The project was a social marketing outreach campaign designed to provide easy-to-

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use information on ant control methods that do not harm water quality and shift users' behavior to integrated pest management (see Final Report attached and [Got Ants? Get SERIOUS website](#) for more information).

Greener Pesticides for Cleaner Waterways – This EPA funded grant project is being led by the San Francisco Estuary Partnership. The project is implementing pesticide pollution prevention through engaging residential pesticide users to use less toxic products. Part of the project involves doing so through the *Our Water, Our World* program using the IPM Advocates, the former managed and the latter qualified by BASMAA. (see Progress Report attached and [Greener Pesticides for Cleaner Waterways](#) for more details).

ATTACHMENT

C.7.b. Advertising Campaign

BASMAA Final *Be the Street* Evaluation Report

BASMAA Final Be the Street Evaluation Report

August 27

2014

This report describes the results and findings of the three year litter abatement program **Be the Street** targeted at Bay Area youth.

Funding provided by:

Alameda Countywide Clean Water Program
Fairfield-Suisun Urban Runoff Management Program
San Mateo Countywide Water Pollution Prevention Program
Santa Clara Valley Urban Runoff Pollution Prevention Program
Vallejo Sanitation and Flood Control District

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EXECUTIVE SUMMARY

Prior to the launch of the Be the Street® litter abatement program, a detailed survey was conducted to assess littering behavior and perceived social norms of Bay Area youth. The data collected with this survey was established as a baseline against which follow-up survey data could be measured to determine the overall impact of the Be the Street program.

A follow-up survey was conducted during the summer of 2014 through Facebook (the primary outreach vehicle for the program) and through intercept outreach. The survey was designed to mirror the baseline survey conducted in 2011 to ensure data comparability. Only respondents who fit the target demographic of the program, 14-24 years of age and living in Bay Area zip codes, were included in the analysis. A total of 60 responses were collected.

The survey focused on littering habits and opinions of the target demographic. The subsequent analysis and comparison to the baseline data revealed many key findings that both demonstrate the effectiveness of the overall Be the Street program and provide recommendations for future outreach efforts. Key findings are described below.

Throughout this analysis the following terminology is used.

- **Baseline.** Baseline refers to the data collected prior to the start of the Be the Street program.
- **Exposed.** Exposed refers to respondents captured in the follow-up survey who reported being aware of the Be the Street program. The goal of the program is to demonstrate that individuals exposed to Be the Street have adopted preferred behaviors and opinions towards recycling when compared against the Baseline and Unexposed.
- **Unexposed.** Unexposed refers to respondents captured in the follow-up survey who reported being unfamiliar with the Be the Street program. The difference between Unexposed and Exposed demonstrates the impact of the program. In addition, we anticipate that the Unexposed should be more similar to the Baseline.

KEY FINDINGS

- **Exposed are nearly 3x as likely to pick up litter.** 90% of exposed respondents reported that they were 'very likely' or 'likely' to pick up someone else's litter while only 38% of unexposed respondents reported the same.
- **Exposed are nearly 2x as likely to disapprove of friends littering.** 94% of exposed respondents reported the 'strongly disapprove' or 'disapprove' of their friends littering while only 52% of unexposed reported the same.
- **Exposed are nearly 1.5x as likely to voice that disapproval.** 70% of exposed respondents reported that they were 'very likely' or 'likely' to voice disapproval when their friends litter while only 48% of unexposed respondents reported the same.
- **Exposed are more than 2x as likely to disapprove of their own littering.** 58% of exposed respondents reported the 'strongly disapprove' or 'disapprove' of their own behaviors when they have littered in the past while only 29% of unexposed reported the same.
- **Unexposed are nearly 2x as likely to litter in the future.** 19% of unexposed respondents reported that they were 'very likely,' 'likely,' or 'somewhat likely' to litter in the next month while only 10% of exposed respondents reported the same.
- **Unexposed litter more than 2x as often.** 8% of unexposed respondents reported littering at least a few times a week while only 4% of exposed respondents reported the same.

INTRODUCTION

Be the Street is a regional litter abatement program developed by the Bay Area Stormwater Management Agencies Association (BASMAA). The program primarily targeted 14-24 year old Bay Area youth who had been identified as a key polluting demographic. The program focused heavily on social media and innovative outreach strategies with the end goal of promoting peer-to-peer interactions regarding littering and raising awareness of its environmental impacts. Whenever possible, the program involved the target audience themselves and invited them to recast the messaging in their own words. In this way, the content remained fresh, relatable, and the target audience felt the program was talking “with them,” not “at them.”

Be the Street was carefully branded to connect with its target audience. The brand was developed to be youthful, vibrant, and engaged. Under this brand, the state of the “street” is a reflection of the youth who use it. By exploring problems and solutions related to community and environmental issues, street-by-street, participants are rewarded with the pride, and the fun, of having created the kind of “street” they have always wanted to live on.

Be the Street engaged with the target population primarily through social media (e.g. Facebook and Instagram) to deliver inspirational and educational content. An innovative set of outreach strategies included a YouTube video contest with a live stream award show, interactive photo booths, a meme contest, and the development of a mobile app that gamified environmental awareness and sent users into the streets to complete challenges, win points, and get prizes.

Be the Street was an unqualified success as demonstrated both through raw engagement statistics and survey data. Those who interacted with the program were substantially more likely to take pro-environmental behaviors around litter, going so far as to be three-times as likely to pick up litter, one-and-a-half times as likely to voice disapproval to their friends when they litter, and litter half as much. Whether those behaviors were directly the result of Be the Street or whether Be the Street managed to attract the environmentally minded, they came together to build a community where more than 5,300 Facebook fans produced more than 100 memes and 50 YouTube user-created videos that went on to be the PSAs of the program.

The core goals of Be the Street were achieved. Through innovative social media strategies, Bay Area youth were able to share beliefs, thoughts, and craft messages in their own words to take ownership of their communities and Be the Street. This messaging was shared peer-to-peer and those involved with the campaign were substantially more likely to take pro-environmental behaviors.

GOALS

Be the Street sought to change behavior. The overarching goal of the campaign was to develop and deliver a set of targeted messages that not only increased the audience’s awareness of trash as a pollutant but that also actually reduced their littering frequency. The campaign sought to walk the target audience up the path to behavior change by first raising awareness through a general advertising campaign, then producing engagement through innovative outreach strategies, and finally changing behaviors by delivering consistent and actionable messages.

In addition to changing the behaviors of Bay Area youth in the short term, Be the Street sought to maintain engagement with the target audience to continue providing pro-environmental messaging and

widen the net of interactions. Over time, this long term relationship would help the program grow Bay Area youth into environmentally minded adults, home owners, and community members.

STRATEGIES

Be the Street was built upon the principals of Community-Based Social Marketing (CBSM). CBSM recognizes that awareness of an issue is often not sufficient to initiate behavior change and so more is required than to simply provide people with information. CBSM uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers. Program elements like identifying specific, end-state actions for the target audience to take, the use of commitments and pledges, and peer-to-peer messaging are all CBSM tools that increase the likelihood of sustained behavior change.

The program began with an exhaustive study and literature review designed to get at who was littering and why they were doing it. The study identified five unique sub-populations distinct with respect to their attitudes, beliefs, general characteristics, and propensity to littering. Each group was segmented and strategies to target them were considered. If they could be targeted efficiently (thumbs up), they were a target for Be the Street. If not (a thumbs down), they would be targeted by their peers as the messaging they created flowed across their social media networks.



An overarching strategy was also to focus on the brand. It was unclear exactly what channels and resources Be the Street would need to achieve its goals, so the brand was developed to be dynamic, engaging, and flexible. A Facebook page had to feel tied to an Instagram page which had to fit in with a tabling held at a community event.

All strategies were aimed at promoting a social norm as the primary motivator in encouraging behavior change. For the identified target audiences, "fitting in" and "being cool" are prime motivators. By

establishing that littering is “something that kids do” and supporting that belief with a very visible network of peers all professing to be anti-litter, the social norm made picking up after yourself the mature, cool, and right thing to do.

TACTICS

The program contemplated many tactics at the outset of the program. For reasons discussed in Recommendation for Future Outreach, many of those tactics were ultimately cancelled as additional research and learning demonstrated them to be unsuccessful. However, seven key tasks operated as the core of the program. Each is discussed in turn. Numerical data on the results of the various tactics is included in the Engagement Data section.

- **Website.** The Be the Street website was originally contemplated as the hub of the program but was displaced by the activity that occurred on the Facebook page.
- **Facebook.** The Facebook page was the true core of the campaign. Content was added to the Facebook page daily and garnered over 11,000 engagements. Each time a fan liked or shared content produced on the Facebook page, that reach of that content increased as it was shared on the Facebook feed of the fan and exposed to non-fans. This was the strategy discussed above to target and reach the non-target audience members (the thumbs downs).
- **Instagram.** Closely linked to the Facebook page was a partner Instagram page. Content from Facebook was mirrored on Instagram and fans were redirected.
- **Photobooth events.** A mobile photo booth was created that allowed staff to attend local community events and engage the target audience by inviting them to take a picture in the booth. The picture was then hosted on Facebook and served to reinforce the social norm by demonstrating that local Bay Area youth really were engaged. This reduced the barrier of feeling vulnerable to publicly supporting environmental issues.
- **Video Contests.** Two major contests were conducted. The first was a video contest where users were asked to make their very own PSA. Fans were allowed to vote on which video they liked the best and the winning PSA was broadcast on television. The PSA, along with the other paid media elements, generated an estimated three million impressions. All of the videos were made available on the YouTube channel and have garnered more than 42,000 views to date.
- **Meme Contest.** The second major contest was a meme contest where fans were invited to create their own visual pro-environmental memes. The memes were hosted on Facebook and Instagram and once again served to reinforce the social norm. Fans promoted their own memes on their social networks to try and garner votes, further spreading the reach of the program.
- **Mobile App.** Created late in the project cycle, the mobile app sought to bring gamification to behavior change. Different levels, introduced by a comic strip, pitted challenges to the player that, when completed, earned them points they could use to purchase real world items such as In-n-Out Burger gift cards. Completing the challenges required the player to document and prove they undertook pro-environmental behaviors.

SURVEY ANALYSIS

PURPOSE AND OVERVIEW

The purpose of the follow-up survey was to assess littering behavior and perceived social norms among youth living in the Bay Area. The survey was designed to mirror the baseline survey conducted before the Be the Street program kicked off. Comparing the baseline with the follow-up survey, as well as comparing the results of the exposed versus the unexposed respondents, provides an indicator of the net impact of the Be the Street program.

In analyzing the survey results, findings were categorized into four general categories: Attitudes, Actions, Beliefs, and Willingness. These four categories afforded a retrospective look at how respondents felt (Attitudes) and what they did (Actions) and a prospective look at why they feel the way they do (Beliefs) and what they might do in the future (Willingness).

Throughout the survey findings, many questions were framed such as “When I see my friend littering, I _____ of their behavior.” Respondents were asked to reply with responses of ‘Strongly Disapprove,’ ‘Disapprove,’ ‘Somewhat Disapprove,’ ‘Neither Approve or Disapprove,’ ‘Somewhat Approve,’ ‘Approve,’ or ‘Strongly Approve.’ Results were recorded and the survey advanced to the next question.

SURVEY ADMINISTRATION AND METHODOLOGY

The follow-up survey was conducted during the summer of 2014 through two different collection methods. The first collection method was through Facebook which was the primary outreach vehicle for the program. The surveys collected via Facebook were classified as those “exposed” to the program. Additional surveys were collected through intercept and conducted face-to-face. These individuals had not interacted with the program and were the “unexposed” respondents in the following analysis. The alternate collection method was necessary as it would be impossible to collect a survey from an individual who had not interacted with the program through the program’s Facebook page.

The collection of surveys from those not exposed to the program provided a secondary data point to measure impact of the program in addition to the baseline survey conducted in 2011. This secondary data point served to further demonstrate the impact of the program and address structural differences between the administration of the baseline and follow-up surveys.

The follow-up survey was designed to mirror the baseline survey to ensure data comparability. Although the questions mirrored the prior survey, the collection methods differed. The 2011 survey was made available online and respondents were driven to the survey through a partnership made with schools within the BASMAA region. Some schools provided students with extra credit to complete the survey, potentially biasing the collection sample. Conversely, the follow-up survey was collected as described above, both promoted on the campaign Facebook page and collected in person.

A secondary difference between the baseline and follow-up survey is the sample size. A total of 353 completed surveys were submitted for the baseline survey. The follow-up survey sample size is 60. Although this sample size is substantially smaller, the data remains comparable at a 95% confidence interval with a margin of error of approximately 0.5 points to each Likert Scale response. That means, in interpreting the answers the margin of error allows for roughly half-a-step on the spectrum of results. Despite the small sample size, the pronounced differences between the exposed and unexposed populations (often two- to three-times more likely to undertake the desired behavior or on opposite sides of the spectrum) are substantially larger than the margin of error.

Finally, throughout this analysis the core comparisons made are between the exposed and unexposed collected in the follow-up survey. However, it should be pointed out that the unexposed and the baseline survey trend in the same direction. This further supports the accuracy of the survey findings and reinforces the comparison of the two surveys.

Only respondents who fit the target demographic of the program, 14-24 years of age and living in Bay Area zip codes, were included in the analysis. The survey assessed littering behavior, contextual factors

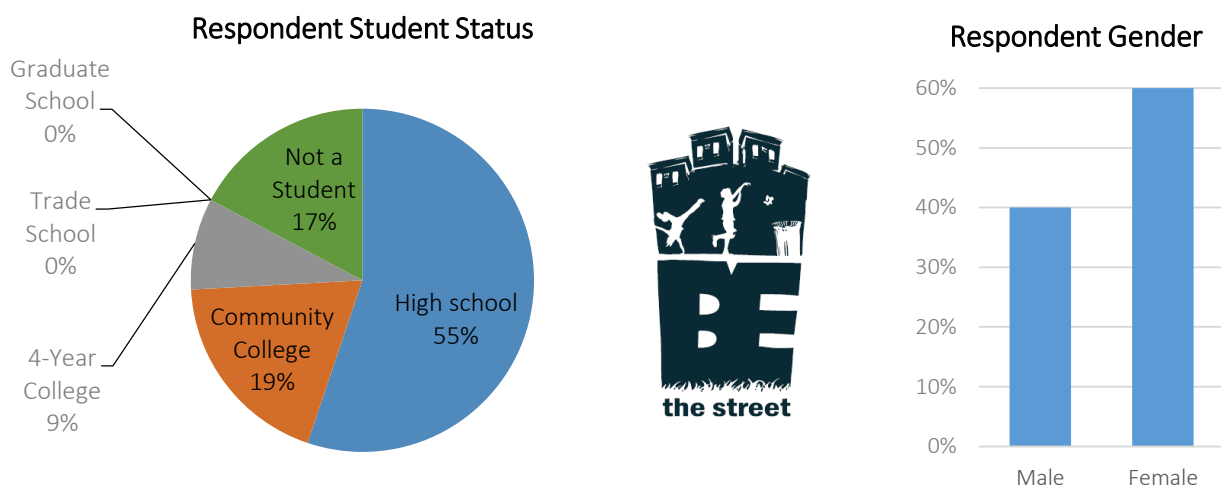
related to littering, peer-to-peer interactions about littering, and willingness to participate in volunteer activities.

DEMOGRAPHICS

A total of 60 respondents met the administrative criteria to be included in the survey results as respondents. The sample included more females (60%) than males (40%) but did not deliberately target any gender. Surprisingly, this 60/40 ratio was the same ratio achieved by the 2011 survey despite that survey also not targeting a specific gender.

The mean age of respondents was approximately 17 years of age ($SD = 2.52$) with the majority identifying as high school students (55%). The remaining respondents were community college students (19%), 4-year college students (9%), or not enrolled in school (17%). No respondents reported being in graduate school or trade school. These findings are reported in **Figure 1**.

Figure 1. Demographic characteristics of sample (N=60).



ATTITUDES

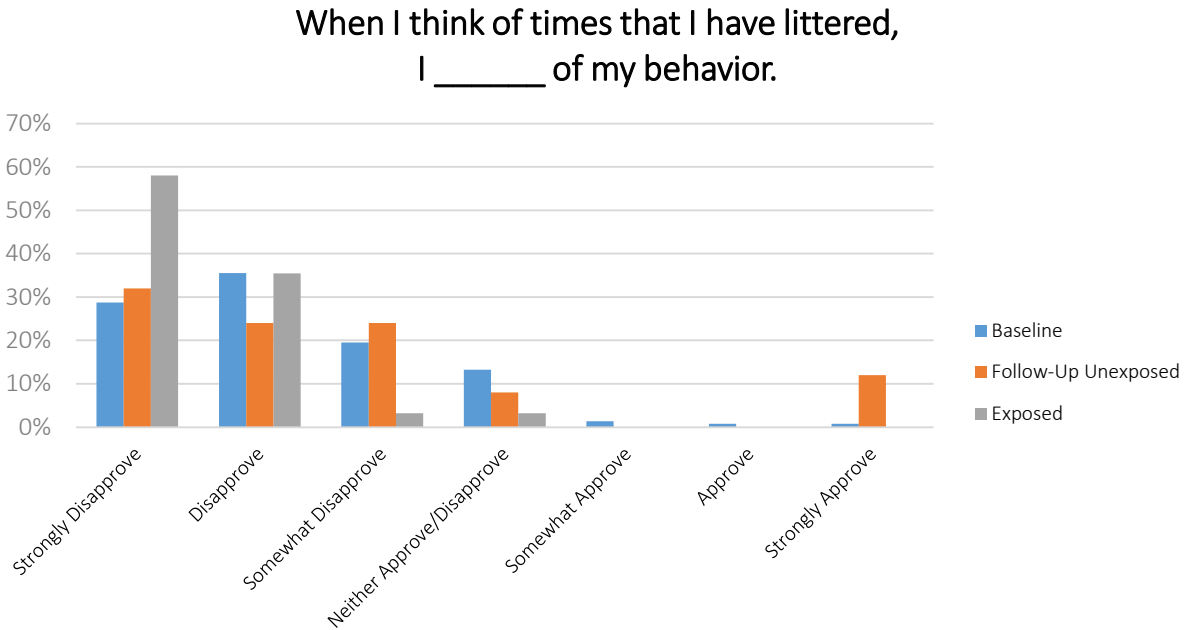
The first analysis category was to evaluate respondents' attitudes. These questions tended to be retrospective in nature and ask the respondent to consider a time when something happened in the past.

Personal Littering

Respondents were asked, "When I think of times that I have littered, I _____ of my behavior." Exposed respondents (58%) were substantially more likely to 'strongly disapprove' of their own littering than either the baseline (29%) or the unexposed (32%). More than 94% of exposed respondents reported disapproval when expanded to include 'strongly disapprove' and 'disapprove,' as compared to 64% of baseline and 56% of unexposed respondents.

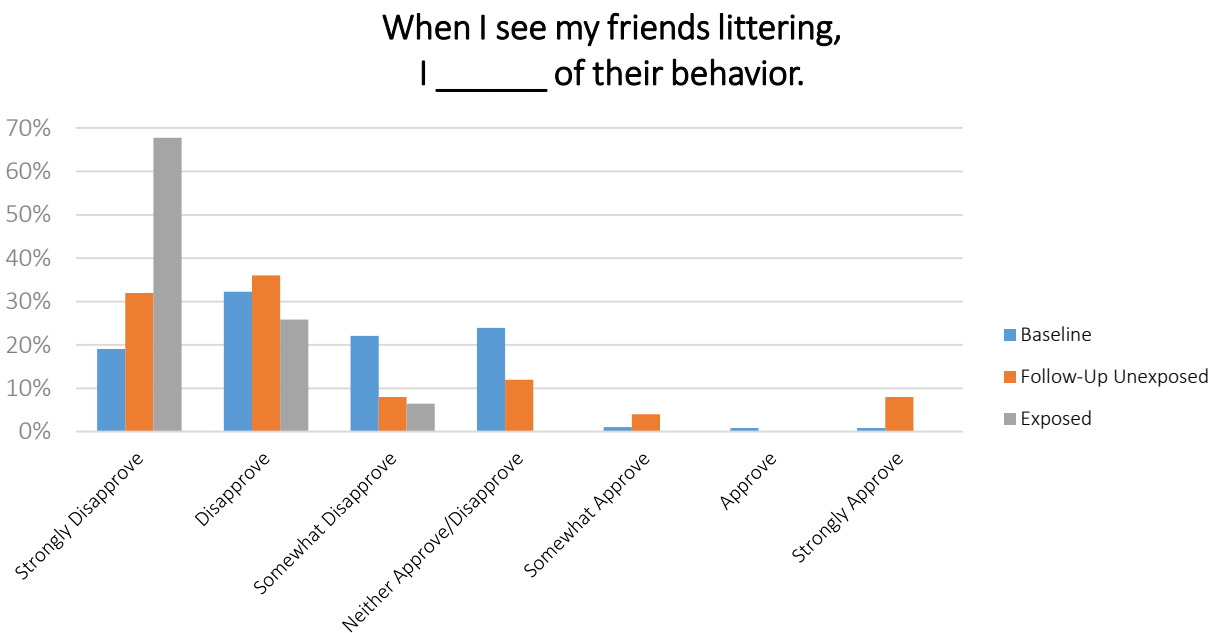
The analysis also shows a correlation between the baseline and unexposed respondents, reinforcing the significance of the change demonstrated in the exposed respondents as impact of the Be the Street program. These findings are reported in **Figure 2**.

Figure 2. Respondent Attitude towards personal littering (N=60).



The findings of respondents’ attitudes to their personal littering closely mirrored their attitudes of their friends’ littering. Exposed respondents expressed even greater disapproval of their friends’ littering with every exposed respondent reporting some level of disapproval. More than 93% of exposed respondents reported they would ‘strongly disapprove’ or ‘disapprove’ as compared to 51% of the baseline and 68% of unexposed respondents. These findings are reported in **Figure 3**.

Figure 3. Respondent Attitude towards littering by friends (N=60).



ACTIONS

The survey demonstrated that respondents exposed to the Be the Street campaign were clearly more likely to take pro-environmental behaviors and were substantially less likely to litter than those unexposed to the campaign. The relationship that exposure to the Be the Street campaign correlated with preferred behaviors held true in all 10 action categories surveyed.

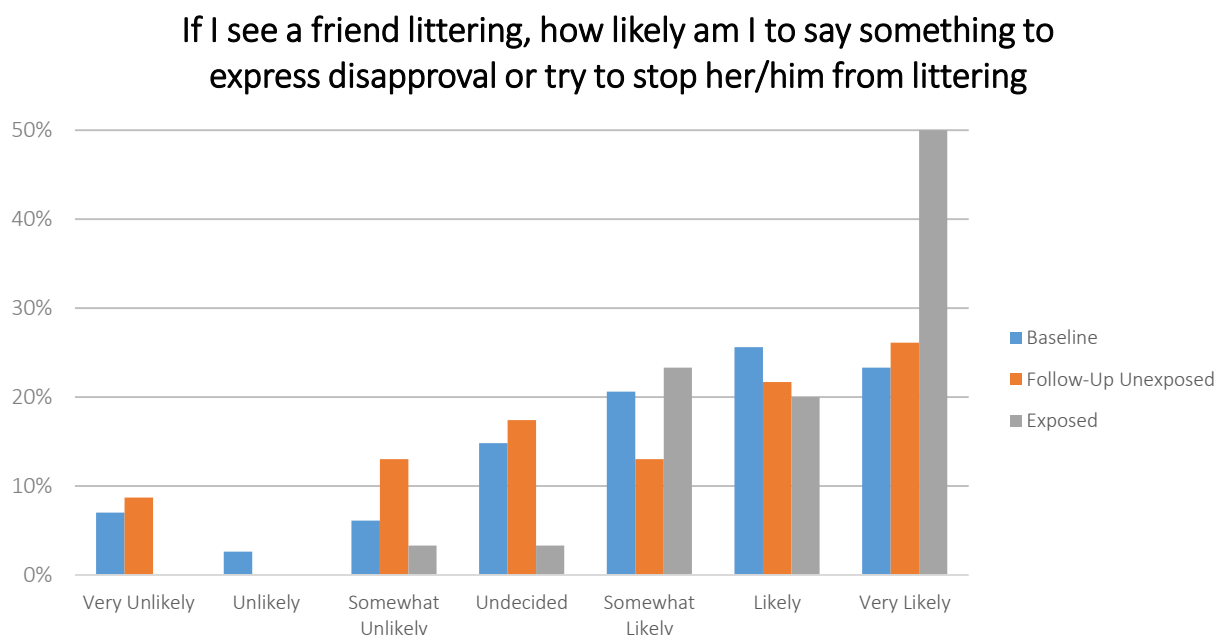
In placing these findings in context, it is important to identify that the unexposed reported finding environmental issues important at roughly equal rates. Fully 81% of unexposed respondents responded “somewhat agree” or higher when asked to respond to the statement “Environmental issues are important to me.” Those exposed to the program answered the same at 88%.

Following on asking the respondent about their attitudes towards the littering of their peers, the survey sought to ask if they would express disapproval to a friend that they observed littering. Encouraging others to adopt pro-environmental behaviors through expressing disapproval of littering is the ideal goal of any outreach campaign.

Exposed respondents were one-and-a-half times more likely than unexposed and baseline respondents to voice disapproval. More than 70% of exposed respondents reported that they were ‘very likely’ or ‘likely’ to voice disapproval when their friends litter while only 49% of baseline and 48% of unexposed respondents reported the same.

Only 3% of exposed respondents said they would be unlikely to speak up (and only ‘somewhat unlikely,’ at that) while 16% of baseline and 22% of unexposed respondents would be unlikely to express disapproval. Exposed respondents were 5-7x more likely to become advocates of pro-environmental behaviors. These findings are reported in **Figure 4**.

Figure 4. Respondent likelihood to express disapproval of peer littering (N=60).



Respondents were also asked a series of 10 action questions. These questions followed the format of “In the past month, how often have you littered _____.” In every instance, respondents who were exposed to the campaign were more or substantially more likely to report “Never” as shown in the following table.

Object of Litter	Exposed (N = 30)	Unexposed (N = 25)	Net Change
Food	90% never	48% never	+32%
Chewing gum	80% never	72% never	+8%
Bottles, Cans, Cups, or Cartons	83% never	44% never	+39%
Straws	60% never	44% never	+16%
Bottle Caps	83% never	68% never	+15%
Disposable utensils	90% never	84% never	+6%
Food packaging	60% never	48% never	+12%
Non-food items	90% never	60% never	+30%
Plastic or paper bags	90% never	76% never	+14%
Cigarette butts	70% never	68% never	+2%

Respondents were also asked a similar series of questions around what sort of events or context led to littering. Once again, those respondents exposed to the campaign were less likely to litter in all contexts. The questions was asked in the format of “People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situations: _____.”

Context or Event	Exposed (N = 31)	Unexposed (N = 25)	Net Change
Prior to or after eating/drinking	61% never	44% never	+17%
In a vehicle	71% never	48% never	+23%
At school	71% never	48% never	+23%
While putting out a cigarette	61% never	52% never	+9%
At home	93% never	60% never	+31%
At work	81% never	60% never	+21%

In addition, respondents were asked how many times in the past month they had picked up a piece of litter that was not their own and properly disposed of it. Those unexposed to the campaign were 8x more likely to reply “Never” at 24% as compared to only 3% of exposed. In addition, fully 94% of those exposed to the campaign reported picking up someone else’s litter at least a few times per week as compared to only 28% of unexposed. That is, those exposed to the campaign reported actively picking up after others at rates nearly 4x greater than those unexposed.

BELIEFS

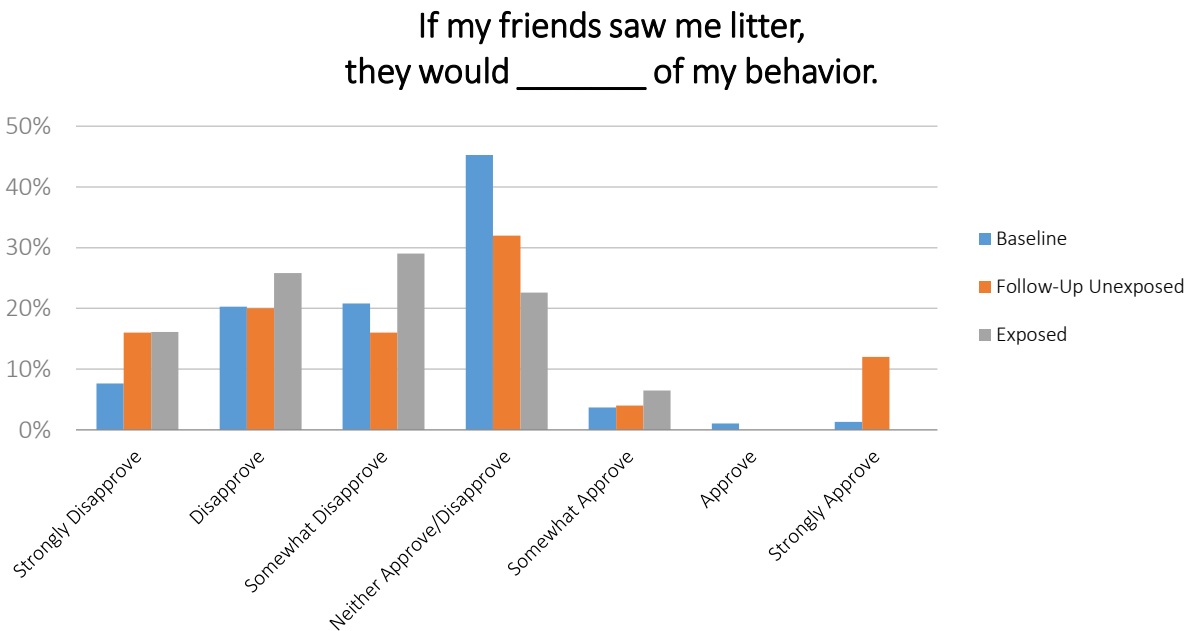
The survey also sought to gauge respondents’ beliefs around littering and environmental behaviors. Understanding respondents’ beliefs helps provide insight into how they are likely to behave in the future.

Perception of Peer Perception

Respondents were asked, “If my friends saw me litter, they would _____ of my behavior.” Exposed respondents (71%) were more likely to believe their friends would disapprove of seeing them litter than baseline (48%) or unexposed respondents (52%).

Surprisingly, the rates of approval and disapproval bear little similarity to the results reported in **Figure 3** demonstrating the respondents’ perception of their friend littering. This suggests that respondents do not belong to peer groups with substantial mutuality of beliefs—that is, if an individual disapproves of their friends littering, we would anticipate that their friend would similarly disapprove of their littering. However, respondents tended to weight their own conviction much higher (‘strongly disapprove’) and their peers’ convictions much weaker (‘somewhat disapprove’). These findings are reported in **Figure 5**.

Figure 5. Respondent likelihood to express disapproval of peer littering (N=60).



Importance of Environmental Issues

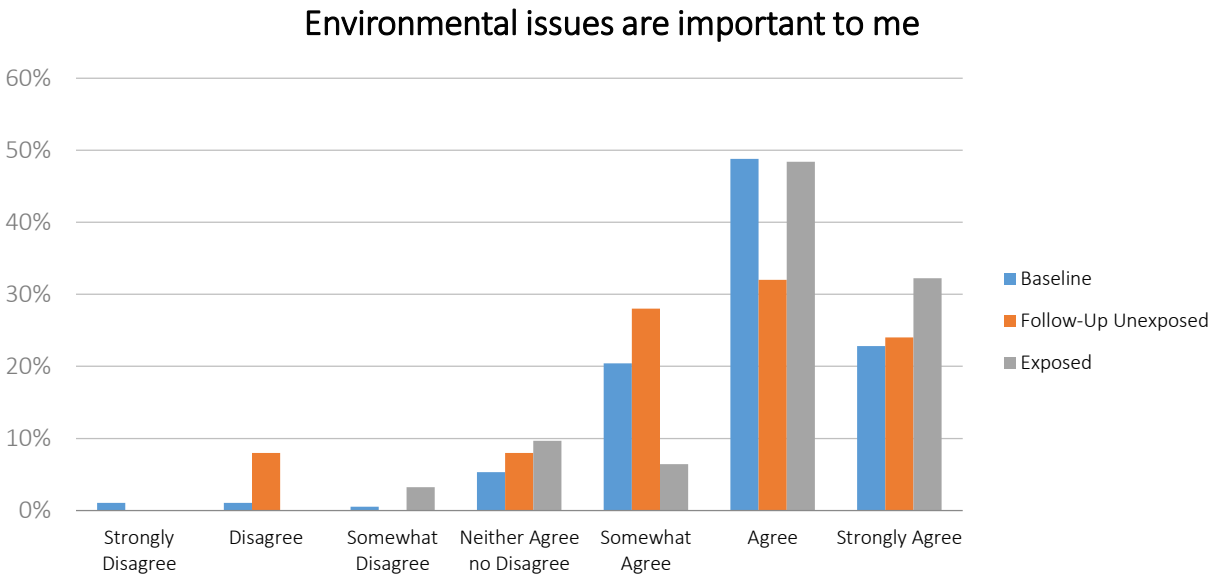
Respondents were asked to respond to the statement, “Environmental issues are important to me.” Exposed respondents (32%) were more likely to report that they ‘strongly agree’ than either baseline (23%) or unexposed respondents (24%). In addition, exposed respondents (81%) were more likely to agree in general (‘strongly agree’ and ‘agree’) than baseline (71%) or unexposed respondents (56%). However, when broadened to ‘somewhat agree’ or higher the relationships leveled out.

Being exposed to the Be the Street program increased both the likelihood and the conviction of the belief that environmental issues were important to the respondent. It should be noted, however, that it cannot be said with certainty that exposure to Be the Street caused the belief to be held in all persons. It is possible that Be the Street attracted fans and respondents who already held these beliefs. If that were demonstrated to be true, then Be the Street’s core value with regards to those individuals who already held pro-environmental beliefs would be the program’s ability to capture, engage, and retain those individuals while putting them into contact with like-minded peers and allowing them to advocates to others. These fans then become a key component of demonstrating the social norm, allowing the campaign to reach more fans, and helping those newer fans to adopt the same beliefs which have been shown to lead to pro-environmental behaviors and actions.

The results of the question that environmental issues are important to the respondent most closely resemble the results (albeit reversed) presented in **Figure 2** and **Figure 3**. **Figure 2**, asking for the

respondent's attitude toward their own past littering, and **Figure 3**, asking for the respondent's attitude toward the littering of their peers, appear to be closely linked to the respondent's belief that they hold environmental issues as important. These findings are reported in **Figure 6**.

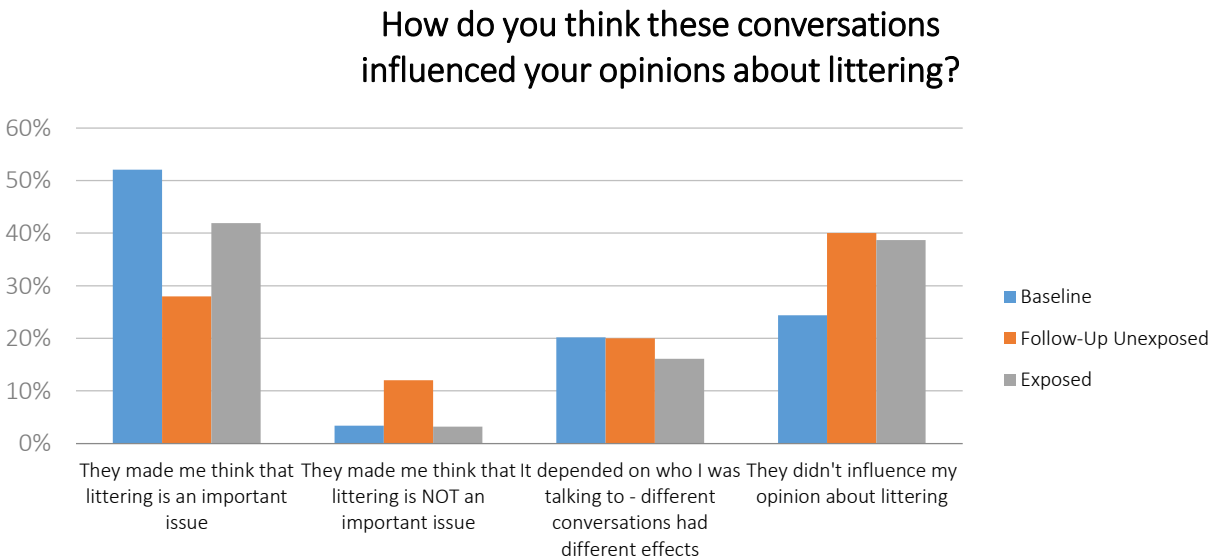
Figure 6. Respondent's belief that environmental issues are important (N=60).



Impact of Conversations on Importance of Littering

One of the goals of the Be the Street campaign was to encourage and promote peer-to-peer interactions regarding littering. At the end of the survey, respondents were asked to assess the frequency with which they had conversations about littering and the impact of those conversations on their views of littering. There was not a substantial difference between groups in how conversations impacted belief. These findings are reported in **Figure 7**.

Figure 7. Respondent's belief on the impact of discussing littering with peers (N=60).



WILLINGNESS

The final category of questions investigated in this analysis revolved around asking the respondent to consider their willingness or likelihood of taking some future action. These questions helped place into context the respondent's current attitudes towards littering behavior, but also provided insights in how future outreach efforts could be shaped to utilize that willingness.

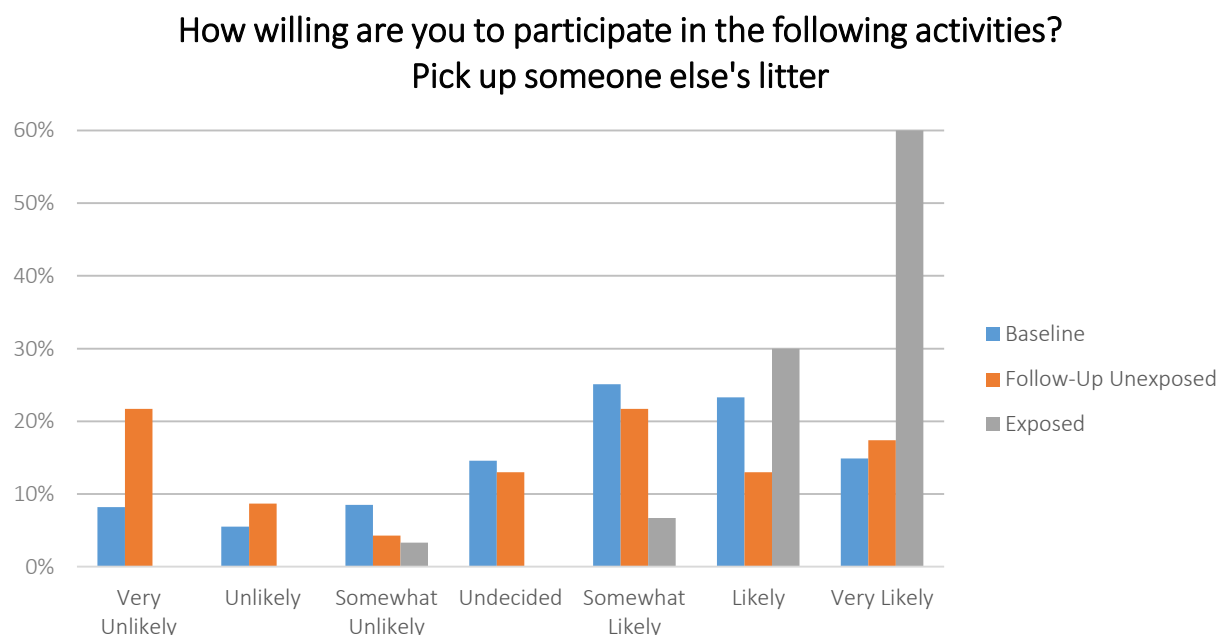
Willingness to Pick up Someone Else's Litter

Respondents were asked how willing they would be to pick up someone else's litter they observed on the ground. More than 90% of exposed respondents reported that they were 'very likely' or 'likely' to pick up someone else's litter while only 38% of baseline and 30% of unexposed respondents reported the same.

The results at the other end of the spectrum are even more pronounced. While 22% of baseline and 35% of unexposed respondents reported that they would be some level of unlikely to pick up someone else's trash, only 3% of exposed reported any unwillingness and that percentage was only 'somewhat unlikely.'

Finally, while 15% of baseline and 13% unexposed were undecided on whether or not they would be willing to pick up someone else's litter, no exposed were undecided. Engagement with Be the Street demonstrates a marked increase in decisiveness of the respondent and a marked increase in willingness to be proactive in cleaning up the streets. These findings are reported in **Figure 8**.

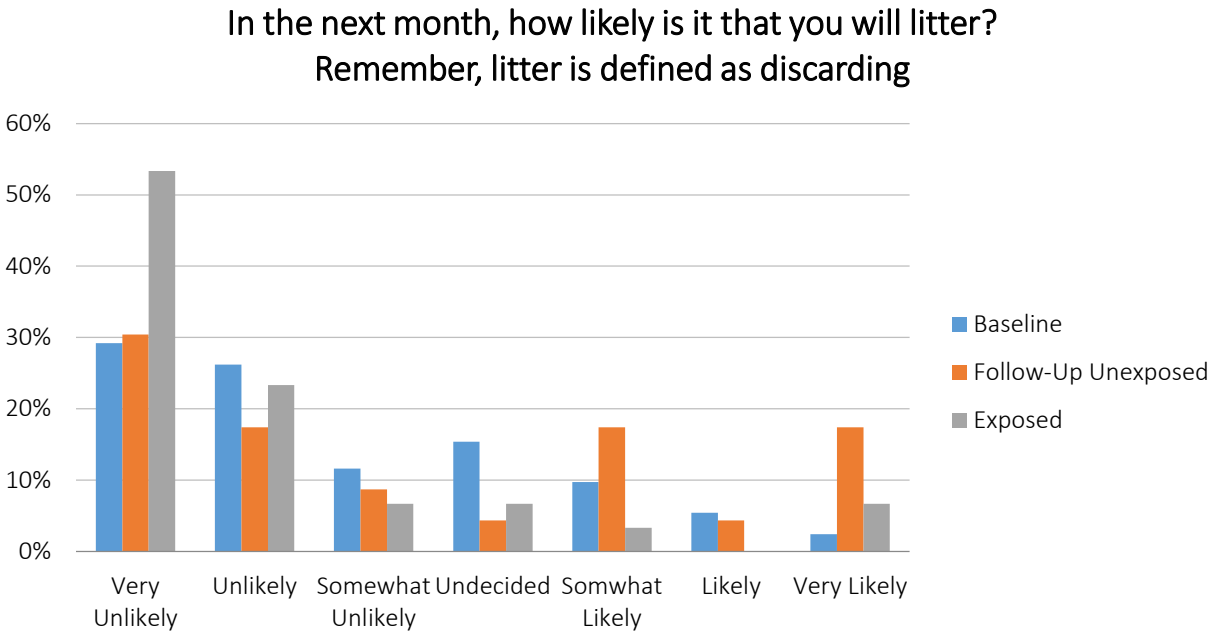
Figure 8. Respondent's willingness to pick up someone else's litter (N=60).



Likelihood to Litter

Respondents were also asked about the likelihood that they would litter in the future. Only 10% of exposed reported any willingness to litter in the future while 18% of baseline and 39% of unexposed reported the same. Respondents exposed to the Be the Street program were two to four times less likely to litter in the future than those who were not exposed. These findings are reported in **Figure 9**.

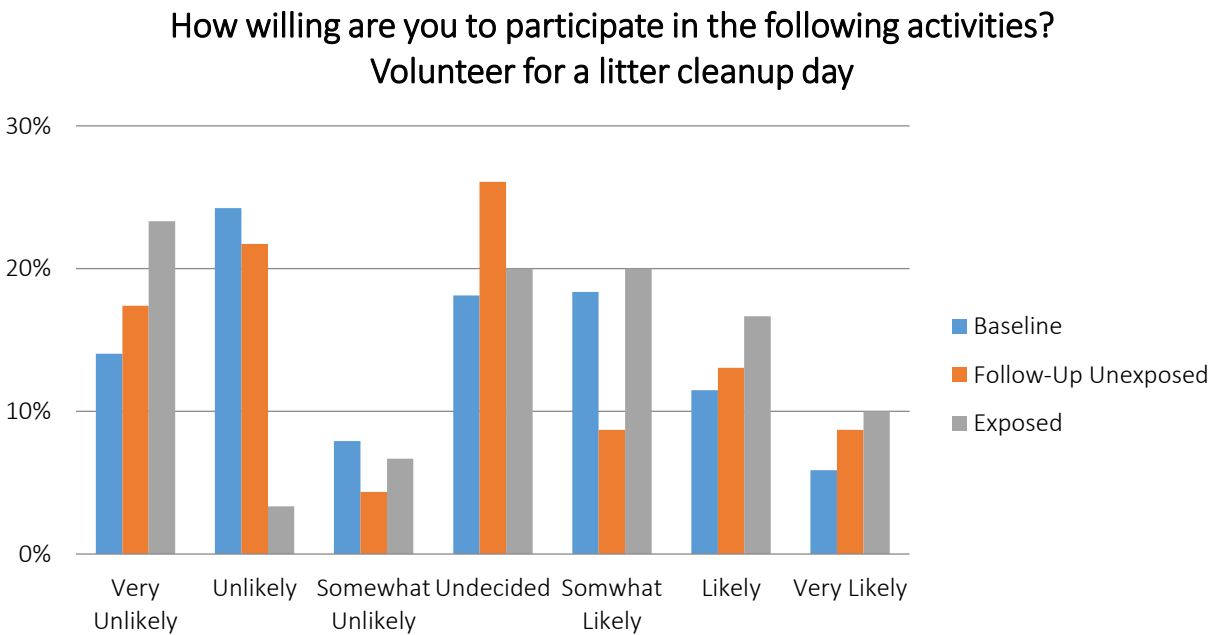
Figure 9. Respondent’s willingness to litter in the future (N=60).



Willingness to Volunteer

Respondents were finally asked about their willingness to volunteer for a litter cleanup day. Exposed respondents (47%) were roughly one-and-a-half times more likely to be willing to volunteer than baseline (36%) or unexposed respondents (30%). However, exposed respondents also reported the highest ‘very unlikely’ response at 23%. These findings are reported in **Figure 10**.

Figure 10. Respondent’s willingness to participate in volunteer cleanups (N=60).



ENGAGEMENT DATA

In addition to the statistical differences demonstrated above, the Be the Street program has significant levels of engagement. The levels of engagement demonstrated by Be the Street are unparalleled by any other public education outreach program.

Highlights include:

- **Facebook.** More than 11,000 engagements including 5,475 current likes. In the two years since its creation, the Be the Street page has achieved 150% the likes of the similarly situated SF Environment Facebook page. The Facebook engagement far exceeded the initial goals and this success was due in large part to it being placed as the strategic heart of the campaign.
- **Meme Contest.** The program initiated a meme contest in early 2014 that took place on Facebook. The meme contest asked the target audience to develop visual jokes or memes with pro-environmental messaging. A total of 104 user memes (from a goal of 100) were created and entered into a contest. More than 683 votes were cast and thousands of views and referrals were driven to the Facebook page as users promoted their memes to their friends and social networks.
- **Instagram.** More than 1,626 interactions with fans and 113 followers across 185 posts. Of all of the outreach channels used, Instagram proved the most successful in encouraging peer-to-peer conversations. While many Facebook posts received comments, Instagram was the channel most likely to develop long, sustained conversations between fans.
- **YouTube.** A total of 56 videos published on the Be the Street YouTube channel including 52 fan-submitted videos for the anti-litter video contest. This competition received more than 4,800 votes cast and had 593 unique views of the 25-minute awards show. At the conclusion of the video competition, the channel had received a total of nearly 16,000 views. Since then, total views on the channel have risen to more than 42,000, a 260% increase. The channel has 38 subscribers.
- **Mobile app.** A first of its kind, recently completed mobile app allows Be the Street to make direct asks of the target audience through gamification. The mobile app has users complete challenges by going “into the field” and taking pictures of various BMPs. These photos earn the users points which they can use to secure prizes from the app store. In addition, the mobile app allows the program to use push notifications to send messages, new challenges, and notifications directly to the users. The program had a goal to achieve 100 active players but to date the app only has 47. This shortfall is attributed to development of the app taking longer than anticipated leaving an insufficient amount of time for promotion.
- **Photo booths.** The program developed a mobile photo booth that could be sent out to community events and allow fans to take pictures that were shared on Facebook. More than 750 photos were taken and shared on Facebook. The photos reinforced the social norm aspect of the campaign and literally “put a face to the campaign.”
- **Website.** The Be the Street website was recently updated to a fully responsive, mobile-friendly platform. The website has received more than 40,000 page views despite not being a key platform for communication with the target audience (i.e. traffic was predominantly driven to Facebook and Instagram).
- **Media Purchase.** BASMAA and the Permittees’ ongoing efforts to promote and raise awareness around for the campaign led to an estimated three million impressions.

RECOMMENDATIONS FOR FUTURE OUTREACH

Several key findings from the program shape recommendations for future outreach. The first set of findings discuss early program initiatives that were ultimately dropped or cancelled and speculate as to why those initiatives may not have succeeded. The second set of findings discuss successes on the program and explores what made them succeed.

UNSUCCESSFUL PROGRAM INITIATIVES

Four unsuccessful program initiatives are discussed in turn.

Youth Resource Council

A key goal of the program was to promote peer-to-peer communication and ensure that Bay Area youth were well represented throughout the program. To that end, the program sought to develop a Youth Resource Council to assist in implementation of the program. The thought was that by giving Bay Area youth a larger and legitimate role in shaping Be the Street, the program would not only be improved but buy-in would increase. As an added benefit, it would free up program resources to be used elsewhere.

The Youth Resource Council was ultimately disbanded because it proved too costly to support in terms of time commitment. Identifying the right champions, training them up to understand the issues and the program, and then collecting their feedback took considerable time. Unfortunately, by the time that cycle was completed, the students on the Youth Resource Council would depart due to other obligations, graduation, or the school year would end. Achieving a sustained payout after an initial training period was structurally impossible.

In addition, the geographic distance of a countywide program introduced challenges. The value of a Youth Resource Council was in their ability to meet, talk, and share ideas. Transportation made this difficult to achieve countywide representation.

ENewsletter

The program originally envisioned an eNewsletter. From the literature review, it was already known that email is a less popular channel for youth and so the eNewsletter was planned as a secondary mode of communication. It was quickly discovered that young people were unenthusiastic about signing up today for emails that they would receive over the coming weeks or months, preferring more immediate feedback such as that they get through social media where clicking “Like” immediately tells my social network something about me.

Website Blog

The campaign’s website was originally envisioned as the hub of the program. As traffic grew, the website was to develop a blog that would eventually host fan created content and more robust environmental messaging. Three structural changes to the program lead to this being cancelled. First, Facebook emerged as the hub of the program and the website received relatively low traffic. Second, as with the Youth Resource Council, the investment required to secure the content failed to justify the expense. Third, as with the eNewsletter, youth preferred a more immediate (and short) set of interactions and did not react favorably to a blog.

Bay Area Youth Database

A second early project was to develop a database of Bay Area youth that would grow into a pool of data that BASMAA could draw upon to conduct analyses, send out emails to activate for local events, and track

so that engagement could be built upon. Originally, this was viewed as a “value add” that could be easily developed just through the routine administration of the campaign. As the role of email was reduced, the collection of emails and information became more challenging. The data that could be collected (e.g. interaction data through Facebook and other social media) was already being collected by those platforms.

SUCCESSFUL PROGRAM INITIATIVES

Facebook emerged as the most powerful tool for youth oriented public education outreach. Facebook allowed the message to be delivered to the target audience at a time and in a way that was most convenient for them. It made the messaging extremely social and helped rapidly promote the social norm. Every Bay Area youth that visited the page was shown that more than 5,000 of their peers had already checked the place out and approved.

However, it was important to use the right tool for the job. Facebook was a powerful platform for sharing content (admittedly, that’s what Facebook is intended to do), but a less powerful platform to get the target audience to take action (admittedly, Facebook is often used to “kill time,” not to find an activity to undertake). For example, many of the memes were created at community events when staff directly engaged Bay Area youth and told them about the meme contest. Once created, though, the meme creators were eager to engage on Facebook, promote the campaign to their friends, and “like” or vote on their favorites.

The two outreach modes supported each other. Localized community events generated deep engagement with the target audience which could then be translated into a willingness to “lightly” engage with the campaign via Facebook. Engaged fans were willing to view and share content on Facebook, but Facebook alone likely wasn’t enough to get them to change behavior. Despite that, their light engagement on Facebook helped promote the campaign, support the social norm, and allowed the program to more readily reach and activate them for community events.

In addition to better understanding how to use the various tools of the program, a number of key insights emerged around what type of messaging best resonated with the target audience:

- **Short.** Short, direct messages worked better than longer messages. For simple concepts such as “don’t litter” this was not an issue, but could present a challenge for how to deliver more complex information.
- **Food.** The target audience reacts strongly to food. Images of In-n-Out Burger had immediate and positive reactions.
- **Inspirational.** Somewhat surprisingly, the target audience reacted very strongly to inspirational content. Optimistic messages about the future and a belief that anything is possible resonate with Bay Area youth.

SPECIFIC RECOMMENDATIONS FOR FUTURE OUTREACH

- **Length of the relationship is important.** The Facebook community grew at an exponential rate. It is easier to get fans once you already have fans, both because new visitors to the page are more likely to trust an established program and because of the underlying algorithms used by social media to determine what content to display. Be the Street is well positioned as a topic-neutral environmental brand and so could carry with it the community from one pollutant to another. The Be the Street branding that worked for a litter abatement campaign is equally applicable to any youth-oriented environmental program.

- **Numbers show the social norm, not the behavior change.** Demonstrating behavior change remains a challenge. The target audience was eager and willing to engage on social media, lend their name and voice to the movement, and click buttons. They were reluctant, though, to take the very substantial next step and document themselves undertaking a desired behavior. During community events where the audience interacted with staff, they were less reluctant to take that additional step and document their actions. Future outreach should not seek to achieve documented behavior change through social media platforms or should consider what types of behavior changes can be reasonably solicited through social media. Community events should be utilized to achieve documented behavior changes.

CONCLUSION

The Be the Street program had a simple and direct goal: to change the attitudes and behaviors about littering of the target population. Be the Street was effective in achieving its goal, routinely demonstrating differences in key attitudes and behaviors upwards of 200% compared to the population baseline. Those differences were often the most pronounced in key categories such as likelihood to litter in the future, willingness to engage others to promote pro-environmental behaviors, and willingness to become environmental stewards and pick up the litter of others.

Throughout the analysis, the results of the baseline survey (conducted before the start of the Be the Street program) and the unexposed respondents included in the follow-up survey followed similar patterns. These patterns further validate the important differences demonstrated by the respondents exposed to the program.

The success of the program was due in large part to the scale of the undertaking. As a regional outreach program, the target audience was of a sufficient size that critical mass could be achieved. Through social media, the “likes” of thousands of similarly situated youth vouched for the program and helped it spread. When supported by local in-person events, a robust community was developed capable of engaging both online and offline with the end result of a true peer-to-peer network sharing environmental messages in their own words.

APPENDIX

The appendix contains the following items:

1. Be the Street infographic created to promote the program.
2. Baseline Survey Report
3. Baseline Survey Topline Data
4. Sample Survey
5. Follow-up Survey Topline Data
6. Be the Street User Guide – the style guide created to be shared with partners to help them consistently promote the brand
7. Be the Street CASQA Award Submission – the application submitted to CASQA the resulted in Be the Street being recognized as the 2014 Outstanding Stormwater News, Information, Outreach, and Media Award.

THIS IS THE STORY OF GETTING PEOPLE TO CARE AND GETTING THEM TO TALK ABOUT LITTERING WITHOUT THEM KNOWING IT

BE THE STREET WAS ABOUT COMING TO OUR AUDIENCE OF 14-24 YEAR OLDS AT THEIR LEVEL, RATHER THAN OURS. BETWEEN OUR LAUNCH IN APRIL 2012 AND JUNE 2014, WE CREATED A COMMUNITY OF REAL TEENAGERS AND YOUNG ADULTS WHO NOT ONLY RECEIVED OUR MESSAGING, BUT CREATED IT. IN A LITTLE MORE THAN TWO YEARS, WE GOT A LOT DONE:

{40,000+}
YOU TUBE VIEWS

{11,000}
LIKES, COMMENTS AND SHARES

{104}
USER CREATED MEMES

{HUNDREDS}
OF PICTURES OF OUR AUDIENCE DOING THE RIGHT THING THROUGH OUR VIDEO GAME APP—AVAILABLE AT WWW.BETHESTREET.ORG

{3,000,000+}
VIRAL REACH

{52}
USER CREATED VIDEO PSAS

{5,500}
FANS ON FACEBOOK AND INSTAGRAM



ABOVE ALL ELSE, A NEW BRAND FOCUSING ON IDENTITY, COMMUNITY AND ACTIVITY RATHER THAN STORMWATER, GOVERNMENT AND ANTI-POLLUTION. THIS IS WHAT OUR AUDIENCE WANTED, AND THEY HAVE REACTED TO IT UNLIKE ANY OTHER STORMWATER PUBLIC EDUCATION PROGRAM.



BASMAA Baseline Evaluation Report

August 14

2012

This report describes littering behavior and predictors of littering among youth in the Bay Area region.

1. Executive Summary

The goal of this project was to assess and describe littering behavior and perceived social norms related to littering among youth living in the Bay Area. The data collected stand alone to characterize Bay Area youth, and also will serve as a baseline against which data from a future follow-up survey will be compared following outreach campaign implementation.

A 5-minute online survey was made available in Spring 2012. The survey assessed littering behavior, contextual factors related to littering, peer-to-peer interactions about to littering, and willingness to participate in various campaign activities (e.g., art contest). Recruitment for the survey included outreach to Bay Area high schools and colleges, and placement of an ad on the social networking website www.Facebook.com.

A total of 353 individuals were eligible for inclusion in the sample based on age (14-24 years) and residence (provided zip code that was within the BASMAA region). The sample was 60% female, had a mean age of 17 years, and almost all respondents were in high school. Select results are highlighted below.

- 86% of respondents reported littering at least one item in the past month
- The items littered by the most respondents in the past month included chewing gum (littered by 52% of respondents in the past month), food waste (41%), and food or beverage-related packaging (40%).
- The items littered by the fewest respondents in the past month were cigarette butts, (littered by 7% of respondents in the past month), disposable utensils (14%), and bottle caps (21%).
- Among those who littered an item at least once in the past month, frequent littering varied considerably by trash item: littering items at least once per week ranged from 35% for beverage containers to 43% for chewing gum to 74% for cigarette butts.
- Littering at school was more common relative to other settings: 25%, 10%, and 7% of respondents littered at least sometimes at school, at home, and at work, respectively.
- The vast majority of the sample (91%) indicated that trash/recycling can placement deterred them from littering. Additionally, 71% of respondents stated that feelings of guilt discouraged them from littering.
- 88% of respondents indicated that they picked up trash that was not their own at least once in the past month.
- Respondents rated their likelihood of littering in the next month on a 7-point likert¹ scale ranging from (1) Very unlikely - (7) Very Likely. The mean score was 2.79 (SD=1.67), meaning that on average, respondents intended not to litter.
- Respondents also rated their likelihood of participating in a number of activities related to the campaign. The activity that most respondents were at least somewhat likely to do was expressing disapproval if s/he saw a friend littering: 69% of respondents reported they were at least somewhat likely to do so. Additionally, 62% of respondents were at least somewhat

likely to pick up litter that was not their own, and 40% were at least somewhat likely to participate in a litter cleanup day.

- Results of regression analyses indicated that females and those who had stronger disapproval ratings of their own and their friends' littering behavior had significantly greater likelihood of several prosocial things (e.g., express disapproval of friends' littering, not littering)

2. Introduction

The goal of the Bay Area Stormwater Management Agencies Association (BASMA) anti-litter campaign was to reduce littering, promote peer-to-peer interaction regarding littering, and raise awareness of pollution related to the audience found to be most often littering, namely, 14-24 year olds. As part of this campaign, a branding concept called Be The Street was developed. This brand had a youthful look and feel in an effort to reach and connect with teenagers and young adults. Under this brand, the state of the "street" is a reflection of the youth who use it. By exploring problems and solution related to community and environmental issues, street-by-street, participants are rewarded with the pride, and the fun, of having created the kind of "street" they have always wanted to live on. Be The Street also leverages social norms by empowering youth as the "voice" of community betterment related to litter, encouraging youth-to-youth contact regarding littering. Prior to implementation of any campaign activities, a survey was created and administered to youth to assess baseline levels of littering and potentially important items of interest related to littering.

Purpose

The goal of the baseline survey was to describe littering behavior and perceived social norms among youth living in the Bay Area. This survey was designed to serve as a baseline against which data from a follow-up survey will be compared following outreach campaign implementation.

3. Methods

Materials

A survey was constructed to assess littering behavior, situational predictors of littering, peer-to-peer interactions related to littering, and willingness to participate in various campaign activities (e.g., art contest). The survey also collected information on demographics and technology use to be used in targeting campaign outreach efforts. The survey was available online via secure online survey administration tool Qualtrics. It was in English only and is available in Appendix A.

Procedures

Potential participants could access the survey 24 hours per day, 7 days per week from January through March 2012. It took approximately five minutes to complete.

Recruitment

Participants were recruited by reaching out to schools within the BASMAA region via phone and email. Specifically, administrators and faculty at high schools and colleges in the counties of Alameda, San Mateo, Vallejo, Santa Clara, and Fairfield-Suisun were contacted and asked to encourage their students to participate in the survey. Towards the end of the recruitment period,

environmental science teachers were targeted as they tended to be more willing to help with the project than others; many of these teachers also agreed to distribute surveys to all of their classes to reduce sample bias. These locations were selected because they fall within the areas that participate in BASMAA.

Initial calls were made to the schools; these were followed-up with an email that recapped the above information, the link to the survey, and a flyer (attached in Appendix B). School faculty and staff were told that BASMAA was working on an anti-littering campaign geared towards youth that leveraged youth as leaders of their communities. They were also informed that a video contest was included as part of the campaign and that the winning video would be aired on television. They were instructed not to inform students that the survey was related to littering in order to minimize bias, and were offered a script to assist in describing the survey to students. The script is available in Appendix C. If schools agreed to participate, they were followed up with 1-2 weeks later if no survey responses from their schools had been added to the database.

No incentives were offered to the schools themselves for distributing survey. However, some schools offered extra credit to students that could be applied towards courses for participation, but most distributed the survey without an incentive.

Additionally, an advertisement on social networking website www.Facebook.com was placed, targeting youth aged 14-24 living in the counties of Santa Clara, Alameda, San Mateo, Fairfield-Suisin, and Contra Costa. It ran for one month from late February to late March 2012. Content for the ad is attached in Appendix D.

Participants

To participate, individuals had to be 14-24 years of age and residents of zip codes covered by BASMAA. A total of 416 individuals began the survey; these included preview results (i.e., school administrators who “previewed” the survey before distributing to students), which were not identifiable in the data other than by applying inclusion and exclusion criteria. The initial sample size goal of $n=500$ was designed to account for attrition and provide sufficient statistical power for the detection of changes in littering behavior from baseline to follow-up. Of the 416 respondents who began the survey, 34 were excluded because they completed less than 10% of survey questions (in most cases, individuals completed less than 2 questions). A total of 25 respondents were ineligible for the survey because they were older than 24 years, younger than 14 years of age, or did not provide their date of birth. In addition, 4 participants were excluded for residing outside of the bay area or failing to provide their zip code. The final sample included 353 participants.

The sample included more females than males (41% male). The mean age of respondents was approximately 17 years old ($SD = 1.37$). The majority (97%) of respondents identified as high school students. Just over 3% identified as community college students, one identified as a 4-year college student, and one was not a student. The sample had a mean high school GPA of 3.26, which is somewhat above a “B” average. This suggests that the sample consisted largely of high school students performing at an above average academic level. See table 1 for details.

Table 1. Demographic characteristics of sample (N=353).

Gender (% male)	41.36
Mean age in years (SD)	17.03 (1.37)
Student status	%
High school	96.6
Community college	2.8
4-year college	0.3
Trade school	0.0
Graduate school	0.0
Not a student	0.3
Mean high school GPA (SD)	3.26 (0.70)

4. Analysis approach

The goal of the baseline survey was to describe baseline levels of littering behavior and perceived social norms among youth living in the Bay Area. Analyses were limited to eligible individuals (n=353), and addressed the following specific questions:

- What types of litter were most commonly and least commonly littered?
- In what contexts were respondents relatively more likely to litter?
- What did technology saturation look like in the sample?
- To what extent were respondents willing to participate in campaign activities?
- What did participants perceive as barriers to littering?
- To what extent did respondents disapprove of their own and their friends' littering behavior?
- How was willingness to participate in campaign activities related to environmental concern and perceived social and personal norms?
- What was the relationship between future likelihood of littering and environmental concern and perceived social and personal norms?

5. Results

Respondents answered a number of questions about their access to various devices and frequency with which they accessed internet-based services. The vast majority of the sample (91%) had a cell phone; 61% with a cell phone had a “smart” phone. Additionally, 88% of the sample had computer access at home. Only about one quarter of the sample had access to a tablet device (e.g., iPad). Respondents were heavy users of internet-based services. Respondents were defined as either regular users who used a given service at least once weekly (once per week, 2-3 times per week, daily) versus infrequent users who accessed a given service less than weekly (2-3 times per month, once per month, less than once per month, never). Internet use was ubiquitous among the sample: over 95% of the sample used the internet at least weekly. As well, 86% of the sample used Facebook at least once per week, and 82% checked email weekly. Three-quarters of the sample used YouTube weekly, and fewer respondents used blogs (37%) and Twitter (24%). See Table 2 for details.

Table 2. Technology access and frequency of internet service use.

Device type	% with access	
Cell phone	91	
Basic cell	29	
Smart phone	61	
Computer	88	
Tablet	26	
Internet service type	Less than weekly (%)	Weekly or more (%)
Search internet	4.89	95.11
Use Facebook	14.00	86.00
Check email	17.71	82.29
Use YouTube	28.16	71.84
Read or write blogs	63.40	36.60
Use Twitter	76.22	23.78

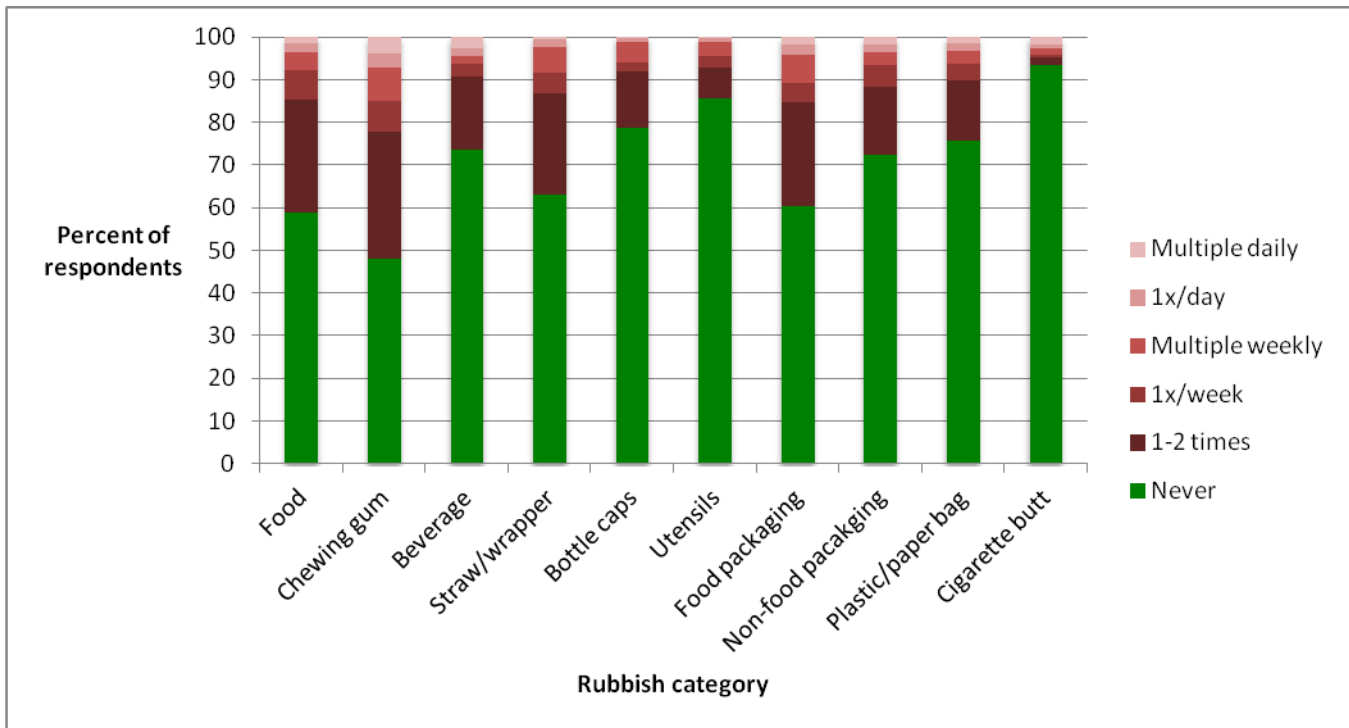
^aReflects general type of user: regular user vs. sporadic user.

Types of Litter

Frequency of littering differs across distinct litter items. The survey assessed frequency of past month littering for various rubbish categories. Past month was selected as the time scale to a) provide an opportunity to “catch” littering behavior that may be infrequent and b) tap into regular behavior. Approximately 86% of respondents reported littering at least one item in the past month. The results are displayed in figure 1 below. As can be seen in the figure, the most common frequency of littering across all categories of rubbish was “never”. However, prevalence of littering at all (i.e., at least once in the past month) varied considerably among rubbish categories. The most commonly littered item was chewing gum, which 52% of respondents reported littering at least once in the past month. Of these, approximately 43% reported littering gum at least weekly. Next, 41% of respondents reported littering food waste at least once in the past month. Of these, only 36% littered weekly or more. Finally, 40% of respondents said that they littered food or beverage-related packaging at least once in the past month; of these, 42% littered packaging weekly or more. The least commonly littered item was cigarette butts: only 7% of respondents littered these in the past month. However, of the youth who littered cigarette butts at all, 74% did so weekly or more. It is likely that the low prevalence of cigarette butt littering is related strongly to prevalence of smoking rather than littering per se (no screening question was included to assess smoking status). Following cigarette butts as the second and third least littered items were disposable utensils (86% never littered in past month) and bottle caps (79% never littered in past month). Taken together, the results indicate that the majority of the sample littered regularly. Although the most common past-month frequency of littering for each rubbish type was “never”, the proportion of respondents who littered at least once varied widely (from 7% for cigarette butts to 52% for chewing gum). This indicates that littering is a heterogeneous behavior that is specific to type of rubbish. Littering items from individual rubbish categories may be most appropriately conceptualized as separate target behaviors, and different intervention strategies may need to be applied to these different target behaviors. Additionally, among those who littered an item at least once in the past month, frequency of littering was relatively low across items, but also varied widely: the prevalence of littering items once per week or more ranged from 35% for beverage containers to 43% for chewing gum to 74% for cigarette

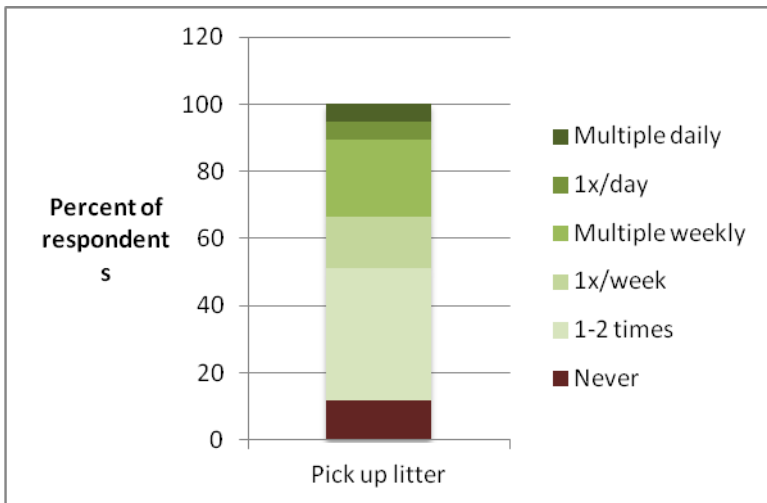
butts. Again, this suggests that littering different types of rubbish may best be thought of as distinct behaviors.

Figure 1. Frequency of past month littering for various rubbish categories.



Respondents were also asked how frequently they picked up litter that was not theirs in the past month. 88% of respondents indicated that they did so at least once. The most common response was 1-2 times at 39%, and, notably, nearly half of respondents reported picking up litter that was not theirs at least weekly. See figure 2 for details.

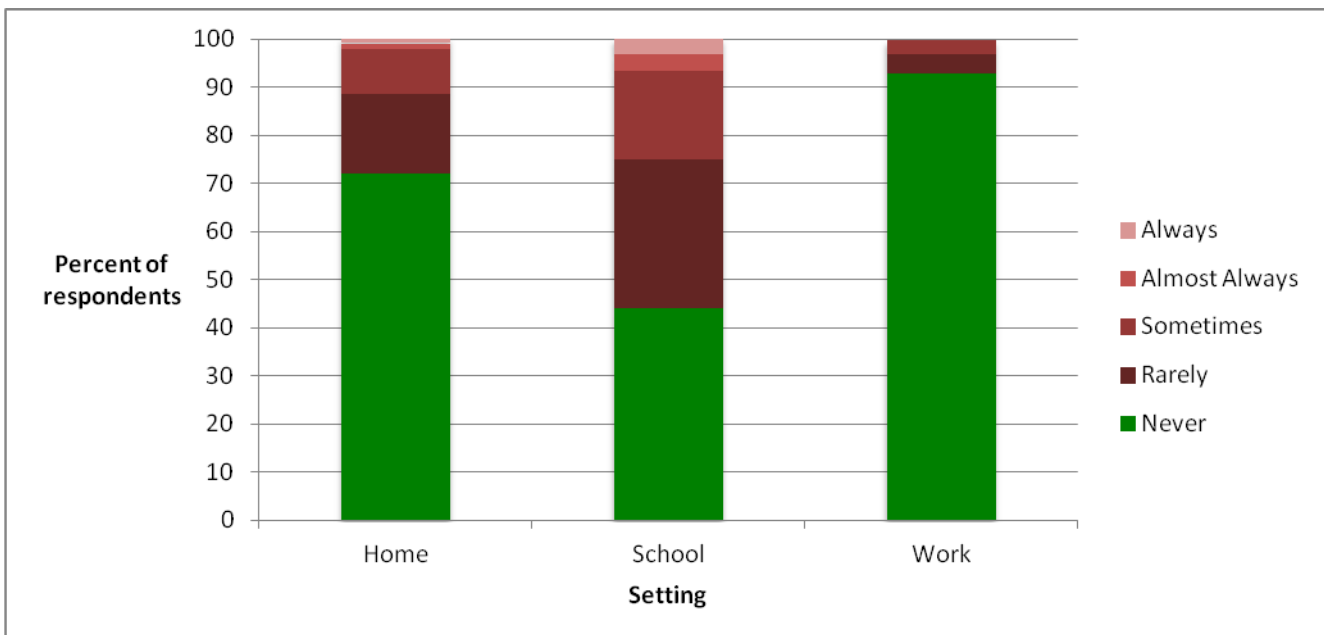
Figure 2. Frequency of picking up someone else’s litter in the past month.



Littering situations

Previous studies of littering have found that littering frequency is related to context and setting. To explore this in the present sample, respondents were asked a series of questions related to the frequency with which they littered in different settings. Figure 3 displays the results for three common contexts: home, school, and work. The results show that littering at work was quite infrequent, with about 93% of respondents indicating they never litter at work. At school, the most common response was ‘never’; however, littering at school was more common relative to other settings: 25% of respondents littered at least sometimes at school. This suggests that campaign efforts at schools may be a prime target for intervention efforts.

Figure 3. Frequency distributions for littering at home (n=335), school (n=335), and work (n=287).



Barriers to littering

Respondents were asked to indicate which of several options served as barriers that prevented them from littering. Results are detailed in table 3 below. Briefly, the vast majority of the sample (91%) indicated that trash/recycling can placement deterred them from littering. The next most commonly endorsed response was that 71% of respondents would feel guilty if they littered. Next, 63% of respondents stated that they wanted to keep a certain area clean.

Table 3. Proportion of respondents who endorsed various perceive barriers to littering

Perceived Barrier	%
Trash cans/recycling bins nearby	91
I'd feel guilty	71
I want to keep area clean	63
Others would complain	54
Area already litter- free	45
No clean up crew	32
Anti-litter signs posted	22

Social Interactions and Social Norms

One of the campaign goals was to promote peer-to-peer interactions regarding litter. Toward this end, the survey assessed baseline frequency and impact of conversations about littering. Approximately one third of the sample also reported that they spoke with friends about littering in the past month, and of these, half stated that the conversations made them think littering was an important issue. Only 3% said that the conversations made them think littering was not an important issue, 21% said their opinion were not influenced, and 25% said that different friends had different influences on their opinions. These data will be used as a baseline against which comparisons are made using follow-up survey data.

The survey assessed social and personal norms concerning littering. First, respondents were asked how frequently they thought their friends littered. Response options were never, rarely, sometimes, frequently, all the time. Results were fairly normally distributed, with the most common response being “sometimes”, and the extremes being the least endorsed options. Next, respondents gave ratings related to social (dis)approval related to littering. Respondents rated their level of approval of friends’ littering. The mean score indicated that respondents slightly disapproved of friends littering. When asked to appraise their own (self) littering, respondents’ disapproval was greater than that of their friends, on average. In other words, respondents disapproved more of their own littering behavior than their friends’ littering behavior. Finally, respondents were asked to what extent their friends would disapprove of [respondents] littering. Notably, the modal response was that friends would neither approve nor disapprove of littering. Whereas respondents tended to disapprove of their own littering and their friends littering, their perception, on average, was that friends would not have strong opinions if they (the respondent) littered. This may be related to the psychological phenomenon called illusory superiority, whereby people overestimate their positive qualities and underestimate their shortcomings. In any case, the results suggest the value of leveraging personal norms in the anti-littering campaign. Results are detailed in table 4.

Table 4. Mean self-and social approval ratings related to littering.

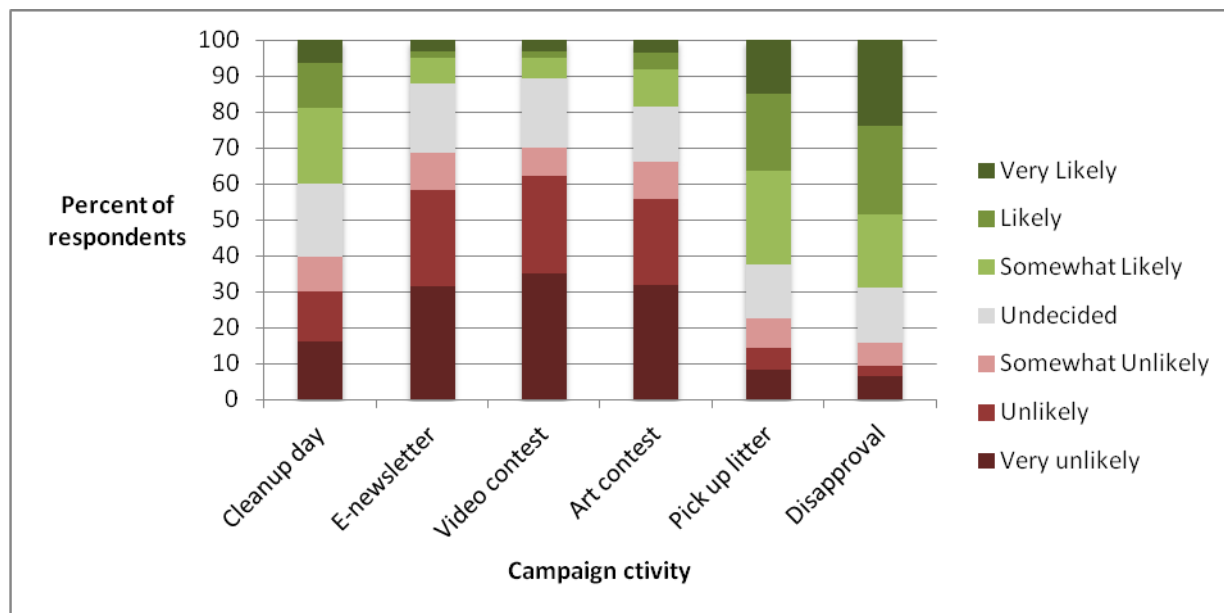
Approval rating of friends' littering	2.63 (1.18)
Self-approval rating	2.30 (1.17)
Estimated friend approval rating of respondent littering	3.31 (1.13)

Table note. Responses were rated on a 1 (strongly disapprove) - 7 (strongly approve) scale, so a "4" indicates a neutral score, scores lower than 4 indicate disapproval, and scores higher than 4 indicate approval.

Key outcomes: Willingness to participate in campaign activities & Likelihood of littering next month

Among the key outcomes assessed were willingness to participate in campaign activities, and likelihood of littering in the next month. Respondents were asked to rate their likelihood of participating in a number of activities related to the campaign. Results are displayed below in figure 4. The activity that most respondents were at least somewhat likely to do was to express disapproval if s/he saw a friend littering:, 69% of respondents reported they were at least somewhat likely to do so. Additionally, 62% of respondents were at least somewhat likely to pick up litter that was not their own, and 40% were at least somewhat likely to participate in a litter cleanup day.

Figure 4. Frequency distributions for willingness to participate in campaign activities.



Respondents also rated their likelihood of littering in the next month on a 7-point likert scale ranging from (1) Very unlikely - (7) Very Likely. The mean score was 2.79 (SD=1.67), meaning that on average, respondents rated themselves as unlikely to litter. In fact, two thirds of respondents were at least somewhat unlikely to litter.

Inferential tests

Whereas the above analyses were all descriptive, we also examined inferential relationships between variables using linear multiple regression analyses. In particular, we examined predictors of eight prosocial outcomes (numbers 1-6 are campaign activities):

1. Intentions of volunteering for a litter cleanup day
2. Intentions of signing up for email newsletter
3. Intentions of entering video contest
4. Intentions of entering art contest
5. Intentions of picking up someone else's litter
6. Intentions of saying something to express disapproval or try to stop a friend from littering
7. Intentions of littering in the next month
8. Frequency of picking up someone else's litter in the past month

Potential predictors included: age (coded as continuous), gender (1=male, 2=female), high school GPA (coded as continuous on a 4.0 scale), guilt as a perceived barrier to littering (0=no, 1=yes), level of environmental concern³ (rated on a 1-7 likert scale where 1=low and 7=high), self-approval rating of past littering behavior (self-disapproval; rated on a 1-7 likert scale where 1=strongly disapprove and 7=strongly approve), approval rating of friends littering (disapproval of friends; rated on a 1-7 likert scale where 1=strongly disapprove and 7=strongly approve), and estimated friends' approval of self (respondent) littering (perceived friend disapproval; rated on a 1-7 likert scale where 1=strongly disapprove and 7=strongly approve).

The dataset was limited to the 302 individuals who had complete data on all outcome and potential predictor variables. A step-wise model building procedure was used to construct final regression models: preliminary linear multiple regression models were run to identify important predictors for retention in final models, and then final models were run. For the preliminary models, potential predictors were broken down into conceptual blocks: demographics (including age, gender, and high school GPA) and norms (self-disapproval, disapproval of friends, and perceived friend disapproval). Additionally, environmental concern and guilt as a barrier to littering were tested separately as potential covariates. Each outcome was regressed on each of the conceptual blocks as well as the two covariates separately. In total, four separate preliminary models were run for each outcome. A decision criterion was applied for retaining predictors in the final models: a predictor that was significantly related to any outcome in a preliminary model was retained in the final model for all outcomes. This method was chosen so that all final models were based on the same set of predictors. Following this rule, age and injunctive norm² were dropped; the rest of the predictors were significantly related to at least one outcome in the preliminary models and therefore retained in final models. Appendix E displays the correlations among all outcome and predictor variables excluding demographics.

The final linear multiple regression models were then run with each of the eight prosocial outcomes regressed on the same set of predictors. Table 5 displays the standardized regression coefficients for these final models. All final models were significant, meaning that the set of chosen predictors was significantly associated with every outcome. Regression results showed that females had stronger anti-litter intentions than did males: they were significantly less likely to litter in the next month than were males, more likely to enter the art contest, and more likely to express disapproval of

friends' littering. GPA was related to only one outcome; a higher GPA significantly predicted lower likelihood of littering in the next month. For every point increase in GPA, likelihood of littering in the next month declined by .15 standard deviation units. Not surprisingly, level of environmental concern was related to nearly all outcomes in the predicted direction with small - moderate effect sizes: greater level of concern was significantly associated with higher likelihood of picking up someone else's litter in the past month, and higher likelihood of participating in all of the campaign activities. Paradoxically, it was not related to likelihood of littering in the next month.

Next, whether participants cited guilt as a barrier to littering was related to likelihood of participating in two campaign activities: if participants reported guilt as a barrier, they were more likely to sign up for the e-newsletter and pick up someone else's litter. Disapproval of friends' littering behavior was significantly related to likelihood of littering in the next month, willingness to participate in the campaign's art contest, and willingness to express disapproval of a friend who litters. Specifically, greater disapproval of friends' littering was associated with lower intentions of littering in the next month. As well, the greater the disapproval, the more willing a respondent was to express disapproval towards a friend who was littering. One odd finding was that lower levels of disapproval of friends' littering was associated with greater willingness to participate in the campaign video contest. This could be a spurious relationship, or perhaps those who strongly disapprove of friends littering are simply unlikely to participate in the video contest because they prefer to focus their energies on alternate anti-litter strategies. Finally, higher levels of self-disapproval were associated with greater willingness to express disapproval of friends' littering behavior, and lower likelihood of littering in the next month.

Summarizing, probably the most important outcome was likelihood of littering in the next month; this was lower among females, those with relatively higher high school GPAs, and those who had stronger disapproval ratings of their own and their friends' littering behavior. As gender and GPA are not amenable to intervention, these results suggests that interventions that can beget a sense of disapproval of self and others' littering behavior may show promise for minimizing littering, at least in the short term.

Table 5. Standardized regression beta weights for final models (n=302).

Predictor	Outcome							
	Pick up past month	Likelihood litter next month	Clean up day	E-news-letter	Video contest	Art contest	Pick up else's litter	Express Disapproval
Gender ^a	-0.12 (p<.06)	-0.11 (p<.05)	0.06 (p<.31)	0.10 (p<.88)	0.004 (p<.95)	0.20 (p<.002)	0.07 (p<.24)	0.20 (p<.0001)
GPA	-0.04 (p<.57)	-0.15 p<.01	0.05 (p<.36)	0.001 p=.99	-0.06 p<.32	-0.01 (p<.93)	0.02 (p<.67)	0.05 (p<.32)
Environmental concern	0.20 (p<.01)	0.02 (p<.83)	0.15 (p<.02)	0.29 (p<.0001)	0.30 (p<.0001)	0.12 (p<.05)	0.24 (p<.0001)	0.20 (p<.0001)
Guilt	0.07 (p<.31)	-0.09 (p<.10)	0.050 (p<.39)	0.14 (p<.03)	0.09 (p<.17)	0.01 (p<.88)	0.17 (p<.004)	0.05 (p<.36)
Disapproval of friends	-0.11 (p<.17)	0.24 (p<.001)	-0.06 (p<.42)	0.02 (p<.86)	0.17 (p<.04)	0.02 (p<.77)	-0.13 (p<.07)	-0.28 (p<.0001)
Self-disapproval	0.06 (p<.42)	0.15 (p<.03)	-0.14 (p<.07)	0.09 (p<.23)	-0.03 (p<.68)	-0.03 (p<.75)	-0.07 (p<.32)	-0.13 (p<.05)
Model F	3.29 p<.003	16.48 p<.0001	6.25 P<.0001	5.23 p<.0001	4.76 p<.0001	3.19 p<.005	13.36 p<.0001	27.73 p<.0001
Model R ²	.0663	.2624	.1189	.1014	.0932	.0645	.2239	.3744

Table note: Standardized betas are reported. Green highlighting indicates result is significant at the .05 level.

^a1=male; 2=female.

6. Conclusions

The goal of this project was to assess and describe littering behavior and perceived social norms related to littering among youth living in the Bay Area, thereby establishing a baseline from which the efficacy of the ensuing campaigns could be judged. The data collected stand alone to characterize Bay Area youth, and also will serve as a baseline against which data from a future follow-up survey will be compared following outreach campaign implementation.

In terms of past month littering prevalence, 86% of respondents reported littering at least one item in the past month. The most commonly littered items were chewing gum, food waste, and food or beverage-related packaging. The least commonly littered items included cigarette butts, disposable utensils, and bottle caps. Although the most common past-month frequency of littering for each rubbish type was “never”, the proportion of respondents who littered at least once varied widely (from 7% for cigarette butts to 52% for chewing gum). Similarly, among those who littered an item at least once in the past month, frequency of littering was relatively low across items, but also varied widely: the prevalence of littering items once per week or more ranged from 35% for beverage containers to 43% for chewing gum to 74% for cigarette butts. This shows that littering is a heterogeneous behavior that is specific to type of rubbish. Littering items from individual rubbish categories may be most appropriately conceptualized as separate target behaviors.

Previous work has found that littering frequency is related to context and setting. Littering at school was more common relative to other settings: 25% of respondents littered at least sometimes at school. This suggests that campaign efforts at schools may be a prime target for intervention efforts.

Perceived barriers to littering were also assessed by the survey. The vast majority of the sample (91%) indicated that trash/recycling can placement deterred them from littering. The next most commonly endorsed response was that 71% of respondents would feel guilty if they littered.

In terms of prosocial behavior, 88% of respondents indicated that they pick up trash that was not their own at least once in the past month. Respondents also rated their likelihood of littering in the next month on a 7-point likert scale ranging from (1) Very unlikely - (7) Very Likely. The mean score was 2.79 (SD=1.67), meaning that on average, respondents rated themselves as unlikely to litter. In fact, two thirds of respondents were at least somewhat unlikely to litter.

Respondents also rated their likelihood of participating in a number of activities related to the campaign. The activity that most respondents were at least somewhat likely to do was expressing disapproval if s/he saw a friend littering; 69% of respondents reported they were at least somewhat likely to do so. Additionally, 62% of respondents were at least somewhat likely to pick up litter that was not their own, and 40% were at least somewhat likely to participate in a litter cleanup day. These behaviors may be “low hanging fruit” for intervention programs.

Finally, a series of regression models were run to predict eight prosocial outcomes (past month frequency of picking up others’ litter, intentions of littering in the next month, and likelihood of participating in each of six campaign activities) based on demographics, guilt as a barrier to littering, level of environmental concern, and personal and social norms. Summarizing, females, those with relatively higher high school GPAs, and those who had stronger disapproval ratings of their own and their friends’ littering behavior were significantly associated with several prosocial outcomes in the desired direction, with small to moderate effect sizes. As gender and GPA are not amenable to intervention, the findings suggests that interventions that can beget a sense of disapproval of self and others’ littering behavior may show promise for minimizing littering, at least in the short term.

Footnotes

1. Likert scale: A Likert Scale is a type of psychometric scale frequently used in surveys and questionnaires. Scales are bipolar, measuring either positive or negative response to a statement. A Likert item is simply a statement which the respondent is asked to evaluate according to any kind of subjective or objective criteria; generally the level of agreement or disagreement is measured. It is considered symmetric or "balanced" because there are equal amounts of positive and negative positions.
2. Injunctive norm: people's perceptions of what is commonly approved or disapproved of within a particular culture
3. Environmental concern was assessed using a single item that asked participants to rate their level of agreement with the following statement: "Environmental issues are important to me". Responses were provided on a 1-7 likert scale ranging from Strongly Disagree (1) to Strongly Agree (7).

Appendix A: Survey

Q1 Hello! Thank you for your interest in our campaign. Please respond to the following questions as honestly as possible. Your answers will remain confidential. There are no right or wrong answers; we are interested in hearing about your true opinions!

What is your birthday? MM/DD/YYYY

What is your gender?

- Male (1)
- Female (2)

What is your home zip code?

Please indicate your current status.

- I am a high school student. (1)
- I am a student at a 4-year university (2)
- I am a community college student (3)
- I am a trade school student (4)
- I am a graduate student (5)
- I am not a student (6)

Answer If Please indicate your current status. I am not a student Is Not Selected

Please indicate which school you attend.

Answer If Please indicate your current status. I am a high school student. Is Selected

What is your high school GPA (e.g., 3.1)?

Answer If Please indicate your current status. I am a student at a 4-year university Is Selected Or Please indicate your current status. I am a community college student Is Selected Or Please indicate your current status. I am a trade school student Is Selected Or Please indicate your current status. I am a graduate student Is Selected

What is your current GPA (e.g., 3.1)?

What are the initials of your first and last name? For example, John Smith = JS.(If you have multiple first or last names, use the initials of your first first name and first last name. For example: Maria Eugenia Garcia Alvarez = MG.)

Which of the following do you have access to (select all that apply)?

- Basic cell phone without internet access (1)
- Smart phone (e.g., iPhone, Blackberry, Droid) with internet access (2)
- Desktop or laptop computer with internet connection at home (3)
- Tablet device with internet (e.g., iPad) (4)

How often do you do the following?

Search for things online/ on the internet (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check email (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use Facebook (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use Twitter (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check out or post videos on Youtube (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Read or write Blogs (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use other internet-based service (please specify) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Environmental issues are important to me.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

This survey asks questions about littering, which is defined as: Any waste item that is discarded, placed, thrown, or dropped in a public or private area, and is not immediately removed. This includes waste items large and small, discarded intentionally or accidentally. In short, litter is waste in the wrong place!

In the past month, how often have you littered each of the following items?

Food (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chewing gum (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beverage bottles, cans, cups, and/or cartons (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Straw or straw wrapper (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bottle caps (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disposable utensils (e.g., forks, spoons) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wrappers, bags, or other food or beverage packaging (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Packaging from non-food or beverage items (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plastic or paper bag (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cigarette butts (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past month, how often have you picked up a piece of litter that was not yours and disposed of it?

- Never (1)
- Maybe 1-2 times (2)
- About one time per week (3)
- A few times per week (4)
- About one time per day (5)
- Multiple times per day (6)

People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situations:

Prior to / after eating or drinking something (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have to put out my cigarette (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I'm in a vehicle (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At home (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At school (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At work (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What prevents you from littering (select all that apply)?

- Trash cans / recycling bins are nearby (1)
- There are anti-litter signs posted (2)
- When an area is already litter-free (3)
- When I feel that I want to keep a certain area clean (4)
- Friends, family, or others would complain about my behavior if I littered (5)
- I know there is no clean-up crew for a given area (6)
- I would feel guilty if I littered (7)
- Other (please specify) (8) _____

How often do you think your friends litter?

- Never (1)
- Rarely (2)
- Sometimes (3)
- Frequently (4)
- All the time (5)

When I see my friends littering, I _____ of their behavior.

- Strongly disapprove (1)
- Disapprove (2)
- Somewhat Disapprove (3)
- Neither approve nor disapprove (4)
- Somewhat approve (5)
- Approve (6)
- Strongly approve (7)

If my friends saw me litter, they would _____ of my behavior.

- Strongly disapprove (1)
- Disapprove (2)
- Somewhat Disapprove (3)
- Neither approve nor disapprove (4)
- Somewhat approve (5)
- Approve (6)
- Strongly approve (7)

When I think of times that I have littered, I _____ of my behavior.

- Strongly disapprove (1)
- Disapprove (2)
- Somewhat Disapprove (3)
- Neither approve nor disapprove (4)
- Somewhat approve (5)
- Approve (6)
- Strongly approve (7)

In the past month, have you spoken with friends about littering?

- No (1)
- Yes (2)

Answer If In the past month, have you spoken with friends about lit... Yes Is Selected

How do you think these conversations influenced your opinions about littering/

- They made me think that littering is an important issue (1)
- They made me think littering is not an important issue (2)
- They didn't influence my opinion about littering (3)
- It depended who I was talking to; different friends had different effects (4)

In the next month, how likely is it that you will litter? Remember, litter is defined as discarding, placing, throwing, or dropping any waste item in a public or private area and not immediately removing it. This includes waste items large and small, discarded intentionally or accidentally.

- Very Unlikely (1)
- Unlikely (2)
- Somewhat Unlikely (3)
- Undecided (4)
- Somewhat Likely (5)
- Likely (6)
- Very Likely (7)

How willing are you to participate in the following activities?

Volunteer for a litter cleanup day (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sign up for our campaign email newsletter (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter the video contest for our campaign (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter an art contest that is part of the campaign (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pick up someone else's litter (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I see a friend littering, say something to express disapproval or try to stop her/him from littering (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

We may want to follow up with you in the future to see if your opinions of littering have changed. Please provide your contact information below. Your privacy will be respected and the information you provide will not be shared with anyone outside of the survey team.

Email (1)

Cell Phone (xxx-xxx-xxxx) (2)

Home Phone (xxx-xxx-xxxx) (3)

If you need proof of survey participation, you must do the following: 1. Confirm your email address below 2. Print out this page & take it to your teacher or supervisor 3. Hit the next button to end the survey If you DO NOT need proof of participation, hit the next button to end this survey.

Email confirmation (1)

Appendix B: School Recruitment Flyer

**Join other Bay Area schools in making a difference in
your community!**

The survey is for the Bay Area Stormwater Management Agencies Association - also known as BASMAA. Please respond to the survey questions as honestly as possible. Your answers will remain confidential. There are no right or wrong responses. Your feedback will help build a campaign for Northern California's communities so we're interested in hearing your true and honest opinions!

The survey is available online every day- 24 hours a day at:

<http://bit.ly/BayAreaSurvey>

*Survey's must be completed by ~~March 16, 2012~~ **Extended deadline: March 27, 2012**

Thank you for your participation!



www.BetheStreet.org

Be the Street You Want to See.



<http://basmaa.org/>

Appendix C: Script

The script provided to teachers to assist with survey distribution read:

Join other Bay Area schools in making a difference in your community. This survey is for the Bay Area Stormwater Management Agencies Association – also known as BASMAA. Please respond to the survey questions as honestly as possible. Your answers will remain confidential. There are no right or wrong responses. Your feedback will help build a campaign for Northern California’s communities so we’re interested in hearing your true and honest opinions.

Appendix D: Facebook Ad

BASMAA SURVEY FACEBOOK AD (155 #2-2):

Image (attached to email):



Title/Name:

Bay Area Stormwater Management Agencies Association

Tagline:

Click here to join Bay Area communities in giving your FEEDBACK! It only takes 5 minutes to make your voice heard!

Link to survey:

<http://bit.ly/BayAreaSurvey>

Appendix E: Pearson correlations among key variables in regression models (n=302 with complete data on all variables).

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Pick up other's litter	--												
2. Envi. Concern ^a	0.206 p<.0003	--											
3. Guilt ^b	.0.159 p<.09	0.342 p<.08	--										
4. Disapproval of friends	-0.140 p<.02	-0.357 p<.0001	-0.498 p<.07	--									
5. Perceived friend disapproval	0.022 p<.71	-0.129 p<.03	-0.136 p<.09	0.403 P<.0001	--								
6. Self-approval	-0.064 p<.27	-0.345 p<.0001	-0.495 p<.07	0.640 P<.0001	0.263 P<.0001	--							
7. Intent to litter	-0.017 p<.77	-0.202 p<.0004	-0.395 p<.08	0.436 P<.0001	0.257 P<.0001	0.413 P<.0001	--						
8. Cleanup	0.203 p<.0004	0.257 p<.0001	0.282 p<.08	-0.257 p<.0001	-0.169 P<.004	-0.282 P<.0001	-0.144 P<.02	--					
9. eNews-letter	0.207 p<.0003	0.289 p<.0001	0.255 p<.08	-0.089 P<.13	0.037 p<.52	-0.065 P<.262	-0.069 P<.24	0.424 P<.0001	--				
10. Video contest	0.203 p<.0002	0.261 p<.0001	0.122 p<.09	0.015 p<.79	0.96 p<.10	-0.052 p<.37	0.096 P<.10	0.260 P<.0001	0.556 P<.0001	--			
11. Art contest	0.129 p<.03	0.167 p<.004	0.134 p<.09	-0.094 p<.11	-0.040 p<.49	-.122 p<.04	-0.064 P<.27	0.271 P<.0001	0.412 P<.0001	0.598 P<.0001	--		
12. Pick up else's	0.436 p<.0001	0.366 p<.0001	0.454 p<.07	-0.365 p<.0001	-0.160 p<.006	-0.350 p<.0001	-0.273 P<.0001	0.424 P<.0001	0.356 P<.0001	0.296 P<.0001	0.223 P<.0001	--	
13. Express disapproval	0.215 p<.0002	0.400 p<.0001	0.386 p<.08	-0.512 p<.0001	-0.278 p<.0001	-0.470 p<.0001	-0.321 P<.0001	0.424 P<.0001	0.258 P<.0001	0.183 P<.002	0.230 P<.0001	0.576 P<.0001	--

^aVariable was square-transformed to better approximate normality.

^bPolychoric correlation coefficient reported for all correlations with this variable.

Be the Street Pre-Campaign Survey Topline

Question: Year born	Count (%) n=353	Gender	
		Male n= 146	Female n= 207
1988	2 (0.57)	1 (0.68)	1 (0.48)
1989	1 (0.28)	0 (0.00)	1 (0.48)
1990	2 (0.57)	0 (0.00)	2 (0.97)
1991	2 (0.57)	1 (0.68)	1 (0.48)
1992	3 (0.85)	0 (0.00)	3 (1.45)
1993	21 (5.95)	11 (7.53)	10 (4.83)
1994	94 (26.63)	37 (25.34)	57 (27.54)
1995	92 (26.06)	36 (24.66)	56 (27.05)
1996	100 (28.33)	44 (30.14)	56 (27.05)
1997	36 (10.20)	16 (10.96)	20 (9.66)

Question: What is your gender	Count (%) n=353
Male	146 (41.36)
Female	207 (58.64)

Question: Please indicate current status	Count (%) n=353	Gender	
		Male n= 146	Female n= 207
I am a high school student	341 (96.60)	144 (98.63)	197 (95.17)
I am a student at a 4-year university	1 (0.28)	0 (0.00)	1 (0.48)
I am a community college student	10 (2.83)	2 (1.37)	8 (3.86)
I am a trade school student	0 (0.00)	0 (0.00)	0 (0.00)
I am a graduate student	0 (0.00)	0 (0.00)	0 (0.00)
I am not a student	1 (0.28)	0 (0.00)	1 (0.48)

Question: Please indicate which school you attend.	Count (%) n=350	Gender	
		Male n= 145	Female n= 205
Alameda High School	3 (0.86)	0 (0.00)	3 (1.47)
Carlimont High School	39 (11.14)	20 (13.80)	19 (9.28)
Chabot College	2 (0.57)	1 (0.69)	1 (0.49)
Evergreen	1 (0.21)	1 (0.69)	0 (0.00)

Fairfield High School	107 (30.56)	46 (31.73)	61 (29.76)
Indpendence High School	10 (2.86)	6 (4.14)	4 (1.95)
Jesse Bethel High School	2 (0.57)	1 (0.69)	1 (0.49)
Las Positas Community College	5 (1.43)	0 (0.00)	5 (2.45)
Oceana High School	100 (28.56)	41 (28.28)	59 (28.79)
Ohlone College	1 (0.29)	0 (0.00)	1 (0.49)
Redwood High School	9 (2.57)	2 (1.38)	7 (3.42)
San Leandro High School	1 (0.29)	0 (0.00)	1 (0.49)
Sequoia High School	29 (8.29)	9 (6.21)	20 (9.76)
University of California-Berkeley	1 (0.21)	0 (0.00)	1 (0.49)
Woodside High School	35 (10.00)	15 (10.35)	20 (9.77)
Other	5 (1.43)	3 (2.07)	2 (0.98)

Question	Mean n=331	Gender	
		Male n= 139	Female n= 192
What is your high school GPA?	3.26	3.10	3.38

Question	Mean n=10	Gender	
		Male n= 2	Female n= 8
What is your current GPA?	3.34	2.85	3.46

Question: Which of the following do you have access to (select all that apply)	Count n=752	Gender	
		Male n= 311	Female n= 441
Basic cell phone without internet access	130	59	71
Smart phone (e.g., iPhone, Blackberry, Droid) with internet access	217	88	129
Desktop or laptop computer with internet connection at home	312	128	184
Tablet device with internet (e.g., iPad)	93	36	57

Question: How often do you do the following?	Count (%)	Gender	
		Male n = 144	Female n = 204
Search for things online/on the internet	n = 348	n = 144	n = 204
Never	0 (0.00)	0 (0.00)	0 (0.00)
Less than Once a Month	2 (0.57)	0 (0.00)	2 (0.98)
Once a Month	3 (0.86)	1 (0.69)	2 (0.98)
2-3 Times a Month	12 (3.45)	6 (4.17)	6 (2.94)
Once a Week	15 (4.31)	9 (6.25)	6 (2.94)
2-3 Times a Week	74 (21.26)	37 (25.69)	37 (18.14)

Daily	242 (69.54)	91 (63.19)	151 (74.02)
Check email	n = 350	n = 144	n = 206
Never	8 (2.29)	6 (4.17)	2 (0.97)
Less than Once a Month	16 (4.57)	9 (6.25)	7 (3.40)
Once a Month	13 (3.71)	5 (3.47)	8 (3.88)
2-3 Times a Month	25 (7.14)	14 (9.72)	11 (5.34)
Once a Week	50 (14.29)	25 (17.36)	25 (12.14)
2-3 Times a Week	80 (22.86)	32 (22.22)	48 (23.30)
Daily	158 (45.15)	53 (36.81)	105 (50.97)
Use Facebook	n = 350	n = 144	n = 205
Never	37 (10.57)	21 (14.58)	16 (7.77)
Less than Once a Month	4 (1.14)	2 (1.39)	2 (0.97)
Once a Month	1 (0.29)	1 (0.69)	0 (0.00)
2-3 Times a Month	7 (2.00)	3 (2.08)	4 (1.94)
Once a Week	16 (4.57)	7 (4.86)	9 (4.37)
2-3 Times a Week	44 (12.57)	20 (13.89)	24 (11.65)
Daily	241 (68.86)	90 (62.50)	151 (73.30)
Use Twitter	n = 349	n = 143	n = 206
Never	243 (69.63)	114 (79.72)	129 (62.62)
Less than Once a Month	15 (4.30)	2 (1.40)	13 (6.31)
Once a Month	4 (1.15)	2 (1.40)	2 (0.97)
2-3 Times a Month	4 (1.15)	2 (1.40)	2 (0.97)
Once a Week	8 (2.29)	1 (0.70)	7 (3.40)
2-3 Times a Week	14 (4.01)	1 (0.70)	13 (6.31)
Daily	61 (17.48)	21 (14.69)	40 (19.42)
Check out or post videos on Youtube	n = 348	n = 143	n = 205
Never	40 (11.49)	11 (7.69)	29 (14.15)
Less than Once a Month	23 (6.61)	7 (4.90)	16 (7.80)
Once a Month	13 (3.74)	3 (2.10)	10 (4.88)
2-3 Times a Month	22 (6.32)	8 (5.59)	14 (6.83)
Once a Week	32 (9.20)	9 (6.29)	23 (11.22)
2-3 Times a Week	89 (25.57)	34 (23.78)	55 (26.83)
Daily	129 (37.07)	71 (49.65)	58 (28.29)
Read or write Blogs	n = 347	n = 142	n = 205
Never	157 (45.24)	77 (54.23)	80 (39.02)
Less than Once a Month	37 (10.66)	13 (9.15)	24 (11.71)
Once a Month	16 (4.61)	8 (5.63)	8 (3.90)
2-3 Times a Month	10 (2.88)	4 (2.82)	6 (2.93)
Once a Week	22 (6.34)	9 (6.34)	13 (6.34)
2-3 Times a Week	35 (10.09)	10 (7.04)	25 (12.20)
Daily	70 (20.17)	21 (14.79)	49 (23.90)
Use other internet-based service (please specify)	n = 256	n = 112	n = 144
Never	152 (59.38)	68 (60.71)	84 (58.33)

Less than Once a Month	4 (1.56)	2 (1.79)	2 (1.39)
Once a Month	2 (0.78)	1 (0.89)	1 (0.69)
2-3 Times a Month	7 (2.73)	4 (3.57)	3 (2.08)
Once a Week	6 (2.34)	3 (2.68)	3 (2.08)
2-3 Times a Week	12 (4.69)	4 (3.57)	8 (5.56)
Daily	73 (28.520)	30 (26.79)	43 (29.86)
Specific answers:			
Aim			
AT&T			
craigslist.com			
Deviant art. Art posting site			
Everything			
formspring			
Forum			
games			
goodreads, blackboard			
google			
google +			
Grades			
hulu			
Infinite Campus, etc			
Instagram			
Internet shopping			
ipod			
kids.yahoo			
Lap Top			
livemocha			
Music Sites(grooveshark.com			
Nuts			
Online classes			
Online video games			
Other social networks, forums			
pandora.com			
plastation network			
porn			
read biographies			
read manga			
Read Online Articles			
Reading and playing games			
reddit			
shopping			
Skype			
spanish translator			
sports			
Study online			
Tumblr			
Video Games			
watch anime			

watch drama
 Webcomics
 WorldStarHipHop
 Xbox Time
 yahoo
 youtube.com

Question: Environmental issues are important to me	Count (%) n= 346	Gender	
		Male n= 143	Female n= 203
Strongly Disagree	4 (1.16)	1 (0.70)	3 (1.48)
Disagree	4 (1.16)	3 (2.10)	1 (0.49)
Somewhat Disagree	2 (0.58)	2 (1.40)	0 (0.00)
Neither Agree nor Disagree	20 (5.78)	11 (7.69)	9 (4.43)
Somewhat Agree	68 (19.65)	35 (24.48)	33 (16.26)
Agree	170 (49.13)	65 (45.45)	105 (51.72)
Strongly Agree	78 (22.54)	26 (18.18)	52 (25.62)

Question: In the past month, how often have you littered each of the following items?	Count (%)	Gender	
		Male	Female
Food	n = 347	n = 143	n = 204
Never	204 (58.79)	79 (55.24)	125 (61.27)
Maybe 1-2 times	92 (26.51)	40 (27.97)	52 (25.49)
About one time per week	24 (6.92)	11 (7.69)	13 (6.37)
A few times per week	15 (4.32)	8 (5.59)	7 (3.43)
About one time per day	7 (2.02)	1 (0.70)	6 (2.94)
Multiple times per day	5 (1.44)	4 (2.80)	1 (0.49)
Chewing gum	n = 347	n = 143	n = 204
Never	167 (43.13)	57 (39.86)	110 (53.92)
Maybe 1-2 times	103 (29.68)	47 (32.87)	56 (27.45)
About one time per week	25 (7.20)	14 (9.79)	11 (5.39)
A few times per week	27 (7.78)	15 (10.49)	12 (5.88)
About one time per day	12 (3.46)	4 (2.80)	8 (3.92)
Multiple times per day	13 (3.75)	6 (4.20)	7 (3.43)
Beverage bottles, cans, cups, and/or cartons	n = 347	n = 143	n = 204
Never	255 (73.49)	97 (67.83)	158 (77.45)
Maybe 1-2 times	60 (17.29)	28 (19.58)	32 (15.69)
About one time per week	10 (2.88)	6 (4.20)	4 (1.96)
A few times per week	6 (1.73)	5 (3.50)	1 (0.49)
About one time per day	7 (2.02)	2 (1.40)	5 (2.45)
Multiple times per day	9 (2.59)	5 (3.50)	4 (1.96)
Straw or straw wrapper	n = 347	n = 143	n = 204
Never	219 (63.11)	90 (62.94)	129 (63.24)
Maybe 1-2 times	82 (23.63)	31 (21.68)	51 (25.00)

About one time per week	17 (4.90)	6 (4.20)	11 (5.39)
A few times per week	21 (6.05)	15 (10.49)	6 (2.94)
About one time per day	6 (1.73)	1 (0.70)	5 (2.45)
Multiple times per day	2 (0.58)	0 (0.00)	2 (0.98)
Bottle caps	n = 344	n = 141	n = 203
Never	271 (78.78)	103 (73.05)	168 (82.76)
Maybe 1-2 times	45 (13.08)	24 (17.02)	21 (10.34)
About one time per week	7 (2.03)	3 (2.13)	4 (1.97)
A few times per week	17 (4.94)	11 (7.80)	6 (2.96)
About one time per day	3 (0.87)	0 (0.00)	3 (1.48)
Multiple times per day	1 (0.29)	0 (0.00)	1 (0.49)
Disposable utensils (e.g., forks, spoons)	n = 343	n = 142	n = 201
Never	294 (85.71)	120 (84.51)	174 (86.57)
Maybe 1-2 times	24 (7.00)	9 (6.34)	15 (7.46)
About one time per week	10 (2.92)	5 (3.52)	5 (2.49)
A few times per week	11 (3.21)	7 (4.93)	4 (1.99)
About one time per day	3 (0.87)	0 (0.00)	3 (1.49)
Multiple times per day	1 (0.29)	1 (0.70)	0 (0.00)
Wrappers, bags, or other food or beverage packaging	n = 346	n = 142	n = 204
Never	209 (60.40)	84 (59.15)	125 (61.27)
Maybe 1-2 times	84 (24.28)	35 (24.65)	49 (24.02)
About one time per week	16 (4.62)	5 (3.52)	11 (5.39)
A few times per week	22 (6.36)	12 (8.45)	10 (4.90)
About one time per day	9 (2.60)	5 (3.52)	4 (1.96)
Multiple times per day	6 (1.73)	1 (0.70)	5 (2.45)
Packaging from non-food or beverage items	n = 343	n = 141	n = 202
Never	248 (72.30)	95 (67.38)	153 (75.74)
Maybe 1-2 times	55 (16.03)	25 (17.73)	30 (14.85)
About one time per week	17 (4.96)	10 (7.09)	7 (3.47)
A few times per week	11 (3.21)	8 (5.67)	3 (1.49)
About one time per day	6 (1.75)	2 (1.42)	4 (1.98)
Multiple times per day	6 (1.75)	1 (0.71)	5 (2.48)
Plastic or paper bag	n = 343	n = 140	n = 203
Never	259 (75.51)	99 (70.71)	160 (78.82)
Maybe 1-2 times	49 (14.29)	26 (18.57)	23 (11.33)
About one time per week	13 (3.79)	5 (3.57)	8 (3.94)
A few times per week	11 (3.21)	6 (4.29)	5 (2.46)
About one time per day	6 (1.75)	3 (2.14)	3 (1.48)
Multiple times per day	5 (1.46)	1 (0.71)	4 (1.97)
Cigarette butts	n = 345	n = 142	n = 203
Never	322 (93.33)	134 (94.37)	188 (92.61)
Maybe 1-2 times	6 (1.74)	1 (0.70)	5 (2.46)
About one time per week	2 (0.58)	0 (0.00)	2 (0.99)
A few times per week	6 (1.74)	4 (2.82)	2 (0.99)

About one time per day	3 (0.87)	0 (0.00)	3 (1.48)
Multiple times per day	6 (1.74)	3 (2.11)	3 (1.48)
Other (please specify)	n = 171	n = 72	n = 99
Never	161 (94.15)	65 (90.28)	96 (96.97)
Maybe 1-2 times	2 (1.17)	1 (1.39)	1 (1.01)
About one time per week	4 (2.34)	2 (2.78)	2 (2.02)
A few times per week	0 (0.00)	0 (0.00)	0 (0.00)
About one time per day	0 (0.00)	0 (0.00)	0 (0.00)
Multiple times per day	4 (2.34)	4 (5.56)	0 (0.00)
Specific answers: clothes Condoms Dust/Crumbs/etc. fruit peels I don't litter anything except for my dead skin cells. None paper paper, yogurt cups processed food wrappers sometimes I drop gum wrappers spit sunflower seeds tissues vegetables			

Question: In the past month, how often have you picked up a piece of litter that was not yours and disposed it?	Count (%) n= 337	Gender	
		Male n= 136	Female n= 201
Never	40 (11.87)	14 (10.29)	26 (12.94)
Maybe 1-2 times	132 (39.17)	57 (41.91)	75 (37.31)
About one time per week	52 (15.43)	17 (12.50)	35 (17.41)
A few times per week	77 (22.85)	31 (22.79)	46 (22.89)
About one time per day	18 (5.34)	7 (5.15)	11 (5.47)
Multiple times per day	18 (5.34)	10 (7.35)	8 (3.98)

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situations:	Count (%)	Gender	
		Male n= 138	Female n= 202
Prior to/after eating or drinking something	n= 340	n= 138	n= 202
Never	141 (41.47)	47 (34.06)	94 (46.53)
Rarely	122 (35.88)	48 (34.78)	74 (36.63)
Sometimes	61 (17.94)	35 (25.36)	26 (12.87)
Almost Always	7 (2.06)	4 (2.90)	3 (1.49)
Always	7 (2.06)	3 (2.17)	4 (1.98)
Not applicable	2 (0.59)	1 (0.72)	1 (0.50)

When I have to put out my cigarette	n = 340	n = 138	n = 202
Never	261 (76.76)	109 (78.99)	152 (75.25)
Rarely	4 (1.18)	1 (0.72)	3 (1.49)
Sometimes	7 (2.06)	2 (1.45)	5 (2.48)
Almost Always	5 (1.47)	3 (2.17)	2 (0.99)
Always	3 (0.88)	2 (1.45)	1 (0.50)
Not applicable	60 (17.65)	21 (15.22)	39 (19.31)
When I'm in a vehicle	n = 336	n = 135	n = 201
Never	208 (61.90)	83 (61.48)	125 (62.19)
Rarely	81 (24.11)	34 (25.19)	47 (23.38)
Sometimes	31 (9.23)	14 (10.37)	17 (8.46)
Almost Always	5 (1.49)	4 (1.48)	3 (1.49)
Always	3 (0.89)	0 (0.00)	3 (1.49)
Not applicable	8 (2.38)	2 (1.48)	6 (2.99)
At home	n = 337	n = 137	n = 200
Never	241 (71.51)	99 (72.26)	142 (71.00)
Rarely	55 (16.32)	19 (13.87)	36 (18.00)
Sometimes	31 (9.20)	15 (10.95)	16 (8.00)
Almost Always	4 (1.19)	3 (2.19)	1 (0.50)
Always	4 (1.19)	0 (0.00)	4 (2.00)
Not applicable	2 (0.59)	1 (0.73)	1 (0.50)
At school	n = 339	n = 137	n = 202
Never	147 (43.36)	46 (33.58)	101 (50.00)
Rarely	104 (30.68)	44 (32.12)	60 (29.70)
Sometimes	62 (18.29)	33 (24.09)	29 (14.36)
Almost Always	11 (3.24)	8 (5.84)	3 (1.49)
Always	11 (3.24)	4 (2.92)	7 (3.47)
Not applicable	4 (1.18)	2 (1.46)	2 (0.99)
At work	n = 337	n = 137	n = 200
Never	266 (78.93)	102 (74.45)	164 (82.00)
Rarely	12 (3.56)	9 (6.57)	3 (1.50)
Sometimes	8 (2.37)	5 (3.65)	3 (1.50)
Almost Always	0 (0.00)	0 (0.00)	0 (0.00)
Always	1 (0.30)	0 (0.00)	1 (0.50)
Not applicable	50 (14.84)	21 (15.33)	29 (14.50)
Other (please specify)	n = 157	n = 66	n = 91
Never	122 (77.71)	48 (72.73)	74 (81.32)
Rarely	4 (2.55)	1 (1.52)	3 (3.30)
Sometimes	9 (5.73)	5 (7.58)	4 (4.40)
Almost Always	1 (0.64)	1 (1.52)	0 (0.00)
Always	1 (0.64)	1 (1.52)	0 (0.00)
Not applicable	20 (12.74)	10 (15.15)	10 (10.99)

Question: What prevents you from littering (select all that apply)?	Count 1364	Gender	
		Male n= 578	Female n= 846
Trash cans/ recycling bins are nearby	322	131	191
There are anti-litter signs posted	77	97	40
When an area is already litter-free	160	55	105
When I feel that I want to keep a certain area clean	221	80	141
Friends, family, or others would complain about my behavior if I littered	191	79	112
I know there is no clean-up crew for a give area	114	36	78
I would feel guilty if I littered	252	91	161
Other (please specify)	27	9	18
<p>Specific answers:</p> <p>Because it goes against my ethics</p> <p>camping</p> <p>Guilty</p> <p>habitual - never litter</p> <p>i care about the enviornment too much</p> <p>i don't like to litter</p> <p>I dont like trash on the ground</p> <p>I dont mind walking to a trash can.</p> <p>i know littering is wrong / bad</p> <p>i like to recycle for money</p> <p>I protect the Eath as much as possible</p> <p>If I have been carrying my trash for days.</p> <p>im a green academy student</p> <p>I'm not a selfish lazy person, and I care about the environment</p> <p>It is disrespectful to the Earth and to other people</p> <p>It's gross</p> <p>La Migra</p> <p>My Mom is a Janitor</p> <p>My parent</p> <p>no point in littering</p> <p>O.C.D</p> <p>People Watching.</p> <p>small enough for mypocket</p> <p>Teachers</p> <p>The world would be one big garbage can if we just littered, and i like the world i live in now. Who would want to live in a world were there is garbage everywhere.</p> <p>To help the earth</p> <p>to keep the world clean</p> <p>Was taught otherwise</p>			

Question: How often do you think your friends litter?	Count (%) n= 337	Gender	
		Male n= 136	Female n= 201

Never	18 (5.34)	2 (1.47)	16 (7.96)
Rarely	51 (15.13)	14 (10.29)	37 (18.41)
Sometimes	162 (48.07)	66 (48.53)	96 (47.76)
Frequently	75 (22.26)	38 (27.94)	37 (18.41)
All the time	31 (9.20)	16 (11.76)	15 (7.46)

Question: When I see my friends littering, I _____ of their behavior.	Count (%) n= 339	Gender	
		Male n= 138	Female n= 201
Strongly disapprove	61 (17.99)	11 (7.97)	50 (24.88)
Disapprove	112 (33.04)	39 (28.26)	73 (36.32)
Somewhat Disapprove	76 (22.42)	36 (25.09)	40 (19.90)
Neither approve nor disapprove	81 (23.89)	47 (34.06)	34 (16.92)
Somewhat approve	4 (1.18)	3 (2.17)	1 (0.50)
Approve	2 (0.59)	1 (0.72)	1 (0.50)
Strongly approve	3 (0.88)	1 (0.72)	2 (1.00)

Question: If my friends saw me litter, they would _____ of my behavior.	Count (%) n= 336	Gender	
		Male n= 136	Female n= 200
Strongly disapprove	24 (7.14)	3 (2.21)	21 (10.50)
Disapprove	59 (17.56)	18 (13.24)	41 (20.50)
Somewhat Disapprove	73 (21.73)	25 (18.38)	48 (24.00)
Neither approve nor disapprove	161 (47.92)	79 (58.09)	82 (41.00)
Somewhat approve	13 (3.87)	6 (4.41)	7 (3.50)
Approve	1 (0.30)	0 (0.00)	1 (0.50)
Strongly approve	5 (1.49)	5 (3.68)	0 (0.00)

Question: When I think of times that I have littered, I _____ of my behavior.	Count (%) n= 338	Gender	
		Male n= 137	Female n= 201
Strongly disapprove	93 (27.51)	20 (14.60)	73 (36.32)
Disapprove	122 (36.09)	46 (33.58)	76 (37.81)
Somewhat Disapprove	69 (20.41)	34 (24.82)	35 (17.41)
Neither approve nor disapprove	44 (13.02)	29 (21.17)	15 (7.46)
Somewhat approve	5 (1.48)	5 (3.65)	0 (0.00)
Approve	2 (0.59)	1 (0.73)	1 (0.50)
Strongly approve	3 (0.89)	2 (1.46)	1 (0.50)

Question: In the past month, have you spoken with friends about littering?	Count (%) n= 337	Gender	
		Male n= 138	Female n= 199
No	226 (67.06)	103 (74.64)	123 (61.81)
Yes	111 (32.94)	35 (25.36)	76 (38.19)

Question: How do you think these conversations influenced your opinions about littering?	Count (%) n= 110	Gender	
		Male n= 35	Female n= 75
They made me think that littering is an important issue	57 (51.82)	20 (57.14)	37 (49.33)
They made me think littering is not an important issue	3 (2.73)	2 (5.71)	1 (1.33)
They didn't influence my opinion about littering	23 (20.91)	3 (8.57)	20 (26.67)
It depended who I was talking to; different friends had different effects	27 (24.55)	10 (28.57)	17 (22.67)

Question: In the next month, how likely is that you will litter? Remember, litter is defined as discarding, placing, throwing, or dropping any waste item in a public or private area and not immediately removing it. This includes waste items large and small, discarded intentionally or accidentally.	Count (%) n= 338	Gender	
		Male n= 137	Female n= 201
Very Unlikely	95 (28.11)	27 (19.71)	68 (33.83)
Unlikely	89 (26.33)	24 (17.52)	65 (32.34)
Somewhat Unlikely	40 (11.83)	21 (15.33)	19 (9.45)
Undecided	54 (15.98)	30 (21.90)	24 (11.94)
Somewhat Likely	33 (9.76)	12 (8.76)	21 (10.45)
Likely	19 (5.62)	16 (11.68)	3 (1.49)
Very Likely	8 (2.37)	7 (5.11)	1 (0.50)

Question: How willing are you to participate in the following activities?	Count (%)	Gender	
		Male n= 128	Female n= 185
Volunteer for a litter cleanup day	n= 313	n= 128	n= 185
Very Unlikely	50 (15.97)	29 (22.66)	21 (11.35)
Unlikely	44 (14.06)	18 (14.06)	26 (14.05)
Somewhat Unlikely	30 (9.58)	12 (9.38)	18 (9.73)
Undecided	64 (20.45)	30 (23.44)	34 (18.38)
Somewhat Likely	66 (21.09)	22 (17.19)	44 (23.78)
Likely	39 (12.46)	8 (6.25)	31 (16.76)
Very Likely	20 (6.39)	9 (7.03)	11 (5.95)
Sign up for our campaign email newsletter	n = 313	n = 128	n = 185
Very Unlikely	99 (31.63)	49 (38.28)	50 (27.03)
Unlikely	83 (26.52)	28 (21.88)	55 (29.73)
Somewhat Unlikely	33 (10.54)	12 (9.38)	21 (11.35)
Undecided	60 (19.17)	24 (18.75)	36 (19.46)
Somewhat Likely	22 (7.03)	10 (7.81)	12 (6.49)
Likely	6 (1.92)	0 (0.00)	6 (3.24)
Very Likely	10 (3.19)	5 (3.91)	5 (2.70)
Enter the video contest for our campaign	n = 313	n = 128	n = 185
Very Unlikely	110 (35.14)	49 (38.28)	61 (32.97)
Unlikely	85 (27.16)	30 (23.44)	55 (29.73)
Somewhat Unlikely	24 (7.67)	10 (7.81)	14 (7.57)
Undecided	61 (19.49)	25 (19.53)	36 (19.46)
Somewhat Likely	17 (5.43)	8 (6.25)	9 (4.86)

Likely	6 (1.92)	1 (0.78)	5 (2.70)
Very Likely	10 (3.19)	5 (3.91)	5 (2.70)
Enter an art contest that is part of the campaign	n = 313	n = 128	n = 185
Very Unlikely	100 (31.95)	52 (40.63)	48 (25.95)
Unlikely	75 (23.96)	34 (26.56)	41 (22.16)
Somewhat Unlikely	32 (10.22)	12 (9.38)	20 (10.81)
Undecided	48 (15.34)	17 (13.28)	31 (16.76)
Somewhat Likely	32 (10.22)	7 (5.47)	25 (13.51)
Likely	15 (4.79)	3 (2.34)	12 (6.49)
Very Likely	11 (3.51)	3 (2.34)	8 (4.32)
Pick up someone else's litter	n = 313	n = 128	n = 185
Very Unlikely	26 (8.31)	16 (12.50)	10 (5.41)
Unlikely	19 (6.07)	8 (6.25)	11 (5.95)
Somewhat Unlikely	26 (8.31)	17 (13.28)	9 (4.86)
Undecided	47 (15.02)	19 (14.84)	28 (15.14)
Somewhat Likely	81 (25.88)	36 (28.13)	45 (24.32)
Likely	67 (21.41)	16 (12.50)	51 (27.57)
Very Likely	47 (15.02)	16 (12.50)	31 (16.76)
If I see a friend littering, say something to express disapproval or try to stop her/him from littering	n = 312	n = 127	n = 185
Very Unlikely	20 (6.41)	14 (11.02)	6 (3.24)
Unlikely	9 (2.88)	7 (5.51)	2 (1.08)
Somewhat Unlikely	20 (6.41)	11 (8.66)	9 (4.86)
Undecided	48 (15.38)	26 (20.47)	22 (11.89)
Somewhat Likely	64 (20.51)	35 (27.56)	29 (15.68)
Likely	77 (24.68)	22 (17.32)	55 (29.73)
Very Likely	74 (23.72)	12 (9.45)	62 (33.51)

BASMAA Final Evaluation Report

July 31

2014

This report describes littering behavior and predictors of littering among youth in the Bay Area region.

EXECUTIVE SUMMARY

Prior to the launch of the Be the Street™ litter abatement program, a detailed survey was conducted to assess littering behavior and perceived social norms of Bay Area youth. The data collected with this survey was established as a baseline against which follow-up survey data could be measured to determine the overall impact of the Be the Street program.

A follow-up survey was conducted during the summer of 2014. The survey was designed to mirror the baseline survey to ensure data comparability. Only respondents who fit the target demographic of the program, 14-24 years of age and living in Bay Area zip codes, were included in the analysis. A total of 60 responses which fit this criteria were collected.

The survey focused on littering habits and opinions of the target demographic. The subsequent analysis and comparison to the baseline data revealed many key findings that both demonstrate the effectiveness of the overall Be the Street program and provide recommendations for future outreach efforts. Key findings are described below.

Throughout this analysis the following terminology is used.

- **Baseline.** Baseline refers to the data collected prior to the start of the Be the Street program.
- **Exposed.** Exposed refers to respondents captured in the follow-up survey who reported being aware of the Be the Street program. The goal of the program is to demonstrate that individuals exposed to Be the Street have adopted preferred behaviors and opinions towards recycling when compared against the Baseline and Unexposed.
- **Unexposed.** Unexposed refers to respondents captured in the follow-up survey who reported being unfamiliar with the Be the Street program. The difference between Unexposed and Exposed demonstrates the impact of the program. In addition, we anticipate that the Unexposed should be more similar to the Baseline.

KEY FINDINGS

- **Exposed are nearly 3x as likely to pick up litter.** 90% of exposed respondents reported that they were 'very likely' or 'likely' to pick up someone else's litter while only 38% of unexposed respondents reported the same.
- **Exposed are nearly 2x as likely to disapprove of friends littering.** 94% of exposed respondents reported the 'strongly disapprove' or 'disapprove' of their friends littering while only 52% of unexposed reported the same.
- **Exposed are nearly 1.5x as likely to voice that disapproval.** 70% of exposed respondents reported that they were 'very likely' or 'likely' to voice disapproval when their friends litter while only 48% of unexposed respondents reported the same.
- **Exposed are more than 2x as likely to disapprove of their own littering.** 58% of exposed respondents reported the 'strongly disapprove' or 'disapprove' of their own behaviors when they have littered in the past while only 29% of unexposed reported the same.
- **Unexposed are nearly 2x as likely to litter in the future.** 19% of unexposed respondents reported that they were 'very likely,' 'likely,' or 'somewhat likely' to litter in the next month while only 10% of exposed respondents reported the same.
- **Unexposed litter more than 2x as often.** 8% of unexposed respondents reported littering at least a few times a week while only 4% of exposed respondents reported the same.

INTRODUCTION

Be the Street is a regional litter abatement program developed by the Bay Area Stormwater Management Agencies Association (BASMAA). The program primarily targeted 14-24 year old Bay Area youth who had been identified as a key polluting demographic. The program focused heavily on social media and innovative outreach strategies with the end goal of promoting peer-to-peer interactions regarding littering and raising awareness of its environmental impacts. The program sought to be “message up” instead of “government down” and encouraged participants to craft messaging in their own words.

Be the Street was carefully branded to connect with its target audience. The brand was developed to be youthful, vibrant, and engaged. Under this brand, the state of the “street” is a reflection of the youth who use it. By exploring problems and solution related to community and environmental issues, street-by-street, participants are rewarded with the pride, and the fun, of having created the kind of “street” they have always wanted to live on.

Be the Street engaged with the target population primarily through social media (e.g. Facebook and Instagram) to deliver inspirational and educational content. An innovative set of outreach strategies included a YouTube video contest with a live stream award show, a meme contest, and the development of a mobile app that gamified environmental awareness and sent users into the streets to complete challenges, win points, and get prizes.

The impact of these outreach strategies are reflected through the breadth of Be the Street’s engagements and through a baseline and follow-up survey. The subsequent sections discuss the findings from those surveys. A summary of Be the Street’s engagement impacts is included at the end of this report.

SURVEY ANALYSIS

PURPOSE AND OVERVIEW

The purpose of the follow-up survey was to assess littering behavior and perceived social norms among youth living in the Bay Area. The survey was designed to mirror the baseline survey conducted before the Be the Street program kicked off. Comparing the baseline with the follow-up survey, as well as comparing the results of the exposed versus the unexposed respondents, provides an indicator of the net impact of the Be the Street program.

In analyzing the survey results, findings were categorized into four general categories: Attitudes, Actions, Beliefs, and Willingness. These four categories afforded a retrospective look at how respondents felt (Attitudes) and what they did (Actions) and a prospective look at why they feel the way they do (Beliefs) and what they might do in the future (Willingness).

Throughout the survey findings, many questions were framed such as “When I see my friend littering, I _____ of their behavior.” Respondents were asked to reply with responses of ‘Strongly Disapprove,’ ‘Disapprove,’ ‘Somewhat Disapprove,’ ‘Neither Approve or Disapprove,’ ‘Somewhat Approve,’ ‘Approve,’ or ‘Strongly Approve.’ Results were recorded and the survey advanced to the next question.

SURVEY ADMINISTRATION

The follow-up survey was conducted during the summer of 2014 through Facebook (the primary outreach vehicle for the program) and through traditional intercept outreach. The survey was designed to mirror

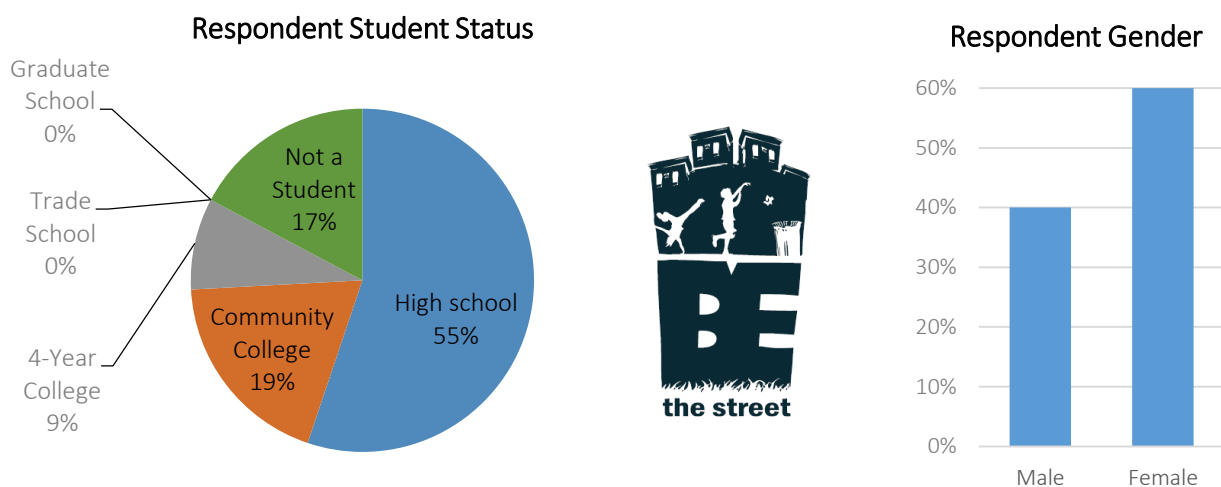
the baseline survey to ensure data comparability. Only respondents who fit the target demographic of the program, 14-24 years of age and living in Bay Area zip codes, were included in the analysis.

The survey assessed littering behavior, contextual factors related to littering, peer-to-peer interactions about littering, and willingness to participate in volunteer activities.

DEMOGRAPHICS

A total of 60 respondents met the administrative criteria to be included in the survey results as respondents. The sample included more females (60%) than males (40%). The mean age of respondents was approximately 17 years of age (SD = 2.52) with the majority identifying as high school students (55%). The remaining respondents were community college students (19%), 4-year college students (9%), or not enrolled in school (17%). No respondents reported being in graduate school or trade school. These findings are reported in **Figure 1**.

Figure 1. Demographic characteristics of sample (N=60).



ATTITUDES

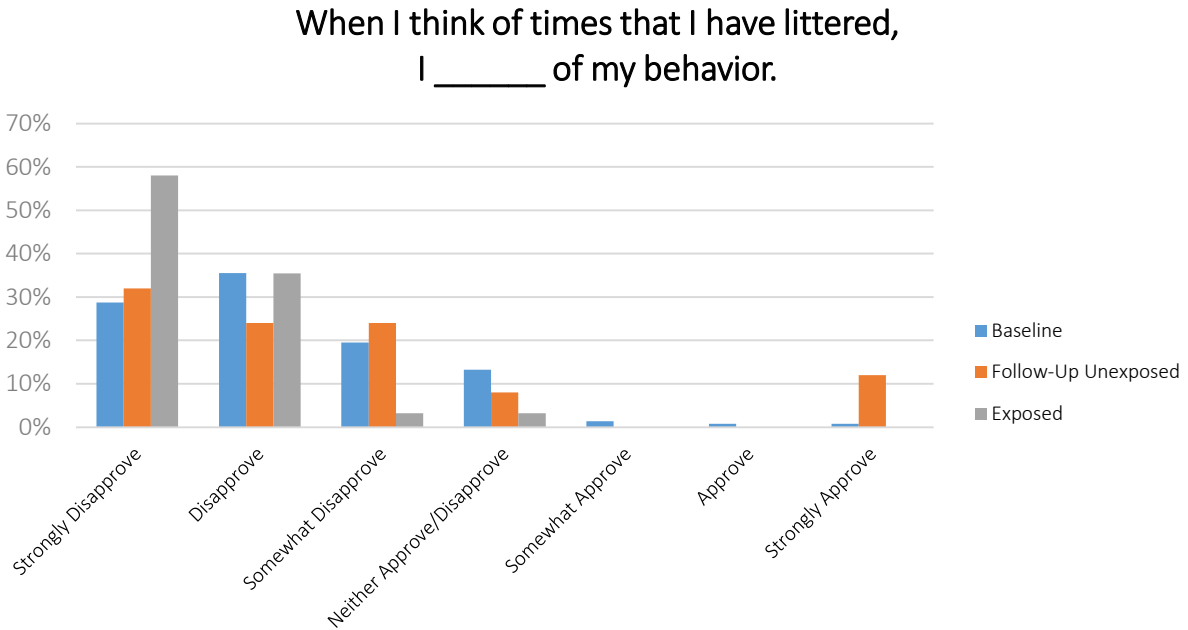
The first analysis category was to evaluate respondents' attitudes. These questions tended to be retrospective in nature and ask the respondent to consider a time when something happened in the past.

Personal Littering

Respondents were asked, "When I think of times that I have littered, I _____ of my behavior." Exposed respondents (58%) were substantially more likely to 'strongly disapprove' of their own littering than either the baseline (29%) or the unexposed (32%). More than 94% of exposed respondents reported disapproval when expanded to include 'strongly disapprove' and 'disapprove,' as compared to 64% of baseline and 56% of unexposed respondents.

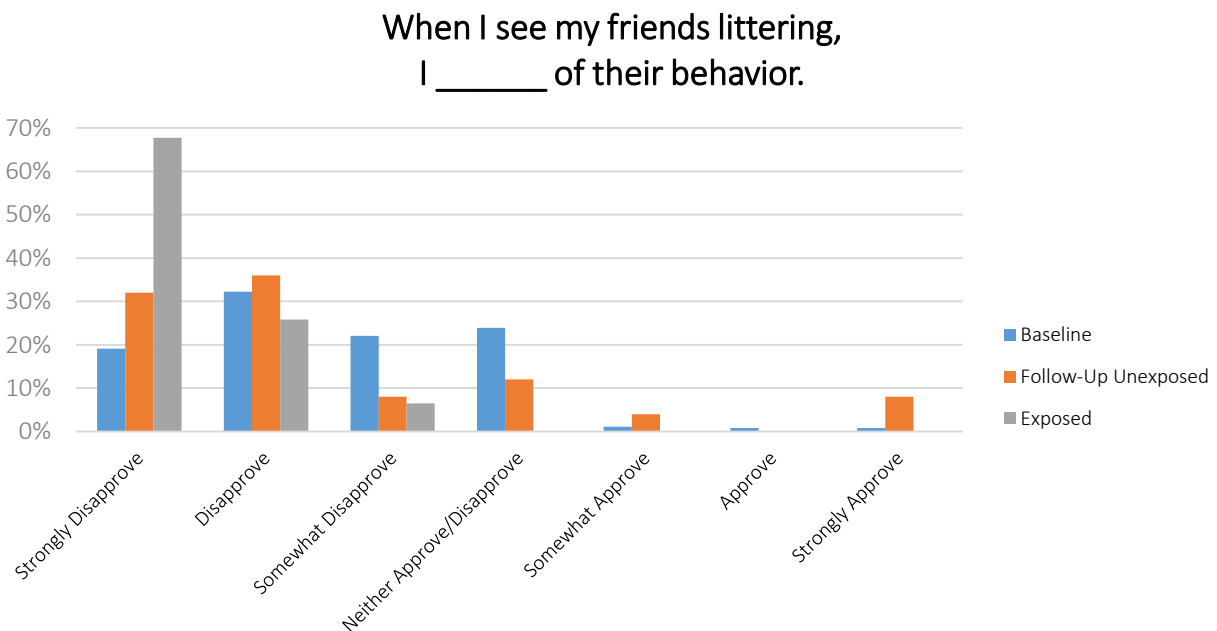
The analysis also shows a correlation between the baseline and unexposed respondents, reinforcing the significance of the change demonstrated in the exposed respondents as impact of the Be the Street program. These findings are reported in **Figure 2**.

Figure 2. Respondent Attitude towards personal littering (N=60).



The findings of respondents’ attitudes to their personal littering closely mirrored their attitudes of their friends’ littering. Exposed respondents expressed even greater disapproval of their friends’ littering with every exposed respondent reporting some level of disapproval. More than 93% of exposed respondents reported they would ‘strongly disapprove’ or ‘disapprove’ as compared to 51% of the baseline and 68% of unexposed respondents. These findings are reported in **Figure 3**.

Figure 3. Respondent Attitude towards littering by friends.



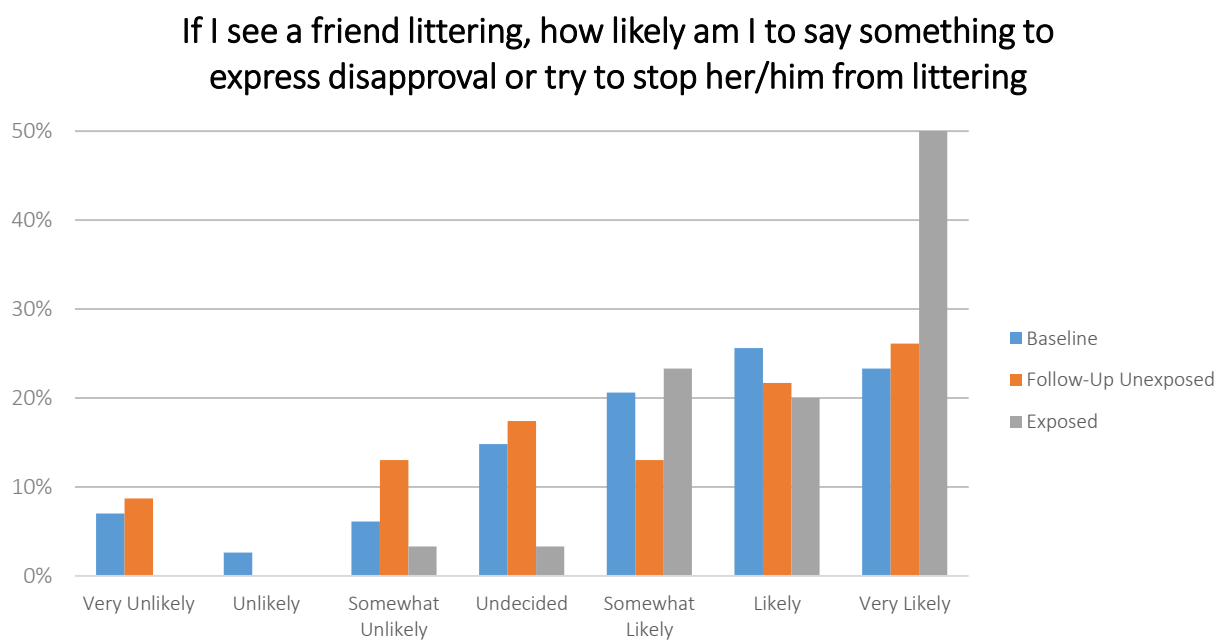
ACTIONS

Following on asking the respondent about their attitudes towards the littering of their peers, the survey sought to ask if they would express disapproval to a friend that they observed littering. Encouraging others to adopt pro-environmental behaviors through expressing disapproval of littering is the ideal goal of any outreach campaign.

Exposed respondents were one-and-a-half times more likely than unexposed and baseline respondents to voice disapproval. More than 70% of exposed respondents reported that they were ‘very likely’ or ‘likely’ to voice disapproval when their friends litter while only 49% of baseline and 48% of unexposed respondents reported the same.

Only 3% of exposed respondents said they would be unlikely to speak up (and only ‘somewhat unlikely,’ at that) while 16% of baseline and 22% of unexposed respondents would be unlikely to express disapproval. Exposed respondents were 5-7x more likely to become advocates of pro-environmental behaviors. These findings are reported in **Figure 4**.

Figure 4. Respondent likelihood to express disapproval of peer littering (N=60).



BELIEFS

The survey also sought to gauge respondents’ beliefs around littering and environmental behaviors. Understanding respondents’ beliefs helps provide insight into how they are likely to behave in the future.

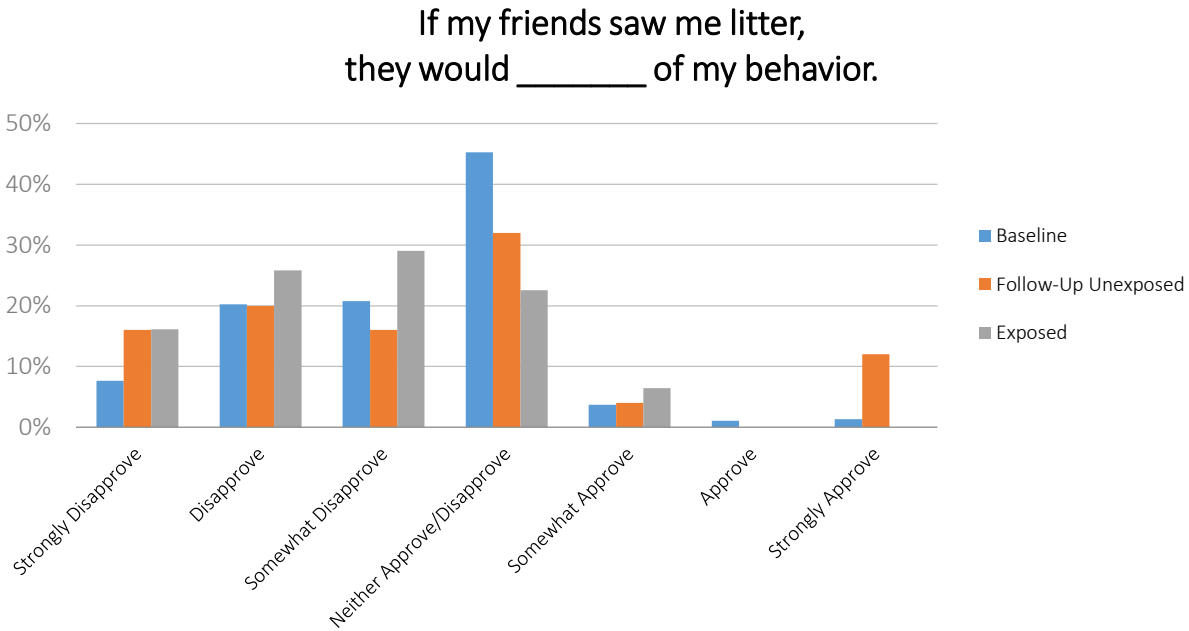
Perception of Peer Perception

Respondents were asked, “If my friends saw me litter, they would _____ of my behavior.” Exposed respondents (71%) were more likely to believe their friends would disapprove of seeing them litter than baseline (48%) or unexposed respondents (52%).

Surprisingly, the rates of approval and disapproval bear little similarity to the results reported in **Figure 3** demonstrating the respondents’ perception of their friend littering. This suggests that respondents do not

belong to peer groups with substantial mutuality of beliefs—that is, if an individual disapproves of their friends littering, we would anticipate that their friend would similarly disapprove of their littering. However, respondents tended to weight their own conviction much higher (‘strongly disapprove’) and their peers’ convictions much weaker (‘somewhat disapprove’). These findings are reported in **Figure 5**.

Figure 5. Respondent likelihood to express disapproval of peer littering.



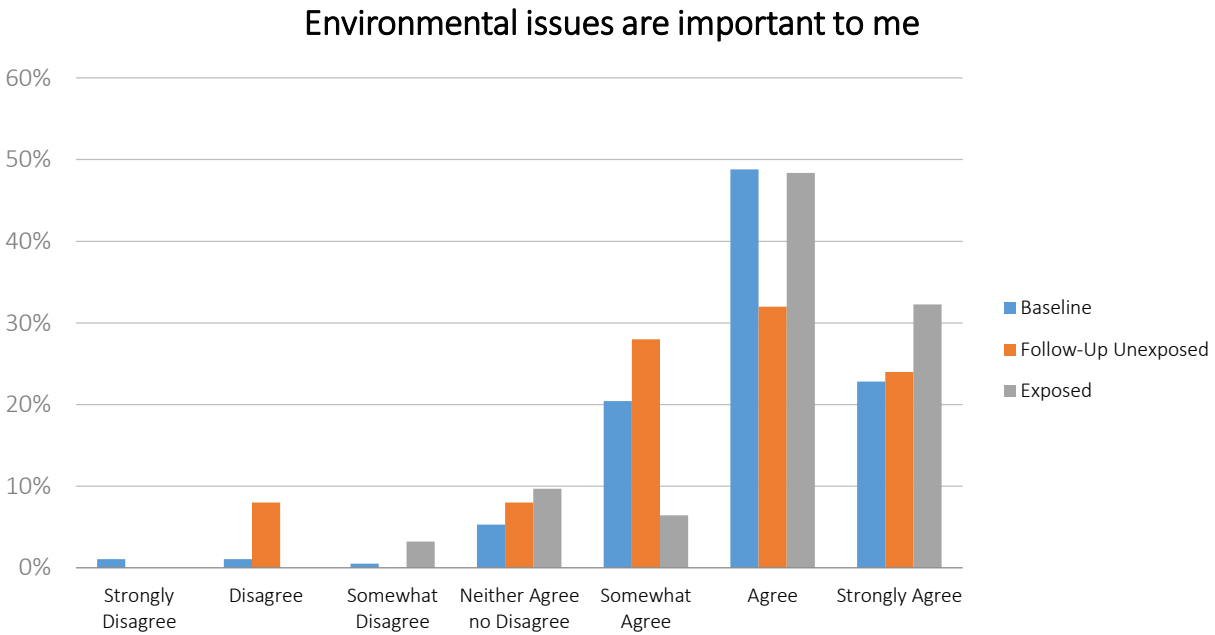
Importance of Environmental Issues

Respondents were asked to respond to the statement, “Environmental issues are important to me.” Exposed respondents (32%) were more likely to report that they ‘strongly agree’ than either baseline (23%) or unexposed respondents (24%). In addition, exposed respondents (81%) were more likely to agree in general (‘strongly agree’ and ‘agree’) than baseline (71%) or unexposed respondents (56%).

It should be noted, however, that it cannot be said with certainty that exposure to Be the Street caused the belief to be held. It is possible, and perhaps likely, that Be the Street attracted fans and respondents who already held these beliefs. If that were demonstrated to be true, then Be the Street’s core value with regards to those individuals would be the program’s ability to capture, engage, empower, and retain those individuals while putting them into contact with like-minded peers. This finding may be supported by the finding discussed above wherein most respondents viewed the conviction of their own beliefs to be greater than that of their peers.

The results of the question that environmental issues are important to the respondent most closely resemble the results (albeit reversed) presented in **Figure 2** and **Figure 3**. **Figure 2**, asking for the respondent’s attitude toward their own past littering, and **Figure 3**, asking for the respondent’s attitude toward the littering of their peers, appear to be closely linked to the respondent’s belief that they hold environmental issues as important. These findings are reported in **Figure 6**.

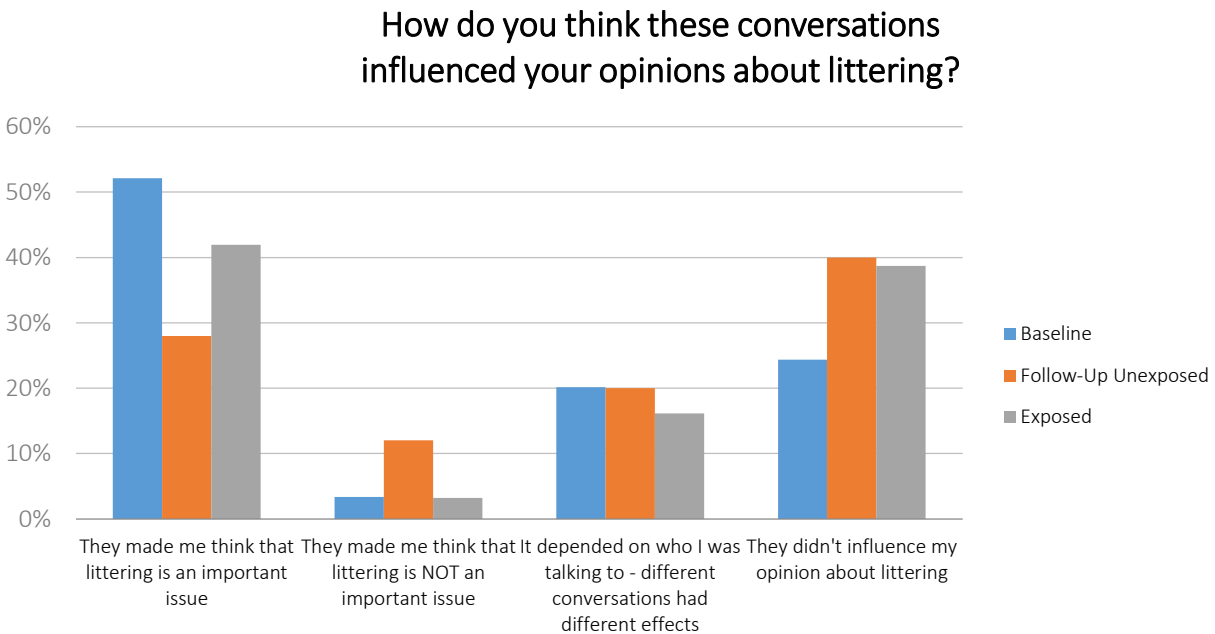
Figure 6. Respondent's belief that environmental issues are important.



Impact of Conversations on Importance of Littering

One of the goals of the Be the Street campaign was to encourage and promote peer-to-peer interactions regarding littering. At the end of the survey, respondents were asked to assess the frequency with which they had conversations about littering and the impact of those conversations on their views of littering. There was not a substantial difference between groups in how conversations impacted belief. These findings are reported in **Figure 7**.

Figure 7. Respondent's belief on the impact of discussing littering with peers.



WILLINGNESS

The final category of questions investigated in this analysis revolved around asking the respondent to consider their willingness or likelihood of taking some future action. These questions helped place into context the respondent’s current attitudes towards littering behavior, but also provided insights in how future outreach efforts could be shaped to utilize that willingness.

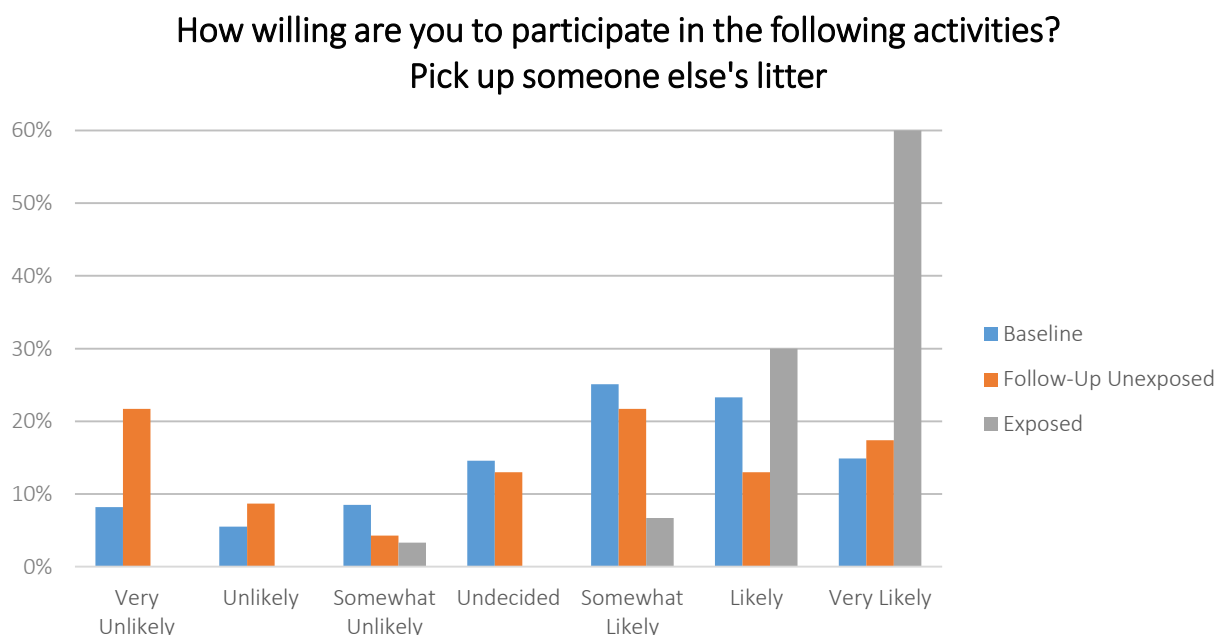
Willingness to Pick up Someone Else’s Litter

Respondents were asked how willing they would be to pick up someone else’s litter they observed on the ground. More than 90% of exposed respondents reported that they were ‘very likely’ or ‘likely’ to pick up someone else’s litter while only 38% of baseline and 30% of unexposed respondents reported the same.

The results at the other end of the spectrum are even more pronounced. While 22% of baseline and 35% of unexposed respondents reported that they would be some level of unlikely to pick up someone else’s trash, only 3% of exposed reported any unwillingness and that percentage was only ‘somewhat unlikely.’

Finally, while 15% of baseline and 13% unexposed were undecided on whether or not they would be willing to pick up someone else’s litter, no exposed were undecided. Engagement with Be the Street demonstrates a marked increase in decisiveness of the respondent and a marked increase in willingness to be proactive in cleaning up the streets. These findings are reported in **Figure 8**.

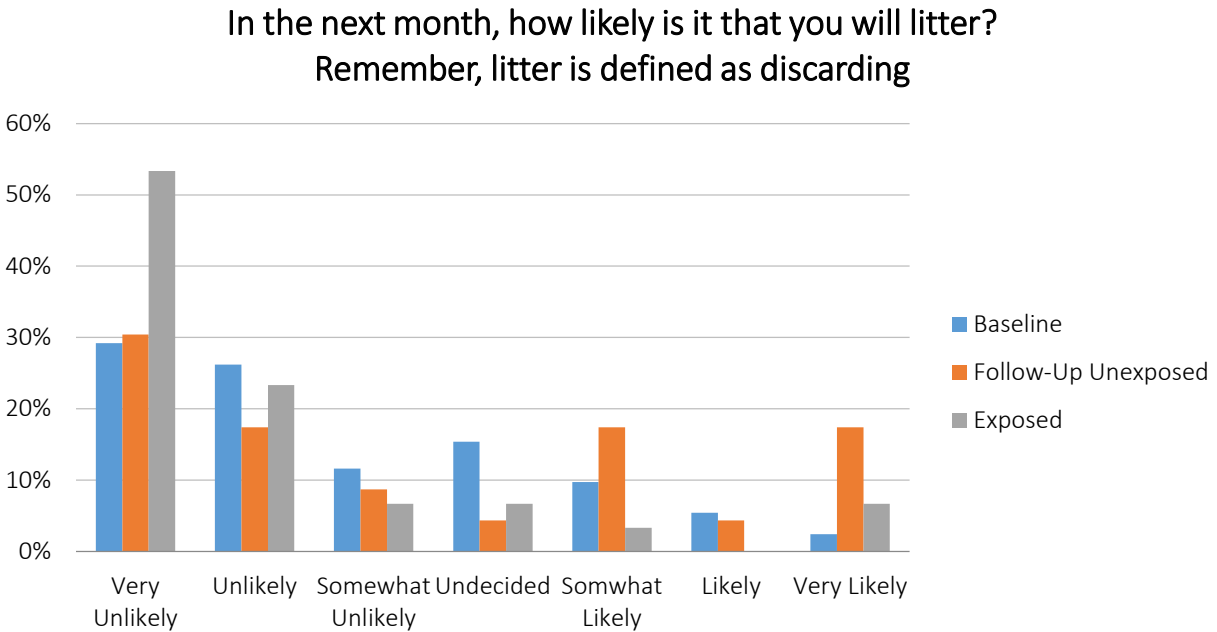
Figure 8. Respondent’s willingness to pick up someone else’s litter.



Likelihood to Litter

Respondents were also asked about the likelihood that they would litter in the future. Only 10% of exposed reported any willingness to litter in the future while 18% of baseline and 39% of unexposed reported the same. Respondents exposed to the Be the Street program were two to four times less likely to litter in the future than those who were not exposed. These findings are reported in **Figure 9**.

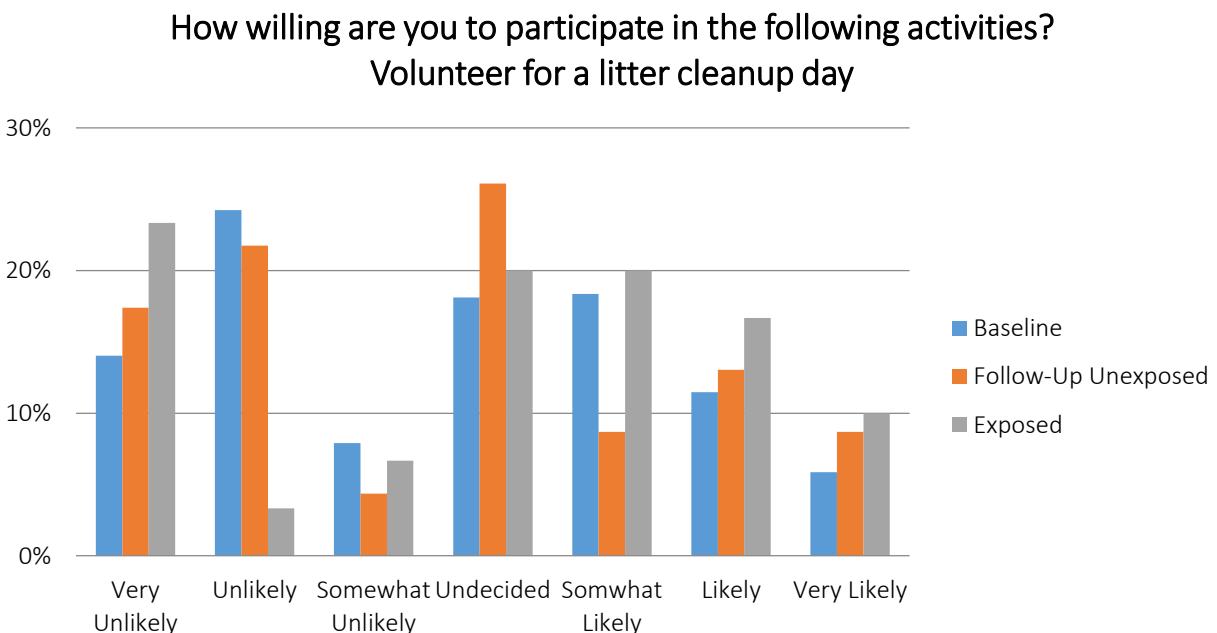
Figure 9. Respondent's willingness to litter in the future.



Willingness to Volunteer

Respondents were finally asked about their willingness to volunteer for a litter cleanup day. Exposed respondents (47%) were roughly one-and-a-half times more likely to be willing to volunteer than baseline (36%) or unexposed respondents (30%). However, exposed respondents also reported the highest 'very unlikely' response at 23%. These findings are reported in **Figure 10**.

Figure 10. Respondent's willingness to participate in volunteer cleanups.



ENGAGEMENT DATA

In addition to the statistical differences demonstrated above, the Be the Street program has significant levels of engagement. The levels of engagement demonstrated by Be the Street are unparalleled by any other public education outreach program.

Highlights include:

- **Facebook.** More than 6,100 engagements including 5,348 current likes. In the two years since its creation, the Be the Street page has achieved 150% the likes of the similarly situated SF Environment Facebook page. The Facebook page also featured a meme contest which achieved more than 100 user-created memes and numerous competitions that garnered thousands of organic shares.
- **YouTube.** A total of 56 videos published on the Be the Street YouTube channel including 52 fan-submitted videos for the anti-litter video contest. This competition received more than 4800 votes cast and had 593 unique views of the 25-minute wards show. At the conclusion of the video competition, the channel had received a total of nearly 16,000 views. Since then, without substantial investment, total views on the channel have risen to nearly 42,000, a 260% increase, just by continuing to leverage existing assets.
- **Mobile app.** A recently completed mobile app allows Be the Street to make direct asks of the target audience through gamification. The mobile app has users complete challenges by going “into the field” and taking pictures of various BMPs. These photos earn the users points which they can use to secure prizes from the app store. In addition, the mobile app allows the program to use push notifications to send messages, new challenges, and notifications directly to the users.

CONCLUSION

Those exposed to the Be the Street program demonstrated differences in key attitudes and behaviors upwards of 200% compared to the population baseline. Those differences were often the most pronounced in key categories such as likelihood to litter in the future, willingness to engage others to promote pro-environmental behaviors, and willingness to become environmental stewards and pick up the litter of others. Generally speaking, this differential is likely due to one of the following three scenarios (or perhaps most likely, a combination of all three)

1. Be the Street is effective in changing attitudes and behaviors as it relates to littering in the target audience.
2. Be the Street is effective in attracting the sort of members of the target audience most likely to exhibit positive anti-litter behaviors and attitudes.
3. Be the Street is effective in attracting anti-litter leaning members of the community and empowering them to adopt even further anti-litter attitudes and behaviors.

Throughout the analysis, the results of the baseline survey (conducted before the start of the Be the Street program) and the unexposed respondents included in the follow-up survey followed similar patterns. These patterns further validate the important differences demonstrated by the respondents exposed to the program.

Be the Street Post-Campaign Survey Topline

Question: What is your birthday?	Count (%) N =60	Campaign Awareness			
		Exposed N=31		Unexposed N=27	
1990	2 3.3%	1 3.2%	1 3.7%		
1991	4 6.7%	1 3.2%	3 11.1%		
1992	3 5.0%	2 6.5%	1 3.7%		
1993	2 3.3%	0 0.0%	2 7.4%		
1994	3 5.0%	2 6.5%	1 3.7%		
1995	10 16.7%	4 12.9%	4 14.8%		
1996	12 20.0%	4 12.9%	8 29.6%		
1997	6 10.0%	4 12.9%	2 7.4%		
1998	9 15.0%	7 22.6%	2 7.4%		
1999	8 13.3%	5 16.1%	3 11.1%		
2000	1 1.7%	1 3.2%	0 0.0%		

Question: What is your gender?	Count N=60	Campaign Awareness			
		Exposed N=31		Unexposed N=27	
Male	24 40.0%	12 38.7%	10 37.0%		
Female	36 60.0%	19 61.3%	17 63.0%		

Question: What is your home zipcode?	Count N=58	Campaign Awareness			
		Exposed N=31		Unexposed N=27	
94043	1 1.7%	1 3.2%	0 0.0%		
94044	2 3.4%	0 0.0%	2 7.4%		
94061	2 3.4%	1 3.2%	1 3.7%		
94063	4 6.9%	1 3.2%	3 11.1%		
94070	1 1.7%	1 3.2%	0 0.0%		
94086	1 1.7%	0 0.0%	1 3.7%		
94096	1 1.7%	0 0.0%	1 3.7%		
94116	1 1.7%	0 0.0%	1 3.7%		
94303	3 5.2%	1 3.2%	2 7.4%		
94402	1 1.7%	0 0.0%	1 3.7%		
94503	1 1.7%	1 3.2%	0 0.0%		
94533	1 1.7%	0 0.0%	1 3.7%		
94539	1 1.7%	0 0.0%	1 3.7%		
94541	2 3.4%	1 3.2%	1 3.7%		
94551	1 1.7%	1 3.2%	0 0.0%		
94565	1 1.7%	0 0.0%	1 3.7%		
94590	1 1.7%	1 3.2%	0 0.0%		
94591	2 3.4%	2 6.5%	0 0.0%		
94607	1 1.7%	1 3.2%	0 0.0%		
94610	4 6.9%	4 12.9%	0 0.0%		
94612	2 3.4%	2 6.5%	0 0.0%		
94618	2 3.4%	2 6.5%	0 0.0%		
94621	1 1.7%	0 0.0%	1 3.7%		
94712	2 3.4%	2 6.5%	0 0.0%		
95014	1 1.7%	1 3.2%	0 0.0%		
95020	1 1.7%	0 0.0%	1 3.7%		

95037	1	1.7%	0	0.0%	1	3.7%
95050	2	3.4%	1	3.2%	1	3.7%
95051	1	1.7%	1	3.2%	0	0.0%
95055	1	1.7%	1	3.2%	0	0.0%
95101	1	1.7%	0	0.0%	1	3.7%
95108	1	1.7%	0	0.0%	1	3.7%
95119	1	1.7%	1	3.2%	0	0.0%
95122	2	3.4%	1	3.2%	1	3.7%
95127	1	1.7%	0	0.0%	1	3.7%
95132	1	1.7%	0	0.0%	1	3.7%
95136	1	1.7%	1	3.2%	0	0.0%
95141	1	1.7%	0	0.0%	1	3.7%
95148	1	1.7%	0	0.0%	1	3.7%
95150	2	3.4%	2	6.5%	0	0.0%

Question: What is your status?	Count N=58	Campaign Awareness			
		Exposed N=31		Unexposed N=27	
I am a high school student	32 55.2%	20	64.5%	12	44.4%
I am a community college student	11 19.0%	5	16.1%	6	22.2%
I am a student at a four year university	5 8.6%	3	9.7%	2	7.4%
I am a student at a trade school	0 0.0%	0	0.0%	0	0.0%
I am a graduate student	0 0.0%	0	0.0%	0	0.0%
I am not a student	10 17.2%	3	9.7%	7	25.9%

Question: Environmental issues are important to me.	Count N=58	Campaign Awareness			
		Exposed N=31		Unexposed N=27	
Strongly Disagree	1 1.7%	0	0.0%	1	3.7%
Disagree	2 3.4%	0	0.0%	2	7.4%
Somewhat Disagree	1 1.7%	1	3.2%	0	0.0%
Neither Agree nor Disagree	5 8.6%	3	9.7%	2	7.4%
Somewhat Agree	9 15.5%	2	6.5%	7	25.9%
Agree	23 39.7%	15	48.4%	8	29.6%
Strongly Agree	17 29.3%	10	32.3%	7	25.9%

Question: Have you seen that logo before?	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Yes	24 42.9%	24	77.4%	0	0.0%
No	32 57.1%	7	22.6%	25	100.0%

Question: In the past month how often have you littered food?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	39 70.9%	27	90.0%	12	48.0%
Maybe 1-2 Times	11 20.0%	3	10.0%	8	32.0%
About 1 time per week	1 1.8%	0	0.0%	1	4.0%
A few times per week	0 0.0%	0	0.0%	0	0.0%
About 1 time per day	2 3.6%	0	0.0%	2	8.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered chewing gum?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	42 76.4%	24	80.0%	18	72.0%
Maybe 1-2 Times	9 16.4%	5	16.7%	4	16.0%
About 1 time per week	1 1.8%	0	0.0%	1	4.0%
A few times per week	1 1.8%	0	0.0%	1	4.0%
About 1 time per day	1 1.8%	1	3.3%	0	0.0%
Multiple times every day	1 1.8%	0	0.0%	1	4.0%

Question: In the past month how often have you littered Beverage bottles, cans, cups, and/or cartons?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	36 65.5%	25	83.3%	11	44.0%
Maybe 1-2 Times	12 21.8%	4	13.3%	8	32.0%
About 1 time per week	2 3.6%	0	0.0%	2	8.0%
A few times per week	2 3.6%	1	3.3%	1	4.0%
About 1 time per day	1 1.8%	0	0.0%	1	4.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered straws?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	29 52.7%	18	60.0%	11	44.0%
Maybe 1-2 Times	16 29.1%	10	33.3%	6	24.0%
About 1 time per week	4 7.3%	1	3.3%	3	12.0%
A few times per week	2 3.6%	0	0.0%	2	8.0%
About 1 time per day	2 3.6%	1	3.3%	1	4.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered bottle caps?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	42 76.4%	25	83.3%	17	68.0%
Maybe 1-2 Times	6 10.9%	2	6.7%	4	16.0%
About 1 time per week	1 1.8%	1	3.3%	0	0.0%
A few times per week	1 1.8%	0	0.0%	1	4.0%
About 1 time per day	2 3.6%	2	6.7%	0	0.0%
Multiple times every day	3 5.5%	0	0.0%	3	12.0%

Question: In the past month how often have you littered disposable utensils?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	48 87.3%	27	90.0%	21	84.0%
Maybe 1-2 Times	3 5.5%	2	6.7%	1	4.0%
About 1 time per week	1 1.8%	0	0.0%	1	4.0%
A few times per week	0 0.0%	0	0.0%	0	0.0%
About 1 time per day	1 1.8%	1	3.3%	0	0.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered wrappers/bags/food packaging?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	30 54.5%	18	60.0%	12	48.0%
Maybe 1-2 Times	14 25.5%	10	33.3%	4	16.0%
About 1 time per week	5 9.1%	1	3.3%	4	16.0%
A few times per week	3 5.5%	1	3.3%	2	8.0%
About 1 time per day	1 1.8%	0	0.0%	1	4.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered packaging from non food/beverage items?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	42 76.4%	27	90.0%	15	60.0%
Maybe 1-2 Times	8 14.5%	2	6.7%	6	24.0%
About 1 time per week	2 3.6%	0	0.0%	2	8.0%
A few times per week	0 0.0%	0	0.0%	0	0.0%
About 1 time per day	2 3.6%	1	3.3%	1	4.0%
Multiple times every day	1 1.8%	0	0.0%	1	4.0%

Question: In the past month how often have you littered packaging from plastic/paper bags?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	46 83.6%	27	90.0%	19	76.0%
Maybe 1-2 Times	6 10.9%	3	10.0%	3	12.0%
About 1 time per week	1 1.8%	0	0.0%	1	4.0%
A few times per week	0 0.0%	0	0.0%	0	0.0%
About 1 time per day	0 0.0%	0	0.0%	0	0.0%
Multiple times every day	2 3.6%	0	0.0%	2	8.0%

Question: In the past month how often have you littered packaging from cigarette butts?	Count N=55	Campaign Awareness			
		Exposed N=30		Unexposed N=25	
Never	38 69.1%	21	70.0%	17	68.0%
Maybe 1-2 Times	6 10.9%	4	13.3%	2	8.0%
About 1 time per week	4 7.3%	3	10.0%	1	4.0%
A few times per week	4 7.3%	2	6.7%	2	8.0%
About 1 time per day	2 3.6%	0	0.0%	2	8.0%
Multiple times every day	1 1.8%	0	0.0%	1	4.0%

Question: In the past month, how often have you picked up a piece of litter that was not yours and disposed of it?	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Never	7 12.5%	1	3.2%	6	24.0%

Maybe 1-2 times	12	21.4%	1	3.2%	11	44.0%
About 1 time per week	1	1.8%	0	0.0%	1	4.0%
A few times per week	15	26.8%	9	29.0%	6	24.0%
About 1 time per day	11	19.6%	11	35.5%	0	0.0%
Multiple times every day	10	17.9%	9	29.0%	1	4.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: Prior to/after eating or drinking.	Count N=56	Campaign Awareness				
		Exposed N=31		Unexposed N=25		
Never	30	53.6%	19	61.3%	11	44.0%
Maybe 1-2 times	20	35.7%	11	35.5%	9	36.0%
About 1 time per week	5	8.9%	1	3.2%	4	16.0%
A few times per week	0	0.0%	0	0.0%	0	0.0%
About 1 time per day	1	1.8%	0	0.0%	1	4.0%
Multiple times every day	0	0.0%	0	0.0%	0	0.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: When I am in a vehicle.	Count N=56	Campaign Awareness				
		Exposed N=31		Unexposed N=25		
Never	34	60.7%	22	71.0%	12	48.0%
Maybe 1-2 times	13	23.2%	8	25.8%	5	20.0%
About 1 time per week	7	12.5%	1	3.2%	6	24.0%
A few times per week	1	1.8%	0	0.0%	1	4.0%
About 1 time per day	1	1.8%	0	0.0%	1	4.0%
Multiple times every day	0	0.0%	0	0.0%	0	0.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: At school.	Count N=56	Campaign Awareness				
		Exposed N=31		Unexposed N=25		
Never	34	60.7%	22	71.0%	12	48.0%
Maybe 1-2 times	11	19.6%	5	16.1%	6	24.0%
About 1 time per week	6	10.7%	2	6.5%	4	16.0%
A few times per week	1	1.8%	0	0.0%	1	4.0%
About 1 time per day	1	1.8%	0	0.0%	1	4.0%
Multiple times every day	3	5.4%	2	6.5%	1	4.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: When I have to put out my cigarette.	Count N=56	Campaign Awareness				
		Exposed N=31		Unexposed N=25		
Never	32	57.1%	19	61.3%	13	52.0%
Maybe 1-2 times	5	8.9%	3	9.7%	2	8.0%
About 1 time per week	9	16.1%	6	19.4%	3	12.0%

A few times per week	3	5.4%	0	0.0%	3	12.0%
About 1 time per day	0	0.0%	0	0.0%	0	0.0%
Multiple times every day	7	12.5%	3	9.7%	4	16.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: When I'm at home.	Count N=55		Campaign Awareness			
			Exposed N=30		Unexposed N=25	
Never	43	78.2%	28	93.3%	15	60.0%
Maybe 1-2 times	8	14.5%	2	6.7%	6	24.0%
About 1 time per week	2	3.6%	0	0.0%	2	8.0%
A few times per week	1	1.8%	0	0.0%	1	4.0%
About 1 time per day	1	1.8%	0	0.0%	1	4.0%
Multiple times every day	0	0.0%	0	0.0%	0	0.0%

Question: People may or may not litter in different situations. Please indicate how frequently you litter in each of the following situation: At work.	Count N=56		Campaign Awareness			
			Exposed N=31		Unexposed N=25	
Never	40	71.4%	25	80.6%	15	60.0%
Maybe 1-2 times	7	12.5%	3	9.7%	4	16.0%
About 1 time per week	2	3.6%	2	6.5%	0	0.0%
A few times per week	1	1.8%	0	0.0%	1	4.0%
About 1 time per day	1	1.8%	0	0.0%	1	4.0%
Multiple times every day	5	8.9%	1	3.2%	4	16.0%

Question: What prevents you from littering? Select all that apply.	Count N=56		Campaign Awareness			
			Exposed N=31		Unexposed N=25	
Trash cans/recycling/compost bins nearby	42	75.0%	25	80.6%	17	68.0%
There are anti-litter signs posted	8	14.3%	3	9.7%	5	20.0%
When an area is already litter free	13	23.2%	7	22.6%	6	24.0%
When I feel that I want to keep a certain area clean	22	39.3%	13	41.9%	9	36.0%
Friends, family, or others would complain about my behavior if I littered	14	25.0%	8	25.8%	6	24.0%
I know there is no clean-up crew for a given area	14	25.0%	9	29.0%	5	20.0%
I would feel guilty if I littered	26	46.4%	15	48.4%	11	44.0%

Question: How often do you think your friends litter?	Count N=56		Campaign Awareness			
			Exposed N=31		Unexposed N=25	
Never	5	8.9%	2	6.5%	3	12.0%
Rarely	15	26.8%	11	35.5%	4	16.0%
Sometimes	20	35.7%	12	38.7%	8	32.0%
Frequently	10	17.9%	4	12.9%	6	24.0%
All the time	6	10.7%	2	6.5%	4	16.0%

Question: When I see my friends littering, I _____ of their behavior.	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Strongly Disapprove	29 51.8%	21 67.7%	8 32.0%	8 32.0%	8 32.0%
Disapprove	17 30.4%	8 25.8%	9 36.0%	9 36.0%	9 36.0%
Somewhat Disapprove	4 7.1%	2 6.5%	2 8.0%	2 8.0%	2 8.0%
Neither Approve/Disapprove	3 5.4%	0 0.0%	3 12.0%	3 12.0%	3 12.0%
Somewhat Approve	1 1.8%	0 0.0%	1 4.0%	1 4.0%	1 4.0%
Approve	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Strongly Approve	2 3.6%	0 0.0%	2 8.0%	2 8.0%	2 8.0%

Question: If my friends saw me litter, they would _____ of my behavior.	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Strongly Disapprove	9 16.1%	5 16.1%	4 16.0%	4 16.0%	4 16.0%
Disapprove	13 23.2%	8 25.8%	5 20.0%	5 20.0%	5 20.0%
Somewhat Disapprove	13 23.2%	9 29.0%	4 16.0%	4 16.0%	4 16.0%
Neither Approve/Disapprove	15 26.8%	7 22.6%	8 32.0%	8 32.0%	8 32.0%
Somewhat Approve	3 5.4%	2 6.5%	1 4.0%	1 4.0%	1 4.0%
Approve	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Strongly Approve	3 5.4%	0 0.0%	3 12.0%	3 12.0%	3 12.0%

Question: If my friends saw me litter, they would _____ of my behavior.	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Strongly Disapprove	26 46.4%	18 58.1%	8 32.0%	8 32.0%	8 32.0%
Disapprove	17 30.4%	11 35.5%	6 24.0%	6 24.0%	6 24.0%
Somewhat Disapprove	7 12.5%	1 3.2%	6 24.0%	6 24.0%	6 24.0%
Neither Approve/Disapprove	3 5.4%	1 3.2%	2 8.0%	2 8.0%	2 8.0%
Somewhat Approve	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Approve	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Strongly Approve	3 5.4%	0 0.0%	3 12.0%	3 12.0%	3 12.0%

Question: In the past month, have you spoken with friends about littering?	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
Yes	14 25.0%	5 16.1%	9 36.0%	9 36.0%	9 36.0%
No	42 75.0%	26 83.9%	16 64.0%	16 64.0%	16 64.0%

Question: How do you think these conversations influence your opinions about littering?	Count N=56	Campaign Awareness			
		Exposed N=31		Unexposed N=25	
They made me think that littering is an important issue	20 35.7%	13 41.9%	7 28.0%	7 28.0%	7 28.0%
They made me think that littering is NOT an important issue	4 7.1%	1 3.2%	3 12.0%	3 12.0%	3 12.0%
It depended on who I was talking to - different conversations had different effects	10 17.9%	5 16.1%	5 20.0%	5 20.0%	5 20.0%
They didn't influence my opinion about littering	22 39.3%	12 38.7%	10 40.0%	10 40.0%	10 40.0%

Question: In the next month, how likely is it that you will litter? Remember, litter is defined as discarding, placing, throwing, or dropping any waste item in a public or private area and not immediately removing it. This includes waste items large and small which were discarded intentionally or accidentally.	Count N=53	Campaign Awareness			
		Exposed N=30		Unexposed N=23	
Very Unlikely	23 43.4%	16	53.3%	7	30.4%
Unlikely	11 20.8%	7	23.3%	4	17.4%
Somewhat Unlikely	4 7.5%	2	6.7%	2	8.7%
Undecided	3 5.7%	2	6.7%	1	4.3%
Somewhat Likely	5 9.4%	1	3.3%	4	17.4%
Likely	1 1.9%	0	0.0%	1	4.3%
Very Likely	6 11.3%	2	6.7%	4	17.4%

Question: How willing are you to participate in the following activities? Volunteer for a litter cleanup day.	Count N=53	Campaign Awareness			
		Exposed N=30		Unexposed N=23	
Very Unlikely	11 20.0%	7	23.3%	4	16.0%
Unlikely	6 10.9%	1	3.3%	5	20.0%
Somewhat Unlikely	3 5.5%	2	6.7%	1	4.0%
Undecided	12 21.8%	6	20.0%	6	24.0%
Somewhat Likely	10 18.2%	6	20.0%	4	16.0%
Likely	8 14.5%	5	16.7%	3	12.0%
Very Likely	5 9.1%	3	10.0%	2	8.0%

Question: How willing are you to participate in the following activities? Pick up someone else's litter.	Count N=53	Campaign Awareness			
		Exposed N=30		Unexposed N=23	
Very Unlikely	5 9.4%	0	0.0%	5	21.7%
Unlikely	2 3.8%	0	0.0%	2	8.7%
Somewhat Unlikely	2 3.8%	1	3.3%	1	4.3%
Undecided	3 5.7%	0	0.0%	3	13.0%
Somewhat Likely	7 13.2%	2	6.7%	5	21.7%
Likely	12 22.6%	9	30.0%	3	13.0%
Very Likely	22 41.5%	18	60.0%	4	17.4%

Question: How willing are you to participate in the following activities?-If I see a friend littering, say something to express disapproval or try to stop her/him from littering.	Count N=53	Campaign Awareness			
		Exposed N=30		Unexposed N=23	
Very Unlikely	2 3.6%	0	0.0%	2	8.0%
Unlikely	0 0.0%	0	0.0%	0	0.0%
Somewhat Unlikely	4 7.3%	1	3.3%	3	12.0%
Undecided	5 9.1%	1	3.3%	4	16.0%

Somewhat Likely	12	21.8%	7	23.3%	5	20.0%
Likely	11	20.0%	6	20.0%	5	20.0%
Very Likely	21	38.2%	15	50.0%	6	24.0%

Have you seen either or both of these videos?	Count N=53	Campaign Awareness	
		Exposed N=28	Unexposed N=25
Yes	16 30.2%	16 57.1%	0 0.0%
No	37 69.8%	12 42.9%	25 100.0%



BE

the street

User Guide



This guide was made to assist Be the Street partners and affiliates in the implementation of our campaign. It will show examples of current work as well as lay out fundamental branding standards that can be applied across all new projects.

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**BE THE
CHANG
YOU W
TO SEE
IN THE
WORLD
GANDH**

QUOTE COUTURE

“Be the Street You Want to See.”

“*Be the Street*” is bold, friendly, fun and not afraid to get its hands dirty. A little bit Gandhi with a touch of Tom Sawyer, all wrapped in Bay Area themed blanket, the messaging encourages youths to take ownership of the state of their community and actively shape their environment. In this campaign, the state of the “street” is a reflection, for better or worse, of the kids who use it. Rather than passing the blame on to peers, adults, or others, *Be the Street* asks that individuals take action to clean up and invigorate their surroundings. By exploring and engaging problems and solutions to community and environmental issues, street-by-street, participants will be rewarded with the pride, and the fun, of having created the kind of “street” they have always wanted to live on.



Like Tweet

HOME ABOUT NEWS CONTEST CONTACT



BE THE STREET VIDEO CONTEST! APRIL 2010 - 2010

Do you want to make a difference in your community? We challenge you to create a 15-30 second video that prevents your peers from littering. Let your vision be the tool for building a litter free community. A 1st & 2nd Prize Winner will be selected from each category and awarded GIFT and CASH prizes! The lucky Grand Prize Winner will receive a cash prize and their video will be distributed on television! Entries submitted by 6/30/2012 will automatically be entered into our Lucky Submission Raffle for the chance to win a \$100 Apple gift card!

HOW TO ENTER

Search this site

CONNECT facebook YouTube RSS

VIDEOS



Clean Water Action / Myrnsom



The Magnetic Plastic Bag - A Mockumentary



BECS - Anti-Litter PSA #1



Funny Anti-Littering Commercial

COMMUNITY SPOTLIGHT



Be the Street wants to give a well-deserved shout-out to the Youth Resource Council. We owe a lot of what Be the Street is today to their participation and dedication over the last few months—not the least of which, our name! It's been greater...

+ Read More

LATEST NEWS



Upcoming Events May Event: Spring Clean Up Where: San Bruno P...

+ Read More



Become a part of our video contest and get a chance to BE on TV Are you a creative type with a camera and want to...

+ Read More

ABOUT THE PROGRAM

We wanted to be something bigger. We'd been to beach clean ups and we try to buy non-toxic alternatives. We find ways to celebrate Earth Day and we're diligent about separating trash, compost and recyclables (and even a little annoying about it to our friends.) We'd done all of this and we're going to keep...

doing it because we care about shepherding the most beautiful Bay Area we can. But we wanted to be something bigger too. We wanted to be part of a group where everything we did came together, where we could come together with other people who not only care about a beautiful Bay Area but are doing things about it. BE THE STREET



Be the Street Website

(https://www.bethestreet.org)

An early example of the horizontal logo format; this platform opts for a darker, slightly textured color palette for a serious yet youthful backdrop for the engaging elements on the website. However the pink color adds a bit of levity and fun to the mix in keeping with the energetic nature of the Be the Street brand. It follows a simple grid format that allows for the many video elements of the page to flow nicely. The light colored text also plays up the youthful nature of the brand by keeping text subtle and the spotlight on the fun and interactive elements of the website.

functional





BE
the street



Create Your Video
Become a part of our video contest and get a chance to be on TV
[+Read More](#)



Thanks From the Street
A big thank you to our Youth Resource Council
[+Read More](#)



Join Us at Events
Find out what is going on near you
[+Read More](#)

Join BE the Street Community on [Facebook](#) and tell us what you're doing to keep your neighborhood clean!

[friend on Facebook](#) | [forward to a friend](#)

Copyright © 2012 Be the Street, All rights reserved.
You are receiving this email because you signed up for our quarterly e-newsletter.
Our mailing address is:
Be the Street
4510 E. Pacific Coast Highway
Suite 300
Long Beach, CA 90804




Be the Street E-Newsletter

The goal of the quarterly eNewsletter is to keep the target audience in the loop about the program news and opportunities to get engaged. It is important to note that any interaction with a member of the target audience should result in an eNewsletter sign up. This is because the eNewsletter, along with Facebook and YouTube, are the principle means for Be the Street to Engage with its audience.

The light and dark blue colors are consistent with the look and feel of the website and Facebook page colors. The Be the Street eNewsletter also uses the horizontal masthead logo.



Sponsored [Create an Ad](#)

Be the Street



Click here to join Bay Area communities in giving your **FEEDBACK!** It only takes 5 minutes to make your voice heard!



Be the Street Facebook Page

(<https://www.facebook.com/BetheSt>)

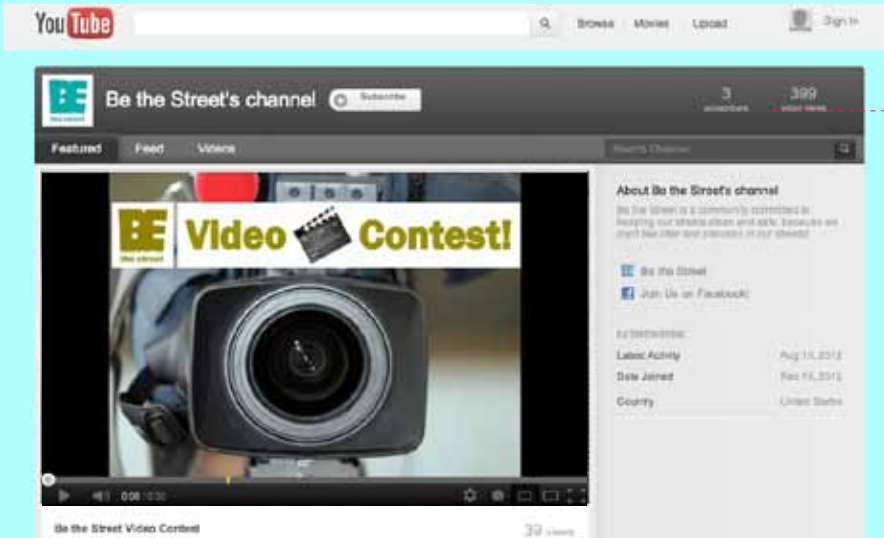
The Be the Street Facebook Page incorporates the Be the Street logo and a cover photo created to showcase the look and feel of the brand.

Posts are published on the page about 3 times a week. Post material includes anti-litter related updates and photos, local events and program messages.

The committee is encouraged to update the Facebook matrix with post material here:

<http://tinyurl.com/btsfacebookmatrix>.

The page is monitored daily and stats are tracked bi-monthly.



Be the Street YouTube Channel

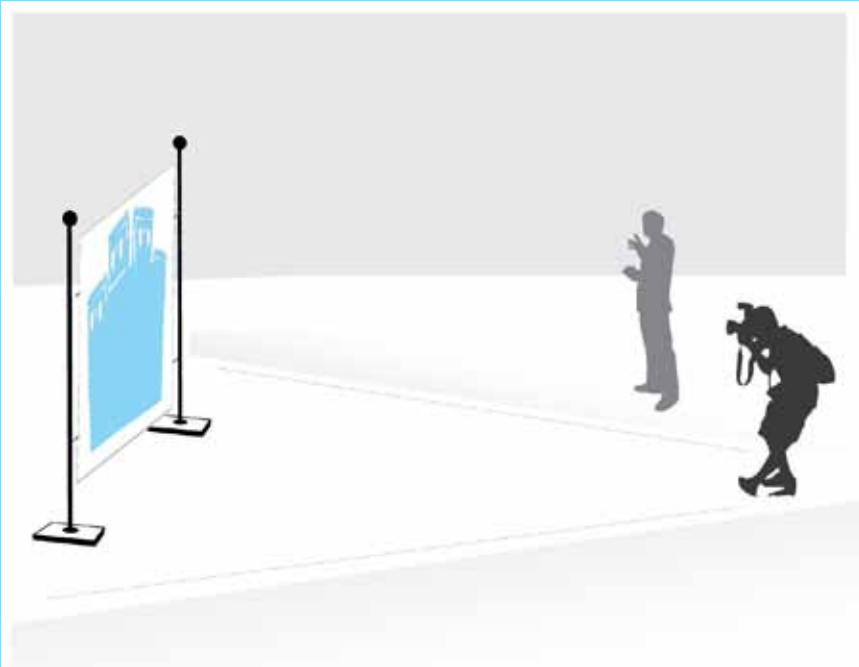
(<http://www.youtube.com/bethestreet>)

Like the Facebook page, the Be the Street YouTube Channel incorporates the Be the Street square logo as its avatar. The YouTube page uses high energy colors to represent the dynamic and ever changing environment and to accommodate the videos uploaded as material becomes available (i.e. PSA promotional and entry videos). The channel is monitored weekly and stats are tracked bimonthly.



Be the Street Video Contest

This promotional event uses high energy graphics and a lot of imagery and color play. It is not rigidly adhered to the brand standards since it's main function is as a crowd sourcing campaign to generate unique user content. The goal of the video contest is to crowdsource and highlight numerous audience generate PSAs showing how contestants can be their own street!



Be the Street Event Photography

Be the Street developed an photo booth set up that can be implemented at public events that allows participants to pose in front of a life-sized Be the Street Crown. These images can be dropped into a template to create unique and personalized Be the Street logos that individuals can print or share via social media.

Events like this break down the branding to its most simplified form to allow audiences to be creative and take ownership of the be the street program for fun, playful, and unique responses. For a further information on event photography refer to the Events Protocol Implantations Guide.



PE



The Branding



Hero Logo

For “official” & standardized applications

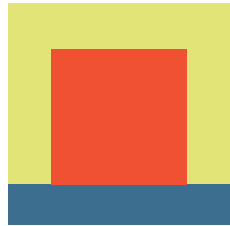
The default form of the *Be the Street* logo should be used for all “official” applications by the committee or program as a whole. It includes the “Crown” with the primary figure tossing litter into a garbage can with a supporting figure on the left performing a celebratory hand stand.



Square Hero Logo

For photos, web avatars and apps.

This version has the essential message of the campaign, but is adaptable to smaller spacing constraints where legibility is most important (such as online formats, message boards, twitter, etc...) or for use with supplemental imagery/photography that takes the narrative place of the crown.



Color

For "official" & standardized applications

Playfulness with color is open and encouraged. It can be used to appeal to a wide variety of audiences and can be bright and energetic or more subdued. You should always keep the core elements as a single solid color and tone. Additional colors can be worked in with the backgrounds to create contrast. However, the Be the Street logo should always be the darker toned color.



PMS: 7547u
CMYK: 35c, 4m, 0y, 94k
RGB: 23r, 41g, 52b
Hex: #172934

Official



PMS: 5405u
CMYK: 58c, 17m, 0y, 46k
RGB: 59r, 110g, 143b
Hex: #3B6E8F

Friendly



PMS: 1788u
CMYK: 0c, 84m, 88y, 0k
RGB: 240r, 81g, 51b
Hex: #F05133

Energetic



PMS: 392u
CMYK: 7c, 0m, 100y, 49k
RGB: 141r, 139g, 0b
Hex: #F8D8B00

Natural



PMS: 3282u
CMYK: 100c, 0m, 46y, 15k
RGB: 0r, 149g, 143b
Hex: #00958F

Delicate

colorful



Parts of the Logo

When breaking down the Be the Street logo into its component parts, there are three distinct elements that we will refer to: The Crown, the Big Be and the Tag.

Aa Franklin Gothic
Demi Condensed
abcdefghijklmnopqrstuvwxyz!@#\$\$%
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Type

Franklin Gothic

The primary typography for “Be the Street” is Left-aligned Franklin Gothic.



“The Crown”

Visualizes a desired behavior/attitude



“The Big BE”

The foundational element of the brand.

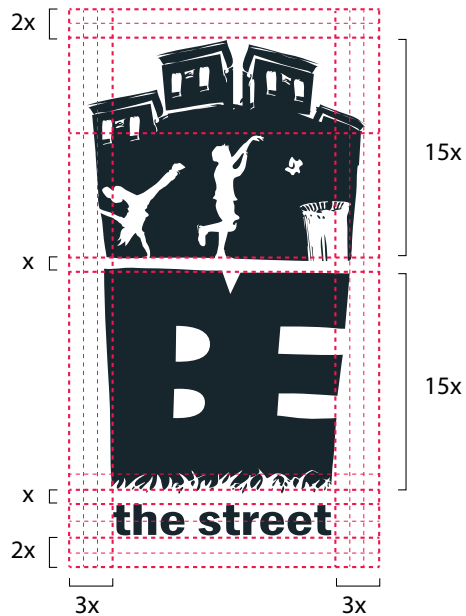
the street

“The Tag”

Call out a specific place or quality.

consistent

BE



Keeping things in line

It is important that the Be the Street logo be arranged appropriately in any applications so that it is readable and organized. The logo should never be blocked by other elements and should generally be aligned above text and images.



Hey Guess What!?!
Your copy should begin at this line and then drop down below this point.



Or it can go here.
Your copy should begin at this line and then drop down below this point.

Email Signature

The Be the Street email signature uses the full logo with official black/dark blue color.

It is left aligned to the base of the Big Be and includes the website and the full tagline: “Be the Street you want to see.” below the logo.



Horizontal Logo Formats

When vertical space is limited the Crown can be moved to the sides to create a landscape style masthead. The Crown does not need to be the same color as the Big Be, but the Big Be and the Tag should remain paired.

The horizontal placement of the Big Be and Tag are usually closer to the left side but can be placed at any horizontal point as befitting the design. The space created can be filled with combinations of silhouette figures, or be left blank. Information should go below the tag as with other text guidelines.

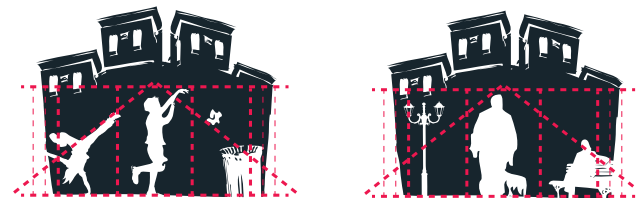
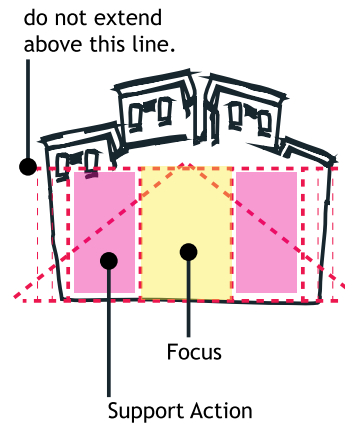
This form is useful for mastheads, banners, and headers and footers.



Customized Logos

Logos for Individual counties and programs.

By depicting different scenes using silhouetted images, a wider range of messages can be highlighted, and more specific groups of participants targeted. However don't overload the crown. A good guide is no more than 3-4 figures/objects at a time. The general hierarchy should place the main action in the center frame with supporting action on either side.



Photography

For “official” & standardized applications

When using the full logo over photography, use a color block underneath so the image doesn't make the overlap too busy. Only use the square format logo directly over a picture. The silhouettes cut outs will become cluttered when a busy image is underneath.

Normally the brand logo will be darker tone , but in a photograph it is okay to use a “knock-out” white version instead for better readability.



Silhouettes

For “official” & standardized applications

By depicting different scenes using silhouetted images, a wider range of messages can be highlighted, and more specific groups of participants targeted. However don't overload the crown. A good guide is no more than 3-4 figures/objects at a time. The general hierarchy should place the main action in the center frame with supporting action on either side.

**note, the silhouette examples on the next spread can be extracted from the PDF form of this document.*

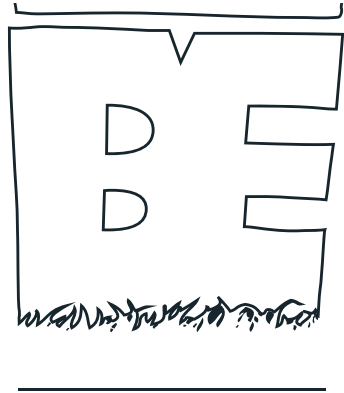


a good example



a good example

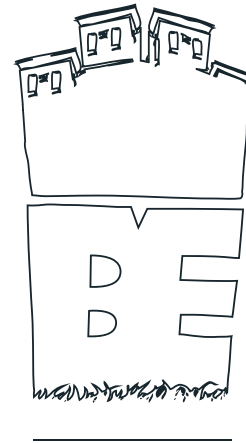
BE



Unique logos

For user-generated content and contests. Not for branding.

Outlined or otherwise reductive forms of the logo can be customized for target audience engagement. The Big BE should remain intact to anchor these one-off logos to the larger campaign. Otherwise, for the most part, these versions don't need to be as adherent to the established rules of the brand. This freedom encourages creativity and ownership by the ground-level participants in the campaign. Further discussions will be held by the BASMAA committee about when and how to use these playful versions along with the more formal versions.



the street



upside-down!



TrendSetting

out of the box





Hero Logo:

- for large-scale Be the Street branding
- use when unsure of which version you can use
- formal BASMAA usage



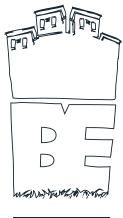
Square Hero Logo:

- use when you don't have a lot of space
- use when the full hero is too busy to work
- a square icon format.
- semi-formal usage



Regional Logo

- business casual usage
- tailored to a specific region/street/etc...
- tailored to a specific program



Unique Logo

- informal usage created and used directly by the youth audience
- not for long term use
- not to be used made
- directly by campaign leaders



Text/Typography

- Franklin Gothic
- always left aligned



Crown

- 3-4 silhouettes (figures objects)
- models aspirational behavior (no negative modeling!)
- silhouettes simple outlined figures

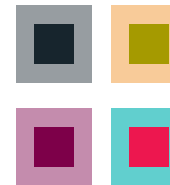
the street The Tag

- always left aligned to the base of the Big BE.
- always lower case
- Franklin Gothic Demi



The Big BE

- do not alter the shape or overlap the Big BE
- a fixed brand element



Color

- brand mark is always one color & tone with backgrounds
- use a lighter color under a darker logo otherwise free to mix (per legibility)
- can be white when placed over photography



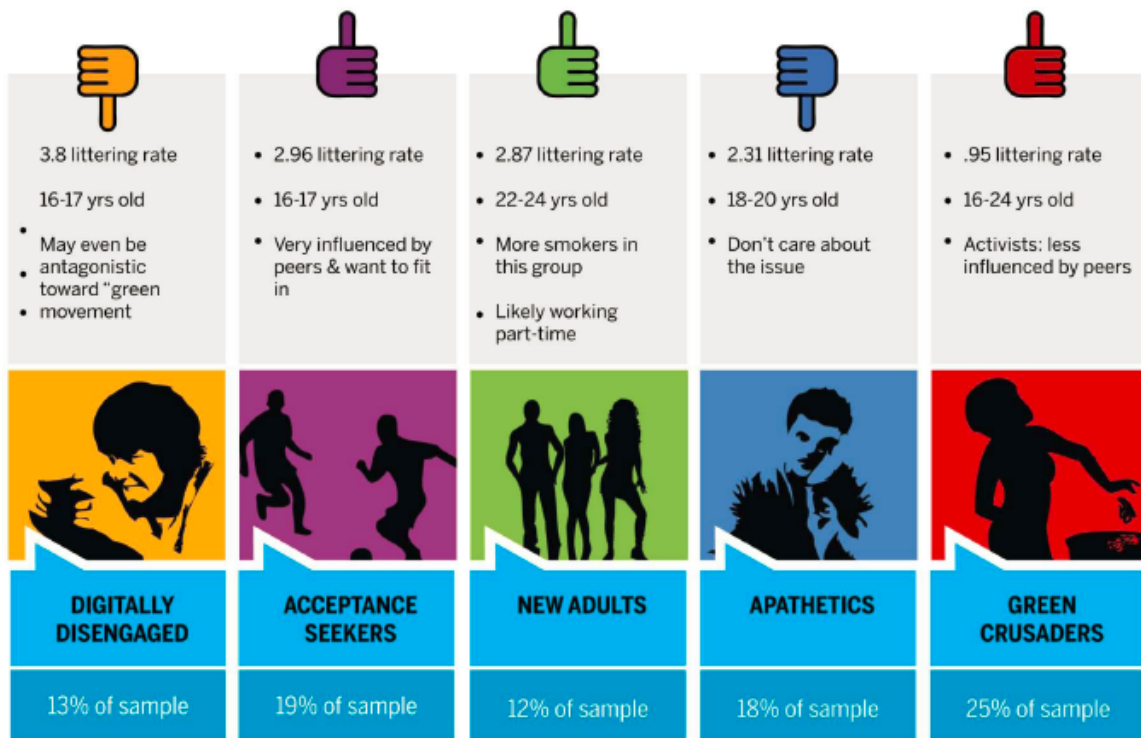


We wanted to change behavior. Yes, it’s an NPDES Public Education program so we wanted compliance and to meet as many C.7 items as efficiently as possible as well—but that’s what we *had* to do. What we *wanted* to do was to actually change people’s littering behavior and we wanted to be able to tie that change to our campaign.

THE FOUNDATION

We began with an exhaustive study designed to get at who was littering and why they were doing it. Scouring through hundreds of case studies and thousands of lines of data, we set ourselves to combining all of the best information available when it came to littering. In a somewhat unsurprising discovery to most parents, we found that teenagers and young adults were major culprits when it came to littering. What would surprise many parents, however, was how to get these young adults to stop.

We segmented the target audience into five unique sub-populations, each distinct in their respective attitudes, beliefs, general characteristics, and propensity to littering. Then we determined which we could effectively and efficiently reach (a thumbs up) and how best to do that. The results of those findings would grow into Be the Street. For the rest (a thumbs down), we planned to reach them through their peers, our Green Crusaders, who would become the standard-bearers of our message.



ANTI ANTI-LITTER

Just about no one is pro-litter. In the scope of environmental issues, this is not in the more controversial camps of desalination or carbon reduction. No one takes a stand on behalf of litter (although one could argue that the plastic bag industry comes close). When we began our research in 2011, we discovered that young and old people alike are united in their disdain for waste in the wrong place. The vast majority of interviewees were aware of some form of water quality damage done by litter and, in fact, every single member of our informal focus groups had heard of the Pacific Gyre and could recall any number of its “affectionate” names: The Garbage Patch, the Trash Texas in the Ocean, and the Landfill Island.

So what does this information tell us then? That this is not a matter of awareness or morals. Our audience knew that litter was bad for the world and also believed that litter was just a bad thing in general. Since our goal was to actually change behavior, we knew to avoid these messaging platforms.

Then we came across another study conducted by Dr. Robert Cialdini looking into urban littering habits. In no uncertain terms, Cialdini proved that the central psychological feature contributing to proper waste disposal behavior was *the perception of a clean community*. If people saw a clean street, they were reluctant to litter. On the other hand, if the community was already strewn with plastic wrappers and paper bags, people were 10 times more likely to litter. The presence or absence of litter demonstrated the social norm, and the social norm was the key to controlling littering.

We combined that finding with two other key items related to our audience and littering:

1. Any young adult expressing a lack of ownership of their environment was more likely to litter; and
2. Any communication perceived to be coming from the government, whether local or federal, would be met with suspicion.

Add into the mix the meteoric rise of social media and smart phones and you have the foundation for Be the Street.

WHAT = WHERE + WHY

We started by developing an umbrella brand under which our mini-campaigns would fall. Think of it just like any other governmental agency: a County’s environmental health program may hold a spring car wash drive or a fall IPM workshop. The brand is the health of the overall program, not the success of any one workshop. Because we knew that our audience would be turned off by government connections, we needed to create a brand that would fill that role in providing programmatic credibility and consistency.

Any discussion of what grew to be known as Be the Street has to begin with a revolutionary idea in the Stormwater public education world – what if we don’t make it about water? This seems impossible – how could a water quality program not talk about water quality? The answer is simple, that wasn’t what was going to drive behavior change.

Be the Street (You Want to See) is about inspiring a sense of ownership of an energetic, eclectic, clean urban environment in our audience. The logo is flexible and allows for variation so as to be deployed across different cities and counties, an important component for this regional campaign. Subtle clues like the silhouetted grassline calls out a sense of earthiness without



declaring a sort of eco-commitment which would as likely turn off potential members of our audience as turn them on. Even the flow of the design moves up so as to imbue energy into our audience – activity, action, Be the Street is alive as a brand.

We developed a robust user guide (included in its entirety as an **appendix**) to help share our brand and images with partners, and then trained them how to use it. We even encouraged our fans to use the brand and tie it into their own lives in ways that resonated with them. The best news? They did.



From there, we got rolling on outreach.

BY THE PEOPLE, FOR THE PEOPLE

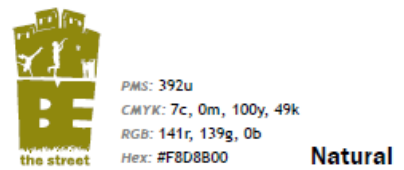
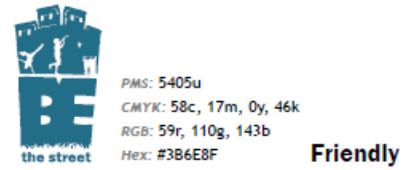
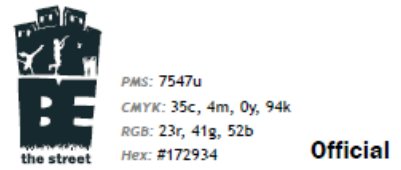
Our research was clear that our audience would only respond to materials and communication coming from other teenagers and young adults. Our strategy, then, was twofold: first, we developed a tone which felt like it belonged to someone born during the Clinton administration, and second, we crowdsourced.

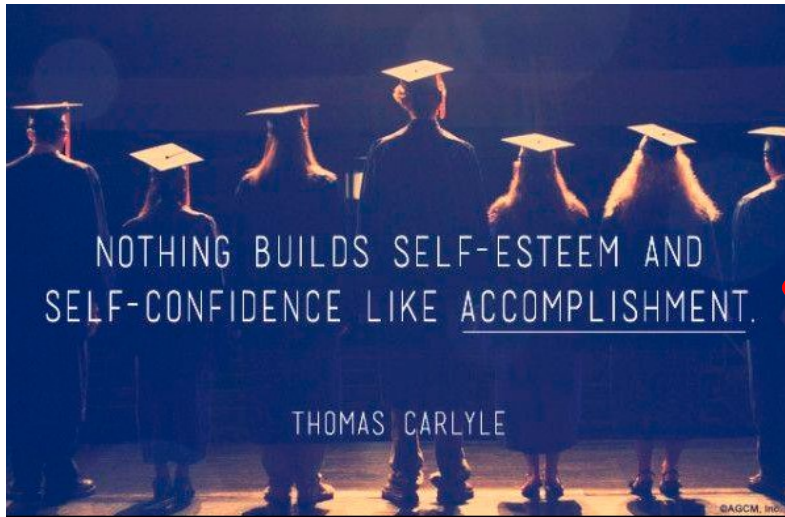
Any communications program designed to reach large groups of young people must rely on social media. Thanks to content rooted in snark, pop culture, and community empowerment, Be the Street’s Facebook and Instagram pages became the most trafficked, most active stormwater social media outlets in the history of California—more than 5,500 fans and 11,000 interactions (likes, comments, and shares) in a period of about two years.

Here are some sample posts:



Lesson One: Accept that pop culture is a culture and use it.





Lesson Two: Young people are extremely optimistic and eager to share that optimism with others.

Many posts spawned conversations that began to spread. With every comment, Be the Street content spread onto the Facebook pages of our fans and then onto the pages of their friends. Fans poured in and the velocity and reach of our message continued to rise.



Lesson Three: Young people love pictures of food.

BIGGER CAMPAIGNS AND DEEPER ENGAGEMENT

From the beginning, we knew that Be the Street would have to be “message up,” not “government down.” We also knew that we wanted to enlist our fans to develop the messaging in their own voice. Two campaigns, a meme contest and a video contest, brought in our audience and got them to develop the materials that we would use in our advertisements. We were able to honor their voice and learn from their message all the while fostering actual behavior change.



Memes are a critical means of communication for today's digital youth. Consisting of a picture and a caption (generally sarcastic in nature), memes are the sort of easily shared and edgy material that becomes viral through social media. We asked our audience to make memes which we would use as advertising. You can check out all 100+ on the [Be the Street Facebook page](#).

Here is a small sampling of what we got:



As successful as our Meme Contest was, nothing over our first two-plus years soared quite like the Video Contest. Just like with the Meme Contest, we asked our audience (and more importantly, our audience's friends) to help us out by producing the videos which we would ultimately use for our paid advertising. This is quite an ask of any audience, but even more so considering that we were looking to 14-24 year olds to tell a complete anti-litter/pro-community story in their very own 15-30 second video.

Our results were astounding:

<p>Pick Up Trash - Be the Street 23,152 views 6 months ago</p>	<p>Be the Street Video Contest Awards Show 182 views 1 year ago</p>	<p>Be the Street ONLINE Awards Show Promo Video 58 views 1 year ago</p>	<p>Be the Street ONLINE Awards Show Promo 277 views 1 year ago</p>	<p>Beautiful World: Be the Street Video Contest 461 views 1 year ago</p>
<p>Make a Difference: Be the Street Video Contest 908 views 1 year ago</p>	<p>Recycle: Be the Street Video Contest 136 views 1 year ago</p>	<p>Scared Clean: Be the Street Video Contest 235 views 1 year ago</p>	<p>Welcome Party! Be the Street Video Contest 473 views 1 year ago</p>	<p>Hidden Powers: Be the Street Video Contest 321 views 1 year ago</p>
<p>Youth Speaks Out: Be the Street Video Contest 264 views 1 year ago</p>	<p>Litter Is Beneath Us: Be the Street Video Contest 148 views 1 year ago</p>	<p>Yes, To A Beautiful World: Be the Street Video Contest 247 views 1 year ago</p>	<p>Changing The Earth: Be the Street Video Contest 132 views 1 year ago</p>	<p>Don't Find Yourself In A Bathtub Crying: Be the Street Video Contest 412 views 1 year ago</p>

We received 52 entries representing active participation from more than 700 kids and young adults. We received more than 5,000 unique votes for best video, more than 40,000 YouTube views, and above all else, the sort of committed fanbase that came to define the rest of our campaign. You can check out all 52 on the [Be the Street YouTube page](#).

THE FINAL FRONTIER

More than half of all online content consumption now occurs on a mobile device, and the numbers are continuing to skew further and further towards phones and tablets. While our website had been mobile optimized since 2012, we needed to cover the last major avenue of content consumption for our audience—apps. Of course, we also wanted to create something that could achieve that holiest of holy grails when it comes to stormwater outreach—demonstrable and attributable behavior change.

Here's how we achieved both:

Instead of killing time on Candy Crush, try a game that actually does something good for the world too. Our game features art from renowned comic artist Nate Woollers along with ways to win **Very real prizes worth very real money.**

Free download, no Cheesy features only unlocked by paying.

Totally free game, totally good for the world.

Available on the **App Store**

GET IT ON **Google play**

BE
the street

We developed a mobile video game built to get our audience exactly when they were most looking to consume content: when they were bored. Above all else, apps are about killing time, so we created a video game which would be fun and interesting just because of the art, the scoring, and the general curation of time passing. As with all Be the Street, the hook wasn't "greenness" for our audience—you didn't have to be a Green Crusader to be interested—you had to be young, digital, and bored. You had to be our target audience.

The app is endlessly expandable, capable of adding new levels, new comics, and new missions that can target any stormwater BMP. The app lets us send surveys, tips, and new contests directly into the pocket of our target audience with the push of a button, and they send us back photos of those BMPs in action. It engages the target audience at the time and place they are willing (and eager) to be engaged and proceeds at whatever pace they want. We aren't fighting for their attention as they walk past our table, we're waiting until we have it and then delivering a message they helped us write. Most importantly, it's fun.



Partnering with the general strategy of being fun above all else, our video game also provides us with the pinnacle of demonstrable and attributable behavior change in all of stormwater public education: photographs. See, we give points to players based on their taking pictures of them performing certain activities: throwing away litter, creative re-use of an item, even finding their local neighborhood storm drains. We are then able to use those pictures to meet annual reporting requirements and also reinforce the social norm that “everyone is doing it.”



BEING THE STREET

In just two years, Be the Street has become the new standard for California stormwater public education. While our post-campaign survey results won't be ready until July/August, our campaign results to date have been extraordinary: the single most active and trafficked Stormwater social media program in California, thousands of examples of peer-to-peer messaging helping to establish a new social norm, 52 videos, 104 memes, hundreds of self-taken pictures of real behavior change, a revolutionary app, and the framework in place for a program and a brand that could continue to engage for years to come.

ATTACHMENT

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

BASMAA Media Relations Campaign Final
Report

**BASMAA
Media Relations Campaign
Final Report FY 2013-2014**

**Submitted by O'Rorke Inc
June 27, 2014**

During the fiscal year 2013-2014, O'Rorke Inc. continued to serve as BASMAA's media relations contractor.

Early in the year O'Rorke worked directly with project manager Sharon Gosselin and the PIP committee to brainstorm pitch topics. The result was six planned pitches and distributing radio/online public services announcements on key stormwater issues as well as monitoring of breaking news opportunities and adding to and utilizing the photo library started in FY12-13. Additionally, O'Rorke provided localized templates of many of the press releases developed for the regional campaign as a way to assist local programs with their own media efforts.

In FY 2013-14 six pitches were done that resulted in fifty total media placements (stories and PSAs). The report that follows gives a synopsis of each pitch and the number and type of placements each garnered. Coverage reports for the year are attached.

Green Streets

O'Rorke developed a pitch copy and, working from a report about Green Streets projects in the region, conducted targeting pitches to environmental writers about the upswing in Green Streets projects as a trend story. Unfortunately, the story was not covered despite numerous pitches and follow-up.

Ants/Pesticides

This pitch focused on ant invasions during rainy season and tips on preventing/controlling them. The story was carried in 52 Patches, on KCBS-AM, and in Southern Region IPM News and the City of Brisbane blog.

Holiday Pitch

O'Rorke wrote a press release dealing with various holiday water pollution prevention issues, including not burning gift wrap and setting out trees for post-Christmas recycling sans flocking. The release was carried in forty-one Patches.

IPM Advocates/DPR Award

O'Rorke worked with contractor Annie Joseph to develop a press release about the IPM advocates program winning an Innovator award from the Department of Pesticide Regulation. The story was picked up by forty-four Patches and KBAY-FM.

Our Water, Our World App

This pitch focused on the launch a new app designed by Chinook Book to make it easier for consumers to find stores near them that sell less-toxic products. O'Rorke developed a release and did extensive pitching. The story ran in forty-three Patches and received some acknowledgment on Twitter.

Trash

O'Rorke put together a multi-faceted pitch to address this important pollutant of concern. We developed an op-ed for Geoff Brosseau's byline and submitted it to all Bay Area daily newspapers and conducted extensive follow-up; as of this writing, the Oakland Tribune was interested in publishing it.

The other elements of the pitch included development of radio PSA copy, which was carried on air by KCBS, KLLC, KITS, KMQV and online by KBLX and KOIT. As of this writing the PSA distribution had also resulted in scheduled interviews with KFOG and KEAR. These stations represent some of the highest-rated stations in the region.

O'Rorke also developed an article on summer litter prevention tips in a template format for use by local programs. The article was distributed to the PIP committee.

Recommendations for FY 2014-15

- Weave social media into the plan for the coming year. Given the vastly changing landscape for media, O'Rorke strongly recommends the development of a BASMAA Facebook page and Twitter account. These can be used to help disseminate information, provide tips and drive more traffic to BayWise.org. While O'Rorke absolutely anticipates a slow start for fans and followers, we do believe this is an important step for BASMAA as an organization.
- Continue to look to new local/regional studies as a jumping off point for pitching.
- Continue to pitch and post materials to Patch sites; these were an important source of coverage in FY 13-14.
- Utilize BayWise.org in pitches as a resource; have homepage and content updated as needed to keep site relevant to media relations efforts.

O'RORKE, INC.

LITTER PSA COVERAGE

BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION

JUNE 27, 2013

The following stations are airing the PSA:

Radio

- KCBS
- KLLC (Alice)
- KITS (Live 105 Hits)
- KMOV
- KFOG*
 - Scheduling an interview
- KEAR*
 - Recorded an interview on 6/27 that will air on their *Community Involvement* program

Online

- KBLX (link to come)
- KOIT (link to come)

O'RORKE, INC.

GOT ANTS GET S.E.R.I.O.U.S. COVERAGE

BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION

NOVEMBER 13, 2013

PATCHES

The Got Ants Get S.E.R.I.O.U.S. release was published in the following PATCHES:

- Alameda
- Albany
- Belmont
- Benicia
- Berkeley
- Burlingame-Hillsboro
- Campbell
- Capitola-Soquel
- Castro Valley
- Clayton
- Concord
- Cupertino
- Danville
- Dublin
- El Cerrito
- Foster City
- Gilroy
- Half Moon Bay
- Healdsburg
- Hercules-Pinole
- Lamorinda
- Larkspur
- Livermore
- Los Altos
- Los Gatos
- Martinez
- Menlo Park
- Mill Valley
- Millbrae
- Milpitas
- Mountain View
- Napa
- Newark
- Palo Alto
- Petaluma
- Piedmont
- Pleasanton
- Pleasant Hill
- Redwood City
- Rohnert Park
- San Bruno
- San Carlos
- San Leandro
- San Mateo
- San Rafael
- San Ramon
- Santa Cruz
- Saratoga
- Scotts Valley
- Sonoma
- South San Francisco
- Union

Online

- Southern Region IPM News
<http://ipmsouthnews.com/2013/11/08/got-ants-get-s-e-r-i-o-u-s/>
- City of Brisbane (Blog)
<http://www.ci.brisbane.ca.us/news/2013-10-15/got-ants?page=3>

Radio

- KCBS

O'RORKE, INC.

HOLIDAY PITCH COVERAGE

BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION

DECEMBER 18, 2013

PATCHES

The Holiday release was published in the following PATCHES (all links available):

- [Alameda](#)
- [Albany](#)
- [Belmont](#)
- [Benicia](#)
- [Berkeley](#)
- [Burlingame-Hillsboro](#)
- [Capitola-Soquel](#)
- [Concord](#)
- [Cupertino](#)
- [Danville](#)
- [Dublin](#)
- [Foster City](#)
- [Half Moon Bay](#)
- [Healdsburg](#)
- [Hercules-Pinole](#)
- [Lamorinda](#)
- [Larkspur-Corte Madera](#)
- [Livermore](#)
- [Los Altos](#)
- [Los Gatos](#)
- [Menlo Park](#)
- [Mill Valley](#)
- [Millbrae](#)
- [Milpitas](#)
- [Mountain View](#)
- [Napa Valley](#)
- [Newark](#)
- [Palo Alto](#)
- [Petaluma](#)
- [Piedmont](#)
- [Pleasanton](#)
- [Redwood City](#)
- [Rohnert Park](#)
- [San Bruno](#)
- [San Leandro](#)
- [San Rafael](#)
- [Santa Cruz](#)
- [Sonoma](#)
- [South San Francisco](#)
- [Union City](#)

Other Patch Coverage (same article published in both)

http://castrovalley.patch.com/groups/holidays/p/give-the-gift-of-clean-water--air-this-holiday-season_c00866ea

- Castro Valley
- San Leandro

O’RORKE, INC.

IPM DPR AWARD COVERAGE

BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION

JANUARY 24, 2014

PATCHES

The IPM Award release was published in the following PATCHES (all links available):

- [Alameda](#)
- [Albany](#)
- [Belmont](#)
- [Benicia](#)
- [Berkeley](#)
- [Burlingame-Hillsboro](#)
- [Capitola-Soquel](#)
- [Clayton](#)
- [Concord](#)
- [Cupertino](#)
- [Danville](#)
- [Dublin](#)
- [Foster City](#)
- [Half Moon Bay](#)
- [Healdsburg](#)
- [Hercules-Pinole](#)
- [Lamorinda](#)
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- [Mill Valley](#)
- [Millbrae](#)
- [Milpitas](#)
- [Mountain View](#)
- [Napa Valley](#)
- [Newark](#)
- [Novato](#)
- [Palo Alto](#)
- [Petaluma](#)
- [Piedmont](#)
- [Pleasanton](#)
- [Redwood City](#)
- [Rohnert Park](#)
- [San Bruno](#)
- [San Leandro](#)
- [San Rafael](#)
- [Santa Cruz](#)
- [Sonoma](#)
- [South San Francisco](#)
- [Union City](#)
- [Walnut Creek](#)

RADIO

KBAY

O’RORKE, INC.

OUR WATER, OUR WORLD APP PITCH

BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION

APRIL 11, 2014

PATCHES

The Gardening Application release was published in the following PATCHES (all links available):

- [Alameda](#)
- [Albany](#)
- [Belmont](#)
- [Benicia](#)
- [Berkeley](#)
- [Burlingame-Hillsborough](#)
- [Capitola-Soquel](#)
- [Concord](#)
- [Cupertino](#)
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- [Healdsburg](#)
- [Hercules-Pinole](#)
- [Lamorinda](#)
- [Larkspur-Corte Madera](#)
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- [Mill Valley](#)
- [Millbrae](#)
- [Milpitas](#)
- [Mountain View](#)
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- [Petaluma](#)
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- [Rohnert Park](#)
- [San Bruno](#)
- [San Leandro](#)
- [San Rafael](#)
- [Santa Cruz](#)
- [Sonoma](#)
- [South San Francisco](#)
- [Union City](#)
- [Walnut Creek](#)

Twitter

The articles have been shared and “tweeted” by members of the community. To see how many people have shared, [click here](#).

ATTACHMENTS

C.9.h.i. Point of Purchase Outreach

Photo of *Our Water, Our World* displays at major chains

Photo of training at major chains

Copies of *Our Water, Our World* advertisements

Description of pilot enhanced program at Home Depots

Screen shots of Mobile app and web advertisement/link

Photo of joint display with Scotts-Miracle Gro

Got Ants Final Report

Greener Pesticides for Cleaner Waterways Progress Report

ORGANICS

More saving. More doing.



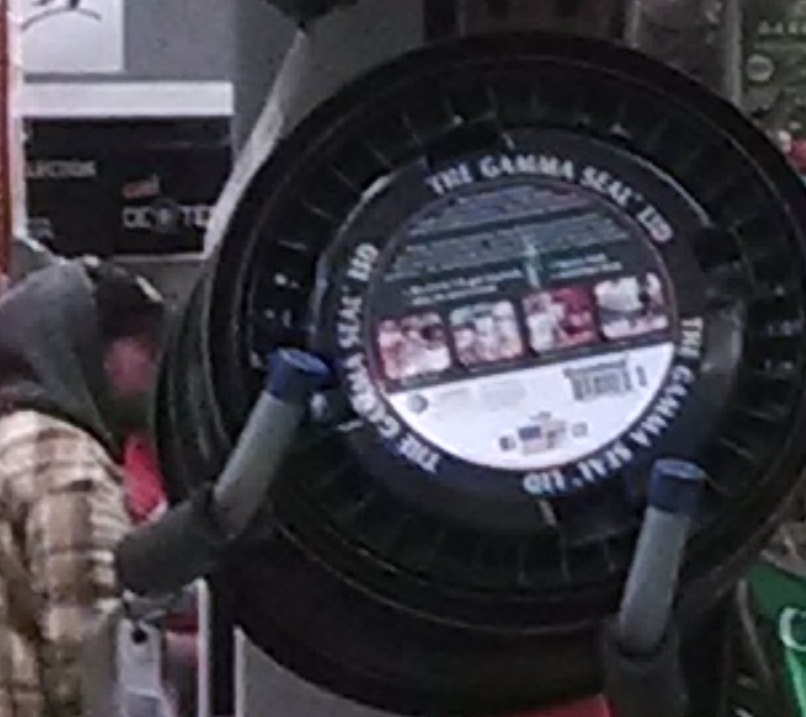
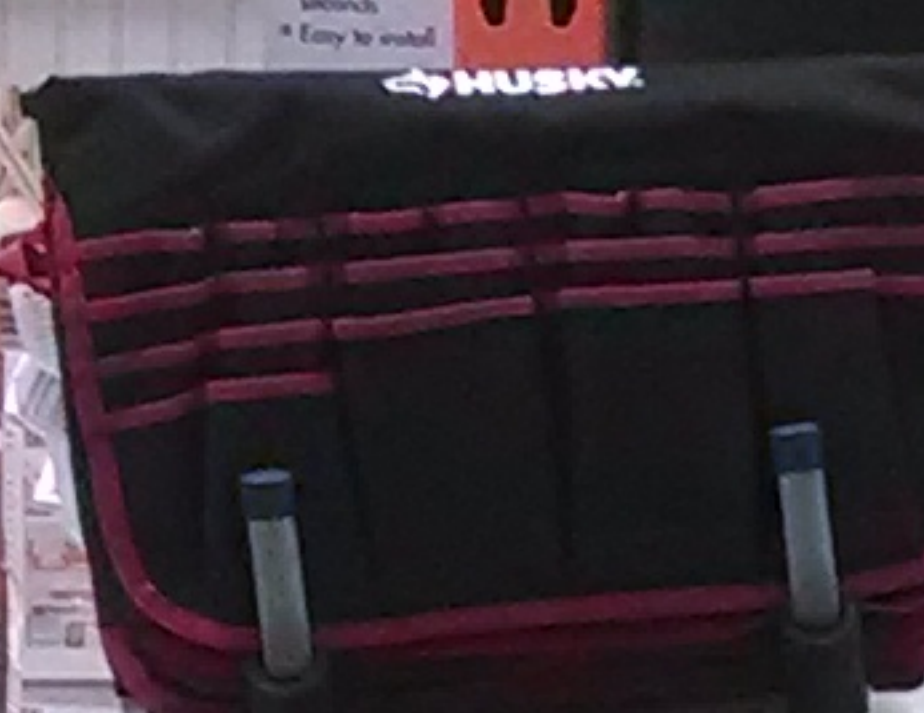
Got Bugs? Get Answers!

Choose less toxic products for a healthy home and garden

visit www.ourwaterourworld.org



Look for this symbol before you buy



SOFT SOAP BLADE
\$1.47





Healthy Gardening for People, Pets, and Our Environment!

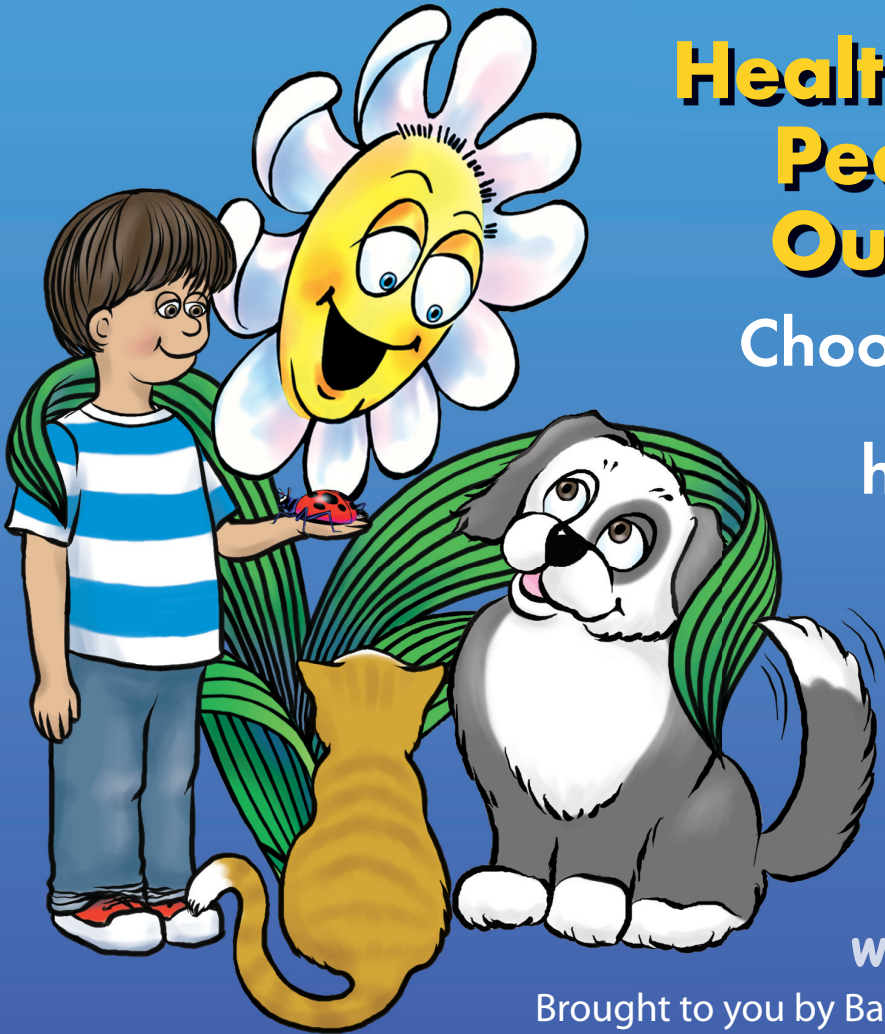
Choose less toxic products
for a healthy
home and garden

Look for this tag before you buy



www.OurWaterOurWorld.org

Brought to you by Bay Area Water Pollution Prevention Agencies



Avoid Pesticides to Help Protect the Bay

Wondering how to prevent pesky insects without using toxic chemicals?

Most consumers are willing to try less-toxic option for managing household and garden pests. They just need to know that alternatives do exist, and which ones they should use.

Fortunately, help is available. In the Bay Area more than 170 local nurseries and hardware stores have partnered with local government to help educate consumers about less-toxic options. These retailers place tags on store shelves in front of less-toxic products, and carry fact sheets with tried and true ways to control common household and garden pests.

Look for this tag before you buy



**Less toxic to
people and pets!**



Visit www.OurWaterOurWorld.org to find out:

- which insects actually benefit your garden
- how to cultivate a lawn that deters weeds and other pests
- which less-toxic products can replace conventional pesticides
- how to dispose of leftover pesticides safely so they won't end up in our creeks, Bay, and Ocean
- what questions to ask before hiring a pest control company

You can even submit a question about your pest problem, and get a free personalized online response in less than 24 hours!

www.OurWaterOurWorld.org

BAY NATURE

Exploring Nature in the San Francisco Bay Area

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Leaves of three: The rash success of poison oak
Poison oak is one native plant people love to hate. But it does have a good side, feeding birds and other wildlife. For people, the best thing is to learn to recognize it, and step aside.



Current Issue



Jul-Sep 2013

Bay Nature joins this year's celebration of "The Year of the Bay" with the publication of "Baylands Reborn: Restoration and Renewal on San Francisco Bay." We also head to Butano State Park, take a close look at poison oak, and more!

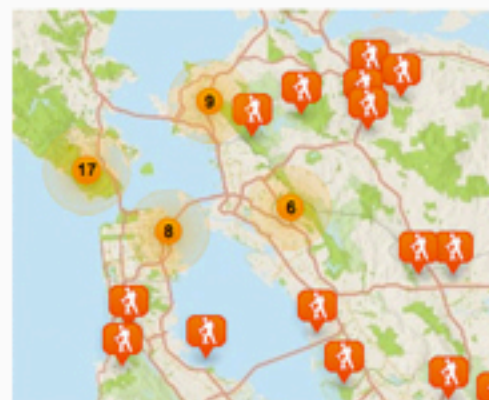


Past Issues



[More Magazine](#) →

Find Your Next Hike!



Let the Trailfinder be your guide. Over 420 local parks, 320 trails! [Explore the Trailfinder now.](#)

Advertise with BayNature

Choose less toxic products!

Look for this tag before you buy



www.OurWaterOurWorld.org

HOME DEPOT & OWOW REGIONAL PILOT PROGRAM

THE HOME DEPOT & OUR WATER OUR WORLD

REGIONAL PILOT PROGRAM 2014 PROPOSED PLAN

December 20, 2013

Background:

Since 2003, Home Depot and Our Water Our World (OWOW) have partnered to reduce toxic runoff from fertilizers and pesticides into local waterways. This partnership has grown, but must expand to meet the ever-increasing needs of consumers seeking less-toxic products.

2014 Plan:

For 2014, we would like to continue the program in 47 stores: 42 of which participated in 2013 and 5 of which have been added for 2014. We have also received funding to run an enhanced program in 10 select stores, which will include advanced training for one Associate per store that would be designated as the Green Gardening Specialist. With the help of a Sales Specialist, we will also implement a field campaign promoting large end-cap displays and smaller seasonal wing-stack displays of less-toxic products. Following is a list of the 10 enhanced program stores:

COUNTY	CITY & STORE #
Alameda	Emeryville 627
Marin	San Rafael 657
Napa	Napa 6652
San Mateo	San Mateo 632, E. Palo Alto 6603
Solano	Fairfield 637, Vallejo 633
Sonoma	Santa Rosa 1379
Contra Costa	San Ramon 6604
Sacramento	Elk Grove 6674

Outline of the enhanced resources for the 10 stores:

- Identify the Green Garden Specialist (HD Associate) who will become the expert at their store. (OWOW will work with Store Manager to identify ideal candidates)
- Have resources ready to use so Associates have confidence when helping customers. Websites, support agencies, OWOW Advocate access
- Provide books, Pest ID cards, pest samples, hand lenses with lanyards
- Monthly store visits from OWOW Advocate
- Provide a Seasonal Pest Calendar that will address pest problems ahead of the outbreak and will focus on the products Home Depot carries
- Enhanced training for Associates
- Advanced training for Green Garden Specialist

- Mentoring for twelve months of Green Garden Specialist by Advocate
- Access to Entomologist for OWOW Advocates to help identify pests and diseases
- An outreach event with customers focusing on current pest problems. (1 event per store, 4-hour event. Customer outreach and education, involve suppliers)
- Will add seasonal display ideas for pest problems (Wing Stacks) and provide signage

The remaining 32 stores will continue to receive the same program that they have received in the past:


- Associate written training materials, in person training where funding is available
- District kick off meetings
- Road shows
- Supplier involvement: we will work directly with suppliers as we have in the past
- An apron guide: *“Pest Bugging You Pocket Guide”* specific to Home Depot products

County	City and Store Number
Alameda	Fremont 6636, Newark 6964, Pleasanton 629, Union City 635, (NEW in 2014: Oakland 1007 and Hayward 1017)
Contra Costa	Concord 634, El Cerrito 643, (NEW in 2014: Pittsburg 644 and Brentwood 1076)
Fresno (Pac.C.)	East King’s Canyon Road 1086
Monterey	Salinas 1843, Seaside 6967
Placer	Roseville 636, Roseville 6688
Sacramento	Carmichael 650, Florin Road 651, Folsom 6675; Sacramento: Meadowview Road 1003, Power Inn/Folsom Blvd. 6620, Truxel Road 6649, (NEW in 2014: Howe 6966)
Santa Cruz	Soquel 6968
San Mateo	Colma 639, Daly City 1092, San Carlos 628
Santa Clara	Blossom Hill Road 622, Campbell 642, De Anza Blvd. 6635, Hillsdale 1009, Milpitas 1041, Monterey Hwy 1861, Santa Clara—Lafayette St. 630, Story Road 6672, Sunnyvale—Kiefer Road 640, West Capital Expressway 6621
Stanislaus	Modesto 6601
San Luis Obispo (Pac.C.)	San Luis Obispo 1052


East Bay

Chinook Book


- Bicycling**
East Bay Bicycle Coalition




East Bay Bicycle Coalition
www.ebbc.org
- In Your Home**
Pollution & Waste Preventi...





BAYWISE.ORG
- Home & Garden**
Less Toxic Pest Control



- CHOOSE Oakland**
Oakland Events & Resourc...



CITY OF OAKLAND
- Ready Set Recycle**
Recycling Tips & Prizes


- Recycling**
Hotlines, E-waste, Apps, C...


- Green Investing**
Invest in Solar



Home & Garden

Chinook Book

Sponsored by:



- 01. Find Less Toxic Products >
- 02. Ants >
- 03. Aphids >
- 04. Cockroaches >
- 05. Fleas >
- 06. Mosquitoes >
- 07. Rats & Mice >
- 08. Snails & Slugs >
- 09. Spiders >

Home & Garden

Chinook Book

Sponsored by:



- 07. Rats & Mice >
- 08. Snails & Slugs >
- 09. Spiders >
- 10. Weeds >
- 11. Yellowjackets >
- 12. Roses >
- 13. Ask our Expert >
- 14. Hire a Pest Control Pro >
- 15. About Our Water Our World >

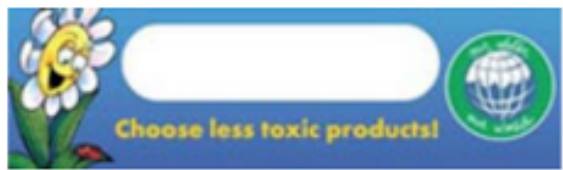
Chinook Book



Sponsored by:

01. Find Less Toxic Products

These Our Water Our World stores feature less toxic pest control products and accept Chinook Book coupons. Look for this tag before you buy!



- Almaden Valley Nursery - \$35 off
- Berkeley Ace Hardware - \$15 off
- Berkeley Horticultural Nursery - \$15 off
- Bill's Ace Hardware - \$15 off
- Broadway Terrace Nursery - 20% off
- Carlmont Ace Hardware - \$15 off
- Cole Hardware - \$50 off
- East Bay Nursery - \$10 off
- Flowerland Nursery - \$10 off
- Hortica - \$5 off
- Robert's Hardware - \$5 off
- SummerWinds Nursery - \$60 off
- Urban Farm Store - 20% off
- Westbrae Nursery - \$60 off

Saving screenshot...

Chinook Book

Sponsored by:



01. Find Less Toxic Products

Carlmont Ace Hardware - \$15 off
Cole Hardware - \$50 off
East Bay Nursery - \$10 off
Flowerland Nursery - \$10 off
Hortica - \$5 off
Robert's Hardware - \$5 off
SummerWinds Nursery - \$60 off
Urban Farm Store - 20% off
Westbrae Nursery - \$60 off

All Our Water Our World stores, by county:

[Alameda](#)

[Contra Costa](#)

[Marin](#)

[Monterey](#)

[Napa](#)

[Sacramento](#)

[San Francisco](#)

[San Mateo](#)

[Santa Clara](#)

[Santa Cruz](#)

[Solano](#)

[Sonoma](#)



My



Near Me



Coupons



Resources



More

Chinook Book

Sponsored by:



02. Ants

Ants - Less Toxic Products:

Amdro Kills Ants Ant Killing Bait (bait stations)

Amdro Kills Ants Ant Killer (liquid ant bait stations)

Combat Source Kill 4 Ant Bait Station

Combat Source Kill Max R1 Bait Station

Concern Diatomaceous Earth Crawling Insect Killer

Drax Ant Kil Gel

Orange Guard

Pest Pistol

Safer Brand Ant and Crawling Insect Killer

Stikem Tree Pest Barrier



Saving screenshot...

Chinook Book

Sponsored by:



02. Ants

Combat Source Kill 4 Ant Bait Station

Combat Source Kill Max R1 Bait Station

Concern Diatomaceous Earth Crawling Insect Killer

Drax Ant Kil Gel

Orange Guard

Pest Pistol

Safer Brand Ant and Crawling Insect Killer

Stikem Tree Pest Barrier

Tanglefoot

Terro Ant Killer II Liquid Bait

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My



Near Me



Coupons



Resources



More



10:32 AM

Chinook Book

Sponsored by:



03. Aphids

Aphids - Less Toxic Products:

Bonide All Seasons Spray Oil

> Bonide Insecticidal Soap

Concern Insect Killing Soap

Garden Safe

Ladybugs Insecticidal Soap

Monterey Horticultural Oil

Natria Neem Oil

Ortho Volck Oil Spray

Safer Brand Insecticidal Soap

Safer Brand Yard and Garden Insect Killer

Stikem Tree Pest Barrier

Tanglefoot



For more info view the complete fact sheet



My



Near Me



Coupons



Resources



More

Saving screenshot...

Chinook Book

Sponsored by:



03. Aphids

Bonide All Seasons Spray Oil

Bonide Insecticidal Soap

Concern Insect Killing Soap

Garden Safe

Ladybugs Insecticidal Soap

Monterey Horticultural Oil

Natria Neem Oil

Ortho Volck Oil Spray

Safer Brand Insecticidal Soap

Safer Brand Yard and Garden Insect Killer

Stikem Tree Pest Barrier

Tanglefoot



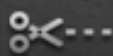
For more info, view the complete fact sheet at ourwater.org Copied to clipboard or tablet.



My



Near Me



Coupons



Resources



More

Chinook Book

Sponsored by:



04. Cockroaches

Cockroaches - Less Toxic Products:

Black Flag Roach Motel

> Combat Source Kill for Ants and Roaches (bait stations)



Combat source Kill 1 Roach Bait Station

Concern Crawling Insect Killer Diatomaceous Earth

Grow More Diatomaceous Earth

Harris Roach Tablets

Hot Shot MaxAttrax Roach Killing Powder

Niban Granular Bait

Niban FG Fine Granular Bait

Pest Pistol

Chinook Book

Sponsored by:



04. Cockroaches

Concern Crawling Insect Killer Diatomaceous Earth

Grow More Diatomaceous Earth

Harris Roach Tablets

Hot Shot MaxAttrax Roach Killing Powder

Niban Granular Bait

Niban FG Fine Granular Bait

Pest Pistol

Roach Prufe

Safer Brand Ant and Crawling Insect Killer

Seabright Labs Roach Free System

Victor Roach Magnet

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

Chinook Book

Sponsored by:



05. Fleas

Fleas - Less Toxic Products:

Concern Diatomaceous Earth
Crawling Insect Killer

Ecology Works' Dustmite and
Flea Control

Pest Pistol

Raid Flea Killer Plus Trap

Safer Brand Ant and Crawling Insect Killer

Beneficial Nematodes



For more info, view the complete fact sheet
at ourwaterourworld.org from a PC or tablet.

Chinook Book

Sponsored by:



06. Mosquitoes

Mosquitoes - Less Toxic Products:

Bite Blocker

> Bonide Mosquito Plunks

Cutter Advanced Insect Repellent

Mosquito Bits

OFF!

Prestrike Granules (larvae control only)

Repel Lemon Eucalyptus

Summit Mosquito Dunks

Vectobac



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

Chinook Book

Sponsored by:



07. Rats & Mice

Rats & Mice - Less Toxic Products:

Ortho Home Defense Press and Set Mouse Traps

Ortho Home Defense Press and Set Rat Traps

Raticator Plus Rodent Trap

Rat Zapper Rodent Trap

Tom Cat Snap Traps

Tom Cast Mouse VI (0.005% diphacinone)

Victor Electronic Mouse Traps

Victor Electronic Rat Traps

Victor Mouse Snap Traps

Victor Rat Snap Traps



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet

Chinook Book

Sponsored by:



08. Snails & Slugs

Snails & Slugs - Less Toxic Products:

Bonide Slug Magic

Copper Barrier Tape

Easy Gardener Plant and Seed Blanket

Escar-Go! Slug Control

Fast Start Seed Blanket

Garden Safe Slug & Snail Bait

Natria Snail & Slug Killer Bait

Safer Slug and Snail Copper Barrier Tape

Sluggo

Spectracide Snail & Slug Killer Bait

Worry Free Slug & Snail Bait



Chinook Book

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08. Snails & Slugs

Copper Barrier Tape



Easy Gardener Plant and Seed Blanket

Escar-Go! Slug Control

Fast Start Seed Blanket

Garden Safe Slug & Snail Bait

Natria Snail & Slug Killer Bait

Safer Slug and Snail Copper Barrier Tape

Sluggo



Spectracide Snail & Slug Killer Bait

Worry Free Slug & Snail Bait

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My



Near Me



Coupons



Resources



More



10:33 AM

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09. Spiders

Spiders - The Helpful Hunters

Spiders are beneficial creatures. Because they feed on large quantities of insects, they should be tolerated as much as possible in the home and garden. If you're willing to share your house with a few spiders, you can periodically vacuum up webs that are eyesores or embarrassing to you as a housekeeper. Leaving the spiders will allow them to continue to do their pest control work.



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



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Coupons



Resources



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10. Weeds

Weeds - Strategies & Less Toxic Herbicides:

Burn Out II

Eco Smart Organic Weed and Grass Killer

Natria Grass and Weed Killer

Safer Brand Fast Acting Weed and Grass Killer



Non-Chemical Strategies:

Hand weeding

Mulching

Competitive Planting

Cultivation

Mowing

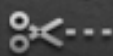
For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



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11. Yellowjackets

Yellowjackets - Less Toxic Products:

Rescue! Yellowjacket (disposable)

Rescue! Trap (reusable)

Victor Yellow Jacket Trap (use liquid bait such as apple juice)

Victor Yellow Jacket and Flying Insect Trap (use liquid bait such as apple juice)



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

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12. Roses

Roses - Less Toxic Products:

Bonide All Seasons Spray Oil

Bonide Neem Oil

Bonide Rose RX 3 in 1

Cloud Cover

Garden Safe Fungicide 3

Kaligreen

Natria Disease Control

Natria Neem Oil

Osmocote

Rose Defense

Serenade Garden Disease Control

Wilt Pruf



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12. Roses

Bonide Neem Oil

Bonide Rose RX 3 in 1



Cloud Cover

Garden Safe Fungicide 3

Kaligreen

Natria Disease Control

Natria Neem Oil

Osmocote

Rose Defense

Serenade Garden Disease Control

Wilt Pruf

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My



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Coupons



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13. Ask our Expert

[Ask Our Expert](#)

Stumped by a pest problem? Ask our expert! [Submit your questions here](#). You'll receive an answer explaining less-toxic approaches to eliminating those pests from your home or garden.



Chinook Book

Sponsored by:



14. Hire a Pest Control Pro

If you hire a pest management professional, ask for less toxic services, using integrated pest management (IPM) techniques.



When you hire professional gardening services, use a Bay-Friendly Qualified Landscape Professional.

Click on the logos below to find less toxic services.



My



Near Me



Coupons



Resources



More

Chinook Book

Sponsored by:



15. About Our Water Our World

Since 1997, [Our Water Our World](#) has educated California residents about less toxic pest control practices. The project maintains a comprehensive [website](#) that includes [fact sheets](#) on specific pest problems and solutions that are less toxic to our creeks, streams, and coastal waters.



Look for this tag when you buy pest control products!



Funding for Our Water Our World has been provided by local water pollution prevention agencies, the State Water Resources Control Board, the California Department of Pesticide Regulation, and the National Foundation for Integrated Pest Management Education (US

Our Water Our World

Find Less Toxic Pest
Control Products

Now there's an app
for that!



Residents

Businesses

Contact Us

HEALTHY BAY, HEALTHY YOU.

Preventing pollution where we live, work, and play is the "Bay-wise" way to keep the Bay and our families healthy.

Powered by Earth911.com

Get this widget

Find a recycling location

what? paint, medicine, fluorescent bulbs

where? zip or city, state

GO

Powered By:



Earth911

More Ideas, Less Waste

▶ [Sign up](#) for Bay Area
Flows e-newsletter





Got Bugs? Get Answers!

Choose less toxic products for a
healthy home and garden

www.ourwaterourworld.org



Handi-Cro

ORGANIC CHOICE
BLOOD MEAL

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BLOOD MEAL

ORGANIC CHOICE
BONE MEAL

ORGANIC CHOICE
BONE MEAL

ORGANIC CHOICE
PLANT FOOD

ORGANIC CHOICE
PLANT FOOD

\$7.48

\$7.48

\$16.48

CHILI RED
Hot Pepper

CHILI RED
Hot Pepper

CHILI RED
Hot Pepper



Pest Management Alliance Grant Final Report

March 30, 2014



This report summarizes the 2012-2014 Got Ants? project, funded by the Pest Management Alliance Grant program of the California Department of Pesticide Regulation.

Association of Bay Area Governments for the
San Francisco Estuary Partnership
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Got Ants? Final Report

Overview of the project

The Got Ants? project was conceived as a community-based social marketing project to do public outreach on residential ant issues, which have been tied to the pesticides and pesticide application practices of greatest concern for surface water quality in California. Numerous findings of stream toxicity have brought concerns about pyrethroid and fipronil use to the fore for regulators and scientists, who continue to work to understand how these registered and currently used pesticides are impacting waters and what can be done to address these impacts. This project took aim at the outreach angle: what resources does the average citizen with an ant problem need to help him/her make a less toxic choice to manage the ants. Taking advantage of recent advances in thinking about public outreach, we proposed to create a community-based social marketing, or CBSM outreach project as opposed to a traditional information-based outreach project. The Got Ants? project worked with a multidisciplinary team to develop a suite of outreach materials and disseminate that outreach through numerous partners and avenues.

This Final Report summarizes activities conducted for each objective and task for the project. Additional details regarding evaluating the project's success are included in the brief Evaluation Report included in the Appendix to this report.

Objective 1. Identify target audience, select target behavior for campaign, and determine barriers and motivators.

The intent of this portion of the project was to complete an exercise to structure the outreach campaign in community-based social marketing terms. Social marketing can be defined as “striving to change the behavior of communities to reduce their impact on the environment.” Realizing that simply providing information is usually not sufficient to initiate behavior change, community-based social marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.¹ Social marketing campaigns work to identify barriers (why it may be difficult for a given person to adopt the desired new behavior); develop a strategy that utilizes tools that have been shown to be effective in changing behavior; pilot the strategy; and evaluate the strategy once it has been implemented across a community. Understanding the audience, selecting the behaviors to target for a behavior change during the campaign, and understanding what will help (a motivator) or hinder (a barrier) a person within the audience to change his or her behavior, all feed into a successful CBSM outreach project. By understanding which groups to target, CBSM aims to increase the likelihood that people will take the desired action. Perhaps more importantly, CBSM campaigns are built on knowing exactly what you want the audience to do: to make a specific change in their behavior. Rather than focusing on educating the audience a problem—in this case that pesticides are causing stream

¹ Wikipedia, Social Marketing: http://en.wikipedia.org/wiki/Social_marketing

toxicity—the CBSM campaign focuses on what the individual person should do to address the problem. Addressing built-in barriers to success (e.g., if you want your audience to recycle, make sure they have access to a recycling program) will increase chances of a successful behavior change, as will understanding why people might want to make the behavior change that you suggest. CBSM relies on a body of recent social psychology work showing that people are motivated far less by information and far more by the perception of what their peers are doing. Decisions are less often made at the rational level (based on understanding and analyzing options), and more often made at a subconscious level of instinctively seeking to conform to a group. In other words, if others are doing it, you are more likely to do it too.

Task 1.1. Research demographics and distinctive characteristics of each group (Domestic Outsourcers and DIYers) through literature searches, soliciting information from partners, and surveys of participating pest management companies, if possible. Refine target audience profiles beyond initial groups identified by S. Groner Associates, Inc. (SGA).

Task 1.2. Hold meeting for Management Team and Partners to review and confirm audience profile information.

Ants affect just about everyone in the state of California, making ant management a relevant topic. However, such a mass audience can be hard to approach. Residential ant problems are typically tackled either by the resident or by the resident hiring a pest management company (our project adopted the monikers “do it yourselfers” [DIYers] and “Domestic Outsourcers” for these two respective groups, based on a preliminary study by SGA about the potential for a CBSM campaign focused on using less toxic pesticides.) While professionals are considered to apply the bulk of pyrethroids in California, the DIYer or residential applicator still makes up a significant fraction of those who apply pyrethroids. Given also that regulations such as the recent surface water protection regulations target professionals rather than residents, and that residents purchase many pesticide products containing pyrethroids and bifenthrin, the most toxic pyrethroid, we decided that DIYers as well as Domestic Outsourcers were important groups to target.

Our goal through this task was to find any available information, such as demographics, geography, and income, to narrow the audience and help target an outreach campaign. Information from previous investigations yielded some insights, as reported in the deliverable for this task, such as the potential for overlap between DIYers and Domestic Outsourcers (i.e., people try to tackle pests themselves, but many give up and hire a company); likelihood of people to apply pesticides regularly (1-3 times a year), and tendency for owners of detached single family homes to hire a pest professional more often than renters or condo owners. However, there were few insights that allowed us to meaningfully segment the audience beyond the DIYer and Domestic Outsourcer groups already established. Getting further information about pesticide users and use practices related to home ant management would be a promising area for future work.

The Got Ants? campaign intended to work with selected California communities. Most California areas face Argentine ant issues that can be remedied with the same IPM methods. Though some subregional differences have been identified in pesticide use behaviors, for our purposes it worked to consider any

California community part of the audience. We focused on the San Francisco Bay Area, because that is where most of our partners were located, with other partners helping to extend outreach into other geographic areas within the state.

Task 1.3 Identify end-state, nondivisible behavioral actions that produce the desired outcome—reduced pesticide toxicity in receiving waters. [“End-state, nondivisible” means that the behavior is a single step, not part of another action.] Conduct a group exercise with the Management Team and Partners to identify specific behavioral actions with greatest impact and probability of implementation. Supplement with recommendations from outreach consultant, SGA.

Our next task as a group was to hone in on a behavior to target. CBSM campaigns seek to provide a clear directive statement to perform a certain action. CBSM considers that giving the audience information about negative effects of a behavior (for example, “Smoking causes cancer”) doesn’t necessarily lead to any particular response on the part of the audience. CBSM would recommend instead selecting a clear behavior to advocate, for example, “Don’t smoke.” Examining the problem of pyrethroid and fipronil pesticide application to manage ants in

structural pest control for residences yields many actions or behaviors that can contribute to water pollution, and the team needed to narrow those. Some of the potential behaviors we considered were: hire an integrated pest management (IPM) certified pest management company, do your part in pest-proofing, follow label instructions when applying pesticides, don’t apply pesticides to impervious surfaces, and remove mulch from foundations. We



screened for water quality impact and adoptability of these behaviors at a group exercise with the Management Team and used surveys to the team to follow up. To our surprise, and somewhat contrarily to a standard CBSM campaign, these exercises yielded a suite of actions rather than a single one. In a nutshell, the behaviors were: practice IPM at home, or hire a pest management company that practices IPM. The Management Team thought it made little sense to talk about doing IPM without talking about cleanup, baits, removing food and water sources for ants, etc. A similar set of actions emerged for both the DIYer and Domestic Outsourcer groups. Based on this work, we began to think of our core message in terms of steps one would take to manage ants, and to draft messages that would cover a series of actions. In this case, it seemed that the CBSM template needed to be modified to fit this issue.

Task 1.4 Identify barriers and motivators, or benefits, to adopting the new behavior selected for promotion by the campaign. Conduct a group exercise with the Management Team, partners, and consultant.

The Management Team also discussed barriers and motivators. A follow-up survey to the Management Team elicited further detail. Identified barriers to behavior adoption, such as ants in the home triggering fear of the natural world entering domesticated spaces or stigma around perceptions that ants in the

home were “unclean,” were discussed and provided as a list to SGA to keep in mind as they developed messages and ad concepts. Motivating factors included effectiveness of ant management practices and safety for family, children, and pets. Importantly, the team concluded that protecting water quality and being pro-environment were not strong motivating factors for most people.

Task 1.5. Further research to provide additional information on barriers and motivators to behavioral change.

Further discussions were held with SGA about the potential usefulness of the barriers and motivators the Management Team identified. Ways to incorporate motivating factors were: emphasizing effectiveness of IPM, using humor and light approaches rather than requiring people to read and master technical information, and using peer approaches to establish the concept of IPM as a social norm.

Objective 2: Develop campaign materials.

The Management Team developed specifications for materials to be created by an outreach consultant SGA, under subcontract to the Bay Area Stormwater Management Agencies Association (BASMAA, a member of the Management Team). SGA’s contract for \$94,500 included (amounts rounded for clarity):

1. \$3,900 for grassroots engagement planning,
2. \$16,600 for advertising brief and creative development,
3. \$9,900 for developing ad layouts,
4. \$34,000 for the ad buy,
5. \$6,000 for earned media (two press pitches),
6. \$18,000 for website production,
7. \$1,700 for social media consultation,
8. \$3,000 for search engine optimization, and
9. \$1,400 for evaluation plan development.

Task budgets were reallocated somewhat during the course of the project, with some funds from media and grassroots engagement planning going to cover overruns in the advertising brief and creative development task. SGA provided some work pro bono as well.

Small contracts to University of California Statewide IPM Program (UCIPM, \$10,000) and the Bio-Integral Resource Center (BIRC, \$5000) funded some members of the Management Team’s time for reviewing materials and disseminating them once complete.

The Management Team spent a good portion of the project period on developing campaign materials. The process took longer than expected, but the team felt that we generated a strong end product, which justified the extra rounds of review. This resulted in a shorter implementation period for the campaign, given that the project’s fixed end date.

Task 2.1. Develop specifications for materials to be produced by consultant. Partners will participate in developing specs for the materials, developing a creative brief for two “concepts” which would

serve as creative spines for the rest of the program. The concepts will be fleshed out into logo; images; core text; ads sized for mobile/print/online and usable in partner materials; and website.

The Management Team worked on a creative brief which captured the team's deep expertise in pest management, IPM, pesticides, and water quality in a template to guide the creative team at SGA, who were all relatively unfamiliar with our subject. The Management Team provided information for both DIYers and Domestic Outsourcers in an online collaboration using Google Documents.

SGA developed three ad concepts from the initial creative brief. Based on the Management Team's feedback via email and an online survey, the initial set of concepts was rejected because it did not include strong enough CBSM elements or provide clear IPM steps in simple terms, and because it incorporated too many whimsical elements not related to the project. The creative brief was redrafted, and three more rounds of review and tweaking generated the Got Ants? Get S.E.R.I.O.U.S tagline that fed into the logo, flyers, magnets, website, and Facebook page. The core text included these elements:

Don't play around with spray when there are better ways to keep ants away

Got Ants? Get S.E.R.I.O.U.S.

S Spot where ants are coming in

E Eliminate crumbs, messes, and spills

R Rinse with soap and water

I Isolate food and water sources

O Obstruct entryways and seal cracks

U Use baits if ants don't go away

S Stick to it to keep ants away!

We had some difficulty in achieving a focus on both the DIYer and Domestic Outsourcer group. The consultant wanted to focus on only one group, whereas the Management Team wanted to cover both. Despite the Management Team's requests, the messaging focused more on the DIYer group. Given the time already invested in developing the Got Ants? Get S.E.R.I.O.U.S message, and the limited time remaining, we decided to move forward even though the Domestic Outsourcer group didn't get its own set of messages. It would have taken more time than we had to develop another set of materials that focused more on the Domestic Outsourcers, or to retool the Got Ants? Get S.E.R.I.O.U.S message to include the Domestic Outsourcer audience. We attempted to amplify the Domestic Outsourcer message by providing material on the website addressing how to hire IPM certified professionals, and by structuring some of the materials to drive people to the website, and once at the site they could choose to pursue information focused on hiring professionals or addressed to DIYers.

SGA and San Francisco Estuary Partnership (SFEP) staff and the Management Team also worked on the structure for the project website—the website wireframe—and the social media aspect of the project. SGA staff did some search engine optimization (SEO) work, incorporating keywords and a link structure that would help make the Got Ants? website appear near the top of web search results.

Task 2.2. Oversee production of materials by the outreach consultant, including the completed concepts; logo; images; core text; ads sized for mobile/print/online and usable in partners materials; and website.

Two ads, one “intro” and one “detailed,” were generated from the Got Ants? Get S.E.R.I.O.U.S tagline. The intro ad was meant to prominently feature the website and encourage people to access the website by clicking directly. The detailed ad included more information, and was designed for placements where captive audiences would spend longer looking at the material (such as interior cards on transit).

Following several iterations, the principal investigator (PI) and Management Team approved the project logo, “intro” and “detailed” ads sized to fit a variety of placements, a flyer, a magnet, the project website, and the project Facebook page. Images from these pieces are reproduced below.



Image 1. The Got Ants? “intro” ad, left, and the “detailed” ad, right



Image 2. Some of the Got Ants? ads sized for online, transit, and print ad placements



Image 3. The Got Ants? magnet, featuring image and text from Step 3, Rinse

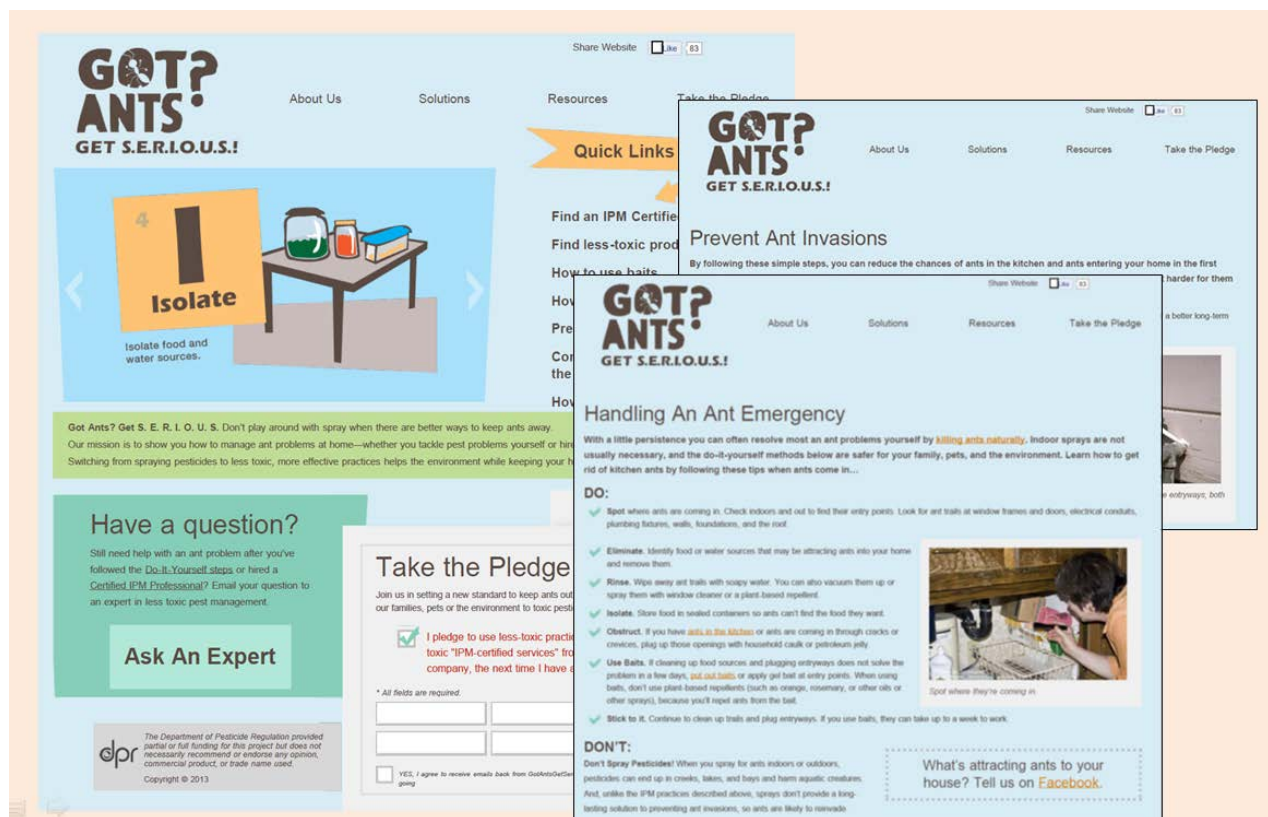


Image 4. Screenshots from the Got Ants? website, www.gotantsgetserious.org



Image 5. Screenshot of the Got Ants? Facebook page

Files for these images may be obtained from DPR or from Athena Honore of the San Francisco Estuary Partnership. Downloadable images are also posted at <http://www.gotantsgetserious.org/contact>.

Task 2.3 Pilot-test campaign materials.

A pilot test of the draft ads was conducted informally by the Management Team. Team members took the ad drafts to colleagues, family, or friends unfamiliar with the project and asked them for input. Several last changes were made based on the pilot test.

A lesson learned from work under this objective was that it takes time to develop an acceptable product, especially when the management team had very little experience in developing creative material and the creative consultants had very little experience in pest and pesticide issues. Although it would have been helpful to budget more time and money for the creative materials development, we were fortunate to be able to exceed the originally allotted time and budget on this section to develop a strong set of materials and modify time and budget allotted to other tasks.

Objective 3: Launch and conduct campaign.

After the materials were created, the project moved into “launch” mode to start disseminating the campaign products and do the actual outreach. The PI was responsible for coordinating partner outreach and selecting the mix of activities, whereas the partners did most of the actual outreach work.

Task 3.1. Develop campaign calendar, including launch activities and peak outreach times when ants are most likely to invade.

The campaign calendar planned month by month activities for various aspects of the project: website, Facebook page, print ads, online ads, SEO work, events, partner promotions, and media work. Table 1 shows the most recent campaign calendar, submitted April 2013.

Table 1. Got Ants? Campaign Calendar

	April	May	June	July	August	September	October	November	December	January '13	February '13	Impressions
Website live	website traffic not yet known											0
Facebook page live	facebook page traffic not yet known											0
Print ads running												0
Transit		290,000	580,000	870,000	1,160,000							2,900,000
Sunset			350,000	350,000	350,000							1,050,000
Online ads running												0
Google Ads	google ad impressions being revised to cover longer period											0
Facebook and YouTube ads			166,000	216,000								382,000
SEO work												0
Events	Earth Day events in San Mateo County (2-3), Vallejo/Fairfield (1), Santa Clara Valley	National River Cleanup Day events 5/18; retail store events incl Sunnyvale DSH	Master Gardeners Farmers Market events; Sunnyvale Fm Mkt; Alameda County Fair late June-July; SCV	Master Gardeners Farmers Market events	Master Gardeners Farmers Market events	BAPPG P2 Week 9: 17-23/Eat Real 9/27-29/Coastal Cleanup Day 9/21 for municipalities	Master Gardeners Farmers Market events; retail store events; SCV events				retail store events	0
Flyers distributed	125	30	50	50	50	100	100				100	605
Magnets distributed		10	20	20	20	80	50				50	250
Partner Work	Soliciting partners to demo "steps" and report success stories											0
Newsletters to members/Web/FB posts				500	1,000	2,000	3,000	300	100	500	600	8,000
Media Pitches					pitch: "success stories" - media outlets and impressions not yet kn				2nd pitch: ants coming in the house in winter			0
Evaluation	Begin GreenPro baseline company survey	Begin EcoWise baseline info survey								"After" surveys for GreenPro and EcoWise	Analyze data and write up report	0
Likely high-ant periods of the year					summer heat		rains begin		winter cold		rains/spring weather changes	0
Monthly Imp. Total	125	290,040	1,096,070	1,436,570	1,511,070	2,180	3,150	300	100	500	750	4,340,855

By and large, activities in the campaign followed the planned calendar, with some changes to specifics for events, numbers and timing of partner newsletters, media work, and evaluation. SEO work should not necessarily have been included in the calendar, as search engine optimization was a behind-the-scenes part of website development rather than an outreach activity.

Task 3.2. Recruit partners to participate in the campaign, especially the launch.

We worked with more than 50 partners who disseminated outreach on the project. There may be more who used the Got Ants? materials without officially contacting us. Key partners included Management Team members, members of Bay Area stormwater or wastewater associations, and the IPM Advocates (a group of citizens, trained through a program created under another Pest Management Alliance Grant, who provide training on IPM and less toxic pesticide use to retail store staff at home and garden stores in California). The agencies listed below partnered with the project to disseminate Got Ants? outreach in some fashion. Management Team agencies are designated (MT).

Participating partners in the Got Ants? project

1. San Francisco Estuary Partnership (MT)
2. California Department of Pesticide Regulation (MT)
3. University of California Statewide IPM Program (UCIPM) (MT)

4. Bay Area Stormwater Management Agencies Association (BASMAA) (MT)
5. Bay Area Clean Water Agencies (BACWA), parent agency of the Bay Area Pollution Prevention Group (BAPPG) (MT)
6. San Francisco Department of the Environment (MT)
7. Sacramento County Department of Water Resources (MT)
8. Bio-Integral Resource Center (BIRC) (MT)
9. City of San Jose (MT)
10. Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) (MT)
11. Santa Monica Bay Restoration Commission (MT)
12. Morro Bay National Estuary Partnership (MT)
13. University of Riverside Urban Entomology Program
14. National Pest Management Association (MT)
15. San Francisco Bay Regional Water Quality Control Board (MT)
16. Clean Water Program (Alameda County) (MT)
17. California Poison Control System
18. IPM Advocates at 11 Bay Area retail hardware, home, and garden stores
19. City of El Cerrito
20. Raptors Are The Solution (RATS)
21. City of Santa Rosa
22. City of Belmont
23. City of Sunnyvale
24. Marin County
25. UC Riverside
26. San Luis Obispo County
27. Solano Master Gardeners
28. Sonoma County
29. Contra Costa County
30. Association of Bay Area Governments
31. San Francisco Bay Joint Venture
32. City of American Canyon
33. City of Dublin
34. East Bay Municipal Utility District
35. City of Hayward
36. Annie Joseph, consultant to Our Water Our World program and IPM Advocates
37. Central Marin Sanitation District
38. City of Millbrae
39. Napa Sanitation District
40. City of Pacifica
41. San Francisco Public Utilities Commission
42. City of Paso Robles
43. San Mateo County Stormwater Pollution Prevention Program
44. South Bayside System Authority



45. Watershed Watch (Santa Clara County)
46. Sonoma County Water Agency
47. City of Vacaville
48. Santa Barbara County
49. Elihu Harris State Building, Oakland
50. Vallejo Sanitation and Flood Control District
51. City of Brisbane
52. San Francisco Estuary Institute
53. San Francisco Bay Planning Coalition
54. City of Newark
55. City of Piedmont
56. City of Danville
57. City of San Rafael
58. City of Pacifica
59. Town of Campbell
60. Redwood City/Town of Woodside
61. Western Regional IPM Center
62. Sacramento-San Joaquin Delta Conservancy
63. USEPA Colorado

Partners distributed flyers, held tabling events, tweeted about the project, wrote or shared Facebook posts, promoted the project through news stories, published blurbs about the project in e-newsletters, included Got Ants? information in utility bill inserts, and more. The IPM Advocates took Got Ants? flyers to the retail stores they supported (11 stores in the Bay Area) and to tabling events. The PMAC presentation in the Appendix gives graphic examples of each kind of partner promotion.

The following tables summarize partner activity to promote the project. It was not possible to capture every activity by all partners, but this gives a good idea of the type of outreach partners did for the project.

Website links

The agencies listed in Table 2 hosted links to the Got Ants? website (www.gotantsgetserious.org) on their websites. The URLs for these links are noted. This kind of link increases search engine optimization for the Got Ants? website, helping it to appear higher in results lists for online searches. As some websites displayed Got Ants? information in current events or other short-term sections, not every website is still featuring the project.

Table 2. Websites linking to the Got Ants? website

	Agency	URL of web page hosting Got Ants? information
1	San Mateo Countywide Water Pollution Prevention Program	http://www.flowstobay.org/
2	Marin County Stormwater Pollution Prevention Program	www.mcstoppp.org

	Agency	URL of web page hosting Got Ants? information
3	City of Brisbane	http://www.ci.brisbane.ca.us/news/2013-10-15/got-ants
4	Under the Solano Sun, ANR blogs	http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=10970
5	Marin County	http://www.marincounty.org/depts/pw/divisions/mcstoppp
6	Santa Barbara County Agriculture, Weights and Measures	http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCsQFjAA&url=http%3A%2F%2Fwww.countyofsb.org%2FuploadedFiles%2Fagcomm%2Foutreach%2FFall%2520Edition%25202013.pdf&ei=ggs1U5jTJ8nOyQH6u4CoBA&usg=AFQjCNGISVx89yljs31f-Xl32t3on2XW1Q&sig2=BfVl6nwqjEKJFIjSzVn7g&bv m=bv.63808443,d.aWc
7	Sonoma County Permit and Resource Management	http://sonomacounty.ca.gov/Departments-Agencies/Permit-and-Resource-Management/
8	Bay Planning Coalition	http://bayplanningcoalition.org/2013/11/news-from-the-san-francisco-bay-joint-venture-november-2013/
9	Baywise.org, a collaboration of BAPPG and BASMAA	www.baywise.org
10	Bio-Integral Resource Center	www.birc.org
11	Vallejo Sanitation & Flood Control District	https://www.vsfcd.com/Site_PDFs/Newsletter_Vol_9_Issue_4.pdf
12	City of Paso Robles	http://www.prcity.com/government/departments/publicworks/stormwater/swmp-postconstruction.asp
13	HGTV.com	http://boards.hgtv.com/eve/forums/a/tpc/f/4284011632/m/9833939177
14	Fitzgerald Area of Special Biological Significance Marine Reserve	http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CDEQFjAB&url=http%3A%2F%2Fsmchealth.org%2Fsites%2Fdefault%2Ffiles%2Fdocs%2FEHS%2FFitz_news2013.pdf&ei=CA41U-aMPK4yQH-uYD4DA&usg=AFQjCNFVun9YG_z4tPlnw--A9XeuxYmRg&sig2=yUn256oxfQnEbulxz14aXA&bv m=bv.63808443,d.aWc
15	SFEP	http://www.sfestuary.org/our-projects/stewardship/pesticides/
16	Santa Clara County supervisor Mike Wasserman	http://www.sccgov.org/sites/d1/upcoming%20events/pages/upcoming-events.aspx
17	City of Millbrae	http://www.ci.millbrae.ca.us/index.aspx?page=432
18	City of Sunnyvale	http://sunnyvale.ca.gov/
19	City of Cupertino	http://www.cupertino.org/index.aspx?page=165
20	City of Yreka	http://ci.yreka.ca.us/utilities/storm-drains
21	Contra Costa Supervisor John Gioia	http://archive.constantcontact.com/fs173/1111030452123/archive/1116009084130.html

Tweets

These organizations tweeted about the Got Ants? project. Tweets are 140-character messages sent via the twitter.com social media platform, from an account holder to his or her “followers” on Twitter. Tweets can be “re-tweeted” by a follower and can spread virally. Tweets can also include links or images, allowing someone to click to a website or see a picture directly. Many partners tweeted multiple times over the length of the campaign.

1. San Francisco Estuary Institute/Aquatic Science Center
2. Western IPM Center
3. Flowstobay (San Mateo County Stormwater)
4. UCANR (UC Agricultural and Natural Resources)
5. Montgomery County Master Gardeners
6. Pestec (pest management company)
7. U.S. Environmental Protection Agency, Region 2 (NY/NJ)
8. California Poison Control System
9. San Francisco Estuary Partnership
10. Los Gatos Patch (press)
11. City of Menlo Park Sustainability Department
12. Southern IPM Center
13. City of Belmont Public Works
14. National Pesticide Information Center, Oregon State University
15. Ventura County Star (press)
16. Urban Integrated Pest Management
17. California Department of Pesticide Regulation

In addition to the agencies listed, numerous citizens also tweeted about the Got Ants? project.

Facebook posts and shares

These agencies posted information about the Got Ants? project on their Facebook pages. Some created their own Got Ants? posts, and some “shared” or reposted material from the Got Ants? Facebook page.

1. Raptors are the Solution (RATS)
2. Bright Green San Jose
3. City of Sunnyvale
4. Santa Rosa Water
5. City of Belmont Public Works Department
6. CA Department of Pesticide Regulation
7. Delta Conservancy
8. City of Menlo Park



Flyers and magnets distributed

Agency partners helped to distribute the flyers and magnets at tabling events or by placing them at counters or other information distribution areas. Table 3 shows participating agencies and the number of flyers and/or magnets those agencies took for distribution. Some agencies did not take magnets.

Table 3. Partner agencies distributing Got Ants? flyers and magnets

	Agency	Flyers	Magnets
1	City of American Canyon	200	
2	Bay Area Pollution Prevention Group (BAPPG)	500	100
3	City of Burlingame	1,000	100
4	City of Dublin	1,000	
5	East Bay Municipal Utilities District	10	
6	City of Hayward	500	100
7	IPM Advocates	5,500	500
8	Marin County Stormwater Pollution Prevention Program (MCSTOPPP)	250	
9	Central Marin Sanitation Agency	1,000	
10	City of Millbrae	200	100
11	Napa Sanitation District	300	
12	City of Pacifica	100	
13	Sacramento County	1,000	25
14	San Luis Obispo County	10,000	
15	San Mateo County	500	100
16	South Bayside System Authority	200	100
17	Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP)	500	
18	County of Sonoma	200	
19	City of Sonoma	100	
20	City of South San Francisco	50	
21	City of Sunnyvale	250	
22	Vallejo Sanitation and Flood Control District	250	250
23	West County Water District	20	
	Totals	23,630	1375

Tabling events

Tabling events staffed by partners were good opportunities to interact directly with interested members of the public and hand out the flyers and magnets, which bear the URL to the Got Ants? website. Participating agencies include San Francisco Estuary Partnership (SFEP) and members of Marin County Stormwater Pollution Prevention Program (MCSTOPPP), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), Bay Area Pollution Prevention Group (BAPPG), and San Mateo Stormwater Pollution Prevention Program (SMSTOPPP). Table 4 shows the agencies and date, location, and name of the tabling events. Some agencies tracked participation at those events, and those partial details are included in the last column.

Table 4. Partner tabling events where Got Ants? materials were distributed

	Agency	Date	Location	Event Name	Distribution Numbers
1	City of Sunnyvale	4/13/2013	Sunnyvale	Farmers Market	not tracked
2	SMSTOPPP	4/20/2013	Pacifica	Earth Day	not tracked
3	City of Sunnyvale	4/22/2013	Sunnyvale	Northrop Grumman Business Event	not tracked

	Agency	Date	Location	Event Name	Distribution Numbers
4	SMSTOPPP	4/27/2013	Portola Valley/ Woodside	Earth Fair	84 people engaged total, not all specifically about ants
5	City of Sunnyvale	4/27/2013	Sunnyvale	Water Pollution Control Plant tours	not tracked
6	SMSTOPPP	5/4/2013	San Bruno	San Bruno Clean Sweep	27 people engaged total, not all specifically about ants
7	City of Sunnyvale	5/11/2013	Sunnyvale	Table at OSH	not tracked
8	City of Hayward	Month of June, 2013	Downtown Hayward	Thursday night Street Festival table	see below
9	City of Sunnyvale	6/8/2013	Sunnyvale	Farmers Market	not tracked
10	City of Sunnyvale	6/8/2013	Sunnyvale	Water Pollution Control Plant tours	not tracked
11	SMSTOPPP	6/8-16/2013	San Mateo	San Mateo County Fair	850 people engaged, estimated
12	SMSTOPPP	6/22/2013	Half Moon Bay	Farmer's Market	55 people engaged total, not all specifically about ants
13	City of Sunnyvale	7/13/2013	Sunnyvale	Water Pollution Control Plant tours	not tracked
14	City of Hayward	7/18/2013	Downtown Hayward	Thursday night Street Festival table	see below
15	IPM Advocate Steve Griffin	7/27/2013	Livermore	Ace Concord tabling event re less toxic pesticide products	talked with 40 people
16	City of Hayward	Month of August, 2013	Downtown Hayward	Thursday night Street Festival table	total for three events: approx 100 flyers, less than 10 magnets
17	City of Sunnyvale	8/3/2013	Sunnyvale	Water Pollution Control Plant tours	not tracked
18	SMSTOPPP	8/10/2013	Half Moon Bay	Farmer's Market	37 people engaged total, not all specifically about ants
19	City of Burlingame	8/10-11/2013	Burlingame Ave. Downtown Business Dist.	Art Fest	not tracked
20	SMSTOPPP	8/25/2013	Redwood City	North Fair Oaks Festival	215 people engaged total, not all specifically about ants
21	City of Millbrae	fall-winter	Millbrae	Posted at Library and City Hall display windows	not tracked

	Agency	Date	Location	Event Name	Distribution Numbers
22	City of Sunnyvale	9/14/2013	Sunnyvale	Farmers Market	not tracked
23	City of Sunnyvale	9/14/2013	Sunnyvale	Water Pollution Control Plant tours	not tracked
24	City of Burlingame	9/15/2013	Burlingame Avenue Downtown Business District	Green Street Faire	not tracked
25	City of Millbrae	9/15-21/2013	Downtown Millbrae	Pollution Prevention Week outreach table	not tracked
26	City of Millbrae	9/21/2013	Millbrae	Coastal Cleanup Day table	rain, poor turnout
27	City of Sunnyvale	9/19/2013	Sunnyvale	Lockheed Business Event	not tracked
28	BAPPG	9/27-29/2013	Oakland	Eat Real street food festival	not tracked
29	SMSTOPPP	10/6/2013	Redwood City	Redwood City Fire Prevention Day	78 people engaged total, not all specifically about ants
30	SCVURPPP	10/12/2013	San Jose	Spring in Guadalupe Gardens	6 flyers, 26 magnets
31	IPM Advocate Debi Tidd	10/12/2013	San Ramon	OSH San Ramon tabling event re less toxic pesticide products	30 flyers
32	IPM Advocate Lisa Graves	10/13/2013	San Leandro	OSH San Leandro tabling event re less toxic pesticide products	not tracked
33	City of Sunnyvale	10/19/2013	Sunnyvale	World Water Monitoring Day:	not tracked
34	SFEP	10/27-28/2013	Oakland	State of the Estuary Conference	not tracked
35	IPM Advocate Teresa Lavell	10/29/2013	Vallejo	Home Depot Vallejo tabling event re less toxic pesticide products	talked to 25 customers
36	IPM Advocate Lisa Graves	11/3/2013	Oakland	Grand Lake Ace tabling event re less toxic pesticide products	25 flyers
37	City of Sunnyvale	11/16/2013	Sunnyvale	Farmers Market	not tracked

	Agency	Date	Location	Event Name	Distribution Numbers
38	City of Sunnyvale	11/19/2013	Sunnyvale	Live Green/Save Green Presentation at Sunnyvale Library	not tracked
39	MCSTOPPP	1/11/2014	Mill Valley	Health and Wellness Fair	few; poor weather and low attendance

Other types of outreach

A few partners had unique types of outreach dissemination, such as mailing out other print pieces with Got Ants? information, and those are grouped into Table 5.

Table 5. Miscellaneous outreach by partner agencies

	Agency	Type of outreach
1	Marin County Stormwater Pollution Prevention Program	2014 wall calendar featured Got Ants? information on September page
2	US EPA in Colorado	Distributed flyers
3	City of Sonoma Water	Mailed utility bill insert from
4	Vallejo Sanitation & Flood Control District	Mailed newsletters (2x)

In general, we were happy with the level of partner participation. Management Team partners, stormwater agencies, and wastewater agencies were the mainstay of the outreach team. UCIPM noted at the last Management Team meeting that their services could have been used more actively, and that was a lost opportunity. Some partners were stellar, while others did not have the time to be very active on the project. The IPM Advocates were a particularly effective partner, as part of their time was supported by SFEP through another grant (the EPA San Francisco Bay Water Quality Improvement Fund), which gave them some time dedicated to coordination with the Got Ants? project, and allowed for greater accountability. Of the project’s geographic area, there was greatest reach and engagement in the Bay Area. We had planned to roll out outreach to several geographic “hubs” in the state (Morro Bay, Santa Monica, Sacramento), but those partners did not remain fully engaged over the course of the project. There appears to be potential for broader statewide rollout of Got Ants? outreach through statewide associations such as the California Stormwater Quality Agencies and the Phase II stormwater permittees.

Task 3.3. Launch campaign in conjunction with partners while deploying media strategy.

The campaign launched when the website went live, on May 15, 2013. The Management Team, as well as stormwater agency and wastewater agency partners, helped to promote the project, as described above. Media work to promote the project was rescheduled to the fall of 2013.

BASMAA provided a press pitch from their PR agency, O’Rourke Inc., about Got Ants? resources for ant invasions related to the beginning of the rainy season. The October 25 pitch resulted in coverage in 52 local Patch.com websites (a set of online-only local community news sites) over late October and early November and radio coverage: a KCBS story and a “Helping Your Hometown” radio spot which played

four times a day on KKIQ and KKDV over two weeks in December. The story got excellent coverage throughout the region. A Patch.com sales representative provided readership numbers for the Patch websites that ran the news stories, which totaled 1,103,606 unique visitors (see Table 8). Unfortunately, we were not able to get parallel information from the radio stations about their listenership.

We would have liked to see bigger outlets pick up the story; but we learned that it would take more effort to create a news hook to garner coverage in the San Francisco Chronicle, Oakland Tribune, or San Jose Mercury News. In addition, it was a bad year for a rainy season pitch; the rainy season didn't really happen and extreme drought conditions were all the news that season. We weren't able to promote our media hits as effectively as we would have in a more typical weather year.

Task 3.4. Continue rollout of activities to engage people through end of campaign period.

After the launch, the project's rollout continued with several elements: flyers and magnets distributed at partner offices or tabling events, IPM Advocates keeping Got Ants? materials stocked in 11 hardware stores in the Bay Area, online outreach to community e-newsletters and parent groups, a press release and media pitch as noted in the previous section, outreach to all Bay Area city and county elected officials to distribute project materials, and ongoing Facebook posts and cross-promotion with partner agencies.

The partner and media efforts are described in previous sections. The project's social media presence was originally planned to extend just to Facebook, but other social media platforms were added. A Twitter function built into the Got Ants? website was used by a number of visitors and organizations to tweet about the Got Ants? website. As we didn't plan for Twitter tracking up front, we weren't able to track the Twitter reach well. However, we saw at least 20 agencies and citizens tweeting about the project, some

multiple times. Additionally, a Pinterest account was created for the project. Pinterest is a bookmarking social network that allows users to "pin" or save, websites, stories, or pictures from the web to collections, or "boards" on various topics. Followers can view others' pins and repin items of interest to their own boards. Because Pinterest is very graphically oriented, we thought it might work to post the Got Ants? graphics that were developed. Many people use Pinterest to track home and garden inspiration or handy tips. We created several "pinboards" about pest management and populated those boards with pins (small images that link to the website) from the Got Ants? Get S.E.R.I.O.U.S graphics. For our seven pins, four people started following us, potentially exposing us to 245 more people (their followers). We didn't want to spend any more effort than that to further develop the concept but were pleasantly surprised to see that Pinterest did generate some activity and interest. It may be possible to get more results by seeding project images and materials on Pinterest more regularly.



To reach out to an environmentalist/activist audience, we posted Got Ants? material on the Care2.com website. An “action” website, Care2.com offers a place for activists to click links to support petitions and other activities. We set up a pledge link on the Care2.com website as well as links to the Got Ants? website. Unfortunately, this did not produce any significant traffic, and we aren’t sure quite why.

Task 3.5. Create a plan for future use of campaign material after grant period is complete.

We are pleased to note that BASMAA has agreed to take over web hosting for the www.gotantsgetserious.org website after the grant period has ended. This will keep the website live and available for use.

Additionally, SFEP secured another grant for pesticide outreach from the U.S. Environmental Protection Agency’s San Francisco Bay Water Quality Improvement Fund. That grant will cover a broad range of outreach to encourage less toxic pesticide practices in the San Francisco Bay Area, including use of the Got Ants? ads. It is anticipated that the EPA funds will cover another round of advertising. This will offset the shortened active campaign period covered under this grant, and extend it over a much longer period than originally anticipated. Also, lessons learned about effectiveness and cost-effectiveness from this grant will inform the future Got Ants? outreach efforts.

Objective 4. Evaluate campaign’s effectiveness.

This section discusses effectiveness and cost effectiveness of the campaign activities.



Task 4.1. Develop an evaluation plan with partners in the early stages of the campaign.

SGA worked with the PI to develop an evaluation plan, which was submitted to satisfy this deliverable. It became clear fairly early on that several elements of the plan would not be feasible to collect, as described in Semi-Annual Report #3. The evaluation plan was revised with input and approval of the DPR grant manager. The plan includes several metrics related to reach of the campaign, which are addressed in Task 4.2. Additional reporting against the evaluation plan metrics is in an Evaluation Report attached at the end of this report.

Task 4.2. Track reach of campaign and campaign materials on a quarterly basis, including number of people who have received or viewed materials from the program; number of partners participating; number of commitments from households to change pesticide use behavior.

Reach of the campaign, across the various outreach avenues, is tracked by month in the series of tables below. The first shows Advertising and Website traffic. The second shows Partner Promotions and Earned Media. The third shows Social Media and overall totals. Further information about each type of advertising is included in a section below.

Table 6 shows the reach of print ads, transit ads, and online ads, and traffic to the website during the campaign period. Table 7 shows partner promotions and earned media during the campaign period.

Table 6. Advertising and website results for the project

	Advertising				Website
	Print ad viewers, Transit	Print ad viewers, Sunset magazine	Facebook advertising (online)	Google advertising (online)	Web hits (unique visitors)
May-13				11,842	414
Jun-13	5,139,780		1,361,710	34,095	1233
Jul-13	3,276,300	1,250,000	1,472,861	82,672	1837
Aug-13	2,338,455			40,736	1009
Sep-13	1,928,918	350,000			699
Oct-13					357
Nov-13					506
Dec-13					244
Jan-14					172
Feb-14					214
Mar-14					163
Totals	12,683,453	1,600,000	2,834,571	169,345	6,848
Subtotals by type				17,287,369	6,848

Table 7. Partner promotions and earned media results for the project

	Partner Promotions			Earned Media
	Flyers/magnets distributed & events	Email blast recipients (<i>info is very partial</i>)	Mailed newsletters, etc.	Earned media stories viewers/listeners
May-13	2 events			
Jun-13	5 events			
Jul-13	3 events		35,000	
Aug-13	5 events			
Sep-13	8 events			
Oct-13	7 events	1,350		
Nov-13	3 events	35,020		1,103,606
Dec-13			28,000	KKDV & KKIQ radio interviews
Jan-14	1 event		35,000	
Feb-14				
Mar-14			12,000	
monthly totals not available	25,005			
Totals	25,005	36,370	112,000	1,103,606
Subtotals by type			173,375	1,103,606

We didn't capture all email blasts or total recipients, but what we captured is in Table 7. The October 2013 total shown is from the San Francisco Bay Joint Venture, and November 2013 activity is from the Urban Pesticide Committee, Berkeley Parents Network, and DPR's School IPM listserv. Similarly, mailed pieces were not always known, but two print newsletters with different stories on the Got Ants? project were mailed by the Vallejo Sanitation and Flood Control District to 35,000 households in July 2013 and January 2014; 28,000 wall calendars with Got Ants? information on the September page were distributed by the Marin County Stormwater Pollution Prevention Program to Marin County households in December 2013; and City of Menlo Park sent a newsletter to 12,000 households in March 2014.

The media hits came from a wave of news stories about the Got Ants? project that were run by local Patch blogs in 52 Bay Area communities. The online viewership of those stories was provided by a Patch.com sales executive, shown in Table 8. Listenership numbers for the stations playing radio interviews were requested but not provided.

Table 8. Viewership for Patch.com websites that carried stories about Got Ants?

Patch.com community	Unique Visitors		
Alameda	35,862	Mill Valley	26,918
Albany	27,464	Millbrae	6,102
Belmont	14,007	Milpitas	17,533
Benicia	19,881	Mountain View	21,465
Berkeley	31,425	Napa	32,579
Burlingame-Hillsboro	9,179	Newark	21,168
Campbell	16,751	Palo Alto	46,583
Capitola-Soquel	11,909	Petaluma	25,405
Castro Valley	23,673	Piedmont	14,455
Concord	25,399	Pleasanton	49,369
Cupertino	16,484	Pleasant Hill	13,383
Danville	22,806	Redwood City	26,586
Dublin	22,105	Rohnert Park	17,549
El Cerrito	17,828	San Bruno	12,459
Foster City	13,926	San Carlos	12,140
Gilroy	28,195	San Leandro	28,057
Half Moon Bay	34,347	San Mateo	20,626
Healdsburg	14,889	San Rafael	27,445
Hercules-Pinole	13,250	San Ramon	29,925
Lamorinda	15,517	Santa Cruz	31,842
Larkspur	8,558	Saratoga	6,070
Livermore	49,655	Scotts Valley	9,192
Los Altos	14,593	Sonoma	12,311
Los Gatos	28,712	South San Francisco	18,778
Martinez	10,639	Union City	18,458
Menlo Park	30,154	Total	1,103,606

*Data for the City of Clayton Patch site was missing.

Table 9 shows social media results for the project during the campaign period. Social media analytics covered Facebook and Pinterest. The Facebook analytics came from admin tools provided with the Facebook page. The first column shows people who “liked” the page, by month. The second column shows the greater reach of people, outside of those fans, who saw various posts that month through organic shares, fans of fans, etc. The third column shows “likes” totals for pages where the Got Ants? project posted information, using the feature “posts by others.” This allowed us to comment directly on other pages for local news organizations, parents’ groups, and community organizations, exposing their fans to Got Ants? information. Pinterest traffic was counted manually since we had a very small footprint on that website. Unfortunately, we were not able to capture Twitter information.

Table 9. Social media results for Got Ants?

	Social Media				TOTAL
	Facebook page "likes"	Facebook page posts, likes, shares (outside of those who liked the page)	Total likes on other pages where Got Ants? posted information	Pinterest	
May-13		0			
Jun-13		0			
Jul-13	37	0			
Aug-13	5	52			
Sep-13	13	1,469			
Oct-13	14	590	39,217		
Nov-13	8	315			
Dec-13	2	285			
Jan-14	0	458			
Feb-14	3	166			
Mar-14	2				
monthly totals not available				245	
Totals	84	3,335	39,217	245	18,574,617
Subtotals by type				42,881	

Totals

We tracked the number of impressions and interactions with the Got Ants? campaign. “Impressions” are the number of times that an ad is displayed on a screen or the number of views a billboard is expected to receive. Impressions are a passive type of dissemination. “Interactions” entail a viewer taking a more active role in engaging with the campaign materials through actions such as clicking a link, visiting a website, writing a comment, or asking a question. The outreach we could track totaled 18,572,617 impressions and interactions combined. This surpasses our target of approximately four million impressions when the target campaign calendar was first developed. Most (over 17,000,000) are from advertising, with earned media a distant second but still significant at more than 1 million views, partner promotions adding up to about 173,000 impressions, and social media contributing about 42,000

impressions. The social media numbers are somewhat incomplete, as we didn't track Twitter activity (not a planned part of the project, plus we couldn't easily find a way to capture historical analytics of tweets from multiple accounts). More than six thousand people went directly to the website.

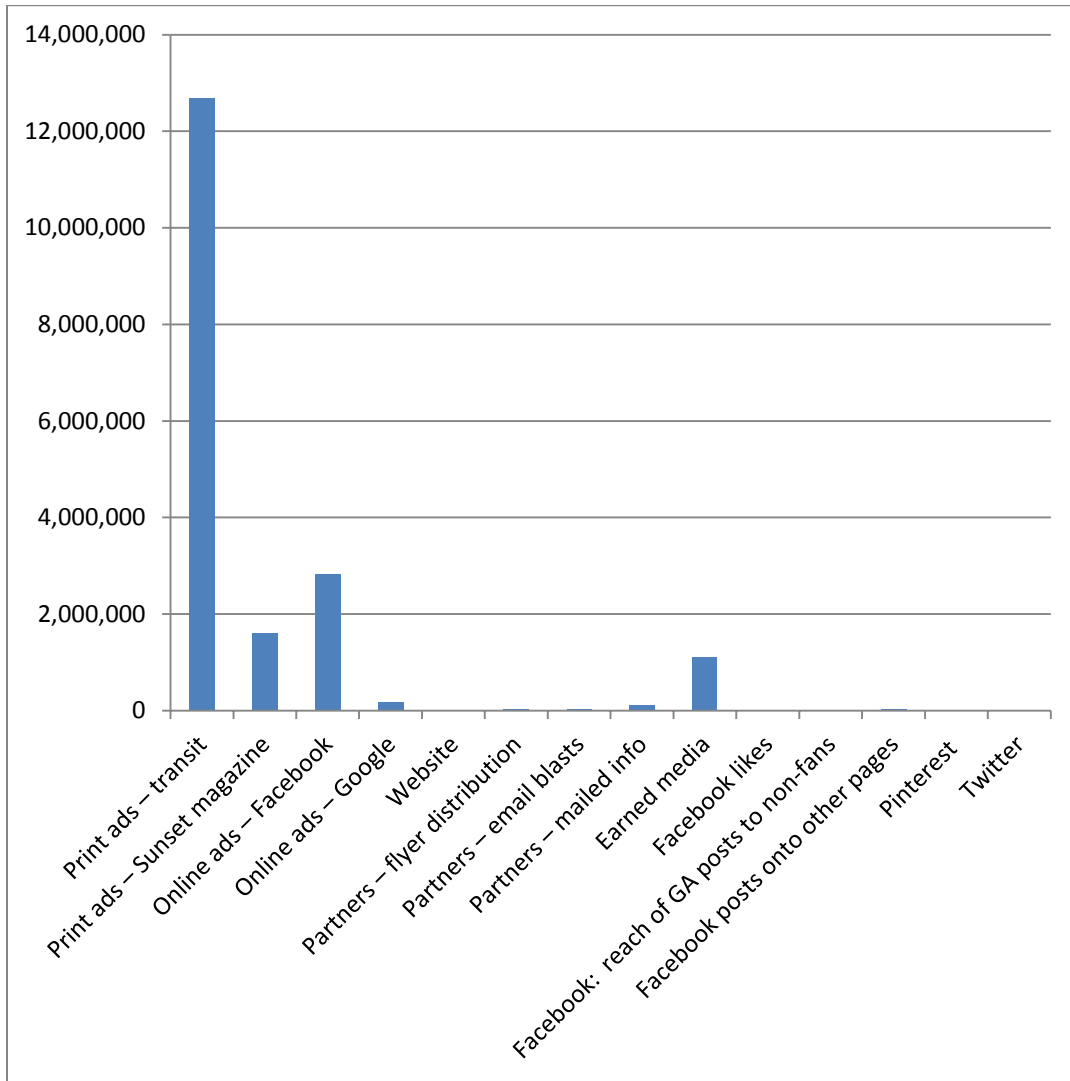


Chart 1. Comparison of results for various types of outreach.

Advertising

The mix of advertising was based on recommendations from SGA. Advertising included online ads on Facebook and Google, and print ads in Sunset Magazine, and transit ads on BART, AC Transit, and Muni. Online Google advertising ran from May-August, including ads on Google search pages, YouTube, and side banners. Facebook advertising ran in June and July. Both Google and Facebook ads were geotargeted to San Francisco Bay Area zip codes. A 2-inch ad ran in Sunset Magazine's July issue for the Western region (covering California and a few other Western states, circulation 1.25 million), and a half-page ad ran in the September issue of Sunset's Bay Insider edition (San Francisco metropolitan area, circulation 350,000). The transit ads were the most complex package, with flights of advertising running

on various interior cards and exterior bus tails from June through September, stepping up over the several month run. We chose a mix of online ads, which are generally cheaper, plus some real-world print advertising to supplement the online ads with a sense of “place,” as online advertising can be more easily ignored if it feels generic to the viewer.

The amount spent on each type of advertising was \$998 on Facebook ads, \$2,800 on Google ads, \$9,000 on Sunset Magazine ads, and \$12,965 on transit ads. The higher the amount spent on advertising, generally the higher the total of impressions (views) or more clicks. The following table summarizes the impressions, clicks to the website, cost, cost per impression, cost per click, and click-through rate for each type of advertising. Some table columns were not directly applicable for the print advertising modes; the nearest cognate method is explained below.



Table 10. Advertising types and results for Got Ants?

Ad type	Impressions	Clicks	Cost	Cost per impression	Cost per click	CTR (Clickthrough rate or clicks per impression)
Google ads	169,345	682	\$2,800	\$0.0165	\$4.11	0.004
Facebook ads	2,834,571	605	\$998	\$0.0004	\$1.65	0.0002
Sunset Magazine ads	1,600,000	225*	\$9,000	\$0.0056	n/a	0.0001**
Transit ads (BART, AC Transit, Muni)	12,683,453	n/a	\$12,965	\$0.0010	n/a	n/a
Totals	17,287,369	1,512	\$25,345			

*Follow-up requests generated via email, not clicks. This was the closest equivalent to clicks for print advertising.

**Rate of follow-up requests for the overall number of copies of the magazine, the closest equivalent to CTR.

The ads varied in cost per impression; the cost per impression of Facebook ads was lower than any other advertising avenue at 0.04 cents each, compared to 0.1 cents per transit ad view, 0.56 cents per magazine ad view, and 1.65 cents per Google ad view. It was easier to compare the two online mechanisms in terms of effectiveness at generating clicks to the website. Based on that information, Google ads were far more effective, with 0.004 clicks per impression compared to 0.0001 clicks per impression for Facebook. Whether Google ads provide the best “bang for the buck” is questionable; they were about 18 times more effective at generating web traffic but 46 times more expensive than Facebook ads. Facebook may have been the more cost-effective online option. It wasn’t possible to compare the online and print methods directly.

The Sunset ads generated 116 requests for email follow-up from the July edition and 109 such requests from the September edition. At 0.56 cents per impression, these were also relatively low-cost. The

clickthrough rate to the website cannot be directly calculated, but follow-up emails requesting further information were generated at a rate similar to that of the Facebook ads. This type of print (magazine) advertising appears to have been fairly cost-effective as well.

Transit ads began on June 17 and continued through September 14 on AC Transit, BART, and Muni. (AC Transit is a bus service covering Alameda and Contra Costa Counties in the East Bay section of the San Francisco Bay Area, BART is the Bay Area Rapid Transit light-rail system, and Muni is the San Francisco Municipal Transit Agency’s bus and light rail system within the City of San Francisco.) The details of the package are listed below. Bus tails are ads in a large placard at the rear exterior of the bus, seen by people behind the bus. Interior cards are placards on the interior walls of buses or BART or Muni cars, seen by transit riders. The stepwise increase in coverage is designed to maximize the length of time the ads can run for a given budget rather than rolling out everything at once for a shorter period. The rollout progressed as shown in Table 11.

Table 11. Transit advertising details

Date Range	Carrier	Advertising Package Details	Paid or Bonus	Impressions
Flight 1 June 17-July 15, 2013	AC	14 Bus Tails	Paid	1,519,380
	Transit	1 Bus Tail, 100 Bus Interior Cards	Bonus	3,620,400
Flight 2 July 1-28, 2013	BART	50 Car Interior Cards	Paid	1,638,150
		50 Car Interior Cards	Bonus	1,638,150
Flight 3 August 1-28, 2013	SF MUNI	14 Bus Tails	Paid	1,519,380
		1 Bus Tail, 25 LRV Cards	Bonus	819,075
Flight 4 September 1-14, 2013	SF MUNI	15 Bus Tails	Bonus	759,690
		25 Interior Cards	Bonus	409,538

The advertising carrier provided the detailed impressions information shown in the table. SGA negotiated this package and was able to secure the bonus coverage shown, over and beyond the advertising budget. This was a good way to extend the advertising reach for our budget. Unfortunately, it wasn’t possible to track any direct correlation between the transit advertising and traffic to the website.

A lesson learned is that if we had set up the advertising rollout with only one type of advertising happening at any given time, we could have separated out the various influences each type of advertising and promotion had on web traffic. That would have helped to plan future campaign work.

Was the advertising mix “the right one?” Or “the perfect one?” We suspect that there are any number of ways to have structured this, and we are pleased with this mix in terms of the results and what we learned.

Partner promotions

Partner promotions included posting Got Ants? information on their websites, publishing blurbs about the Got Ants? campaign in e-newsletters, and mailing out information about the project in utility bills and other print pieces. A few promotions clearly increased web traffic: Facebook shares of a rainy season ants post by several agencies in October, 2013; an announcement in the November 5, 2013

Berkeley Parents Network e-newsletter to 32,604 people; and several elected officials' e-newsletters in December 2013.

Social media

The PI maintained a Facebook page for the Got Ants? project. New items were posted on the page one to two times per week from approximately October 2013 through March 2014. Following best practices for Facebook brand pages, the items strove for a light tone, and used a mix of content including graphics from the project and website, photos showing the Got Ants? Get S.E.R.I.O.U.S “steps,” photos provided by IPM Advocates of less toxic products and store promotions, links to funny ant-related stories, and graphics such as meme generators using Got Ants? Get S.E.R.I.O.U.S messages. The page got some traction, garnering 84 “likes” and several shares on key posts by partner agencies.

However, during the time of highest effort spent on the Facebook page, a policy shift by the company lowered our chances of reaching a wider audience. On December 1, Facebook changed its News Feed algorithm, reducing the dissemination of stories on brand pages to their fans. An article by Ignite Social Media estimated that reach of stories across all brand pages declined an average of 35%, and as much as 76% in some cases, meaning that a story that reached all your fans before December 1, 2013, would only reach 65% of them, or even 24% of them, after the algorithm change. (See <http://www.ignitesocialmedia.com/facebook-marketing/facebook-brand-pages-suffer-44-decline-reach-since-december-1>.) This hurt our numbers, unfortunately. As a result of this change, using Facebook as a no-cost way to reach people appears to be much less feasible, and we didn't see the Facebook page take off as the interactive platform that it was meant to be.

Social media approaches (outside of advertising) couldn't be limited to a targeted geographic area. Once messages are posted to Facebook, Twitter, Pinterest, or other platforms, they are shared organically with the friends or followers network of those who forward the messages. Those audiences can be in other states or other countries. We saw partners spreading our work outside our intended target area as well, through the networks of Regional IPM Centers and EPA Regional Offices.

Comparing outreach to web traffic

Various types of advertising and corresponding web traffic are shown in Chart 2. (Not every partner promotion is labeled on the chart, just those that we know generated visible spikes.) Web activity was higher when more advertising was being conducted. The upward trend in web activity continues throughout the May-August advertising period, then falls off fairly quickly after advertising stopped. Once advertising funds were expended, no-cost methods such as partner promotions and Facebook posts were used. Those methods generated lower activity compared to advertising. Looking at a finer level of detail brings into question how far we can push our use of this data. For example, there is an uptick in activity from late August through mid-September. Did that mean that the advertising happening at that time (Muni ads) were more effective than the ads in July and September? It's not clear whether we can parse the results that finely.

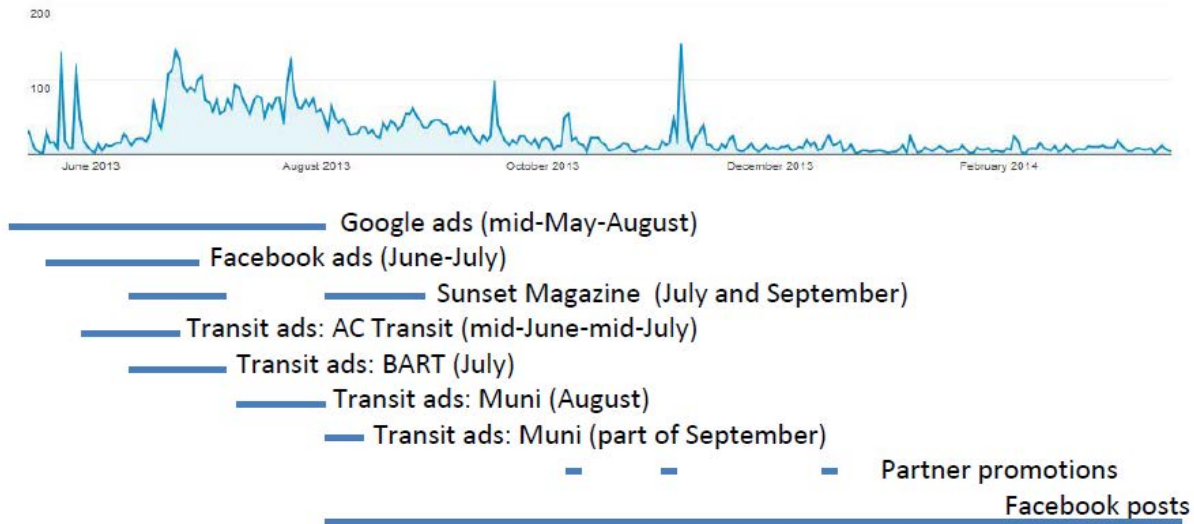


Chart 2: Got Ants? website traffic during campaign period, mapped against active outreach types

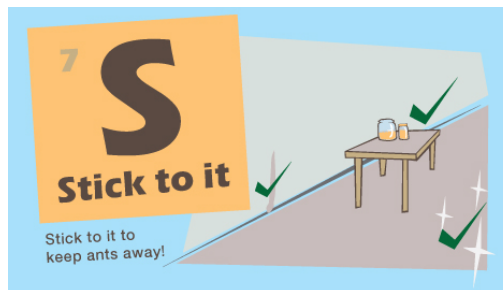
The project’s advertising results came from the relatively modest advertising budget of \$34,000 for hard costs and some consultant staff time. We would have liked to have more advertising dollars available and a longer time period in which to do the outreach. On the non-advertising side, we would have liked to see even more active participation from partners. More staff time for the PI to coordinate could have led to further engagement from partners. The peaks of partner promotions generally came after significant effort from the PI. We did not reach a point where requests to share Facebook posts or post blurbs were self-sustaining; partners had to be asked to repeat actions rather than taking it upon themselves to keep doing a certain outreach action.

We also would have liked to do more with the in-person aspects of the project, as in-person interactions are considered the most effective ways to change behavior in CBSM. (They are necessarily limited in scale, since it takes so much time and effort compared to mass outreach, which is less effective but has a broader reach.) We intended to develop a “grassroots activity” for partners to use to engage members of the public at tabling events, but that aspect of SGA’s scope of work was dropped in favor of completing the materials. Further pursuing development of an engaging activity related to the Got Ants project would be helpful and could be shared with partners to extend the future life of the campaign.

Conclusion

We believe that this campaign addresses the problem of reducing pesticide toxicity in streams generated by using pesticides to control ants. While some of our materials focus on indoor activities, much of the outreach was structured to get people to the www.gotantsgetserious.org website, where they could find material related to hiring professionals or for DIYers. The project provides less toxic alternatives to managing ants both indoors and outdoors, and with further outreach we believe that it can change residential behaviors around ant management.

In terms of disseminating materials and reaching everyone in California who has an ant problem, or reaching everyone who would need to change behavior in order to sustain water quality improvements, this project has just scratched the surface. Fortunately, activity using the materials created by this project will continue, at least in the 9-county San Francisco Bay Area, under a next installment of grant funding from the U.S. EPA's San Francisco Bay Water Quality Improvement Fund. We'd like to continue outreach, incorporating the lessons learned from this project on reach and cost-effectiveness of various methods of outreach. Of particular interest would be to pursue new areas such as working more closely with community organizations and other types of partners, to do more media work such as targeting bloggers to cover ant issues, and to conduct further advertising including sponsored Facebook posts or ads. Several areas for potential future focus with pest management professionals were recommended by Management Team partners as well. We may seek additional funding for future outreach using this material over the next several years.



Effectiveness of outreach at “solving the problem” of pesticide impacts on water quality, particularly related to ant control, remains unknown. It’s a difficult problem to track the effectiveness of any activity. For this project, stringently tracking real water quality improvements or shifts in pesticide use practices would have taken more time than was available under a two-year project (as pesticide sales or stream toxicity data take more than a year to become available). Tracking pesticide practice shifts would also take significant funding dedicated to evaluation to provide meaningful data. For a project this size (\$200,000), so much of the budget would have needed to go to evaluation that we would have been able to achieve significantly less in terms of materials development or outreach. Future work under the EPA grant may address effectiveness more directly than this project was able to.

We would like to express our deep appreciation to the Pest Management Advisory Committee for funding this project. We'd also like to acknowledge all the efforts of the Management Team partners in developing the material, and our many, many partners in disseminating outreach. This campaign could not have happened without them. Our partners were very happy with the materials developed by this project. There was general agreement that the materials sidestepped technical complexity and opened the issue to a new audience in a new way, meeting our goals. We look forward to building from these materials and greatly extending the reach of the campaign work done to date under the Got Ants? project.

Appendix

Presentation

Evaluation report

Got Ants? Outreach Campaign Successes, Challenges, and Next Steps



GOT?
ANTS! Get
S.E.R.I.O.U.S.



Find step-by-step ant solutions at
[www. **Got Ants Get Serious** .org](http://www.GotAntsGetSerious.org)

Funding for this project has been provided in full or in part through
a grant awarded by the Department of Pesticide Regulation



Overview

- Vision for the Campaign
- How We Built It
- What We Made
- How We Got the Word Out
- Preliminary Results
- The Campaign's Future





Vision

- Why Ants:
 - Pesticide and application impact water quality
 - Home users and those who hire professionals
- What is Community-Based Social Marketing?
 - ~~Education~~ -> Behavior change
 - Science behind why people act



How We Built It

- Pest Management Alliance Grant
- Management Team:
 - DPR, UCIPM, BASMAA, BACWA, SF Environment, Sacramento County, BIRC, City of San Jose, SCVURPPP, Santa Monica Bay Restoration Commission, Morro Bay National Estuary Program, SF Water Board, UC Riverside, Alameda County Clean Water Program, National Pest Management Association
- Consultant on CBSM and outreach
 - S. Groner Associates, Inc. (SGA)

What We Made

- Developed jingle: Got Ants? Get S.E.R.I.O.U.S
 - **S**: Spot where the ants are coming in
 - **E**: Eliminate crumbs, messes & spills
 - **R**: Rinse with soap & water
 - **I**: Isolate food & water sources
 - **O**: Obstruct entryways & seal cracks
 - **U**: Use baits if ants don't go away
 - **S**: Stick to it to keep ants away!
- Graphics for each “step”



Campaign Elements

- Website
- Facebook page
- Hard copy flyers
- Magnets



Website: www.gotantsgetserious.org

GOT? ANTS! GET S.E.R.I.O.U.S.!

Share Website Like 83

About Us Solutions Resources Take the Pledge

Quick Links

Find an IPM Certified Professional
Find less-toxic products
How to use baits

Isolate
Isolate food and water sources.

Isolate food and water sources. Don't play around with spray when there are better ways to keep ants away. Our mission is to show you how to manage ant problems at home—whether you tackle pest problems yourself or hire a professional. Switching from spraying pesticides to less toxic, more effective practices helps the environment while keeping your home safe.

Have a question?
Still need help with an ant problem after you've followed the [Do-It-Yourself steps](#) or hired a [Certified IPM Professional](#)? Email your question to an expert in less toxic pest management.

Ask An Expert

The Department of Pesticide Regulation provided partial or full funding for this project but does not necessarily recommend or endorse any opinion, commercial product, or trade name used.
Copyright © 2013

Take the Pledge
Join us in setting a new standard to keep ants out of our families, pets or the environment to toxic pesticides.

I pledge to use less-toxic practices and hire toxic "IPM-certified services" from a local company, the next time I have an ant problem.

* All fields are required.

YES, I agree to receive emails back from GoAntsGetSerious going

Prevent Ant Invasions
By following these simple steps, you can reduce the chances of ants in the kitchen and ants entering your home in the first place. Ants are harder for them to find, and they have a better long-term solution.

Handling An Ant Emergency
With a little persistence you can often resolve most ant problems yourself by [killing ants naturally](#). Indoor sprays are not usually necessary, and the do-it-yourself methods below are safer for your family, pets, and the environment. Learn how to get rid of kitchen ants by following these tips when ants come in...

DO:

- ✔ **Spot** where ants are coming in. Check indoors and out to find their entry points. Look for ant trails at window frames and doors, electrical conduits, plumbing fixtures, walls, foundations, and the roof.
- ✔ **Eliminate.** Identify food or water sources that may be attracting ants into your home and remove them.
- ✔ **Rinse.** Wipe away ant trails with soapy water. You can also vacuum them up or spray them with window cleaner or a plant-based repellent.
- ✔ **Isolate.** Store food in sealed containers so ants can't find the food they want.
- ✔ **Obstruct.** If you have [ants in the kitchen](#) or ants are coming in through cracks or crevices, plug up those openings with household caulk or petroleum jelly.
- ✔ **Use Baits.** If cleaning up food sources and plugging entryways does not solve the problem in a few days, [put out baits](#) or apply gel bait at entry points. When using baits, don't use plant-based repellents (such as orange, rosemary, or other oils or other sprays), because you'll repel ants from the bait.
- ✔ **Stick to it.** Continue to clean up trails and plug entryways. If you use baits, they can take up to a week to work.

Don't:

- Don't Spray Pesticides!** When you spray for ants indoors or outdoors, pesticides can end up in creeks, lakes, and bays and harm aquatic creatures. And, unlike the IPM practices described above, sprays don't provide a long-lasting solution to preventing ant invasions, so ants are likely to reinvade.
- Don't Use Ant Chalk!** Ant chalk products contain toxic ingredients such as arsenic or zincphosphide that may not be approved for sale in the U.S. Because

What's attracting ants to your house? Tell us on Facebook.

Facebook page: www.facebook.com/safer.ant.control

The image shows a screenshot of the Facebook page for 'Got Ants?'. The page header includes the Facebook logo, a search bar, and navigation links for 'Got Ants?', 'Home', and 'Admin Panel'. The main banner features the text 'GOT ANTS? GET SERIOUS' with illustrations of houses and ants. Below the banner is the page name 'Got Ants?' with 75 likes and 13 talking about this. The 'About' section identifies it as an organization with a description and a website link. The 'Recent Posts by Others on Got Ants?' section lists three posts by Wendy Atkins, James Muller, and Cathy Hersh. A sidebar on the right includes 'Recent' posts, 'Ads Manager', and an advertisement for the page.

facebook Search for people, places and things Got Ants? Home

Got Ants? Timeline Recent Admin Panel Ads Manager

GOT ANTS? GET SERIOUS

Got Ants?
75 likes · 13 talking about this

Update Page Info

Organization
Have YOU got ants??? Who doesn't? GOT ANTS? is all about easy ant control without poisonous sprays. Take the pledge! <http://www.gotantsgetserious.org/>

About Photos Likes

Highlights

Status Photo / Video Offer, Event +

What have you been up to?

Got Ants? shared a link.
November 9 near Sacramento

BAM! We just had our biggest web traffic day ever! Thanks to all the new fans and visitors. Keep the URL handy for when those

Recent Posts by Others on Got Ants? See All

Wendy Atkins
I had a funny dream last night—there were ants all over ...
1 · November 7 at 2:22pm


James Muller
Skidaddle my six legged friends...go find your crumbs els...
1 · October 7 at 4:09pm

Cathy Hersh
I in fact do, how did you know Athena Honore?
1 · September 18 at 3:41pm

See Your Ad Here
Got Ants?
Have YOU got ants??? Who doesn't? GOT ANTS? is all about easy ant control without poisonous sprays...
Like · Got Ants? likes this.
Advertise your page

Flyer: 2-Sided Handout

Ant-free WITHOUT spray...
get **SERIOUS** about ant control.



Visit www.GotAntsGetSERIOUS.org.

GOT? ANTS! Get **S.E.R.I.O.U.S.**

Find step-by-step ant solutions:
www.GotAntsGetSerious.org

The Department of Pesticide Regulation (DPR) provided partial or full funding for this project but does not necessarily recommend or endorse any opinion, commercial product, or trade name used.

GOT? ANTS! Get **S.E.R.I.O.U.S.**

Don't play around with spray when there are better ways to keep ants away.

- 1. Spot**
where ants are coming in.
- 2. Eliminate**
crumbs, messes, & spills.
- 3. Rinse**
with soap & water.
- 4. Isolate**
food & water sources.
- 5. Obstruct**
entryways & seal cracks.
- 6. Use Baits**
if ants don't go away.
- 7. Stick to it**
to keep ants away!

Funding for this project has been provided in full or in part through a grant awarded by the Department of Pesticide Regulation.

www.GotAntsGetSerious.org
www.sfestuary.org

Magnets

Step 3:

RINSE

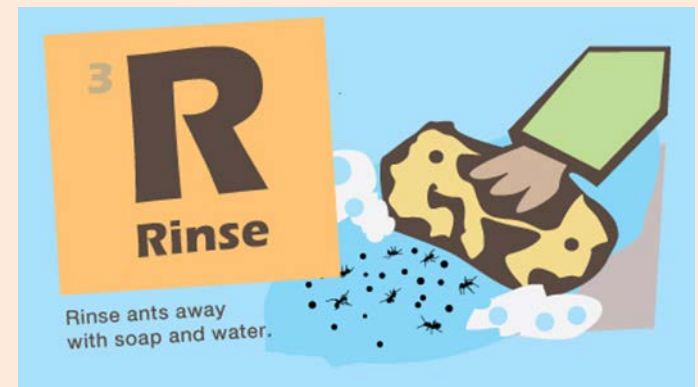
ants away with
soap and water.



For more on how to stop ants in your home, check out
www.gotantsgetserious.org

How We Got the Word Out

- Advertising (print and online)
- Social media
- Partner support
- Earned media
- Events and in stores





Find step-by-step ant solutions at
[www. Got Ants Get Serious .org](http://www.GotAntsGetSerious.org)

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Advertising

- Online ads (pay-per click)

- Google
- Facebook



- Print ads

- Sunset Magazine
- Transit ads: BART, Bus (AC Transit, Muni)



Social Media

- Facebook
- Twitter
- Pinterest



Facebook page: www.facebook.com/safer.ant.control

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facebook Search for people, places and things Got Ants? Home

Got Ants? Timeline Recent Admin Panel Ads Manager

Recent Founded

GOT ANTS? GET SERIOUS

Got Ants?
75 likes · 13 talking about this

Update Page Info

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Skidaddle my six legged friends...go find your crumbs els...
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Cathy Hersh
I in fact do, how did you know Athena Honore?
1 · September 18 at 3:41pm

See Your Ad Here
Got Ants?
Have YOU got ants??? Who doesn't? GOT ANTS? is all about easy ant control without poisonous sprays...
Like · Got Ants? likes this.
Advertise your page

Facebook partners



Bright Green San José
★★★★★
692 likes · 44 talking about this

Environmental Conservation · Government Organization
Bright Green San José is a program of the City of San José

About – Suggest an Edit

Photos Likes Map

692

Map: Palo Alto, Sunnyvale, San Jose, Santa Clara, Redwood City, Menlo Park, San Francisco, San Bruno, San Carlos, San Gabriel, San Mateo, Los Gatos

A blue circle highlights the 'Likes' button and the '692' like count.



SF Environment
★★★★★
3,278 likes · 69 talking about this

Photos Likes Map

3,278

Map: San Francisco, Daly City, Alameda, South City

A blue circle highlights the 'Likes' button and the '3,278' like count.

Twitter

gotantsgetserious  Have an account? [Sign in](#)

Results for gotantsgetserious

[Top](#) / [All](#)

 **Western IPM Center** @IPMWest 23h
Got ants? Here's a link with great info on how to get rid of them without toxic sprays.
gotantsgetserious.org
[Expand](#)

 **Pestec IPM** @pestec 8 Nov
Got #Ants? Get S.E.R.I.O.U.S. ow.ly/qCBG4 #takethepledge #pestcontrol #IntegratedPestManagement #IPM cc: @CA_Pesticides
[Expand](#)

 **MCMGMD** @mcmgmd 7 Nov
There are simple and effective ways to deal with ants. fb.me/PJsiOKBk
[Expand](#)

 **Urban IPM** @URBANIPMtweets 7 Nov
Take the pledge to use IPM when you are treating for ants. fb.me/3gW1QrJwZ
[Expand](#)

 **SFEI / ASC** @sfei_asc 22 Oct
At the #SFEstuary conference, learn from "Got Ants" how streams are polluted when city dwellers use ant spray: ow.ly/q3V/kz
[Expand](#)

 **Belmont Public Works** @BelmontCA_PWORK 10 Oct
Did you know the City uses integrated pest management (IPM) certified professionals for managing pests using... fb.me/2p6NgE7Ck
[Expand](#)

Retweets

The image is a screenshot of a Twitter profile page for SMCWPPP (@flowstobay). The profile header shows the account name, handle, bio, and statistics: 942 tweets, 273 following, and 317 followers. A 'Follow' button is visible. The main content area displays a list of tweets. The second tweet in the list is a retweet of a tweet from SFEI / ASC (@sfei_asc) dated 22 Oct. This retweet is circled in blue. The retweeted tweet text reads: 'At the #SFEstuary conference, learn from "Got Ants" how streams are polluted when city dwellers use ant spray: ow.ly/q3Vkz'. Below the retweet text are icons for 'Expand', 'Reply', 'Retweet', 'Favorite', and 'More'. The background of the profile page is a scenic view of a coastline with buildings and water.

Tweets

Following

Followers

Favorites

Lists

Follow SMCWPPP

Full name

Email

Password

Sign up

Photos and videos

Worldwide Trends - Change
#AvrupanınLideriTRABZONSPOR

SMCWPPP @flowstobay
San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) partners with residents and businesses to prevent pollution of our local water bodies.
San Mateo County · flowstobay.org

942 TWEETS 273 FOLLOWING 317 FOLLOWERS **Follow**

Tweets

SMCWPPP @flowstobay 3h
Get in the reusable bag habit! Get a free bag TODAY, Rite Aid, 2150 Roosevelt Ave, #RedwoodCity @ 12:30pm until all bags are gone #BYOBagSMC
Expand

SFEI / ASC @sfei_asc 22 Oct
At the #SFEstuary conference, learn from "Got Ants" how streams are polluted when city dwellers use ant spray: ow.ly/q3Vkz
Retweeted by **SMCWPPP**
Expand Reply Retweet Favorite More

SMCWPPP @flowstobay 23 Oct
#SanBruno residents, special expired/unused medications drop off THIS Friday, 10/25 @ San Bruno Senior Center 8am-2pm ow.ly/q4JhU

Pinterest

Repins from



Nancy Randall Gossman



Bite



Snarky Little Stitcher

3 Followers

26 Following



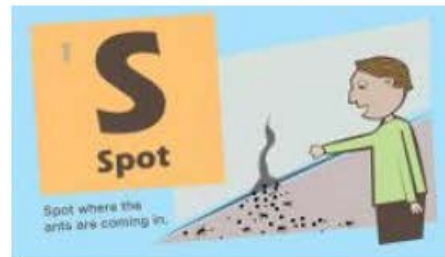
Our Water - Our World



Our Water Our World - Assist consumers in managing home and garden pests in a way that helps protect our water, our world



Athena Honore
get rid of ants!



Today's tip: the season is changing - are the ants coming inside yet? SPOT them = the first step to getting rid of them. More ways to get rid of them at www.gotantsgetser...



Athena Honore
get rid of ants!



Diatomaceous Earth provides permanent barrier against many pests, both indoors and out, naturally. Forget harsh synthetic chemicals! Get rid of: Ants, fire ants, caterpillars, cut worms, worms, fleas, ticks, cockroaches, snails, spiders, termites, scorpions, silver fish lice, mites, flies.

nd Friends



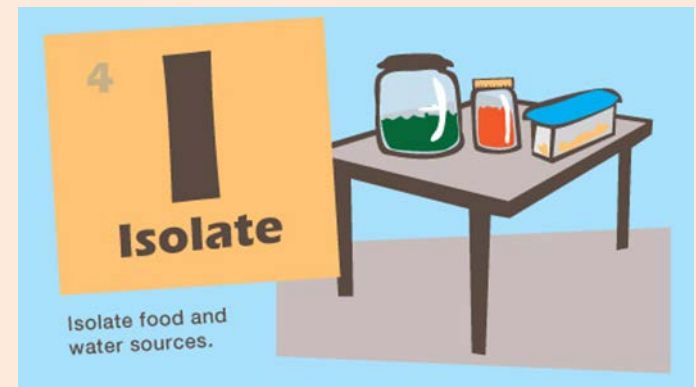
How To Get Rid of Gnats



s For Getting Rid Of Gnats

Partner Support

- 55 partners supported campaign through
 - Email blasts
 - Facebook posts and “shares”
 - Tweets
 - Distribute through e-newsletters
 - Links on websites
 - Events, in stores



Email blasts

- **From:** Berkeley Parents Network <bpn_admin@lists.berkeley.edu>
To: Berkeley Parents Network <bpn_admin@lists.berkeley.edu>
Sent: Thursday, November 7, 2013 5:27 PM
Subject: Announcements Nov 6, 2013

November 06, 2013

Berkeley Parents Network Announcements & Events

Circulation: 32,604

Contents

Other Announcements for Parents

Ants coming in? Less toxic, family safe solutions
Host a High School Student from China
Joaquin Miller School Online Auction

- **Ants coming in? Less toxic, family safe solutions**

Cold weather and rains bring ants inside. We all get them. See the Got Ants Get Serious site for how to get rid of ants, safely for family, pets, and the environment: www.gotantsgetserious.org. The Got Ants? facebook page has timely tips on more effective, less toxic ways to stop ants from coming into your home.
<https://www.facebook.com/safer-ant-control>.
Submitted by: Athena Honore

The screenshot shows an email interface with a dark sidebar on the left and a main content area on the right. The sidebar contains several blue links: "BAY AREA AUDIO TOURS", "SF BAY JV WEBSITE", "PODCASTS", "FOR THE BAY", "SOUTH BAY SALT PONDS", and "BAY NATURE CALENDAR". The main content area features two articles. The first article, "Bay Nature Seeks Nominations", is partially visible. The second article, "Protect Creeks by Liking 'Got Ants' on Facebook", is circled in blue. Below it, a "GRANTS" section is also circled in blue. The "GRANTS" section includes a "Deadline: 11-7; U.S. Fish and Wildlife Service NAWCA Small Grants Program" and a brief description of the program.

[BAY AREA AUDIO TOURS](#)
[SF BAY JV WEBSITE](#)
[PODCASTS](#)
[FOR THE BAY](#)
[SOUTH BAY SALT PONDS](#)
[BAY NATURE CALENDAR](#)

[Bay Nature Seeks Nominations](#)
The Bay Nature Institute is seeking nominations for its fourth annual "Local Heroes" award, recognizing extraordinary contributions to the understanding and preservation of the natural world of the San Francisco Bay Area. The three award categories include: Conservation Action, Environmental Education and Youth Engagement. [More information here ...](#)

[Protect Creeks by Liking "Got Ants" on Facebook](#)
When creeks go toxic, the cause is often urban pesticide use for household pests like ants. "Got Ants," a new community-based social marketing campaign, is reaching out to the public with easy, less toxic solutions for ants in the home. Help us reach more people by "liking" the Got Ants facebook [here](#). And invite your friends to [like the page](#). You can take a pledge to use less-toxic solutions [when ants invade](#) at www.gotantsgetserious.org

GRANTS
Deadline: 11-7; U.S. Fish and Wildlife Service NAWCA Small Grants Program
The Small Grants Program is a competitive matching grants

Partner Facebook Posts



Bright Green San José

November 7

Meet this week's Green Hero, Jennifer Seguin. Shortly after Jennifer moved into her new home last summer, an army of uninvited guests showed up. Ants found a tiny crack between the wall and the floor and soon there was a steady stream going straight into the cat food bowl. She remembered hearing about the Got Ants? Get S.E.R.I.O.U.S. website and followed the seven-step process. Here she demonstrates how easy it is to seal cracks with silicone caulking and avoid using toxic pesticides to rid her home of the ant problem. Find out how to prevent ant invasions here: <http://www.gotantsgetserious.org/solutions/prevent-ant-invasions/>

Like · Share

Eat Here, Willow Glen - WGNA, Shirley Mamuyac Mata, Athena Honore and 4 others like this.

2 shares



James Dylan Parker GOOD JOB JENNIFER!!!!

November 7 at 10:18pm · Like



Athena Honore Fun with sealants! Love it!

November 8 at 4:34pm · Like



Partner Tweets

Twitter interface showing partner tweets:

UC IPM Urban Program @ucipmurban 22 Aug
Got #ants in your home? See how to keep them out using less-toxic methods. _gotantsgetserious.org
Details

UC ANR Ag&Natural Resources @ucanr
RT: “@ucipmurban: Got #ants in your home? See how to keep them out using less-toxic methods. _gotantsgetserious.org”
Reply Retweet Favorite

12:29 PM - 22 Aug 13

Partner E-Newsletters


Volume 9 Issue 4

Page 2

Fitzgerald Special Edition

PROTECTING THE MARINE RESERVE TOGETHER

SUMMER 2013



LEARN MORE ONLINE:

- See maps of the Reserve, the ASBS, and the pilot projects
- View photos of the Reserve and the incredible sea life there, plus before-during-and-after shots of swale construction
- Read about the Reserve's history
- Find links to more great resources online, local groups, and upcoming events

For all this and more, visit:
www.smcbealth.org/asbs

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- Source 3
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- Score 3
- Kids' Corner 4
- Events 4

What's in the Water?

During the 2012-2013 rainy season, rainwater runoff from properties and streets in Montara and Moss Beach was sampled to determine the quality of stormwater draining to the Fitzgerald Marine Reserve (Reserve) and to assess the effectiveness of Best Management Practices (BMPs) designed to remove pollutants from the stormwater runoff.

This effort is part of a larger project called the James V. Fitzgerald Area of Special Biological Significance Pollution Reduction Program (Fitzgerald Project) that is led by the County of San Mateo, in collaboration with the San Mateo County Resource Conservation District (RCD) and the San Francisco Estuary Institute (SFEI).

A total of 82 samples were collected from six pilot BMP locations in Montara and Moss Beach where roadside ditches have been converted to vegetated swales to reduce storm drain

filtration devices have been installed. Based on water quality testing results prior to treatment, pollutants of concern include metals (copper, lead, nickel, zinc), polycyclic aromatic hydrocarbons (PAHs), permethrin pesticides, sediment, and fecal indicator bacteria (FIB).

Where do these pollutants come from? Many of these pollutants are related to vehicles and combustion. For example, copper from brake pads and zinc from tire wear can end up in stormwater. PAHs from fuel burning (i.e., engine combustion, wood), diesel particulates, fluid leaks from cars, and the breakdown of the roadway surfaces can also end up in the storm drain system.

Elevated levels of FIB, such as *E. coli* and *Salmonella* feces from humans, pets, and

wildlife, can leak from septic lines or wash off from yards.

Other pollutants such as sediment can result from erosion due to bare soil that is exposed to rainfall during the winter (i.e., from improper grading & construction practices, trails, rural roads). Contaminants can also come from building materials (i.e., roofs and gutters) and household products used in the yard.

Read more in this issue to find out how you can help and what the County is doing to reduce stormwater pollution.

Antsy? Get Better Pest Control

Water quality monitoring results revealed elevated levels of permethrin in stormwater at several of the sampled BMP locations. Permethrin is a type of pyrethroid pesticide that is found in many of the leading bug sprays sold at nursery or hardware stores for control of common pests such as ants, cockroaches, grubs, termites, and wasps. These products can be highly toxic to aquatic organisms, cats, and beneficial insects that naturally keep pest populations under control.

Fortunately, there are effective alternatives to these chemicals and products. For ant control, learn more at:

www.GotAntsGetSerious.org
For other pests, visit: www.flowstobay.org/pestcontrol

Funding for this project has been provided in full or in part through an agreement with the State Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the State Water Resources Control Board. Any mention of trade names or commercial products constitute endorsement or recommendation for use.

COASTAL CLEANUP DAY IS COMING!



site by visiting www.ValcoreRecycling.org or calling (707) 55-EARTH.

Wear sturdy shoes, comfortable clothing, hat, sunscreen and gloves. We'll provide bags, tools, dumpsters and water. (Bring your own refillable water bottle if you have one.)

Volunteers will spend the morning picking up trash that has been littered, then meet at the Vallejo Marina for a free thank-you lunch.

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Mark your calendars for Saturday, September 21. That's the day that folks all over Vallejo will be out by the hundreds to

clean our shores, lakes and creek banks.

There will be 15 different sites all over Vallejo. Volunteers will be able to pre-select their

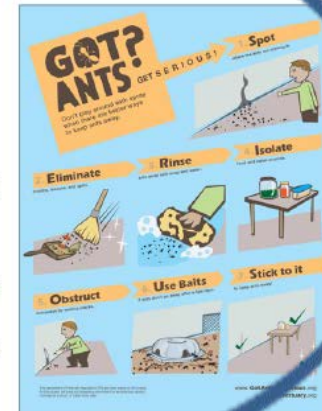
Site to go to!

GOT ANTS? GET SERIOUS!

When you spray for ants, pesticides can end up in creeks, lakes, and the Bay, where they are toxic to birds, fish and wildlife. Around your house, pesticides can harm your children and pets.

Learn what kills ants in effective, less toxic ways. Visit the GotAntsGetSerious.org website, and they'll show you how to get rid of them. Here's a quick preview:

Spot where the ants are coming in. Eliminate crumbs, messes, and spills. Rinse ants away with soap and water. Isolate food and water sources. Obstruct entryways by sealing cracks. Use baits if ants don't go away after a few days. Stick to it to keep ants away.



Tip of the Season

Many of you are familiar with the groups of students who come tour the treatment plant.

But did you know that we also give free tours to other groups as well?

If your club or group is interested in a one-hour tour of Vallejo's wastewater treatment plant, give us a call at (707) 644-8949 ext. 292 or email Jaiser@vsfcd.com and we'll find a time and day that works for everyone.

If your club or group is interested in a one-hour tour of Vallejo's wastewater treatment plant, give us a call at (707) 644-8949 ext. 292 or email Jaiser@vsfcd.com and we'll find a time and day that works for everyone.



Greenus is printed on recycled paper using soy-based inks. It is placed bimonthly by the Vallejo Sanitation & Flood Control District. For more information, visit www.VSFCD.com or call (707) 644-8949 ext. 292.



Partner Website Links

BAYWISE.ORG Select Language | ▼

Residents **Businesses** **Contact Us**

Pest Control

Find a Certified Less-Toxic Pest Control Professional
For safer structural pest control, seek out an IPM certified pest control professional. EcoWise, GreenPro and Green Shield offer certification programs. Click on the links below to find a certified pest control operator near you.

[EcoWise](#)
[GreenPro](#)
[Green Shield](#)

Got Ants?
For loads of information about preventing ant invasions, and what to do if ants are already a problem, visit [Got Ants? Get S.E.R.I.O.U.S.!](#)

City of BRISBANE CALIFORNIA

- About Us
- City Government
- Departments
- Living
- Visiting
- Doing Business
- Important Links
- Homepage Images
- 7th Annual Brisbane Delivery Day in the Park
- Fall Recreation Registration Comm

Home • News • [Got Ants?](#)

Got Ants?

Got Ants? Get S.E.R.I.O.U.S

Did you know that the pesticides commonly used for ant control are some of the most prevalent and damaging in our waterways?

www.gotantsgetserious.org is a collaborative resource promoting environmentally sound ant management through the use of less-toxic practices. Yes, you can control ant invasions effectively without using toxic sprays that are harmful to our waterways, family and pets!

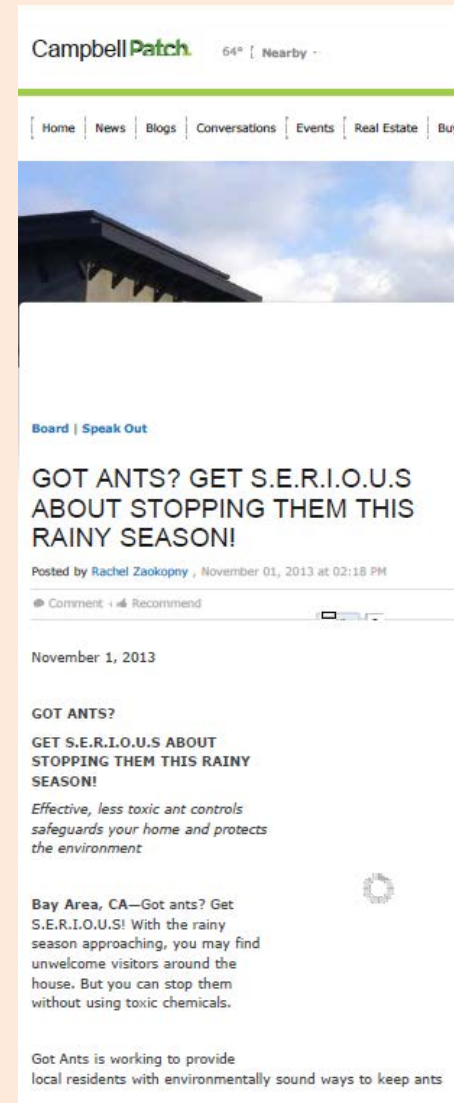
City Blog
Submitted by editor on Tue, 10/15/2013 - 8:29am

Comments



Earned Media

- Partners provided press release and media pitch, resulting in local blog coverage
- Radio interview forthcoming



Campbell Patch 64° [Nearby]

[Home] [News] [Blogs] [Conversations] [Events] [Real Estate] [Buy]

Board | Speak Out

GOT ANTS? GET S.E.R.I.O.U.S ABOUT STOPPING THEM THIS RAINY SEASON!

Posted by Rachel Zaokopny , November 01, 2013 at 02:18 PM

Comment + Recommend

November 1, 2013

GOT ANTS?
GET S.E.R.I.O.U.S ABOUT STOPPING THEM THIS RAINY SEASON!
Effective, less toxic ant controls safeguards your home and protects the environment

Bay Area, CA—Got ants? Get S.E.R.I.O.U.S! With the rainy season approaching, you may find unwelcome visitors around the house. But you can stop them without using toxic chemicals.

Got Ants is working to provide local residents with environmentally sound ways to keep ants

Events



In Stores: IPM Advocates

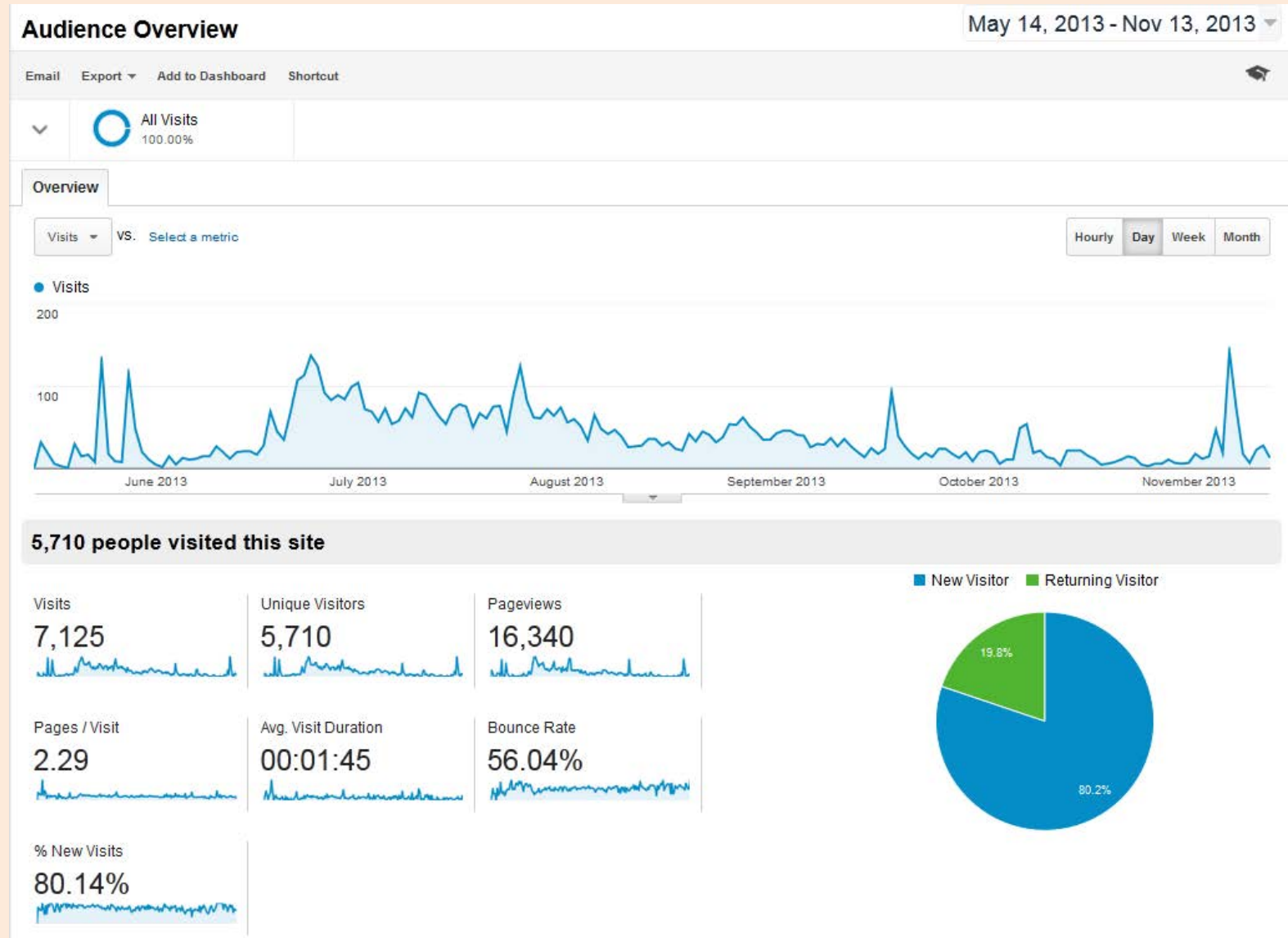


Preliminary Results

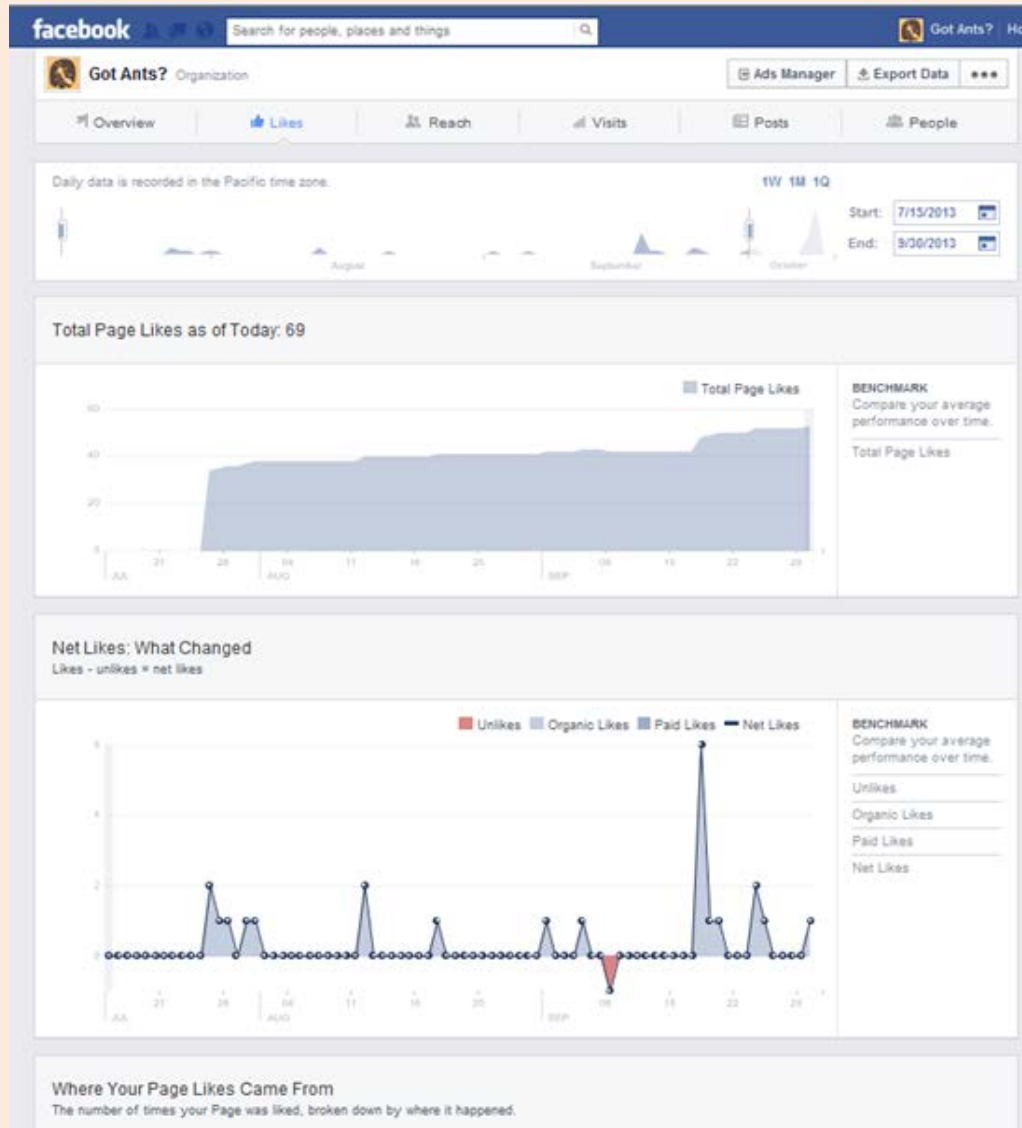
- Evaluation strategy shift away from measuring pesticide use
- Tracking reach of campaign – web traffic, advertising “impressions,” Facebook “likes,” pledges



Website Traffic Analytics

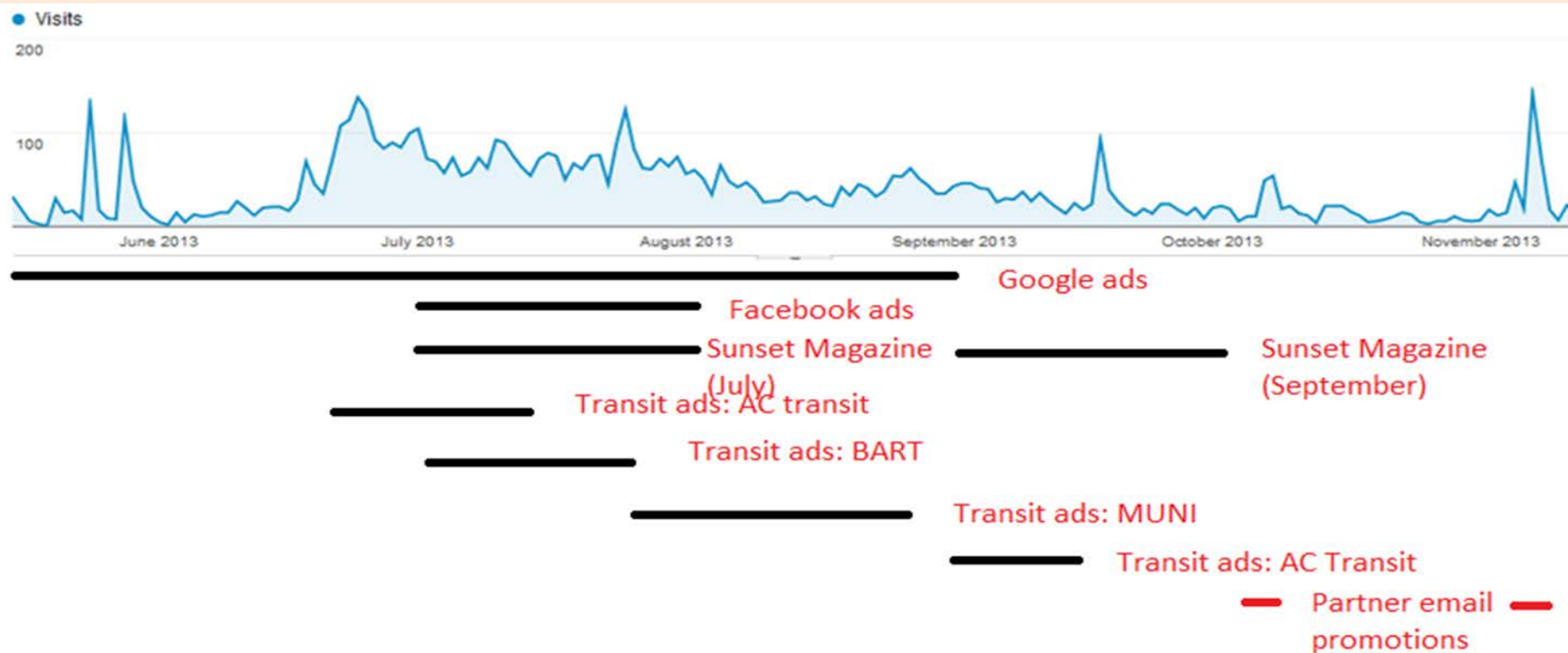


Facebook Analytics



Campaign Reach (Preliminary)

- Online advertising: 1.6 million impressions, 987 web visits
- Magazine ads: 1.25 million, 225 follow-up requests
- Transit ads: 11.9 million impressions



Web visits with major outreach avenues mapped

Preliminary Results

- Impressions: 14.75 million, past 100,000 goal
- Web traffic: 5700, past goal of 4000
- 76 Facebook likes, 125 Pledges (of 500 goal)
- Further analytics to come
- Final report will analyze cost-effectiveness



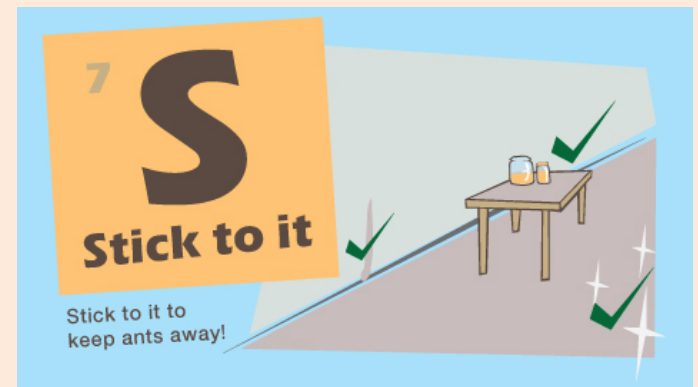
The Campaign's Future

- Got Ants Phase 2: Potential directions
 - Additional advertising, using current graphics base to spin off new pieces
 - Work with 501c3 organizations to secure donated ad space on transit, television
 - Additional community group promotion
 - Further work with pest control operators
- Transition plan after PMAG funding
 - BASMAA to host website going forward
 - New orders of cards and magnets



Conclusion

- Thank you to the committee for funding the campaign and its launch!
- Campaign has generated enthusiasm among partners and users, and we foresee a long useful life for the products with much left to do.



San Francisco Estuary Partnership

Got Ants? Evaluation Report

March 30, 2014

This document briefly summarizes results of the San Francisco Estuary Partnership (SFEP) Got Ants? campaign, following the evaluation plan finalized February 10, 2014.

Goal 1: Distribute information that is intended to increase public awareness of the advantages and availability of integrated pest management (IPM) for controlling ants by implementing outreach campaign.

- Objective 1-1: Build website, Facebook page, ad graphics, and other supporting materials (e.g., flyers, magnets, graphics for Facebook page) by 2012.
 - **All deliverables were finalized by the end of the project period.**
- Objective 1-2: Obtain 100,000 touch points for the campaign throughout CA by March 2014.
 - Evaluation approach - From the start of project implementation, track and record the following information monthly in a spreadsheet:
 - number of recipients of email blasts (i.e., emails sent out to a large list of recipients)
 - number of viewers of print ads
 - number of earned media stories (i.e., reported stories in print/online or broadcast media outlets that were not purchased but “earned” through reporters’ follow-up on press releases) and size of audience reached, where available
 - number of listeners to radio PSAs, click-throughs on ads (i.e., viewers who clicked on online ads and went to the Got Ants website)
 - number of website hits (i.e., web visits as recorded by Google Analytics)
 - number of flyers distributed
 - **Initial numbers became available close to the end of the shortened campaign period. Preliminary information was first presented to the PMAC committee on November 12, 2013 and then reported in quarterly reports per Task 4.2 of the scope of work. Final metrics are presented in Tables 6-9 in the Final Report.**
- Objective 1-3: Distribute materials through 50 partner organizations.
 - Evaluation approach: Track number of participating organizations who publicize campaign material.

- **55 participating partners, mostly municipalities, were first reported in Progress Report #7 and are listed under Task 3.2 in the Final Report.**

Goal 2: Reduce use of pyrethroids and fipronil by pest management professionals (PMPs) in traditional broadcast or perimeter sprays around homes for ant control by 5% by 2014.

- Objective 2-1: California PMPs report a 5% reduction in pounds of pyrethroid and fipronil active ingredients used in residential pest control for ants.
 - **We will not be able to report progress towards this goal.**

Goal 3: Reduce use of pyrethroids and fipronil by Bay Area residents who practice their own pest control (do-it-yourselfers) by 5% by 2014.

- Objective 3-1: Pyrethroids and other pesticides used by do-it-yourselfers are reduced by 5% in the Bay Area as measured by sales of products over-the-counter to residents.
 - **We will not be able to report progress towards this goal.**

Goal 4: Promote the use of less-toxic, IPM methods.

- Objective 4-1: Customer requests for IPM services increase by 10% by 2014.
 - **Clicks from EcoWise Certified website to Got Ants page: 54 during the campaign period**
 - **Clicks from GreenPro website to Got Ants page: 43 during the campaign period**
We don't have the background data to understand what percentage increase in requests might be represented by 97 clicks, but it's likely to be very small. Partners agreed that additional outreach or subcampaigns would have helped to increase results here. Partners shared feedback that the Got Ants? Get S.E.R.I.O.U.S. message was considered to focus on do-it-yourself methods rather than hiring IPM certified pest management professionals. Additional messaging might help to increase focus on pest management professionals.
- Objective 4-2: 4000 people interact with the campaign by May 2014.

This objective was designed to cover interactions, meaning active engagement than rather than the more passive impressions (merely viewing or being exposed to Got Ants messaging). We surpassed the goal of 4000 people interacting with the campaign:

- **Web hits: 6594 unique visitors over the course of the project, comprising 8199 visits and 18,597 page views (average visit duration 1 minute 44 seconds)**
- **Number of "likes" on Facebook as of 3/24/14: 84**
- **Number of posts on Facebook: 56**
- **Number of comments (and likes) on Facebook page (including photos): 106**
- **Number of workshop participants: estimated 20**

- **In addition, many more people were reached with Got Ants information in person at one of the more than 30 tabling events held by campaign partners. Tabling event details are listed in Table 4 in the Final Report.**
- Objective 4-3: Collect 500 commitments from households to adopt less-toxic, IPM methods for ant control by May 2014.

We did not reach our goal for the number of commitments received. “Commitments” are part of the community-based social marketing model. Research has shown that if someone makes an official statement of support, they are more likely to follow through with adopting a behavior. We collected “pledges” to use less toxic pest methods for ant invasions through the Got Ants website. However, only 136 unique pledges were received over the course of the campaign. We collected people’s email addresses as a way to track whether pledges were unique or duplicates. It may be that people are becoming more reticent to give out their email addresses; our outreach consultant theorized that in the wake of national news in 2013 about NSA surveillance and widespread data leaks, people are less likely to share their email addresses. It may be that setting up the pledge form on the web site differently would have generated more traffic, or that more actively marketing a “take the pledge” subcampaign would have helped generate higher numbers.

- Objective 4-4: 150 households report switching from traditional to less-toxic, IPM methods for ant control by May 2014.

We were not able to track useful information for households switching to IPM methods. We had originally planned to do a “success stories” concept for partnering with community organizations, asking them to pilot the Got Ants, Get Serious steps, and then featuring their “success stories” in media outreach. The campaign period was somewhat shortened from the original campaign timeline, leaving little time to conduct this kind of follow-up.

Association of Bay Area Governments for San Francisco Estuary Partnership
Greener Pesticides for Cleaner Waterways

Progress Report

Seventh Quarter, January 1–March 31, 2014
Submitted April 30, 2014

Grant Number 00T97901
Project Title: Greener Pesticides for Cleaner Waterways

Grant Budget: \$250,000.00
Match Budget: \$83,334.00
Total Budget: \$333,334.00

Invoiced this quarter: \$7,107.65
Percent of Work Completed: 25%
Percent of Grant Budget Expended: 26.5% (\$66,307.19)

Summary of Project Tasks

Activity continues on the in-person outreach at retail stores work (IPM Advocates) and mobile app development. A revision of the workplan and budget are underway, which will affect other areas.

Task 1: Campaign Coordination with Partners

Sub-Task 1-1, Coordinate Bay Protection and Behavior Change partners' project activities: schedule coordination meetings, designate online hub.

Coordinate BPBC partners' project activities: The project manager or Janet Cox, representing SFEP and this project, coordinated with the Bay Area Stormwater Management Agencies Association (BASMAA) through its Public Information/ Participation (PIP) subcommittee conference calls on January 22, February 26, and March 26; and with the Bay Area Pollution Prevention Group (BAPPG) on February 5.

On January 16, SFEP staff notified Bay Protection and Behavior Change partners about the Executive Committee's decision to shut down the program, and memorialize its findings and materials for a potential future revival of this or a similar project. **See Appendix for these materials.**

Sub-Task 1-2, Recruit Eco-Net Partners: draft lists of potential partners, pitch benefits of BPBC involvement, draft document describing how Eco-Net and BPBC will engage.

This task will be updated to reflect that Eco-Net development is not officially proceeding under BPBC.

Sub-Task 1-3, Benchmark national campaign models, such as Puget Sound Starts Here: coordinate with PSSH and bring back lessons

Report was submitted 10/31/12.

learned to this project.

Sub-Task 1-4: Develop plan for pesticide campaign materials post-grant period

BASMAA has agreed to pay for hosting the Got Ants website at its current URL after the DPR-funded grant period is complete. The DPR grant ended 4/30/14, and the website maintenance fee will be covered by BASMAA when the current year's hosting expires.

Task 2: In-Person Outreach through Our Water Our World

Sub-Task 2-1: Update materials: refresh with logos and incorporate QR codes into shelf talkers or other in-store materials, reprint fact sheets, distribute to stores, prepare tabling kit

Update materials: BASMAA updated the product lists on the fact sheets and other material, and ordered reprints for partner agencies.

Our Water Our World partners have agreed to refresh all of the program materials, including the logo, over the summer-fall 2014 timeframe. Fact sheets will be edited to a consistent "smart 8th-grader" level. A new Spanish language section will be added to the OWOW website.

Sub-Task 2-2: Develop mobile phone app for OWOW material

The OWOW section of the Chinook Book app was re-edited and finalized, and went live (www.chinookbook.net/mobile) in mid-March. BASMAA's media relations consultant issued a press release about the app's availability on April 2 (the pitch and coverage will be included in the next quarterly report).

Chinook Book and BASMAA's media consultant developed a "badge" that participating municipalities (and others) can link to their websites. Clicking on the image takes viewers to a landing page that directs them to download the free app on either Android phones or iPhones. The badge is posted on www.baywise.org.

See **Appendix** for final screen shots and the linkable image.

Sub-Task 2-3: In-store trainings and events

The IPM Advocates continued working with their assigned stores, holding meetings with store managers, trainings for store employees, and outreach events and creating in-store displays. See **Appendix** for a detailed report.

Sub-Task 2-4: Events outside of stores

None during this period.

Sub-Task 2-5: Track partner activities and report

No additional partner activities are noted at this time.

Task 3: Media Outreach (Advertising)

Subtask 3-1: Develop materials; translate into selected BPBC languages, establish social media presence (Facebook).

Develop materials: This activity was completed under the Got Ants grant (match for this grant). Got Ants materials developed include flyer, website, magnet, suite of graphics, and Facebook page.

Subtask 3-2: Develop and implement media plan	No activity during this quarter
Subtask 3-3: Media buy, including ads placed, cost-per-click advertising	Preparatory work for this activity was completed under the Got Ants grant (match for this grant). Initial metrics were collected on Got Ants advertising in different modes (transit ads, online ads, magazine ads). The Got Ants final report analyzed effectiveness (reach) and cost-effectiveness of various modes of advertising. An excerpt is included in the Appendix; see the Advertising section on page 23. Facebook advertising and magazine ads were identified as the lowest cost methods in terms of actions (clicks to the website, requests for follow-up information) generated. Transit advertising also provided very high coverage, though it was not possible to track direct activity generated. Google ads provided the highest click-through rates, although the cost per click was somewhat higher than Facebook ads. (The full report is posted at http://www.cdpr.ca.gov/docs/pestmgt/grants/final-reports/got_ants.pdf .)
Sub-Task 3-3a: Press pitches and events	No activity during this quarter, although the BASMAA pitch about the new OWOW app occurred on April 2 and will be included in the April-July quarterly report.
Sub-Task 3-4: Track partner activities	No activity on this sub-task during this quarter.

Task 4: Evaluating Environmental Outcomes

Sub-Task 4-1: Social indicators evaluations	No activity on this sub-task during this quarter. Additional evaluation discussions will be needed with EPA to finalize the revised workplan.
Sub-Task 4-1a: Surveys: draft survey questions, review against previous data, solicit and contract with company to conduct surveys, develop QAPP for surveys.	No activity on this sub-task during this quarter.
Sub-Task 4-2: Less-toxic sales evaluation: solicit sales information from representative sample of participating stores, summarize.	No activity on this sub-task during this quarter.

Task 5: Project Management and Reporting

Sub-Task 5-1: Contracting and subawards: issue RFPs and contract with organizations to provide graphic	No new contracting activity took place this quarter; the project manager reviewed the performance of project partner BASMAA on its subaward to provide IPM Advocates activity.
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design, retail store staff training and support, development of new ad materials, media buys, survey data including QAPP. Oversee contractor performance and contract management.

Sub-Task 5-2: Quarterly progress reports, financial statements, and invoices


A progress report was submitted via email to Luisa Valiela (acting for Erica Yelensky during Erica's maternity leave) on January 30, 2014.

Sub-Task 5-3: Final report

No activity on this sub-task during this quarter.

APPENDIX

Contents:

- **Sub-Task 1-1:**
 - **BASMAA PIP meeting agendas and summaries**
 - **Bay Protection and Behavior Change closure notice and summary memo**
- **Sub-Task 2-2: Web graphic and final Chinook Book screenshots**
- **Sub-Task 2-3: Advocates report**
- **Sub-Task 3-3: Got Ants? final report** 



B A S M A A

Public Information / Participation Committee

DRAFT Meeting Agenda

Wednesday, January 22, 2014

1:30 – 3:00

Conference call only meeting

Conference line: 1-800-786-1922; Code: 43253259#

Phone key pad commands: *4 = +/- Volume; *6 = Mute line on/off

- 1:30 Introductions, Announcements, Changes to Agenda.....Tim Swillinger
- 1:35 Approval – December 11, 2013 meeting summary.....Tim Swillinger
- 1:40 Regional Outreach Cynthia Butler
The Regional Outreach Campaign work group will receive an update
and discuss next steps
- 1:50 *Our Water, Our World* Annie Joseph
Committee members will receive an update and discuss next steps
- 2:05 Regional Media RelationsSharon Gosselin / Julia Fishman, O'Rorke
Committee members will receive an update on 2013-14 work plan / efforts
- 2:20 Other CampaignsAthena Honore, SFEP
Committee members will receive updates and discuss next steps
- Bay Protection and Behavior Change
 - Got Ants
 - Greener Pesticides for Cleaner Waterways
- 2:40 IDDE videos Gina Purin
Committee members decide whether to purchase
- 3:00 Adjourn.....Tim Swillinger

Next BASMAA PI/P Committee meeting is Wednesday, February 26, 2014



B A S M A A

DRAFT Meeting Summary **Public Information / Participation Committee** **Wednesday, January 22, 2014**

Introductions, Announcements, Changes to AgendaTim Swillinger

- Award – BASMAA’s IPM Advocates for Retail Stores project was awarded an IPM Innovator Award by DPR
- Grant – BASMAA is developing a concept proposal focused on structural pest control for a DPR Pest Management Alliance grant (same grant program as funded the IPM Advocates for Retail Stores project)

Approval – December 11, 2013 meeting summaryTim Swillinger

- Vote: Committee members approved the meeting summary.

Regional Outreach Cynthia Butler

The Regional Outreach Campaign work group received updates and discussed the following:

- Meme – In development; Scheduled for a February 17 launch; Work group being surveyed to define
 - Action: Work group members to respond to the online survey
- App – In development; Scheduled for April 22 launch; Work group being surveyed to define
 - Action: Work group members to respond to the online survey

Our Water, Our World Annie Joseph / Janet Cox

Committee members received an update on recent efforts and discussed next steps:

- Materials makeover – An attempt to quickly make some simple changes to the OWOW logo and graphics stalled from lack of consensus so the makeover will be conducted methodically later this year in prep for 2015. In the meantime, necessary edits to the copy in the fact sheets to address changes in product names and to address growing concerns about references to imidacloprid, fipronil, and some rat poisons with secondary kill potential will be made.
- Master solicitation – Orders and cost estimates have been received in response to the solicitation for printed OWOW materials, and orders placed.
- Drought – As could be expected, there is interest from stores in providing drought information. Annie Joseph and Debi Tidd are working on some materials conveying drought-related messages as they relate to *Our Water, Our World*, and will be making a presentation to OSH employees on February 6.
 - Action: A new drought-related *Our Water, Our World* fact sheet will be developed.
- Home Depot – The pilot Enhanced Program is kicking off, including Home Depot issuing a memo to the 10 participating stores about the pilot, store visits, and new training for “green garden specialists” scheduled for February 20 in Napa. Home Depot corporate is also expected to issue its annual internal memo supporting the *Our Water, Our World* program to all its participating stores.
- Effectiveness Assessment – There is renewed interest from a number of sources in measures of effectiveness for the *Our Water, Our World* program. Committee members discussed this interest and agreed it would be prudent to develop a standardized measure(s) to be used and reported on regularly.
 - Action: *Our Water, Our World* program to develop standardized measure(s)

- Product lists / Label files – The product lists have been updated for 2014, and will be disseminated / posted soon. Home Depot and OSH-specific product lists and label files will follow soon thereafter.
- App – The mobile app is in draft form and will be ready for review soon.
 - Action: Geoff Brosseau will distribute the app for review / comment.

Regional Media RelationsJulia Fishman, O’Rorke
 Committee members received an update on the pitches for the fiscal year. Three pitches have been completed to-date. A letter to the editor was submitted regarding an article about an adopt-a-storm drain program in the San Francisco Chronicle. A new pitch regarding the IPM Innovator award (see Announcements above) is being made today. Ideas are being solicited for a trash pitch; Committee members offered the submittal of the long-term trash plans and/or the ARRA Trash Capture Demonstration project report as possible hooks/pitches.

Other Campaigns.....Athena Honore, SFEP
 Committee members received and discussed updates on three related projects:

- Bay Protection and Behavior Change – The project has been discontinued; project files are being saved in case there is renewed interest.
- Got Ants – The campaign as originally scoped is wrapping up with a Final Report in February to DPR.
 - Action: Local agencies should send information to SFEP regarding their local Got Ants outreach efforts.
- Greener Pesticides for Cleaner Waterways – Beyond the IPM Advocates for Retail Stores related task, grant project staff are tracking and engaging in the OWOW mobile app development, and are reprogramming the remaining project funds at the invitation of the funding agency – EPA. EPA has agreed to put some of the remaining funds into the Enhanced OWOW at Home Depot Pilot (see *Our Water, Our World* above) and extending the Got Ants campaign.

IDDE videos Tim Swillinger / Gina Purin
 Committee members received information on the cost of some commercially produced videos (~1 cent/person or ~\$60,000 for Bay Area programs) and decided not to consider proposing a regional project to purchase the videos, but to keep the product in mind for purchase by local agencies.

Next Regular Meeting is Wednesday, February 26, 2014

	Representing	Name	Meetings Attended											
			Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Alameda Co. CWP	Jim Scanlin	P	P		P								
2	Alameda Co. CWP	Sharon Gosselin				P								
3	Alameda Co. CWP	Cynthia Butler		P	P	P			P	P				
4	Contra Costa CWP	Tom Dalziel				P								
5	Contra Costa CWP	Tracy Hein	P	P	P									
6	Contra Costa CWP	Dan Jordan	P	P	P				P					
7	Contra Costa CWP	Deanna Constable								P				
8	Fairfield-Suisun URMP	Kevin Cullen	P											
9	Marin Co. STOPPP	Gina Purin		P	P	P			P	P				
10	SM Co. WPPP	Tim Swillinger	P	P	P	P			P	P				
11	SC Valley URPPP	Vishakha Atre	P	P	P	P			P	P				
12	Vallejo San & FCD	Jennifer Kaiser		P	P	P				P				
13	BASMAA	Geoff Brosseau	P	P	P	P				P				
14	S. Groner & Assoc.	Nick Laurell	P	P	P	P								
15	S. Groner & Assoc.	Philip Kao			P									
16	Consultant	Annie Joseph	P			P			P	P				
17	City of Sunnyvale	Jackie Davison	P	P	P				P	P				
18	O'Rorke	Julia Fishman	P		P	P				P				
19	SFEP	Janet Cox	P	P	P					P				
20	SFEP	Athena Honore			P	P			P	P				
21	CLEAN South Bay / SCBWMI	Trish Mulvey	P	P										
22	City of Palo Alto	Maree Doden		P	P				P	P				
23	City of San Jose	Sharon Newton		P	P									
24	Consultant	Debi Tidd			P									
25	City of Modesto	Gayle Ziegler			P				P	P				
26	City of Roseville	Delyn Ellison-Lloyd								P				
27														
28														
29														
30														

X = In-person; P = by phone



B A S M A A

Public Information / Participation Committee

DRAFT Meeting Agenda

Wednesday, February 26, 2014

1:30 – 3:00

Conference call only meeting

Conference line: 1-800-786-1922; Code: 43253259#

Phone key pad commands: *4 = +/- Volume; *6 = Mute line on/off

- 1:30 Introductions, Announcements, Changes to Agenda.....Tim Swillinger
- 1:40 Approval – January 22, 2014 meeting summary.....Tim Swillinger
- 1:45 Regional Outreach Cynthia Butler
The Regional Outreach Campaign work group will receive an update
and discuss next steps
- 2:00 *Our Water, Our World* Annie Joseph / Janet Cox
Committee members will receive an update and discuss next steps
- 2:25 Regional Media RelationsSharon Gosselin / Julia Fishman, O’Rorke
Committee members will receive an update on 2013-14 work plan / efforts
- 2:40 Other CampaignsAthena Honore, SFEP
Committee members will receive updates and discuss next steps
- Got Ants
 - Greener Pesticides for Cleaner Waterways
- 3:00 Adjourn.....Tim Swillinger

Next BASMAA PI/P Committee meeting is Wednesday, March 26, 2014



B A S M A A

DRAFT Meeting Summary **Public Information / Participation Committee** **Wednesday, February 26, 2014**

Introductions, Announcements, Changes to AgendaTim Swillinger

- Announcements
 - Grant – Based on its concept proposal regarding IPM, including structural pest control, for multi-unit housing, BASMAA has been invited to submit a full proposal for a DPR Pest Management Alliance grant. The full proposal is due April 4.
 - Got Ants – Reminder from SFEP to any agency that has not yet sent information for the Got Ants report, to send information to SFEP regarding their local Got Ants outreach efforts.
- Change to Agenda – Remove item Other Campaigns

Approval – January 22, 2014 meeting summaryTim Swillinger

- Vote: Committee members approved the meeting summary.

Regional Outreach Cynthia Butler

The Regional Outreach Campaign work group received updates and discussed the following:

- Meme contest – Launched February 17; Deadline for responses is March 17, with winners picked March 24.
- App – In development; Scheduled for April 22 launch; Work group met before this meeting to discuss development process, status, and content; Work group is providing direction to make the content more positive, less dark and violence-based.
- Beyond FY 13-14 – The current Regional Outreach Campaign project was scoped and budgeted as a 3-year project with FY 13-14 being the last year. As such, it meets MRP requirements, but there is some interest in continuing the effort and concern if it is not in some form. Committee members briefly discussed the situation, noting the current project includes production of a report that will include significant lessons learned and recommendations sections, which the programs can use to guide decisions about continuing the effort and if so, in what ways.

Our Water, Our World Annie Joseph / Janet Cox

Committee members received an update on recent efforts and discussed next steps:

- Home Depot – The pilot Enhanced Program continues to ramp up. It is important agencies part of this new program get contracts in place to cover the Advocates new work. A new training for “green garden specialists” was conducted February 20 in Napa. A ‘roadshow’ highlighting *Our Water, Our World* will start soon – visiting select Home Depot stores.
- Drought – IPM Advocate Debi Tidd developed a drought-related piece, and it was highlighted in a presentation to OSH employees on February 6.
- Master solicitation – Shelf talkers and literature rack signage orders have been delivered; fact sheets deliveries are 2-3 weeks out. Other materials orders will be placed thereafter.
- Materials makeover – An attempt to quickly make some simple changes to the OWOW logo and graphics stalled from lack of consensus so the makeover will be conducted methodically later this year in prep for 2015.

- Product lists / Label files – The Home Depot and OSH-specific product lists and label files were disseminated recently.
- Effectiveness Assessment – There is renewed interest from a number of sources in measures of effectiveness for the *Our Water, Our World* program. Committee members discussed this interest last month and agreed it would be prudent to develop a standardized measure(s) (e.g., shelf space changes) to be used and reported on regularly. In today’s meeting, Committee members also expressed interest in a standardize survey for store trainings.
 - Action: Gina Purin will compile surveys being used now, consolidate their questions and work with the Committee to review and produce a standardized survey.
- App – Development of the *Our Water, Our World* portion of the Chinook Book mobile app is almost complete. Committee members discussed and agreed on the desirability of creating a direct link to the *Our Water, Our World* portion of the Chinook Book app.
 - Action: Janet Cox will check with Chinook Book about creating a direct link.

Regional Media RelationsJulia Fishman, O’Rorke
 Committee members received an update on the pitches and other media relations work for the fiscal year. Three pitches have been completed to-date. Additionally:

- Litter / trash - A letter to the editor was published in the San Francisco Chronicle regarding an article about the single use filter cigarette bill.
- Pitches
 - IPM Innovator award – Annie Joseph was interviewed on the radio, and a pitch regarding the IPM Innovator award continues to be made.
 - Trash – Ideas continue to be solicited for a trash pitch; O’Rorke reviewed ideas suggested last month – submittal of the long-term trash plans and/or the ARRA Trash Capture Demonstration project report as possible hooks/pitches, and found them unlikely to be compelling enough to be picked up.
 - Action: O’Rorke will assess doing an Op-Ed piece regarding the end of the fiscal year reporting on trash reduction performance.

Next Regular Meeting is Wednesday, March 26, 2014

	Representing	Name	Meetings Attended												
			Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
1	Alameda Co. CWP	Jim Scanlin	P	P		P					P				
2	Alameda Co. CWP	Sharon Gosselin				P					P				
3	Alameda Co. CWP	Cynthia Butler		P	P	P				P	P	P			
4	Contra Costa CWP	Tom Dalziel				P									
5	Contra Costa CWP	Tracy Hein	P	P	P										
6	Contra Costa CWP	Dan Jordan	P	P	P					P					
7	Contra Costa CWP	Deanna Constable									P	P			
8	Fairfield-Suisun URMP	Kevin Cullen	P												
9	Marin Co. STOPPP	Gina Purin		P	P	P				P	P	P			
10	SM Co. WPPP	Tim Swillinger	P	P	P	P				P	P	P			
11	SC Valley URPPP	Vishakha Atre	P	P	P	P				P	P	P			
12	Vallejo San & FCD	Jennifer Kaiser		P	P	P					P				
13	BASMAA	Geoff Brosseau	P	P	P	P					P	P			
14	S. Groner & Assoc.	Nick Laurell	P	P	P	P									
15	S. Groner & Assoc.	Philip Kao			P										
16	Consultant	Annie Joseph	P			P				P	P	P			
17	City of Sunnyvale	Jackie Davison	P	P	P					P	P				
18	O'Rorke	Julia Fishman	P		P	P					P	P			
19	SFEP	Janet Cox	P	P	P						P	P			
20	SFEP	Athena Honore			P	P				P	P				
21	CLEAN South Bay / SCBWMI	Trish Mulvey	P	P											
22	City of Palo Alto	Maree Doden		P	P					P	P				
23	City of San Jose	Sharon Newton		P	P										
24	Consultant	Debi Tidd			P										
25	City of Modesto	Gayle Ziegler			P					P	P				
26	City of Roseville	Delyn Ellison-Lloyd									P	P			
27															
28															
29															
30															

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B A S M A A

Public Information / Participation Committee Meeting Agenda

Wednesday, March 26, 2014
1:30 – 3:00

Conference call only meeting

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- 1:30 Introductions, Announcements, Changes to Agenda.....Tim Swillinger
- 1:40 Approval – February 26, 2014 meeting summaryTim Swillinger
- 1:45 Approval – Changes to MRP Annual Report form for FY 13-14.....Tim Swillinger
- 1:55 Regional Outreach Cynthia Butler
Committee members will receive an update and discuss next steps
- 2:10 Regional Media RelationsSharon Gosselin / Julia Fishman, O’Rorke
Committee members will receive an update on 2013-14 work plan / efforts
- 2:20 Other CampaignsAthena Honore, SFEP
Committee members will receive updates and discuss next steps
- Greener Pesticides for Cleaner Waterways
- 2:30 *Our Water, Our World* Annie Joseph / Janet Cox
Committee members will receive an update and discuss next steps
- Master solicitation
 - Mobile app
 - Home Depot pilot
 - Effectiveness assessment
- 3:00 Adjourn.....Tim Swillinger

Next BASMAA PI/P Committee meeting is Wednesday, April 23, 2014



B A S M A A

DRAFT Meeting Summary **Public Information / Participation Committee** **Wednesday, March 26, 2014**

Introductions, Announcements, Changes to AgendaTim Swillinger

Approval – February 26, 2014 meeting summary.....Tim Swillinger
 Vote: Committee members approved the meeting summary.

Approval – Changes to MRP Annual Report form for FY 13-14Tim Swillinger

Committee members discussed two recommended deletions of reporting information not required in the MRP, but that a member program each desired to leave in the form:

- C.7.a Storm drain inlet marking
- C.7.b.iii.1 Pre-campaign survey reporting

Committee members agreed to recommend to the Board of Directors both items be included on the form. Additionally, Regional Water Board staff requested MRP permittees report all the pesticide-related outreach in the C.9 section of the annual reports. Committee members felt such a change at this late date in the FY 13-14 form's review and approval (set for tomorrow) as well as the permit term (MRP expires nominally in December) would be disruptive and an added expense. Committee members recommended the concept be considered for MRP 2.0.

Regional Outreach Cynthia Butler

The Regional Outreach Campaign work group received updates and discussed the following:

- Meme contest – Launched February 17; Deadline for responses was March 17 but has been extended to March 31. Over 80 entries have been received – many local to the Bay Area. The work group will review and vote on winners.
- App – In development; Scheduled for April 22 launch; Based on comments provide by work group on February 26, comics are being revised.

➤ Action: Committee members with prize ideas should provide them to Nick Laurell.

Regional Media RelationsJulia Fishman, O'Rorke

Committee members received an update on the pitches and other media relations work for the fiscal year. Four pitches have been completed to-date. Additionally:

- IPM Advocates: Drought angle – Little interest has been expressed; remarkably the drought seems to be yesterday's news currently.
- Our Water, Our World app – O'Rorke as started pitching the app and it appears to be piquing some interest.

Other CampaignsGeoff Brosseau for Athena Honore, SFEP

- Got Ants – SFEP has been focusing on completing the final report, and thanks all the agencies that contributed time, information, and publicity to the project.

Our Water, Our World Annie Joseph / Janet Cox

Committee members received an update on recent efforts and discussed next steps:

- Master solicitation – Shelf talkers and literature rack signage orders have been delivered; fact sheets deliveries are 2-3 weeks out. Other materials orders will be placed thereafter.



B A S M A A

- Action: Annie Joseph will work on a “Do not label” list and an Active Ingredient list for just the most important or popular pesticides.

- Mobile app – Development of the *Our Water, Our World* portion of the Chinook Book mobile app is complete. Committee members were provided with screen shots of the app and access instruction. Committee members viewed and provided comments on an "app badge" graphic that agencies would put on their websites.
- Home Depot pilot – The pilot Enhanced Program is up and running. Home Depot corporate staff visited the Bay Area – participating in a training at a Home Depot and meeting with *Our Water, Our World* representatives. Home Depot is itself piloting something new – “Less Toxic” wobbler tags placed next to selected products – pesticides and others. Also, end caps have been built in 9 of the 10 pilot stores.
- Scotts Miracle-Gro – Prompted by the *Our Water, Our World*-Bayer promotion last year, Scotts approached *Our Water, Our World* about working with Scotts on a joint promotion of some of their less-toxic products. Scotts is going to build small displays of their slow release fertilizer on small wing stack racks. They will be providing 50 displays -- one for each OWOW Depot in the Bay Area and Sacramento area. *Our Water, Our World* will be providing OWOW signage and shelf talkers. These displays will also be outdoors so shelf talkers will need to be laminated.
- Effectiveness Assessment – Last month Committee members discussed renewed interest from a number of sources in measures of effectiveness for the *Our Water, Our World* program and agreed it would be prudent to develop a standardized measure(s) (e.g., shelf space changes, standardize survey for store trainings) to be used and reported on regularly. Subsequently, Gina Purin compiled surveys being used now, consolidated their questions, and provided the result to the Committee to review and produce a standardized survey.
 - Action: Committee members should provide comments on the pre-training and post-training surveys to Gina ASAP.

Next Regular Meeting is Wednesday, April 23, 2014

	Representing	Name	Meetings Attended												
			Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
1	Alameda Co. CWP	Jim Scanlin	P	P		P					P	P			
2	Alameda Co. CWP	Sharon Gosselin				P					P				
3	Alameda Co. CWP	Cynthia Butler		P	P	P				P	P	P	P		
4	Contra Costa CWP	Tom Dalziel				P							P		
5	Contra Costa CWP	Tracy Hein	P	P	P										
6	Contra Costa CWP	Dan Jordan	P	P	P					P					
7	Contra Costa CWP	Deanna Constable									P	P	P		
8	Fairfield-Suisun URMP	Kevin Cullen	P												
9	Marin Co. STOPPP	Gina Purin		P	P	P				P	P	P	P		
10	SM Co. WPPP	Tim Swillinger	P	P	P	P				P	P	P	P		
11	SC Valley URPPP	Vishakha Atre	P	P	P	P				P	P	P	P		
12	Vallejo San & FCD	Jennifer Kaiser		P	P	P					P				
13	BASMAA	Geoff Brosseau	P	P	P	P					P	P	P		
14	S. Groner & Assoc.	Nick Laurell	P	P	P	P									
15	S. Groner & Assoc.	Philip Kao			P										
16	Consultant	Annie Joseph	P			P				P	P	P	P		
17	City of Sunnyvale	Jackie Davison	P	P	P					P	P		P		
18	O'Rorke	Julia Fishman	P		P	P					P	P	P		
19	SFEP	Janet Cox	P	P	P						P	P	P		
20	SFEP	Athena Honore			P	P				P	P				
21	CLEAN South Bay / SCBWMI	Trish Mulvey	P	P											
22	City of Palo Alto	Maree Doden		P	P					P	P		P		
23	City of San Jose	Sharon Newton		P	P										
24	Consultant	Debi Tidd			P										
25	City of Modesto	Gayle Ziegler			P					P	P				
26	City of Modesto	Jennifer Peet											P		
27	City of Roseville	Delyn Ellison-Lloyd									P	P	P		
28															
29															
30															

X = In-person; P = by phone

From: Honore, Athena@Waterboards
To: ["Adam Olivieri"](#); ["Amy Hutzel"](#); ["BAWWP"](#); ["Cassie Prudhel"](#); ["Catherine Allin"](#); ["Chandra Johannesson"](#); ["Cheri Donnelly"](#); ["Cheryl Wessling \(Cheryl.Wessling@sanjoseca.gov\)"](#); ["Cox, Janet@Waterboards"](#); ["Cullen, Kevin"](#); ["Cynthia Knowles"](#); ["Dianne Lynn"](#); ["Don Freitas"](#); ["Elaine Marshall \(EMarshall@sunnyvale.ca.gov\)"](#); ["Erica Yelensky"](#); ["Garner, Dylan@Waterboards"](#); ["Geoff Brosseau"](#); ["Gina Purin"](#); ["Jacqueline Davison"](#); ["Jaime Kooser"](#); ["Jean Walsh"](#); ["Jennifer Kaiser"](#); ["Jill Bicknell"](#); ["Jim Kelly"](#); ["Jim Scanlin \(jims@acpwa.org\)"](#); ["Joe Neugebauer"](#); ["Julie Weiss"](#); ["Karin North"](#); ["Karri Ving"](#); ["Kate Slama"](#); ["Kelly, Judy@Waterboards"](#); ["Laura Wright"](#); ["Lauren Tacke"](#); ["Luisa Valiela"](#); ["Marie Kulka"](#); ["Mark Randolph"](#); ["Marty Grimes"](#); ["Meg Gale"](#); ["Melanie Denninger"](#); ["Melody LaBella"](#); ["Melody Tovar"](#); ["Michelle Daher"](#); ["Napp Fukuda"](#); ["Phil Bobel"](#); ["Ricardo Barajas"](#); ["Riley, AL@Waterboards"](#); ["Sarah Scheidt"](#); ["Sharon Newton"](#); ["Teresa Alvarado"](#); ["Terri Fashing"](#); ["Tim Swillinger"](#); ["Tracy Hein"](#); ["Vishakha Atre"](#)
Cc: ["David Williams"](#); ["Matt Fabry \(mfabry@co.sanmateo.ca.us\)"](#)
Subject: notice from SFEP of closing down Bay Protection and Behavior Change regional outreach branding effort
Date: Thursday, January 16, 2014 2:45:00 PM

To the participants in the Bay Protection and Behavior Change effort,

This update is a long time coming; I'm writing to let you know that the Executive Group of funders for the Bay Protection and Behavior Change effort has decided to discontinue the BPBC work. We are closing down our efforts to develop a regional brand identity for stormwater and wastewater pollution prevention, which was to serve as the foundation for increased regional unity around behavior change campaigns on specific pollutant issues.

We had come a long way since the City of San Jose, the project's visionary, held a first retreat to discuss the concept in May of 2011. Since then, the group has held monthly to quarterly meetings for the Steering Committee (full group of participants) or the Executive Committee. After forming the group, we began work on developing a regional brand, with tagline and logo. But our initial group of designers produced draft logos that didn't excite us, and when we brought on a different group to produce another set, those similarly failed to ignite. The Executive Committee spent much of 2013 working with several communications consultants to examine our mission and procedures to identify a clearer path towards our goal. Ultimately, these efforts didn't produce the clear road that we needed. Given our small initial funding investment and limited staff resources, the Executive Group made the decision to wrap up the project rather than continue on.

We continue to believe in the concept of a single, unified brand for pollution prevention outreach. We hope that the effort may be revisited in the future. SFEP will maintain an archive for the project.

We truly appreciate all the input and participation in this project from each of you. This project enjoyed a high caliber of ideas and discussion. While it was challenging at times to work with so many partners and in new ways, we hope that those discussions will continue to inform the way we work on P2 outreach: with a broad vision of regional sharing for greater efficiency on the road to behavior change.

Thank you,
Judy Kelly
Director, SFEP

Forwarded by Athena Honore, Communications Officer
San Francisco Estuary Partnership

FROM: Athena Honore and Judy Kelly

TO: BPBC Executive Group

DATE: December 6, 2013

SUBJECT: Recap: Bay Protection and Behavior Change Efforts to Date

To document progress and allow for easy reference, the following timeline shows meetings, decisions, and process for the Bay Protection and Behavior Change brand development activities to date.

Timeline of activity

May 2011: Group first convened to explore City of San Jose's proposal for joint regional outreach work under a unified regional brand.

June and July 2011 meetings: Discussed scope of P2 campaigns and joint work, decisionmaking, participation, and funding.

October 2011: Steering Committee (SC) reviewed potential approaches to brand development, decided to **move forward with GeniusRocket**, discussed first campaign to use regional brand (Got Ants, funded by DPR).

December 2012: BASMAA and BACWA voted to fund the regional outreach work at \$15,000 each. **Total approved funding level: \$35,000** with \$5000 pledge from SFEP.

January 2012: SC reviewed draft creative brief for GeniusRocket, discussed public review options and decisionmaking process.

February 2012: Executive Group (EG) **approved the decisionmaking process.**

March 2012: SC drafted mission statement, continued work on creative brief, discussed regional vs statewide applicability.

April 2012: Contract signed with GeniusRocket to provide 25 tagline concepts and 15 logo concepts, taking the top selected 3-5 of each tagline and logo to public review, refining the final selected tagline and logo, and providing basic brand usage guidelines. Work to proceed between April and November 2012.

May 2012: Creative brief finalized, SC meets to review criteria for evaluating taglines, discuss first round of taglines.

July 2012: SC meets to assess logos according to scoring criteria, scores are summarized and **top first round logos/taglines are selected:**



August & September 2012: WG compiles feedback and directs GeniusRocket re improving logos. WG asked for #s 4 and 5 to be refined as well.



September 2012: GeniusRocket returns **revised (second round) top 5 logos:**



October 2012: 45+ agencies reviewed and public feedback obtained on 2nd round logos (GeniusRocket got public review from 500 respondents, in 9-county Bay Area, conducted online). Topline results:

Both taglines have some problems, and while a couple of logos did rise to the top, they didn't get strong reviews either from the public or from the agencies. Most agencies made the same points: "Clean Water Bright Future" doesn't have any sense of Bay Area identity and evokes drinking water or other even sanitation rather than our area of concern; "Dream Blue" doesn't inspire action; and "Bay Ocean Delta You" can be a little confusing. On our voting scale of 1-5,

with 5 being the best, no logo ranked even as high as a 3. Several agencies said that they supported the goal but didn't find any of the options compelling.

SFEP proposes and **EG approves new round of logos from MIG, funded by SFEP (\$6500)**. Proposed streamlined approval process, but changed to full group review. Direction to MIG includes existing creative brief plus an initial meeting with EG.

SCVWD drafts own logo and forwards to Working Group, no action taken.

December 2012: MIG presents 7 new concepts to EG. Agencies review and score those 7 plus the top one from last round for comparison; public feedback is not solicited.

SCVWD objects that their logo was not considered, considers leaving coalition.

January 2013: EG reviews scoring results and discusses options re moving forward with logos.

Top 3 as ranked by agencies:



Not immediately clear how well logos meet group's objectives (clear, SF Bay-specific element, not to be confused with water conservation). Group scheduled to review Creative Brief and revise if necessary on 2/15/13. **Remaining funding: \$18,300.** Discussed option to use www.baywise.org website and incorporating Baywise into tagline. Commitments remain to the process although additional funding commitment is unclear. Agreed that decision-making power should be formally moved to the Executive Group.

Spring 2013: EG meets in person 2/15 and reviews key sticking points. Decided not to use MIG logos, proceed with revising creative brief based on discussions of key issues. Creative brief is revised and circulated. EG meets by phone 3/26. Work with MIG is terminated. EG to seek new consultants to provide input into process. EG met via phone 4/22 and finalized the revised creative brief.

Summer 2013: Discussions with Eric Eckl of Water Words that Work, Laurie Carrigan and Margaret Hartwell, and Hunter Wimmer and Phil Hamlett of Academy of Art University (School of Graphic Design), seeking their input on how to restart process. Carrigan and Hartwell submit proposal for additional work, but it does not get as far as an RFP for a consultant.

October 2013: EG meets via phone 10/7 to respond to Carrigan-Hartwell proposal (no thank you). Decided to put project on hold and draft a wrap-up report, and then return unspent project funds to the original funders in proportion to their contributions.

December 2013: Wrap-up report is completed and circulated to Executive Group.

Sub-Task 2-2: Web graphic and final Chinook Book screenshots

The graphic below is posted on www.baywise.org and has been sent to OWOW partner agencies, BASMAA Public Information/Participation committee members, and the Bay Area Pollution Prevention Group. It links to a splash page.



Below, the final screen shots of the free Chinook Book Our Water Our World app. Development of the app is substantially funded by BASMAA as match to this project.




Greener Pesticides for Cleaner Waterways
January-March 2014 Quarterly Report

Chinook Book
Sponsored by: 

01. Find Less Toxic Products

These Our Water Our World stores feature less toxic pest control products and accept Chinook Book coupons. Look for this tag before you buy!



Almaden Valley Nursery - \$35 off
Berkeley Ace Hardware - \$15 off
Berkeley Horticultural Nursery - \$15 off
Bill's Ace Hardware - \$15 off
Broadway Terrace Nursery - 20% off
Carlmont Ace Hardware - \$15 off
Cole Hardware - \$50 off
East Bay Nursery - \$10 off
Flowerland Nursery - \$10 off
Hortica - \$5 off
Robert's Hardware - \$5 off
SummerWinds Nursery - \$60 off
Urban Farm Store - 20% off
Westbrae Nursery - \$60 off

My Near Me Coupons Resources More

Saving screenshot...

Chinook Book
Sponsored by: 


01. Find Less Toxic Products

Carlmont Ace Hardware - \$15 off
Cole Hardware - \$50 off
East Bay Nursery - \$10 off
Flowerland Nursery - \$10 off
Hortica - \$5 off
Robert's Hardware - \$5 off
SummerWinds Nursery - \$60 off
Urban Farm Store - 20% off
Westbrae Nursery - \$60 off

All Our Water Our World stores, by county:

[Alameda](#)
[Contra Costa](#)
[Marin](#)
[Monterey](#)
[Napa](#)
[Sacramento](#)
[San Francisco](#)
[San Mateo](#)
[Santa Clara](#)
[Santa Cruz](#)
[Solano](#)
[Sonoma](#)

My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

02. Ants

Ants - Less Toxic Products:

Amdro Kills Ants Ant Killing Bait (bait stations) 

Amdro Kills Ants Ant Killer (liquid ant bait stations)

Combat Source Kill 4 Ant Bait Station

Combat Source Kill Max R1 Bait Station

Concern Diatomaceous Earth Crawling Insect Killer

Drax Ant Kil Gel

Orange Guard


Pest Pistol

Safer Brand Ant and Crawling Insect Killer

Stikem Tree Pest Barrier

My Near Me Coupons Resources More

Saving screenshot...

Chinook Book
Sponsored by: 

02. Ants

Combat Source Kill 4 Ant Bait Station

Combat Source Kill Max R1 Bait Station

Concern Diatomaceous Earth Crawling Insect Killer

Drax Ant Kil Gel

Orange Guard

Pest Pistol

Safer Brand Ant and Crawling Insect Killer

Stikem Tree Pest Barrier

Tanglefoot

Terro Ant Killer II Liquid Bait

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

03. Aphids

Aphids - Less Toxic Products:

Bonide All Seasons Spray Oil 

Bonide Insecticidal Soap

Concern Insect Killing Soap

Garden Safe

Ladybugs Insecticidal Soap

Monterey Horticultural Oil

Natria Neem Oil

Ortho Volck Oil Spray

Safer Brand Insecticidal Soap

Safer Brand Yard and Garden Insect Killer

Stikem Tree Pest Barrier

Tanglefoot

For more info, view the complete fact sheet

My Near Me Coupons Resources More

Saving screenshot...

Chinook Book
Sponsored by: 

03. Aphids

Bonide All Seasons Spray Oil 

Bonide Insecticidal Soap

Concern Insect Killing Soap

Garden Safe

Ladybugs Insecticidal Soap

Monterey Horticultural Oil

Natria Neem Oil

Ortho Volck Oil Spray

Safer Brand Insecticidal Soap

Safer Brand Yard and Garden Insect Killer

Stikem Tree Pest Barrier

Tanglefoot

For more info, view the complete fact sheet at ourwaterourworld.org Copied to clipboard or tablet.

My Near Me Coupons Resources More

10:32 AM

Chinook Book
Sponsored by: 

04. Cockroaches

Cockroaches - Less Toxic Products:

- Black Flag Roach Motel
- Combat Source Kill for Ants and Roaches (bait stations)
- Combat source Kill 1 Roach Bait Station
- Concern Crawling Insect Killer Diatomaceous Earth
- Grow More Diatomaceous Earth
- Harris Roach Tablets
- Hot Shot MaxAttrax Roach Killing Powder
- Niban Granular Bait
- Niban FG Fine Granular Bait
- Pest Pistol



My Near Me Coupons Resources More

10:32 AM

Chinook Book
Sponsored by: 


04. Cockroaches

- Concern Crawling Insect Killer Diatomaceous Earth
- Grow More Diatomaceous Earth
- Harris Roach Tablets
- Hot Shot MaxAttrax Roach Killing Powder
- Niban Granular Bait
- Niban FG Fine Granular Bait
- Pest Pistol
- Roach Prufe
- Safer Brand Ant and Crawling Insect Killer
- Seabright Labs Roach Free System
- Victor Roach Magnet

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

My Near Me Coupons Resources More

10:32 AM


Chinook Book
Sponsored by: 

05. Fleas

Fleas - Less Toxic Products:

- Concern Diatomaceous Earth Crawling Insect Killer
- Ecology Works' Dustmite and Flea Control
- Pest Pistol
- Raid Flea Killer Plus Trap
- Safer Brand Ant and Crawling Insect Killer
- Beneficial Nematodes

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My Near Me Coupons Resources More

10:32 AM

Chinook Book
Sponsored by: 

06. Mosquitoes

Mosquitoes - Less Toxic Products:

- Bite Blocker
- Bonide Mosquito Plunks
- Cutter Advanced Insect Repellent
- Mosquito Bits
- OFF!
- Prestrike Granules (larvae control only)
- Repel Lemon Eucalyptus
- Summit Mosquito Dunks
- Vectobac

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My Near Me Coupons Resources More

10:32 AM

Chinook Book
Sponsored by: 

07. Rats & Mice

Rats & Mice - Less Toxic Products:

- Ortho Home Defense Press and Set Mouse Traps
- Ortho Home Defense Press and Set Rat Traps
- Raticator Plus Rodent Trap
- Rat Zapper Rodent Trap
- Tom Cat Snap Traps
- Tom Cast Mouse VI (0.005% diphacinone)
- Victor Electronic Mouse Traps
- Victor Electronic Rat Traps
- Victor Mouse Snap Traps
- Victor Rat Snap Traps

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.



My Near Me Coupons Resources More

10:33 AM

Chinook Book
Sponsored by: 

08. Snails & Slugs

Snails & Slugs - Less Toxic Products:

- Bonide Slug Magic
- Copper Barrier Tape
- Easy Gardener Plant and Seed Blanket
- Escar-Go! Slug Control
- Fast Start Seed Blanket
- Garden Safe Slug & Snail Bait
- Natria Snail & Slug Killer Bait
- Safer Slug and Snail Copper Barrier Tape
- Sluggo
- Spectracide Snail & Slug Killer Bait
- Worry Free Slug & Snail Bait




My Near Me Coupons Resources More

Greener Pesticides for Cleaner Waterways
January-March 2014 Quarterly Report

Chinook Book
Sponsored by: 

08. Snails & Slugs

- Copper Barrier Tape
- Easy Gardener Plant and Seed Blanket
- Escar-Go! Slug Control
- Fast Start Seed Blanket
- Garden Safe Slug & Snail Bait
- Natria Snail & Slug Killer Bait
- Safer Slug and Snail Copper Barrier Tape
- Sluggo
- Spectracide Snail & Slug Killer Bait
- Worry Free Slug & Snail Bait




For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

09. Spiders


Spiders - The Helpful Hunters

Spiders are beneficial creatures. Because they feed on large quantities of insects, they should be tolerated as much as possible in the home and garden. If you're willing to share your house with a few spiders, you can periodically vacuum up webs that are eyesores or embarrassing to you as a housekeeper. Leaving the spiders will allow them to continue to do their pest control work.



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.


My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

10. Weeds

Weeds - Strategies & Less Toxic Herbicides:

- Burn Out II
- Eco Smart Organic Weed and Grass Killer
- Natria Grass and Weed Killer
- Safer Brand Fast Acting Weed and Grass Killer



Non-Chemical Strategies:

- Hand weeding
- Mulching
- Competitive Planting
- Cultivation
- Mowing

For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.


My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

11. Yellowjackets


Yellowjackets - Less Toxic Products:

- Rescue! Yellowjacket (disposable)
- Rescue! Trap (reusable)
- Victor Yellow Jacket Trap (use liquid bait such as apple juice)
- Victor Yellow Jacket and Flying Insect Trap (use liquid bait such as apple juice)



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.


My Near Me Coupons Resources More

Chinook Book
Sponsored by: 

12. Roses


Roses - Less Toxic Products:

- Bonide All Seasons Spray Oil
- Bonide Neem Oil
- Bonide Rose RX 3 in 1
- Cloud Cover
- Garden Safe Fungicide 3
- Kaligreen
- Natria Disease Control
- Natria Neem Oil
- Osmocote
- Rose Defense
- Serenade Garden Disease Control
- Wilt Pruf




My Near Me Coupons Resources More

Saving screenshot...

Chinook Book
Sponsored by: 

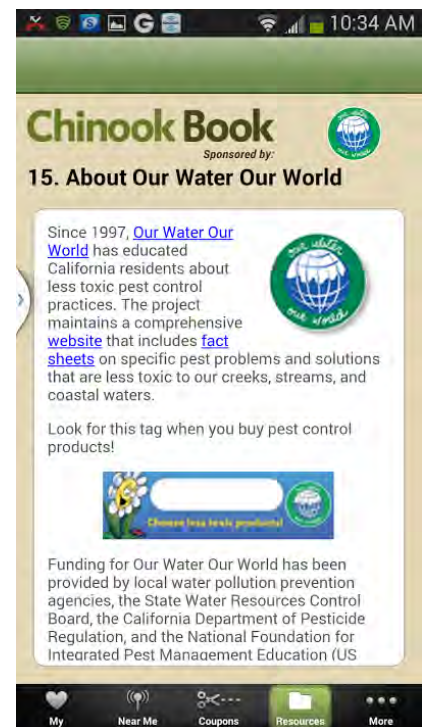
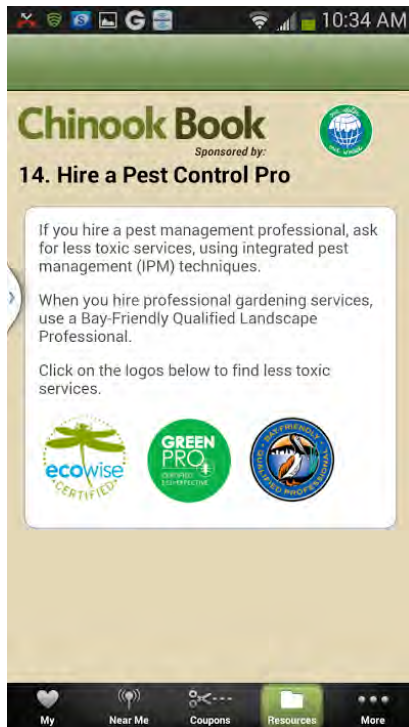
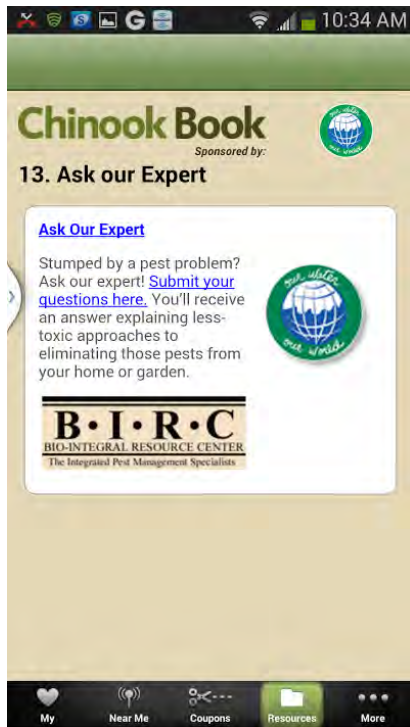
12. Roses

- Bonide Neem Oil
- Bonide Rose RX 3 in 1
- Cloud Cover
- Garden Safe Fungicide 3
- Kaligreen
- Natria Disease Control
- Natria Neem Oil
- Osmocote
- Rose Defense
- Serenade Garden Disease Control
- Wilt Pruf



For more info, view the complete fact sheet at ourwaterourworld.org from a PC or tablet.

My Near Me Coupons Resources More



Sub-Task 2-3: IPM Advocates report

IPM Advocates' activity is coordinated by Annie Joseph, who has been the main consultant for BASMAA's Our Water Our World program for many years. Each Advocate is working closely with his or her assigned stores. Below, a description of each Advocate's activity this period.

Anne Rogers

Marin Ace

Anne was out ill during January and February.

She visited **Marin Ace** on 3/13/14, and met with staff to discuss an April promotion at all the Ace stores in Marin: Tomato Mania. The stores, and Anne, will promote organic projects during the second week of April.

Anne helped Jason with questions he had about a new product called Eco-Scraps, made from recycled restaurant scraps -- seems like a great product for mulching vegetable gardens. He also had questions about environmentally friendly resources to address bedbug infestations.

Anne helped customers with questions on ants and gophers, emphasizing bait stations (instead of pyrethroid pesticides) for ants and repellants (rather than baits) for gophers.

Anne has also been in touch with Marin Ace owner Michelle, who is launching a campaign with many Ace stores to raise awareness of the need to protect honeybees from neonicotinoid pesticides.

Sloat on Miller

On 3/14/14 Anne visited **Sloat on Miller** and worked on a display about healthy gardens, beneficial insects, and eco-friendly gopher management with Will, Scott, Paul, and Dan. See photo

Four employees had questions about treating moss in lawns, worm composting, earwig management, peach leaf curl, leaf miner on Ceanothus, rust on roses, white flies on hibiscus, and scale and how it spreads. Anne guided them to less toxic solutions the store carries.



David Perkins:

Summerwinds Mountain View

On 1/02/14 David met with three staff to discuss some of this year's new less toxic products, including Monterey Liqui-cop a ready to use dormant spray, Monterey BT ready to use for caterpillars, and three new animal repellents from Liquid Fence. He replenished all the shelf talkers for 2014 and also cleaned up the dormant spray display end cap.

On 2/2/14 David met a new staff member and explained the OWOW program and engaged him in a conversation about less toxic products. David and staff began planning for an event on May 4, to include a walk along Steven's Creek, which runs behind the store.

David assisted three customers in selecting less toxic products including boric acid baits and diatomaceous earth for ants, Sluggo for slugs and snails, and Repels All to repel deer. He placed shelf talkers for products that are new this year.

On 3/30/14 David met with staff to review details of the outreach event for May 4th. The program will include education for the customers on insectary plants and a walk along the creek trail and identify native plants that thrive in the local climate. Customers will also review how pollutants get into the creek from home gardeners. David will lead some of the walks; to prepare, staff person Susan took him on a tour of the walk route so he could familiarize himself with the local plants.

David helped two customers and mentored 2 staff members on using beneficial nematodes for flea control. He also walked them through the proper application method.

David took a photo of a poster at Summerwinds on the beneficial insects and the pests they control.



Debi Tidd

OSH San Ramon

On 1/9 /14 Debi placed shelf talkers for new products. She asked when the store reset was going to occur so she could replenish the bulk of the shelf talkers for 2014. She moved the literature rack to a better location.

1/31/14 Debi re-labeled all the products with fresh shelf talkers and restocked the fact sheet rack. She spoke with nursery staff about the program and how the shelf talkers help identify products.

2/7/14 Debi added shelf talkers for newly stocked products.

She labeled an organic fertilizer end cap and took a photo. She worked with customers in the aisle who had questions on ants and on fertilizing plants. Debi was able to guide them to less toxic products and organic fertilizers.

On 2/15/14 Debi held a tabling for the store's President's Day event. Most customers' questions were on fertilizing and proper fruit tree care. She guided customers to organic fertilizers and spoke with several people about managing aphids on citrus. Other questions customers had were: How to identify beneficial insects, less toxic controls for rats, and how to manage ants in the house. In addition she gave out the handout 10 Tips for Waterwise Gardening. She spoke with many customers about their drought year concerns and guided them to environmentally thoughtful solutions. She spoke with 50 customers during the event.

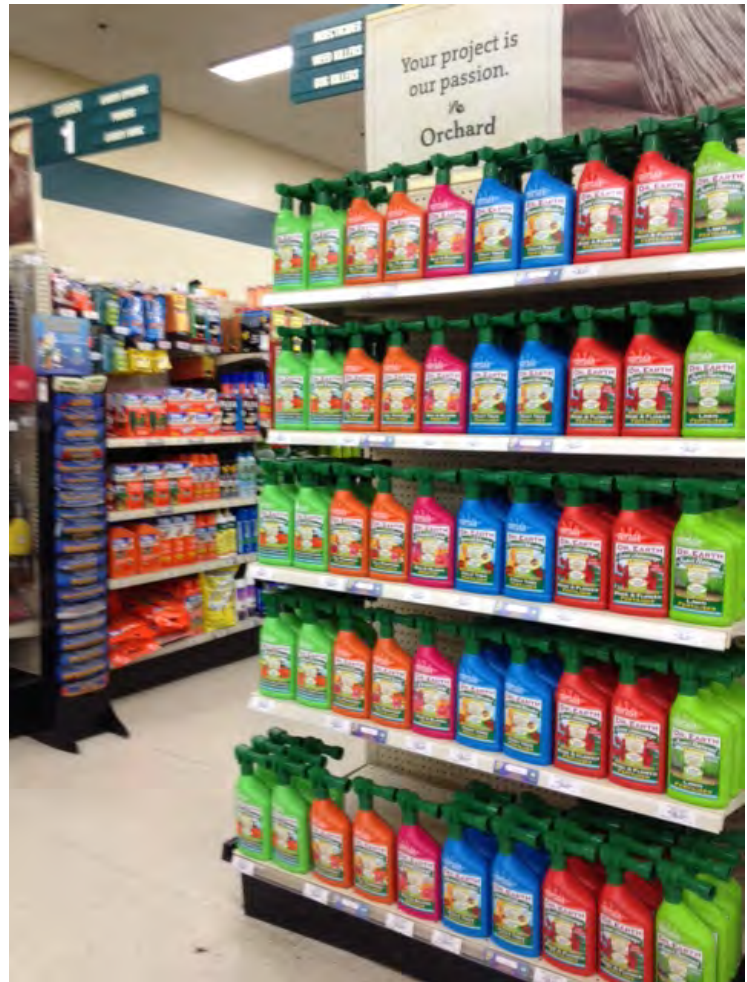


During the tabling Debi was also able to speak with several staff members and the store manager. Store assistant manager Bob spoke with Debi about new organic fertilizer products and how to introduce those to customers. Manager Gina mentioned that the training Annie and Debi presented at OSH Corporate headquarters was a big hit and helped with their support of the OWOW Program.

Debi worked with the nursery manager Barbara on identifying new less toxic products, and spoke with a new staff member about beneficial insects the store sells.

3/13/14 Debi checked shelf talkers and fact sheets and replenished them as needed. She spoke with store manager Gina about setting up a training for store staff. Gina requested

Debi wait until April or May when new staff will be hired. Debi helped five customers while she was in the store. She talked about the benefits of the electronic rat traps, how to identify beneficial insects as the aphids emerge, and the benefits of using organic fertilizers when it comes to managing sucking pests.



Lisa Graves

OSH San Leandro

On 1/21/2014 Lisa refilled the fact sheet rack and put up the new shelf talkers. The store's new manager (Jake) was the store manager before the remodel.

A staff person told Lisa that the former manager (Dennis) sent her and another staff to the UCIPM Retail workshop in Oakland the week prior and they really enjoyed it.



Lisa helped customers with questions about fertilizing fruit trees. She spoke with them about the general care of fruit trees and sent them the UC Davis website for further information.

On 2/28/14, soon after the reset, Lisa replenished fact sheets and shelf talkers. She helped a customer select the appropriate dormant spray and sprayer for his fruit trees.

She put up shelf talkers on an end cap of organic fertilizers.

On 3/28/14 Lisa brought in additional shelf talkers for all the remaining new products for the set. She talked to the department manager and gave her copies of the new UCIPM Retail newsletter. This manager was in having the IPM Kiosk for a month or so at her store. They talked about a possible date. Lisa helped three customers with pest problems about powdery mildew, hornets, rats, and flies. She guided them all to less toxic solutions.

Grand Lake Ace

On 1/25/14 Lisa visited the nursery, spoke with staff, and made note of new items that needed shelf talkers. The store was busy with customers and Lisa was able to help several customers to select less toxic ant baits. She gave them the fact sheets on ants.

2/18/14 Lisa made sure the store was well stocked with fact sheets and that all new labels were up. She made an additional visit on the 19th to make sure new tags were placed. She spoke with staff about the *Ten Tips for Waterwise Gardening*. He will be happy to share this information with customers and with the many nurseries who would be represented at a regional meeting on water conservation, at East Bay Mudd that week.

3/22/14 Lisa met with the nursery manager Tom and gave him a copy of the new UCIPM Retail newsletter. They discussed a May training date. Lisa helped a customer with a question on fertilizing her vegetables and gave her the link to the UCIPM website for further information along with guiding her to using compost and organic fertilizers.

Steven Griffin

OSH Livermore

On 1/16/14 Steve labeled end caps and took photos. The store manager has moved on but the expected new manager, Dennis, is from another OSH Greener Pesticides store. Steve called him and discussed a training date for March. He worked on two end-caps with three staff. He put up shelf talkers and refilled the literature rack.

On 3/24/2014 Steve met with the new manager and saw the progress of the store remodel. They still have our fact sheet rack up during the remodel and most of the shelf talkers were in place. Dennis and Steve agreed on a training date for May and also an outreach event for the store's grand reopening the last Saturday in May.



Ace Hardware Concord

On 1/16/2014 Steve engaged three staff and worked on an end cap to include dormant spray materials. Steve and the manager Tommy spoke about an outreach tabling in spring after the rainy season.

On 3/11/14 Steve met with the store manager to give him the UCIPM Newsletter. He replaced all of the shelf talkers in the garden section, and refreshed the end cap display. He set up a tabling date for April 19th.



Suzanne Bontempo

Sloat Gardens

On 1/08/14 Suzanne visited Sloat #1. She brought several packages of the Rose fact sheets for their rose care display and their pending rose clinics. She also visited the store on 1/18/14 to add shelf talkers on the new products they are adding for 2014. She spoke with ten customers about using kelp as a fertilizer, how to attract beneficial insects, using mulch for water retention, how to use neem oil for insect control on perennials, how often to use organic fertilizers, organic lawn care in winter, less toxic options for slugs and snails, and less toxic control strategies for gophers.

On 2/4/14 Suzanne visited the store to check on the shelf talkers and fact sheets. She spoke with five customers on rose care the organic way, how to use neem oil, *Ten Tips for Water Wise Gardening*, planting with native plants, and sustainable lawn care. She met with the manager and scheduled a training for March 18th during business hours.

On 3/18 Suzanne trained nine new employees. They were all very enthusiastic about the training and now feel better informed to help their customers.



Suzanne has scheduled two customer outreach events, on 4/27 and 5/11.

Home Depot San Carlos 1/24/14

When she visited on 1/24/14 the store was not ready for shelf talker reset, so Suzanne restocked the fact sheets and spoke to several staff members about the OWOW program and how the components of the fact sheets and shelf talkers work.

On 2/27/14 Suzanne replenished fact sheets and shelf talkers. She scheduled a training for 3/28/14. She also helped a customer with questions on fertilizing her citrus. Suzanne guided her to an organic citrus fertilizer.

On 3/17 Suzanne completed the major reset of shelf talkers. She met with the new department head and scheduled staff training for April 2.

She also discussed making a less toxic product end cap. Suzanne will work with the reps from Kellogg's and Bayer to coordinate the display.

OSH Foster City:

On 1/13/14 Suzanne visited the store, spoke with staff, and reset all the shelf talkers. She also redid shelf talkers on the dormant spray end cap. She spoke with staff about the *Ten Tips for Waterwise Gardening* handout, mulching, good soil health and proper water techniques that conserve water. She discussed some future dates for training and customer outreach.

On 2/4 Suzanne spoke with staff about what products would be good for a new end cap display. She helped four customers who had questions about fertilizers, dormant spraying, rose care and pruning.

She guided them to less toxic solutions.

On 2/10 Suzanne returned to build the rose and flower product display.

3/5/14 Suzanne met with staff to see how the end cap was going. She was told it is getting

a good response from customers and needs restocking frequently. With the manager, she scheduled a tabling event for 3/22/14.

3/10/14 Suzanne stopped by to bring fact sheets and a flier for the upcoming tabling on 3/22/14. She met with Rafael, the store manager.



3/22/14 Suzanne conducted a tabling event. She spoke to 34 customers and answered questions about beneficial insects, termites, fertilizing with organic vs inorganic, container gardening, citrus, tomatoes, scale outbreaks, hydrangea diseases, houseplant insect problems, and shade plants that can attract beneficials.



Staff training is set for 4/13/14, and a tabling event will be held on 5/18/14.

Teresa Lavell

Home Depot Vallejo

On 1/6/14, the reset had not been done, but Teresa added shelf talkers that were missing or needed replenishing. She also refreshed the fact sheets. She spoke with staff about setting up a less toxic display this spring and got an enthusiastic response.

On 2/11/14 with the reset complete, Teresa reset all the shelf talkers, refreshed the fact sheets, and helped several customers with rat and mouse problems. She guided them away from baits and encouraged trapping instead.

On 3/14/14 Teresa continued to work to coordinate an end cap with the Kellogg's and Bayer reps. She has made several attempts but no secure date has been set. She has a banner for when the end cap is done. She is also trying to schedule staff training; John said to check back in a few weeks when the store has hired more spring help. She helped two customers with ant

problems indoors and recommended cleaning up the trail with soapy water and then using bait stations close to the entrance.

Central Valley Builders Supply:

On 1/13 Teresa was happy to meet with staff and congratulate them on their decision to stop selling products with active ingredients metaldehyde, imidacloprid, and carbaryl. This has been long awaited and is a significant accomplishment. In anticipation of pushback from customers on the absence of Bayer for Roses, the store has scheduled an outreach event around organic rose care April 5th. With Teresa's guidance, they have decided to focus on healthy soils, protecting beneficial insects, and proper growing environment for the plant. They have scheduled a second outreach on May 31st with a focus on protecting beneficial insects.

A training date has been set for March 27th when more spring employees will be hired.

On 2/26/14 Teresa, Annie, and the store manager came up with wording for a flier on less toxic rose care in anticipation of demand for more toxic rose care products at the St. Helena store.

Teresa provided staff with a copy of the Red Blotch on Grapes, Brown Marmorated Stink Bug, and Bagrada Bug handouts, plus Debi's *Ten Tips for Water Wise Gardening*. She refreshed shelf talkers and replaced fact sheets.

On 3/10/14 the store manager told Teresa that staff training should be delayed until mid-April as they do not yet have their full staff for spring. They discussed the outreach on April 5th around rose care and would be confirming that later in the month. Teresa updated shelf talkers and fact sheets.



Pest Management Alliance Grant Final Report

March 30, 2014



This report summarizes the 2012-2014 Got Ants? project, funded by the Pest Management Alliance Grant program of the California Department of Pesticide Regulation.

Association of Bay Area Governments for the
San Francisco Estuary Partnership
1515 Clay Street, Oakland CA 94612

Prepared by Athena Honore,
ahonore@waterboards.ca.gov/510-622-2325

To reach out to an environmentalist/activist audience, we posted Got Ants? material on the Care2.com website. An “action” website, Care2.com offers a place for activists to click links to support petitions and other activities. We set up a pledge link on the Care2.com website as well as links to the Got Ants? website. Unfortunately, this did not produce any significant traffic, and we aren’t sure quite why.

Task 3.5. Create a plan for future use of campaign material after grant period is complete.

We are pleased to note that BASMAA has agreed to take over web hosting for the www.gotantsgetserious.org website after the grant period has ended. This will keep the website live and available for use.

Additionally, SFEP secured another grant for pesticide outreach from the U.S. Environmental Protection Agency’s San Francisco Bay Water Quality Improvement Fund. That grant will cover a broad range of outreach to encourage less toxic pesticide practices in the San Francisco Bay Area, including use of the Got Ants? ads. It is anticipated that the EPA funds will cover another round of advertising. This will offset the shortened active campaign period covered under this grant, and extend it over a much longer period than originally anticipated. Also, lessons learned about effectiveness and cost-effectiveness from this grant will inform the future Got Ants? outreach efforts.

Objective 4. Evaluate campaign’s effectiveness.

This section discusses effectiveness and cost effectiveness of the campaign activities.



Task 4.1. Develop an evaluation plan with partners in the early stages of the campaign.

SGA worked with the PI to develop an evaluation plan, which was submitted to satisfy this deliverable. It became clear fairly early on that several elements of the plan would not be feasible to collect, as described in Semi-Annual Report #3. The evaluation plan was revised with input and approval of the DPR grant manager. The plan includes several metrics related to reach of the campaign, which are addressed in Task 4.2. Additional reporting against the evaluation plan metrics is in an Evaluation Report attached at the end of this report.

Task 4.2. Track reach of campaign and campaign materials on a quarterly basis, including number of people who have received or viewed materials from the program; number of partners participating; number of commitments from households to change pesticide use behavior.

Reach of the campaign, across the various outreach avenues, is tracked by month in the series of tables below. The first shows Advertising and Website traffic. The second shows Partner Promotions and Earned Media. The third shows Social Media and overall totals. Further information about each type of advertising is included in a section below.

Table 6 shows the reach of print ads, transit ads, and online ads, and traffic to the website during the campaign period. Table 7 shows partner promotions and earned media during the campaign period.

Table 6. Advertising and website results for the project

	Advertising				Website
	Print ad viewers, Transit	Print ad viewers, Sunset magazine	Facebook advertising (online)	Google advertising (online)	Web hits (unique visitors)
May-13				11,842	414
Jun-13	5,139,780		1,361,710	34,095	1233
Jul-13	3,276,300	1,250,000	1,472,861	82,672	1837
Aug-13	2,338,455			40,736	1009
Sep-13	1,928,918	350,000			699
Oct-13					357
Nov-13					506
Dec-13					244
Jan-14					172
Feb-14					214
Mar-14					163
Totals	12,683,453	1,600,000	2,834,571	169,345	6,848
Subtotals by type				17,287,369	6,848

Table 7. Partner promotions and earned media results for the project

	Partner Promotions			Earned Media
	Flyers/magnets distributed & events	Email blast recipients (<i>info is very partial</i>)	Mailed newsletters, etc.	Earned media stories viewers/listeners
May-13	2 events			
Jun-13	5 events			
Jul-13	3 events		35,000	
Aug-13	5 events			
Sep-13	8 events			
Oct-13	7 events	1,350		
Nov-13	3 events	35,020		1,103,606
Dec-13			28,000	KKDV & KKIQ radio interviews
Jan-14	1 event		35,000	
Feb-14				
Mar-14			12,000	
monthly totals not available	25,005			
Totals	25,005	36,370	112,000	1,103,606
Subtotals by type			173,375	1,103,606

We didn't capture all email blasts or total recipients, but what we captured is in Table 7. The October 2013 total shown is from the San Francisco Bay Joint Venture, and November 2013 activity is from the Urban Pesticide Committee, Berkeley Parents Network, and DPR's School IPM listserv. Similarly, mailed pieces were not always known, but two print newsletters with different stories on the Got Ants? project were mailed by the Vallejo Sanitation and Flood Control District to 35,000 households in July 2013 and January 2014; 28,000 wall calendars with Got Ants? information on the September page were distributed by the Marin County Stormwater Pollution Prevention Program to Marin County households in December 2013; and City of Menlo Park sent a newsletter to 12,000 households in March 2014.

The media hits came from a wave of news stories about the Got Ants? project that were run by local Patch blogs in 52 Bay Area communities. The online viewership of those stories was provided by a Patch.com sales executive, shown in Table 8. Listenership numbers for the stations playing radio interviews were requested but not provided.

Table 8. Viewership for Patch.com websites that carried stories about Got Ants?

Patch.com community	Unique Visitors		
Alameda	35,862	Mill Valley	26,918
Albany	27,464	Millbrae	6,102
Belmont	14,007	Milpitas	17,533
Benicia	19,881	Mountain View	21,465
Berkeley	31,425	Napa	32,579
Burlingame-Hillsboro	9,179	Newark	21,168
Campbell	16,751	Palo Alto	46,583
Capitola-Soquel	11,909	Petaluma	25,405
Castro Valley	23,673	Piedmont	14,455
Concord	25,399	Pleasanton	49,369
Cupertino	16,484	Pleasant Hill	13,383
Danville	22,806	Redwood City	26,586
Dublin	22,105	Rohnert Park	17,549
El Cerrito	17,828	San Bruno	12,459
Foster City	13,926	San Carlos	12,140
Gilroy	28,195	San Leandro	28,057
Half Moon Bay	34,347	San Mateo	20,626
Healdsburg	14,889	San Rafael	27,445
Hercules-Pinole	13,250	San Ramon	29,925
Lamorinda	15,517	Santa Cruz	31,842
Larkspur	8,558	Saratoga	6,070
Livermore	49,655	Scotts Valley	9,192
Los Altos	14,593	Sonoma	12,311
Los Gatos	28,712	South San Francisco	18,778
Martinez	10,639	Union City	18,458
Menlo Park	30,154	Total	1,103,606

*Data for the City of Clayton Patch site was missing.

Table 9 shows social media results for the project during the campaign period. Social media analytics covered Facebook and Pinterest. The Facebook analytics came from admin tools provided with the Facebook page. The first column shows people who “liked” the page, by month. The second column shows the greater reach of people, outside of those fans, who saw various posts that month through organic shares, fans of fans, etc. The third column shows “likes” totals for pages where the Got Ants? project posted information, using the feature “posts by others.” This allowed us to comment directly on other pages for local news organizations, parents’ groups, and community organizations, exposing their fans to Got Ants? information. Pinterest traffic was counted manually since we had a very small footprint on that website. Unfortunately, we were not able to capture Twitter information.

Table 9. Social media results for Got Ants?

	Social Media				TOTAL
	Facebook page "likes"	Facebook page posts, likes, shares (outside of those who liked the page)	Total likes on other pages where Got Ants? posted information	Pinterest	
May-13		0			
Jun-13		0			
Jul-13	37	0			
Aug-13	5	52			
Sep-13	13	1,469			
Oct-13	14	590	39,217		
Nov-13	8	315			
Dec-13	2	285			
Jan-14	0	458			
Feb-14	3	166			
Mar-14	2				
monthly totals not available				245	
Totals	84	3,335	39,217	245	18,574,617
Subtotals by type				42,881	

Totals

We tracked the number of impressions and interactions with the Got Ants? campaign. “Impressions” are the number of times that an ad is displayed on a screen or the number of views a billboard is expected to receive. Impressions are a passive type of dissemination. “Interactions” entail a viewer taking a more active role in engaging with the campaign materials through actions such as clicking a link, visiting a website, writing a comment, or asking a question. The outreach we could track totaled 18,572,617 impressions and interactions combined. This surpasses our target of approximately four million impressions when the target campaign calendar was first developed. Most (over 17,000,000) are from advertising, with earned media a distant second but still significant at more than 1 million views, partner promotions adding up to about 173,000 impressions, and social media contributing about 42,000

impressions. The social media numbers are somewhat incomplete, as we didn't track Twitter activity (not a planned part of the project, plus we couldn't easily find a way to capture historical analytics of tweets from multiple accounts). More than six thousand people went directly to the website.

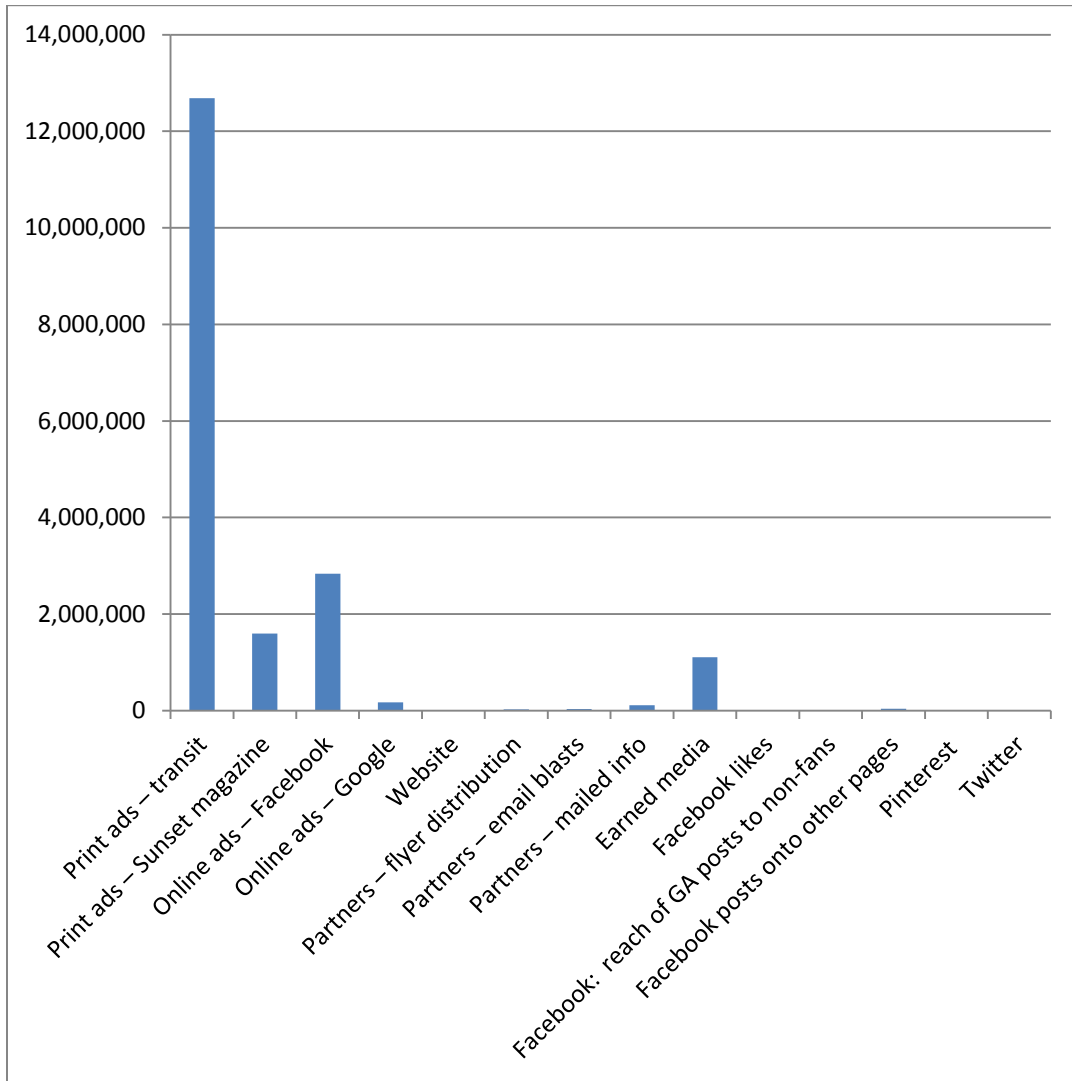


Chart 1. Comparison of results for various types of outreach.

Advertising

The mix of advertising was based on recommendations from SGA. Advertising included online ads on Facebook and Google, and print ads in Sunset Magazine, and transit ads on BART, AC Transit, and Muni. Online Google advertising ran from May-August, including ads on Google search pages, YouTube, and side banners. Facebook advertising ran in June and July. Both Google and Facebook ads were geotargeted to San Francisco Bay Area zip codes. A 2-inch ad ran in Sunset Magazine's July issue for the Western region (covering California and a few other Western states, circulation 1.25 million), and a half-page ad ran in the September issue of Sunset's Bay Insider edition (San Francisco metropolitan area, circulation 350,000). The transit ads were the most complex package, with flights of advertising running

on various interior cards and exterior bus tails from June through September, stepping up over the several month run. We chose a mix of online ads, which are generally cheaper, plus some real-world print advertising to supplement the online ads with a sense of “place,” as online advertising can be more easily ignored if it feels generic to the viewer.

The amount spent on each type of advertising was \$998 on Facebook ads, \$2,800 on Google ads, \$9,000 on Sunset Magazine ads, and \$12,965 on transit ads. The higher the amount spent on advertising, generally the higher the total of impressions (views) or more clicks. The following table summarizes the impressions, clicks to the website, cost, cost per impression, cost per click, and click-through rate for each type of advertising. Some table columns were not directly applicable for the print advertising modes; the nearest cognate method is explained below.



Table 10. Advertising types and results for Got Ants?

Ad type	Impressions	Clicks	Cost	Cost per impression	Cost per click	CTR (Clickthrough rate or clicks per impression)
Google ads	169,345	682	\$2,800	\$0.0165	\$4.11	0.004
Facebook ads	2,834,571	605	\$998	\$0.0004	\$1.65	0.0002
Sunset Magazine ads	1,600,000	225*	\$9,000	\$0.0056	n/a	0.0001**
Transit ads (BART, AC Transit, Muni)	12,683,453	n/a	\$12,965	\$0.0010	n/a	n/a
Totals	17,287,369	1,512	\$25,345			

*Follow-up requests generated via email, not clicks. This was the closest equivalent to clicks for print advertising.

**Rate of follow-up requests for the overall number of copies of the magazine, the closest equivalent to CTR.

The ads varied in cost per impression; the cost per impression of Facebook ads was lower than any other advertising avenue at 0.04 cents each, compared to 0.1 cents per transit ad view, 0.56 cents per magazine ad view, and 1.65 cents per Google ad view. It was easier to compare the two online mechanisms in terms of effectiveness at generating clicks to the website. Based on that information, Google ads were far more effective, with 0.004 clicks per impression compared to 0.0001 clicks per impression for Facebook. Whether Google ads provide the best “bang for the buck” is questionable; they were about 18 times more effective at generating web traffic but 46 times more expensive than Facebook ads. Facebook may have been the more cost-effective online option. It wasn’t possible to compare the online and print methods directly.

The Sunset ads generated 116 requests for email follow-up from the July edition and 109 such requests from the September edition. At 0.56 cents per impression, these were also relatively low-cost. The

clickthrough rate to the website cannot be directly calculated, but follow-up emails requesting further information were generated at a rate similar to that of the Facebook ads. This type of print (magazine) advertising appears to have been fairly cost-effective as well.

Transit ads began on June 17 and continued through September 14 on AC Transit, BART, and Muni. (AC Transit is a bus service covering Alameda and Contra Costa Counties in the East Bay section of the San Francisco Bay Area, BART is the Bay Area Rapid Transit light-rail system, and Muni is the San Francisco Municipal Transit Agency’s bus and light rail system within the City of San Francisco.) The details of the package are listed below. Bus tails are ads in a large placard at the rear exterior of the bus, seen by people behind the bus. Interior cards are placards on the interior walls of buses or BART or Muni cars, seen by transit riders. The stepwise increase in coverage is designed to maximize the length of time the ads can run for a given budget rather than rolling out everything at once for a shorter period. The rollout progressed as shown in Table 11.

Table 11. Transit advertising details

Date Range	Carrier	Advertising Package Details	Paid or Bonus	Impressions
Flight 1 June 17-July 15, 2013	AC	14 Bus Tails	Paid	1,519,380
	Transit	1 Bus Tail, 100 Bus Interior Cards	Bonus	3,620,400
Flight 2 July 1-28, 2013	BART	50 Car Interior Cards	Paid	1,638,150
		50 Car Interior Cards	Bonus	1,638,150
Flight 3 August 1-28, 2013	SF MUNI	14 Bus Tails	Paid	1,519,380
		1 Bus Tail, 25 LRV Cards	Bonus	819,075
Flight 4 September 1-14, 2013	SF MUNI	15 Bus Tails	Bonus	759,690
		25 Interior Cards	Bonus	409,538

The advertising carrier provided the detailed impressions information shown in the table. SGA negotiated this package and was able to secure the bonus coverage shown, over and beyond the advertising budget. This was a good way to extend the advertising reach for our budget. Unfortunately, it wasn’t possible to track any direct correlation between the transit advertising and traffic to the website.

A lesson learned is that if we had set up the advertising rollout with only one type of advertising happening at any given time, we could have separated out the various influences each type of advertising and promotion had on web traffic. That would have helped to plan future campaign work.

Was the advertising mix “the right one?” Or “the perfect one?” We suspect that there are any number of ways to have structured this, and we are pleased with this mix in terms of the results and what we learned.

Partner promotions

Partner promotions included posting Got Ants? information on their websites, publishing blurbs about the Got Ants? campaign in e-newsletters, and mailing out information about the project in utility bills and other print pieces. A few promotions clearly increased web traffic: Facebook shares of a rainy season ants post by several agencies in October, 2013; an announcement in the November 5, 2013

Berkeley Parents Network e-newsletter to 32,604 people; and several elected officials' e-newsletters in December 2013.

Social media

The PI maintained a Facebook page for the Got Ants? project. New items were posted on the page one to two times per week from approximately October 2013 through March 2014. Following best practices for Facebook brand pages, the items strove for a light tone, and used a mix of content including graphics from the project and website, photos showing the Got Ants? Get S.E.R.I.O.U.S "steps," photos provided by IPM Advocates of less toxic products and store promotions, links to funny ant-related stories, and graphics such as meme generators using Got Ants? Get S.E.R.I.O.U.S messages. The page got some traction, garnering 84 "likes" and several shares on key posts by partner agencies.

However, during the time of highest effort spent on the Facebook page, a policy shift by the company lowered our chances of reaching a wider audience. On December 1, Facebook changed its News Feed algorithm, reducing the dissemination of stories on brand pages to their fans. An article by Ignite Social Media estimated that reach of stories across all brand pages declined an average of 35%, and as much as 76% in some cases, meaning that a story that reached all your fans before December 1, 2013, would only reach 65% of them, or even 24% of them, after the algorithm change. (See <http://www.ignitesocialmedia.com/facebook-marketing/facebook-brand-pages-suffer-44-decline-reach-since-december-1>.) This hurt our numbers, unfortunately. As a result of this change, using Facebook as a no-cost way to reach people appears to be much less feasible, and we didn't see the Facebook page take off as the interactive platform that it was meant to be.

Social media approaches (outside of advertising) couldn't be limited to a targeted geographic area. Once messages are posted to Facebook, Twitter, Pinterest, or other platforms, they are shared organically with the friends or followers network of those who forward the messages. Those audiences can be in other states or other countries. We saw partners spreading our work outside our intended target area as well, through the networks of Regional IPM Centers and EPA Regional Offices.

Comparing outreach to web traffic

Various types of advertising and corresponding web traffic are shown in Chart 2. (Not every partner promotion is labeled on the chart, just those that we know generated visible spikes.) Web activity was higher when more advertising was being conducted. The upward trend in web activity continues throughout the May-August advertising period, then falls off fairly quickly after advertising stopped. Once advertising funds were expended, no-cost methods such as partner promotions and Facebook posts were used. Those methods generated lower activity compared to advertising. Looking at a finer level of detail brings into question how far we can push our use of this data. For example, there is an uptick in activity from late August through mid-September. Did that mean that the advertising happening at that time (Muni ads) were more effective than the ads in July and September? It's not clear whether we can parse the results that finely.

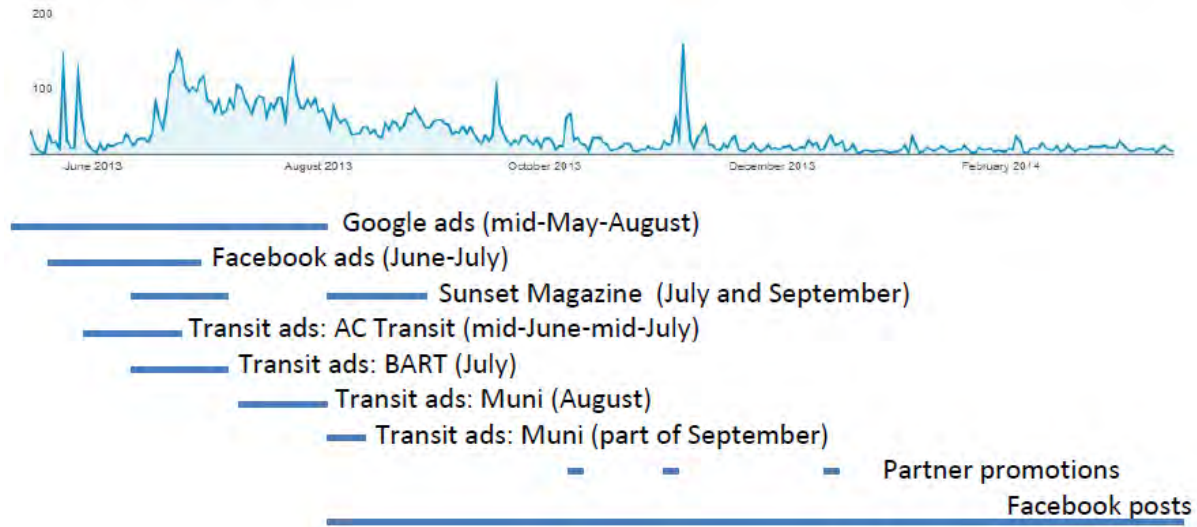


Chart 2: Got Ants? website traffic during campaign period, mapped against active outreach types

The project’s advertising results came from the relatively modest advertising budget of \$34,000 for hard costs and some consultant staff time. We would have liked to have more advertising dollars available and a longer time period in which to do the outreach. On the non-advertising side, we would have liked to see even more active participation from partners. More staff time for the PI to coordinate could have led to further engagement from partners. The peaks of partner promotions generally came after significant effort from the PI. We did not reach a point where requests to share Facebook posts or post blurbs were self-sustaining; partners had to be asked to repeat actions rather than taking it upon themselves to keep doing a certain outreach action.

We also would have liked to do more with the in-person aspects of the project, as in-person interactions are considered the most effective ways to change behavior in CBSM. (They are necessarily limited in scale, since it takes so much time and effort compared to mass outreach, which is less effective but has a broader reach.) We intended to develop a “grassroots activity” for partners to use to engage members of the public at tabling events, but that aspect of SGA’s scope of work was dropped in favor of completing the materials. Further pursuing development of an engaging activity related to the Got Ants project would be helpful and could be shared with partners to extend the future life of the campaign.

Conclusion

We believe that this campaign addresses the problem of reducing pesticide toxicity in streams generated by using pesticides to control ants. While some of our materials focus on indoor activities, much of the outreach was structured to get people to the www.gotantsgetserious.org website, where they could find material related to hiring professionals or for DIYers. The project provides less toxic alternatives to managing ants both indoors and outdoors, and with further outreach we believe that it can change residential behaviors around ant management.

In terms of disseminating materials and reaching everyone in California who has an ant problem, or reaching everyone who would need to change behavior in order to sustain water quality improvements, this project has just scratched the surface. Fortunately, activity using the materials created by this project will continue, at least in the 9-county San Francisco Bay Area, under a next installment of grant funding from the U.S. EPA's San Francisco Bay Water Quality Improvement Fund. We'd like to continue outreach, incorporating the lessons learned from this project on reach and cost-effectiveness of various methods of outreach. Of particular interest would be to pursue new areas such as working more closely with community organizations and other types of partners, to do more media work such as targeting bloggers to cover ant issues, and to conduct further advertising including sponsored Facebook posts or ads. Several areas for potential future focus with pest management professionals were recommended by Management Team partners as well. We may seek additional funding for future outreach using this material over the next several years.



Effectiveness of outreach at “solving the problem” of pesticide impacts on water quality, particularly related to ant control, remains unknown. It’s a difficult problem to track the effectiveness of any activity. For this project, stringently tracking real water quality improvements or shifts in pesticide use practices would have taken more time than was available under a two-year project (as pesticide sales or stream toxicity data take more than a year to become available). Tracking pesticide practice shifts would also take significant funding dedicated to evaluation to provide meaningful data. For a project this size (\$200,000), so much of the budget would have needed to go to evaluation that we would have been able to achieve significantly less in terms of materials development or outreach. Future work under the EPA grant may address effectiveness more directly than this project was able to.

We would like to express our deep appreciation to the Pest Management Advisory Committee for funding this project. We'd also like to acknowledge all the efforts of the Management Team partners in developing the material, and our many, many partners in disseminating outreach. This campaign could not have happened without them. Our partners were very happy with the materials developed by this project. There was general agreement that the materials sidestepped technical complexity and opened the issue to a new audience in a new way, meeting our goals. We look forward to building from these materials and greatly extending the reach of the campaign work done to date under the Got Ants? project.



B A S M A A

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

September 12, 2014

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

Subject: FY 2013-14 Annual Report: MRP Provision C.9.e - Track and Participate
in Relevant Regulatory Processes

Dear Mr. Wolfe:

This letter and attachments are submitted on behalf of all 76 municipalities subject to the requirements of the Municipal Regional Stormwater NPDES Permit (MRP).

The essential requirements of provision C.9.e (text attached) are to track U.S. Environmental Protection Agency (USEPA) and California Department of Pesticide Regulation (DPR) actions related to urban-uses of pesticides and actively participate in the shaping of regulatory efforts currently underway. This provision allows for cooperation among Permittees through the California Stormwater Quality Association (CASQA), BASMAA, and/or the Urban Pesticide Pollution Prevention Project (UP3 Project) – an approach the Permittees have engaged in for a number of years. Recognizing this approach is the most likely to result in meaningful changes in the regulatory environment, Permittees elected to continue on this course in FY 2013-14 to achieve compliance with this provision. Oversight of this provision is the purview of the BASMAA Board of Directors.

The actual work of tracking and participating in the ongoing regulatory efforts related to pesticides was accomplished through CASQA. CASQA conducted its activities on behalf of members and coordinated funding contributions and activities through its Pesticides Subcommittee, a group of stormwater quality agencies affected by pesticides or pesticides-related toxicity listings, TMDLs, or permit requirements, as well as others knowledgeable about pesticide-related stormwater issues. FY 2013-14 was another productive year for the Subcommittee. The CASQA Pesticides Subcommittee's annual report for FY 2013-14 (attached) provides a comprehensive and detailed accounting of efforts to track and participate in relevant regulatory processes as well as accomplishments related to pesticides and stormwater quality.

We certify under penalty of law that this document was prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our 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 our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Bay Area

Stormwater Management

Agencies Association

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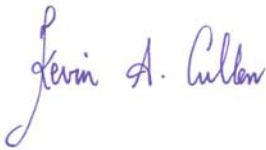
FY 2013-14 Annual Report: MRP Provision C.9.e - Track and Participate in Relevant Regulatory Processes



James Scanlin, Alameda Countywide Clean Water Program



Tom Dalziel, Contra Costa Clean Water Program



Kevin Cullen, Fairfield-Suisun Urban Runoff Management Program



Matt Fabry, San Mateo Countywide Water Pollution Prevention Program



Adam Olivieri, Santa Clara Valley Urban Runoff Pollution Prevention Program



Lance Barnett, Vallejo Sanitation and Flood Control District

Attachments

MRP Provision C.9.e

Preventing Urban Pesticide Pollution in Stormwater; Pesticides Subcommittee Annual Report 2013-2014; California Stormwater Quality Association; August 2014

MRP Provision C.9.e states:

C.9.e Track and Participate in Relevant Regulatory Processes (may be done jointly with other Permittees, such as through CASQA or BASMAA and/or the Urban Pesticide Pollution Prevention Project)

i. Task Description

- (1) The Permittees shall track USEPA pesticide evaluation and registration activities as they relate to surface water quality, and when necessary, encourage USEPA to coordinate implementation of the Federal Insecticide, Fungicide, and Rodenticide Act and the CWA and to accommodate water quality concerns within its pesticide registration process;
 - (2) The Permittees shall track California Department of Pesticide Regulation (DPR) pesticide evaluation activities as they relate to surface water quality, and when necessary, encourage DPR to coordinate implementation of the California Food and Agriculture Code with the California Water Code and to accommodate water quality concerns within its pesticide evaluation process;
 - (3) The Permittees shall assemble and submit information (such as monitoring data) as needed to assist DPR and County Agricultural Commissioners in ensuring that pesticide applications comply with water quality standards; and
 - (4) As appropriate, the Permittees shall submit comment letters on USEPA and DPR re-registration, re-evaluation, and other actions relating to pesticides of concern for water quality.
- ii. Reporting** – In their Annual Reports, the Permittees who participate in a regional effort to comply with C.9.e. may reference a regional report that summarizes regional participation efforts, information submitted, and how regulatory actions were affected. All other Permittees shall list their specific participation efforts, information submitted, and how regulatory actions were affected.



Preventing Urban Pesticide Pollution in Stormwater

Pesticides Subcommittee
Annual Report
2013 – 2014



Preface

The California Stormwater Quality Association (CASQA) is comprised of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout California. CASQA's membership provides stormwater quality management services to more than 23 million people in California. This report was funded by CASQA to provide CASQA's members with focused information on its efforts to prevent pesticide pollution in urban waterways.

This report was prepared by Stephanie Hughes, assisted by Jamie Hartshorn, under the direction of the CASQA Pesticides Subcommittee Co-Chairs Dave Tamayo and Delyn Ellison-Lloyd. The Co-Chairs, along with Kelly Moran of TDC Environmental, provided essential documents, guidance, and careful review.

Disclaimer

Neither CASQA, its Board of Directors, the Pesticides Subcommittee, any contributors, nor the authors make any warranty, expressed or implied, nor assume any legal liability or responsibility for any third party's use of this report or the consequences of use of any information, product, or process described in this report. Mention of trade names or commercial products, organizations, or suppliers does not constitute an actual or implied endorsement or recommendation for or against use, or warranty of products.

Cover Photo: The Russian River through the town of Guerneville. Photo taken by Stephanie Hughes.

Photo in Figure 1 and 4 of spraying pesticide along a garage was taken by Les Greenberg, UC Riverside.

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Abbreviations Used in this Report

BACWA – Bay Area Clean Water Agencies

BMPs – Best Management Practices

CASQA – California Stormwater Quality Association

CVRWQCB – Central Valley Regional Water Quality Control Board

CWA – Clean Water Act

DPR – California Department of Pesticide Regulation

EPA – United States Environmental Protection Agency

FY – Fiscal Year (July 1 through June 30)

MS4 – Municipal Separate Storm Sewer System

OPP – U.S. EPA Office of Pesticide Programs

OW – U.S. EPA Office of Water

PPDC – Pesticide Program Dialogue Committee

PSC – CASQA Pesticides Subcommittee

RA – Risk assessment

SETAC – Society of Environmental Toxicology and Chemistry

SFBRWQCB – San Francisco Bay Regional Water Quality Control Board

TMDL – Total Maximum Daily Load (regulatory plan for solving a water pollution problem)

UP3 Partnership – Urban Pesticides Pollution Prevention Partnership

Water Boards – California State Water Resources Control Board together with the California Regional Water Quality Control Boards

**Preventing Urban Pesticide Pollution in Stormwater
Annual Report FY 2013-2014**

*California Stormwater Quality Association
Pesticides Subcommittee*

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Executive Summary

To address the problems caused by pesticides in urban waterways in California, CASQA has collaborated with the Water Boards in a coordinated statewide effort, which we refer to as the Urban Pesticides Pollution Prevention (UP3) Partnership. By working with the Water Boards and other water quality organizations, we address the impacts of pesticides efficiently and proactively through the statutory authority of DPR and EPA's Office of Pesticide Programs (OPP). More than a decade of collaboration with UP3 partners, as well as EPA and DPR staff, has resulted in significant changes in pesticide regulation in the last four years. CASQA's 2013-14 activities and results are described in Section 2, including the following highlights:

- 💧 CASQA reviewed scientific literature in order to update and prioritize the Pesticide Watch List. CASQA's priority pesticides are **pyrethroids** (20 chemicals) and **fipronil**, followed by twelve other pesticide families, including **indoxacarb** and **cyantraniliprole**.
- 💧 CASQA prepared comment letters for 9 registration reviews letters and participated in numerous meetings and conference calls, focused on priority pesticides and long-term regulatory structure.
- 💧 CASQA provided presentations to DPR and professional associations; served on EPA, DPR, and Water Board policy and science advisory committees; and prepared and delivered public testimony.
- 💧 *As a result of requests by CASQA* and other agencies for better **urban runoff modeling**, DPR has devoted significant resources toward urban runoff model development and provided research funding to U.C. Davis and UC Riverside. **(See Section 2.4 for details.)**
- 💧 *In direct response to a joint CASQA and Water Board request based on CASQA's fipronil monitoring data*, DPR initiated an effort to address **fipronil** water pollution in California urban areas.
- 💧 *In direct response to CASQA and Water Board comments*, EPA modified its work plan for review of the **indoxacarb** to include urban uses.
- 💧 *As a result of requests by CASQA* and other agencies, DPR initiated development of procedure improvements to address three key scientific gaps in DPR's scientific reviews of new pesticide registration applications.
- 💧 *As a result of requests by CASQA* and other agencies, DPR and the Water Boards' expanded their partnership to monitor sediment toxicity and high priority urban pesticides (currently **pyrethroids and fipronil**) in representative California urban watersheds.

In 2014-15, CASQA will undertake numerous activities to continue to address near-term pesticide concerns and seek long-term regulatory change. Future near-term and long-term tasks are identified in Section 3.

Section 1: Introduction

This report by the Pesticides Subcommittee (PSC) of the California Stormwater Quality Association (CASQA) describes CASQA's activities related to the goal of preventing pesticide pollution in urban waterways from July 2013 through June 2014. The PSC works in collaboration with the California State and Regional Water Boards (Water Boards) and other stakeholders *to bring about change in how pesticides are regulated* by the United States Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (DPR), with the goal of ensuring that currently registered pesticides do not impair urban receiving waters. This collaborative effort is referred to as the UP3 Partnership.¹

Importance of CASQA's Efforts to Improve Pesticide Regulation

For decades now, the uses of certain pesticides in urban areas – even when applied in compliance with pesticide regulations – have adversely impacted urban water bodies. Under the Clean Water Act, when water bodies are impacted by pesticides, local agencies may be held responsible for costly monitoring and mitigation efforts. To date, some California municipalities² have incurred substantial costs to comply with Total Maximum Daily Loads (TMDLs) and additional permit requirements. In the future, more municipalities throughout the state could be subject to similar requirements, yet local agencies have no authority to restrict or regulate when or how pesticides are used³ in order to proactively prevent pesticide pollution and avoid these costs.

Instead, pesticides are regulated by the EPA and DPR, which in some cases have not adequately protected urban water bodies from unreasonable adverse effects. Indeed, in 2013, CASQA compiled water and sediment sampling data that bears this out: pollution from some of the newer pesticides – pyrethroids and fipronil – is now present throughout urban water bodies in California at concentrations above the EPA chronic Aquatic Life Benchmarks for aquatic invertebrates in water.⁴

¹ The UP3 Partnership collaborations are generally through information sharing, coordination of communications with pesticide regulators, and contributing staff time and other resources in support of the shared goal. The UP3 Partnership is an outgrowth of the UP3 *Project*, which shared a common goal. The former UP3 Project was a broader effort that included activities such as the Urban Pesticides Committee and the UP3 Project website, which are no longer actively supported.

² For example, Sacramento-area municipalities spent more than \$75,000 in the 2008-2013 permit term on pyrethroid pesticide monitoring alone; Riverside-area municipalities spent \$617,000 from 2007 to 2013 on pyrethroid pesticide chemical and toxicity monitoring.

³ Local agencies in California have authority over their own use of pesticides, but are pre-empted by state law from regulating pesticide use by consumers and businesses.

⁴ Ruby, Armand. 2013. Review of Pyrethroid, Fipronil and Toxicity Monitoring from California Urban Watersheds. Available at <https://www.casqa.org/LinkClick.aspx?fileticket=0%2btwBGMxunc%3d&tabid=194&mid=995>.

Clearly, if we continue to conduct business as usual, more receiving waters will become impaired by urban pesticide use, and more local agencies will face increased monitoring, TMDLs, and permit requirements for pesticides. (Figure 1).

For years, CASQA members have creatively tried to work around their lack of regulatory authority over pesticide use by pioneering award-winning public outreach and integrated pest management programs that encourage less-toxic alternatives. Local agencies also conduct collection events for banned pesticide products at their own cost. These “source control” efforts have established an extremely important and growing movement toward less-toxic alternatives; however, these activities fail to compensate sufficiently for the root problem: as currently implemented, pesticide regulatory actions at the state and federal levels do not adequately account for and mitigate potential water quality impacts from urban pesticide uses. With each new urban pesticide problem, local agencies face the potential of greater monitoring and source control requirements, neither of which promises to reduce pesticide-related toxicity locally or statewide.

Figure 1. Our current pesticide regulator system does not adequately protect urban waterways.



Section 2: Results of CASQA 2013-2014 Efforts

To prevent urban water quality impacts from registered pesticide uses, CASQA employs a two-pronged approach:

- 💧 Address near-term regulatory concerns
- 💧 Seek long-term changes in the pesticide regulatory structure

Given that at any given time there are dozens of pesticides with current or pending actions from the EPA or DPR, CASQA prioritizes regulatory tracking and communication efforts using the pesticide “Watch List” created by the PSC and the UP3 Partnership (Section 2.1). This prioritization aids CASQA and the UP3 Partnership in their prioritization of near-term efforts (Section 2.2).

Meanwhile, CASQA and the UP3 Partnership are also working on a parallel effort to effect long-term change in the regulatory process. By identifying the inadequacies and inefficiencies in the pesticide regulatory process, and persistently working with EPA and DPR to improve the overall system of regulating pesticides, CASQA and the UP3 are gradually achieving results (Sections 2.3 and 2.4).

2.1 Updated Pesticide Watch List

CASQA, working through the UP3 Partnership, tracks new scientific information about pesticides water pollution. In 2010, the UP3 published its Priority Pesticide List (also called the “Watch List”), which listed pesticides used in urban areas that are harming or threatening to harm surface water quality and provided a methodology to update this list. Based on this methodology, the PSC updates this list throughout the year, reviewing new scientific literature and monitoring studies as they are published. The PSC tracks this pesticides “Watch List,” along with other pesticide groups used outdoors in urban areas, presented in Table 1.

Table 1. Pesticide Watch List developed by the PSC and the UP3 Partnership is regularly updated to prioritize regulatory concerns

Priority	Basis for Priority Assignment	Pesticides	
1	Monitoring data exceeding benchmarks; linked to toxicity in surface waters; urban 303(d) listings	Pyrethroids (20 chemicals ⁵) Fipronil	
2	Monitoring data approaching benchmarks; modeling predicts benchmark exceedances; very high toxicity and broadcast application on impervious surfaces; urban 303(d) listing for pesticide, degradate, or contaminant that also has non-pesticide sources	Carbaryl Chlorantraniliprole Chlorothalonil (dioxins) Copper pesticides Creosote (PAHs) Cyantraniliprole	Dacthal (dioxins) Indoxacarb Malathion Pentachlorophenol (dioxins) Polyhexamethylenebiguanide Zinc pesticides
3	Pesticide contains a Clean Water Act Priority Pollutant; 303(d) listing for pesticide, degradate, or contaminant in watershed that is not exclusively urban	Arsenic pesticides Chlorpyrifos Chromium pesticides Diazinon Diuron	Naphthenates Simazine Silver pesticides Tributyltin Trifluralin
4	High toxicity and urban use pattern associated with water pollution; synergist for higher tier pesticide; on DPR or Central Valley Water Board priority list	Abamectin Acetamiprid Chlorinated isocyanurates DIDAC Dithiopyr Halohydantoin Hydramethylnon Imidacloprid Mancozeb MGK-264 Novaluron	Oxadiazon Oxyfluorfen Pendimethalin Phenoxy herbicides ⁶ Piperonyl butoxide Pyrethrins Spinosad/ Spinetoram Thiophanate-methyl Triclopyr Triclosan
5	Frequent questions from members	Glyphosate, Metaldehyde	
None	No tracking trigger	Most of the 1,000 existing pesticides	
Unknown	Lack of information. No systematic screening has ever been completed for urban pesticides.	Unknown	

⁵ Allethrin, Bifenthrin, Cyfluthrin, Cyhalothrin, Cypermethrin, Cyphenothrin, Deltamethrin, Esfenvalerate, Etofenprox, Flumethrin, Imiprothrin, Metofluthrin, Momfluothrin, Permethrin, Prallethrin, Resmethrin, Sumethrin [d-Phenothrin], Tau-Fluvalinate, Tetramethrin, Tralomethrin.

⁶ MCPA and salts, 2,4-D, 2,4-DP, MCPP, dicamba

2.2. Results of Efforts Addressing Near-Term Regulatory Concerns

Immediate pesticide concerns may arise from regulatory processes undertaken at DPR or EPA. For example, when EPA receives an application to register a new pesticide, there may be two opportunities for public comment that are noticed in the Federal Register, as depicted in green in Figure 2 (below). EPA’s process usually takes less than a year while DPR typically evaluates new pesticides or major new uses of active ingredients within 120 days. While EPA must consider water quality in all of its pesticide registration decisions, numerous pesticide registration applications are not routed by DPR for surface water review (see sidebar)



Figure 2. EPA’s New Pesticide Registration Process

Another regulatory process, “Registration Review,” depicted below in Figure 3, is meant to evaluate currently registered pesticides about every 15 years, to account for new data available since initial registration. In general, it takes EPA 5-8 years to complete the entire process. EPA regularly updates its schedule for approximately 50 pesticides that will begin the review process in a given year.⁷ In 2013-2014, CASQA wrote comment letters for 9 registration reviews, requiring an estimated 200 hours of work.

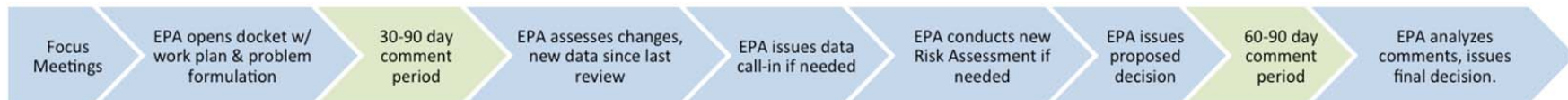


Figure 3. EPA’s Registration Review – process to review registered pesticides at a minimum of every 15 years.

⁷ See http://www.epa.gov/oppsrrd1/registration_review/schedule.htm for schedule information.

DPR also has an ongoing, but informal review process (called continuous evaluation) that can address pesticides water pollution. If it needs to obtain data from manufacturers, DPR can initiate a formal action, called “Reevaluation.” DPR reviews of pyrethroids and fipronil in urban runoff have occurred in response to CASQA and Water Board requests. These have involved ongoing communication with CASQA and the UP3 Partnership.

Table 2 presents a summary of recent activities and their associated results to address near-term regulatory concerns. The many positive outcomes in Table 2 reflect the success of CASQA’s teamwork in the UP3 Partnership. Much of this work occurs during formal public comment periods. To accomplish this, CASQA monitors the Federal Register and DPR’s website for notices of regulatory actions related to new pesticide registrations and registration reviews. CASQA watches for pesticides that appear to have any of the following characteristics: proposed urban, outdoor uses with direct pathways for discharge to storm drains, high aquatic toxicity, or containing a priority pollutant. Note that participating in these regulatory processes can take many years to complete.

As can be seen in the Table 2, CASQA has had considerable success in working with DPR and the Water Boards. Our mixed results with EPA indicate that there are opportunities for further communications and discussions.

Pesticides Not Routed by DPR for Surface Water Review

During meetings with DPR in 2013-14, CASQA learned that within DPR’s formal routing procedure, it does not route pesticides for surface water review in the following categories that are of interest with respect to urban water quality:

- Antimicrobial products (e.g., silver, copper, tributyltin)
- Indoor products (potential for subsequent sewer discharges)
- New uses of currently registered pesticides except for aquatic, rice, fipronil, and marine antifouling coating products (therefore new uses of pyrethroids, indoxacarb, copper, and similar pesticides are not reviewed)

Table 2. Results of FY 2013-14 Efforts Communicating Near-Term Regulatory Concerns⁸

Regulatory Action or Concern	CASQA Efforts			Partner Support	Results and notes
	Letter(s)	Call(s)	Mtg(s)		
DPR					
Fipronil water pollution		✓	✓	SFBRWQCB CVRWQCB State Board BACWA	Success! DPR acknowledged importance of this issue, and committed to develop an action plan to address fipronil water pollution. Informal outline provided to CASQA, pending DPR communication with registrant.
New Fipronil product registration application				State Board	Success! DPR agreed to route this registration application to its surface water program for review and disclosed that DPR has decided to conduct surface water reviews of all fipronil product registration applications.
New Metofluthrin product registration application	✓				Success! DPR agreed to route this registration application to its surface water program for review. (Per the sidebar on page 8, such reviews are not currently conducted automatically.)
Cupron Antifungal Fibers & Pro Fibers and Cliniweave (PHMB) Registration Applications				BACWA	Success! DPR agreed to route this registration application to its surface water program for review. (Per the sidebar on page 8, such reviews are not currently conducted automatically.)
Cyantraniliprole products proposed registration	✓	✓	✓	CVRWQCB SFBRWQCB	<i>Pending.</i> (Asked DPR to avoid registration unless mitigation measures ensure they will not pollute urban runoff.)
Trelona - Novaluron - Product Registration Application	✓				Success! DPR agreed to route this registration application to its surface water program for review. (Per the sidebar on page 8, such reviews are not currently conducted automatically.)
Pathshield Antimicrobial Filter Media Registration Application ⁹	✓	✓			Success! DPR agreed to route this registration application to its surface water program for review. (Per the sidebar on page 8, such reviews are not currently conducted automatically.)

⁸ Color coding in this table is meant to reflect the “Watch List” prioritization color coding in Table 2.

⁹ Active ingredient is 3-(Trihydroxysilyl)propyl dimethyl octadecyl ammonium chloride

Regulatory Action or Concern	CASQA Efforts			Partner Support	Results and notes
	Letter(s)	Call(s)	Mtg(s)		
EPA					
Metofluthrin Registration Review Work Plan	✓	✓		CVRWQCB SFBRWQCB	Result: CASQA and the Water Boards provided input to OPP on its metofluthrin review work plan, because OPP did not propose to examine water quality risks. OPP instead proposed to terminate its review. Terminating metofluthrin's review opens the door to continued increases in use without measures to prevent water pollution. Ending its Registration Review also prevents OPP from requiring metofluthrin products to implement mitigation measures required in the future for other pyrethroids.
Momfluorothrin Registration Application	✓			SFBRWQCB	Pending (anticipated October 2014)
Indoxacarb Registration Review Work Plan	✓	✓		CVRWQCB SFBRWQCB	Success! EPA will modify its work plan to address urban uses, substantially expand data requirements to obtain environmental fate and aquatic toxicity data for indoxacarb and its stable, toxic degradates, and will require development and validation of chemical analysis methods.
Cyantraniliprole products proposed registration	✓	✓		SFBRWQCB	Result: Decision appeared to sidestep most comments, arguing that benefits outweigh risks. EPA did not modify label to minimize use on impervious surfaces because registrant did not agree to do so.
Copper sulfate antimicrobial registration application	✓			SFBRWQCB	Pending.
Cuprous Iodide (cupron fabric) Registration Application				BACWA	Pending.
Silver/Zinc marine antifouling paint registration application				State Board and multiple regions	Pending.
Halohydrantoin Registration Review Work Plan	✓			BACWA	Result: U.S. EPA thanked CASQA and BACWA for their comments and affirmed its commitment to continuous improvement of its procedures.
2,4-DP Registration Review Work Plan				CVRWQCB SFBRWQCB	Partial Success. EPA will evaluate the common toxic degradate of 2,4-DP and other phenoxy herbicides, 2,4-DCP, but will not require toxicity data on degradate because there are some literature data, which it may supplement with ECOSAR modeling and any data supplied by the registrant. It will qualitatively assess toxicity of mixtures of phenoxy herbicides.

Regulatory Action or Concern	CASQA Efforts			Partner Support	Results and notes
	Letter(s)	Call(s)	Mtg(s)		
Triclosan Registration Review	✓			BACWA CVRWQCB SFBRWQCB	<i>Little Success.</i> In response to comments on the preliminary work plan, the work plan clarified that chronic, spiked-sediment benthic invertebrate testing for two freshwater and one estuarine/marine species was already required. Largely disregarded other requests such as to modify the proposed ecological risk assessment to address transport via urban runoff to surface waters, because it has elected to assess only pesticidal triclosan uses, which EPA believes to represent less than one percent triclosan use; therefore “contribution of triclosan from pesticidal uses that would lead to storm water releases is negligible relative to the releases from all non-pesticidal uses.”
MCPA Registration Review Work Plan				CVRWQCB	Pending (anticipated August 2014)
Thiophanate methyl and Carbendazim Registration Review Work Plan				CVRWQCB	Pending (anticipated August 2014)
Water Boards					
Proposed TMDL for Toxicity and Pesticides in the Santa Maria Watershed	✓	✓	✓		Mostly success! On July 2, 2014, the State Board approved the TMDL, the first California Water Board pyrethroids TMDL. There was clear recognition among State Board members that pesticides are an urban issue and that municipalities do not have the ability to regulate pesticides. The Board staff’s response to comments also firmly supported CASQA’s recommended approach to pesticides management, noting that “...this collaborative approach may be the most effective way to address impairments driven from urban pesticide use.” The TMDL implementation plan relies on toxicity targets that will likely be achieved through DPR’s pyrethroids regulations, but it references target water concentrations that are likely unattainable without an EPA or DPR pyrethroids sales ban, which is unlikely to occur.

2.3 Long-Term Change in the Pesticides Regulatory Structure

CASQA envisions a future in which the pesticide regulatory structure is used proactively to restrict pesticide uses that have the potential to cause urban water quality problems. There are several processes currently under way at both EPA and DPR that will move us closer to that future. Many of these processes were prompted by the persistent work of CASQA and the UP3 Partnership to educate EPA and DPR staff on the problems with current approaches. Table 3 presents a summary of major actions undertaken and results achieved in FY 2013 – 2014 toward long-term changes in how pesticides are regulated. More than a decade of collaboration with UP3 partners, as well as EPA and DPR staff, has resulted in significant changes in pesticide regulation in the last four years. Table 6 in the Appendix highlights some of the most important achievements in which CASQA and the UP3 Partnership played a key role in advocating for and shaping the final regulation or policy change.

Table 3. Results of FY 2013-14 Efforts Seeking Long-Term Regulatory Change

Activity	Results and Notes
DPR	
Methodology for Evaluating Pesticide Registration Applications for Surface Water Protection	Success! DPR successfully implemented the first version of a procedure to evaluate the first pesticide registration applications for most of the types of pesticides that CASQA for potential water quality impacts. In 2013-2014, DPR denied registration applications. For several approved products, DPR required registrants to provide chemical analysis methods suitable for use by surface water monitoring programs. DPR also began updating the scientific methods behind the review procedures to improve evaluation of building perimeter sprays.
Monitoring effectiveness of and compliance with DPR Surface Water Regulations	Success! DPR has taken the leading role in conducting monitoring to evaluate the effectiveness and level of compliance with the regulations. DPR has begun presenting its initial monitoring results to stakeholders. ¹⁰ DPR is working with Agricultural Commissioners and structural pest control industry to evaluate and improve level of compliance.
Urban Runoff Modeling	Success! Recognizing the deficiencies in OPP's pesticide registration process, ¹¹ DPR is developing an urban runoff modeling tool. As part of that effort, in 2013-14 they published peer-reviewed papers regarding the modeling of pesticide washoff from impervious surfaces. For details, see Section 2.4.

¹⁰ For a sample presentation, see “Pyrethroid Detections in Urban surface Waters Post Regulations,” by Mike Ensminger and Robert Budd, DPR, January 2014 at http://cdpr.ca.gov/docs/emon/surfwttr/presentations/ensminger_2014_jan_13_pyrethroid_trends.pdf.

¹¹ OPP is using its agricultural runoff model (PRSM/EXAMS) for urban runoff and looks at wastewater with a model developed for Toxic Substances Control Act implementation. The "urban" scenarios used in the urban runoff modeling have significant shortcomings, as do the wastewater discharge modeling scenarios.

Activity	Results and Notes
DPR's Pest Management Advisory Committee (PMAC).	<i>Success!</i> Participation on the PMAC has increased DPR's focus on urban pest management and water quality issues and has generated funding for urban integrated pest management programs. DPR funded BASMAA proposal to increase adoption of IPM in multi-family housing.
EPA	
Pyrethroids Registration Review.	<i>Pending.</i> By the end of 2013, EPA had initiated reviews of all pyrethroids. CASQA and UP3 continue ongoing engagement, which has improved scientific accuracy of work related to urban runoff and continues to educate EPA and registrants about the water quality regulatory context for their decisions. The PSC and UP3 Partnership had multiple informal interactions with EPA and registrants about scientific topics related to EPA's pyrethroids reviews. EPA's first pyrethroids risk assessments are anticipated in 2015.
Antimicrobial Pesticides Evaluations.	<i>Promising.</i> Prior PSC/UP3 engagement caused EPA to expand its data requirements for antimicrobial pesticides (particularly to address wastewater discharges) and to integrate a process for identifying all of the pathways by which antimicrobial products can reach the MS4 into antimicrobial pesticide reviews. Informal educational interactions continued in 2013-2014. An important test of the new procedures will occur in 2015, when EPA completes a risk assessment for copper pesticides.
Preferred Approach for Pesticide Monitoring and Management in Permits and TMDLs.	<i>Pending.</i> Met informally with key EPA Region 9 Water Division staff in Sacramento. Will continue communications in 2014-15.
Water Quality Data	<i>Success.</i> Convinced OPP that upcoming modifications to OPP water quality data should establish that OPP staff obtain data from California databases rather than asking California agencies for these data.
US EPA's advisory committee, Pesticide Program Dialogue Committee (PPDC)	<i>Promising.</i> PSC attended PPDC in December 2013 (teleconference) and June 2014. Participation on PPDC and face-to-face meetings with OPP staff and management has helped increase OPP's focus on urban pest management and water quality. PSC met with OPP staff to discuss progress in OW/OPP common effects methodology. PSC participated in Integrated Pest Management workgroup, which made significant progress in promoting school IPM.

Activity	Results and Notes
Engagement with Water Boards	
Preferred Approach for Pesticide Monitoring and Management in Permits and TMDLs.	<i>Promising.</i> Water Boards are developing statewide approach for addressing pesticide impairment that recognizes limitations of local agencies, and acknowledges key role of DPR. This has been demonstrated in language recently included in Regions 2 and 3 Basin Plan amendments to address pesticides (see excerpts from the Santa Maria Basin Plan Amendment ¹² immediately following this table). It has also been recognized by State Water Board staff working on its statewide Stormwater Strategy, as part of the “true source control” element of the strategy. PSC provided informal outline of preferred approach to Water Board staff that are leading this effort.
Coordinated Pesticides Monitoring in Urban Watersheds.	<i>Promising.</i> State Water Board and DPR continued coordinated urban monitoring for pyrethroids and fipronil. Steps to improve coordination with MS4 monitoring requirements are in progress in upcoming TMDLs and the Phase II monitoring program design. The Water Boards are considering development of a coordinated approach for urban pesticides monitoring as part of the statewide approach to pesticides management (see above). The PSC has written a letter, developed a summary of MS4 pesticides monitoring, met with Water Boards and DPR managers, and sent a letter to the Water Boards toward its goal of improving the value and cost-effectiveness of urban pesticides monitoring.
Other Agencies	
California Structural Pest Control Board (SPCB)	<i>Success!</i> A PSC member is an appointed member of the SPCB. The SPCB recognized the potential for excessive pesticide application to impact water quality. SPCB appointed an ad hoc committee to develop recommendations for promulgating regulation changes in continuing education requirements aimed at increasing IPM adoption and reducing water quality impacts by licensees.
University of California Statewide IPM (UCIPM)	<i>Success!</i> PSC participated in UCIPM’s Urban and Community IPM Advisory Committee in May 2013. Long term, continuing engagement with UCIPM has resulted in increasing focus and commitment to urban pesticide and pest management issues. In 2014 this includes continuing publication of “Retail Nursery and Garden Center IPM News” ¹³ , establishment of an IPM blog “Pests in the Urban Landscape” ¹⁴ , and continuation of a series of urban IPM YouTube videos ¹⁵ .

¹² http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/docs/santa_maria/pesticide/smf_pest_tmdl_att1_resoln_bpa_apprvd.pdf

¹³ <http://www.ipm.ucanr.edu/RETAIL/retail-newsletter.html>

¹⁴ <http://ucanr.edu/blogs/UCIPMurbanpests/index.cfm>

¹⁵ <http://www.youtube.com/user/UCIPM/videos>

Activity	Results and Notes
Major Presentations	Results
The Future of Pesticides & Toxicity Monitoring - CASQA Conference, Sept 2013	Success! Educated diverse audiences on nexus of urban pesticide regulation and water quality and the key scientific issues involved in identifying, addressing, and preventing pesticides water pollution. The PSC had more than twice as many presentation invitations and opportunities than its resources allowed it to accept.
Implementing the Urban Creeks Pesticides TMDL - Early Victories on the Long Road to Solutions - State of the Estuary (San Francisco), Sept 2013	
Fipronil Water Quality Overview – Presentation to DPR, Jan 2014	
Fipronil Water Quality Overview - Bay Area Clean Water Agencies - Bay Area Pollution Prevention Group, Feb 2014	
Pyrethroids & Fipronil - California Water Environment Association Annual Conference, May 2014	
Fipronil Water Pollution and Its Sources - Northern California Society of Environmental Toxicology and Chemistry, May 2014	

The 2014 Santa Maria Basin Plan Amendment (BPA) acknowledges the key role of DPR in TMDL implementation:

“The TMDL implementation plan also utilizes an interagency approach among the California Department of Pesticide Regulation (DPR), the State Water Resources Control Board, and the Central Coast Water Board to address impairments. The approach is described in the California Pesticide Management Plan for Water Quality (California Pesticide Plan), which is an implementation plan of the Management Agency Agreement (MAA) between DPR and the Water Boards.”

“The Department of Pesticide Regulation, the county agricultural commissioners, and USEPA are taking regulatory steps to address pesticide impairments. In accordance with the MAA, DPR has approved urban pesticide regulations to address pyrethroid pesticide water quality pollution. Also as part of the MAA, the Central Coast Water Board, DPR, and the commissioners are coordinating on county chlorpyrifos use permits.”

2.4 A CASQA Success Story – DPR’s Urban Modeling Research

Pesticide application to impervious surfaces for activities such as structural pest control can be a major source of pesticide washoff in subsequent rainfalls or over-spray during irrigation. For some time, DPR has been following CASQA’s communications with OPP about the deficiencies in OPP’s urban modeling. DPR agrees with CASQA’s approach and understands that models that better estimate surface water pesticide concentrations from urban pesticide use are needed. Since OPP is not moving toward urban models, DPR determined that it should develop its own urban modeling capacity and added two staff members with urban modeling experience. The current direction includes:

(1) Short term - develop a more appropriate urban modeling scenario for OPP’s existing agricultural runoff model (2014).

(2) Long term - build both urban runoff and POTW modeling capacity. DPR is using its intensive urban monitoring watersheds as example locations to support the model development. DPR has been conducting special studies in support of the long-term modeling effort.

As part of this effort, peer-reviewed papers are being published by DPR scientists seeking to characterize and model pesticide washoff from concrete surfaces.^{16,17} These and future modeling efforts by DPR are expected to provide valuable insights and improve the analysis of surface water quality impacts in future risk assessments.

Highlights from DPR’s Research

DPR and University of California researchers are evaluating previous models and are seeking to develop models that better predict pesticide washoff and incorporate a number of variables, including:

- product formulation
- chemical properties (e.g. hydrophobicity)
- aging effects
- multiple applications
- rainfall duration
- rainfall intensity
- number of rainfall events

In the 2013 study referenced below, a model was developed that predicted the washoff of five different pyrethroids in 15 different scenarios. Preliminary results suggest that modeling can be used to predict pesticide washoff and thus provide technical support to risk assessments in urban settings. In the 2014 study, researchers conducted controlled rainfall events and monitored the washoff of commercial pesticides with eight active ingredients. The results formulated the basis for their model, which then was then tested with a set of 21 datasets from 38 different rainfall events. According to the study, the model “satisfactorily captured pesticide mass loads and their temporal variations” for both hydrophobic and hydrophilic pesticides and under a varied number of rainfall events (1-7) and under a wide range of timescales (from hours to hundreds of days).

¹⁶ Y. Luo, F. Spurlock, W. Jiang, B. Jorgenson, T. Young, J. Gan, S. Gill, K. Goh. 2013. Pesticide Washoff From Concrete Surfaces: Literature Review and a New Modeling Approach. [Water Research](#).

¹⁷ Y. Luo, B. Jorgenson, D. Thuyet, T. Young, F. Spurlock, and K. Goh, 2014. Insecticide Washoff from Concrete Surfaces: Characterization and Prediction. *Env. Sci. & Tech.*, 48(1):234-243. (<http://pubs.acs.org/doi/abs/10.1021/es4028343>) [Author’s Version, PDF](#).

Section 3: CASQA’s Approach Looking Ahead

3.1 CASQA’s Continuing Approach

At any given time, EPA and DPR may be in the process of evaluating and registering various pesticides for urban use. To address near-term concerns that may arise out of these ongoing pesticide regulatory processes, CASQA and the UP3 Partnership continuously track and engage in EPA and DPR activities. Typically, these efforts press for changes in an individual product’s registration or request that regulators obtain more data from manufacturers. CASQA and the UP3 Partnership are also working on a parallel effort to effect long-term change in the regulatory process. The types of activities that CASQA and the UP3 Partnership engage in are presented Table 4. Many of these activities work to address both near-term concerns and the longer-term goal of systemic regulatory change.

Table 4. Types of Activities Undertaken to Address Immediate Pesticide Concerns and Long-term Regulatory Change

Activity	Purpose	Level of Effort	
Regulatory Tracking	Track Federal Register notices	Identify regulatory actions that may require review.	Daily review; analyze EPA’s scientific work and provide notification to CASQA members and partners as needed.
	Track DPR notices of evaluations and decisions	Identify potential problems with current DPR evaluation or registration plans other regulations, procedures & policies.	Weekly review; obtain water quality assessments from DPR through public record requests; analyze and provide notification to CASQA members and partners as needed.
	Track activities at the Water Boards	Identify opportunities for improvements in TMDLs, Basin Plan Amendments, and permits.	Often weekly phone calls with Water Board staff; weekly review of noticed proceedings; review scientific information.
	Review regulatory actions, guidance documents, and work plans	Identify potential problems with current EPA evaluation or registration plans, other regulations, procedures, and policies.	According to need as identified by tracking activities (average of 4 per month).
Regulatory Communications	Briefing phone calls, teleconference meetings, and emails with EPA and DPR	Information sharing about immediate issues or ongoing efforts; educate EPA and DPR about issues confronting water quality community. Provide early communication on upcoming proceedings that help reduce the need for time-intensive letters.	As needed, but often several times per week.
	Convene meetings, write letters and track responses to letters	Ensure current pesticide evaluation or registration process addresses potential water quality concerns, and take advantage of opportunities to formally suggest solutions to shift regulatory process in the future.	Typically a dozen or so pesticides annually that could pose threats to water quality if EPA or DPR does not initiate certain procedures. Letters vary in length, but often are many pages and require many hours to write. As dockets are updated, review responses to comments and identify next opportunities.

Activity	Purpose	Level of Effort	
Advisory	Serve on EPA, DPR, and Water Board policy and scientific advisory committees	Provide information and identify data needs and collaboration opportunities toward development of constructive approaches for managing pesticides.	Two to six meetings per committee per year. The PSC is currently represented on both EPA's and DPR's external advisory committees and has sporadic representation on water board panels related to pesticides.
Educational	Presentations to EPA, DPR, Water Board, CASQA members, pesticide manufacturers, water quality researchers, and other collaborators	Educate EPA, DPR, Water Board, and CASQA member staff about the problems with existing pesticide regulatory process, encourage change, report on achievements. Influence research and monitoring programs. Inform development of new pesticides by manufacturers and selection of pesticides by professional users.	As many as a dozen opportunities to present at water quality, pesticides and chemical conferences nationally. Additional 8-10 opportunities per year for state and regional events. Preparation of presentations and coordination with water quality community can take as much as 40 hours per opportunity.
	Developing and delivering public testimony	Educate Water Board members about the problems with existing pesticide regulatory process, encourage change, report on achievements.	Two to three times per year. Preparation and coordination can take as much as 40 hours per opportunity.
Monitoring	Track urban runoff monitoring and pesticide-related research	Encourage coordination with Water Board/MS4 data needs and priorities; stimulate academic, government, or private development of analytical and toxicity identification methods to address anticipated MS4 needs; share information to improve decisions.	About 10 important publications per month and a dozen meetings per year.
	Data analysis of DPR/SWAMP/USGS/MS4 monitoring, pesticide use data, and information from scientific literature	Summarize data to educate CASQA members and water quality community, Water Boards, DPR, and EPA.	Detailed analysis is infrequent because finding, compiling, and analyzing data requires very high level of effort and funding. CASQA undertook a detailed monitoring summary in 2013. Report is available at www.casqa.org .

In addition to efforts listed in Table 4, the PSC has identified the following additional, *yet-to-be funded* activities that would assist the water quality community in achieving CASQA goals (Section 4):

💧 Education and Advisory

- Periodically conduct trainings, including two that have been specifically requested by pesticide regulators:
 - Training for DPR's surface water program to increase understanding of pathways connecting pesticide applications to urban runoff and provide realistic expectations regarding urban runoff BMPs. Similar request from OPP.
 - Set up a briefing for OPP on swimming pool discharges.
- Expand participation in scientific advisory panels and in scientific peer reviews to improve the quality and focus of scientific information that forms the basis of regulatory decisions.
- Conduct more person-to-person meetings with EPA OPP staff to improve their knowledge and engagement in addressing pesticide impacts on urban water bodies.
- Provide urban runoff modeling expertise to work with EPA to establish better modeling of pesticides in urban runoff.
- Build relationships with EPA Region 9's Water Division; encourage them to become a UP3 partner.
- Expand education of Water Board staff and Board members at the state level and the Los Angeles, San Diego, and Santa Ana regions.
- Deliver presentations targeting pesticide regulators, manufacturers, and user audiences at their conferences and agency scientific meetings.

💧 Data Gathering and Analysis

- Regularly analyze and report on pesticide sales and use information for priority pesticides (pyrethroids, fipronil, and indoxacarb) to identify use levels and trends.
- Periodically review usage, toxicity, environmental fate, and monitoring data to update priority pesticides list.
- Improve capacity to assemble scientific information for making a stronger "case" to pesticide regulators.
- Develop capacity to provide EPA with appropriate documentation (e.g., costs of pesticide water pollution) to support regulatory decisions that protect water quality.

💧 Communications and Partnership Coordination

- Renew communications with professional applicators.
- Improve UP3 coordination.
- Re-launch UP3 Partnership website as a resource for regulators and pesticide users
- Restart Urban Pesticides Committee meetings to better coordinate activities and improve communication among the regulatory, environmental, pesticide manufacturer, and pesticide user communities.

3.2 FY 2015 Activities

In the coming year, depending on funding, CASQA will undertake numerous activities to both address near-term pesticide concerns and seek long-term regulatory change.

CASQA's current priority activities are as follows:

- (1) Address near-term regulatory concerns:
 - Obtain DPR action on fipronil water pollution
 - Ensure DPR enforces mitigation measures for pyrethroids and adopts additional measures if necessary
 - Ensure the state conducts surveillance monitoring to evaluate pyrethroids (and fipronil) mitigation effectiveness
 - Encourage EPA to develop capacity to implement pyrethroids and fipronil mitigation measures, in case necessary mitigation cannot be implemented entirely by DPR
- (2) Seek long-term changes in the pesticide regulatory structure
 - Seek procedure changes such that EPA and DPR avoid approving new pesticides that cause urban water pollutions
 - Encourage EPA to develop robust urban surface water risk assessment procedures for pesticide reviews
 - Work toward obtaining a statewide management approach for pesticides that is adopted by the State Water Board, and formally recognizes the need to rely on DPR and OPP authority as the primary means to prevent and mitigate water quality impacts by pesticides.
 - Seek restructuring of California's urban surface water pesticides monitoring to increase its effectiveness

Table 5 presents upcoming regulatory action items that are likely to proceed in the coming year. Many items will require letters as well as other communications with EPA, DPR, and the Water Boards. CASQA will continue to coordinate with other water quality organizations through the UP3 Partnership to take advantage of efficiencies and ensure that the water quality community has a consistent message.

Table 5. Action Items Anticipated to be Taken Up by CASQA and UP3 Partnership in 2014-2015

Action Items
<p>EPA Pesticide Registration Review</p>
<p>Upcoming Registration Review Decisions</p> <ul style="list-style-type: none"> • Pyrethroids: Allethrins, Metofluthrin (termination without risk assessment) • Organophosphates: Malathion
<p>Upcoming Environmental Risk Assessments of Interest:</p> <ul style="list-style-type: none"> • Pyrethroids: Allethrins, Cyfluthrins, Deltamethrin, Esfenvalerate, Etofenprox • Organophosphates: Malathion, Chlorpyrifos, Diazinon • Others: Zinc pesticides; copper salts; silver and compounds, Glyphosate, Simazine
<p>Upcoming Work Plans of Potential Interest:</p> <ul style="list-style-type: none"> • Diuron, MCPP, Triclopyr, Oxadiazon, Oxyfluorfen, Mancozeb, Chromate Arsenicals, Creosote, Pentachlorophenol, Tributyltin, Ziram, Zinc pyriithione
<p>EPA Registration Applications</p>
<p>Applications of interest:</p> <ul style="list-style-type: none"> • Pesticides proposed for urban, outdoor use with direct pathway for discharge to storm drains • Pesticides with high aquatic toxicity • Pesticides containing priority pollutants <p>Watch for Decisions:</p> <ul style="list-style-type: none"> • Momfluorothrin • Silver-zinc marine antifouling paint
<p>Other EPA Action Items</p>
<ul style="list-style-type: none"> • U.S. EPA OPP/OW Common Effects Assessment Methodology – continue to press for completion and implementation; request that project address time periods and other discrepancies. • U.S. EPA petition decisions – nanosilver registration, nanocopper regulation, request to ban triclosan. • U.S. EPA research and development activities to support pesticides management, such as urban runoff model development, nanomaterials case studies, and scientific data acceptance policies– seek to make urban runoff’s needs a priority; share information to inform decisions. • U.S. EPA Pesticide Inert Ingredient Disclosure rulemaking. • Endangered species consultations/litigation (review/engage only if could significantly affect urban pesticide use or could help with permit compliance in key geographic areas). • Additional CASQA opportunities: <ul style="list-style-type: none"> ○ Educate OPP management and scientists about gaps in OPP scientific and regulatory procedures for urban runoff that prevent effective, proactive evaluation of pesticide risks. ○ Continue to engage EPA Region 9 re CASQA’s preferred approach for pesticide monitoring and management in permits and TMDLs.

Action Items

DPR Registration Applications

Until procedures are modified to provide for surface water quality reviews of all priority pesticides from the urban runoff perspective, screen DPR product registration applications and proposed decisions and comment on activities that pose high risks or provide compelling examples of possible procedural deficiencies. Products of interest:

- Products proposed for urban, outdoor use with direct pathway for discharge to storm drains
- Products with high aquatic toxicity
- Products containing priority pesticides (Table 1)

Watch for Decisions:

- Cyantraniliprole (highly toxic pyrethroid alternative)
- Chlorantraniliprole (highly toxic pyrethroid alternative)
- Copper sulfate antimicrobial
- Novaluron (first outdoor structural use of toxic pyrethroid alternative)
- Fipronil foam product
- PathShield Antimicrobial Filter Media (for use in storm drains)

Other DPR-related Action Items

- Pyrethroids – continue to track activities, review scientific studies, and encourage DPR to take additional actions if necessary for water quality protection.
- Pyrethroids regulations – track implementation and obtain regular updates on effectiveness monitoring.
- Bifenthrin professional products labels – ensure that product labels are revised and corrected.
- Fipronil – continue to work with DPR on actions to protect water quality.
- Urban runoff model development – track short-term and long-term efforts and share information to improve approach.
- Urban runoff monitoring and research – continue to encourage coordination with Water Board/MS4 data needs and priorities; encourage monitoring prioritization to better capture pesticides and degradates of interest; share information to improve decisions.
- Methodology for Evaluating Pesticide Registration Applications for Surface Water Protection – share information to encourage DPR to address antimicrobials, swimming pool additives and to address degradates in review methods.

Water Boards Action Items

- Water Board policy for addressing pesticides in NPDES permits – continue to encourage development of a Statewide Coordinated Pesticides Approach; participate in policy development.
- Central Valley Water Board Pyrethroids Water and Sediment Criteria
- Central Valley Water Board Basin Plan Amendments: pyrethroids and diuron
- State Water Board Policy for Toxicity Assessment and Control – track pesticide monitoring, toxicity testing & other pesticide-related provisions in NPDES Permits.
- Monitoring requirements for Phase II permittees – continue participating in development.
- Pesticide/toxicity 303(d) listings and TMDLs – continue tracking.

Action Items

Other California Agency Action Items

- California Department of Food & Agriculture Draft Program EIR on invasive species control – Are pesticide application programs consistent with Water Board expectations in urban areas?
- Adoption of Structural Pest Control Board regulations – increase licensee continuing education requirements for IPM and water quality protection.

In addition to the action items in Table 5, CASQA will also continue the following activities in FY 2015:

- Education and information sharing with CASQA and Partner¹⁸ research and monitoring scientists about priority needs, integration, and data interpretation
- Track major relevant scientific studies; review relevant scientific literature, monitoring data, and government reports; and maintain database of key references.
- Serve on EPA, DPR, and Water Board policy and scientific advisory panels.
- Peer review EPA, DPR, and Partner work plans and reports.
- Participate in and give presentations at meetings or conferences with high participation from pesticide regulatory, research, and manufacturing communities – 2014-15 priorities include American Chemical Society (San Francisco CA) and SETAC (Vancouver BC),
- Educate and inform water quality community through presentations at CASQA and other California water quality meetings or conferences
- Update pesticide priority lists based on new scientific and regulatory information.
- Prepare monthly action plans
- Publish annual report

¹⁸ Partners: USGS NACWA (national monitoring); other states; Water Board SWAMP (Statewide and 9 regions); DPR; POTWs; urban runoff programs; university researchers; pesticide manufacturers.

Section 4: Envisioning the Future

An effective regulatory system would identify whether urban uses of a pesticide pose a threat to water quality and would restrict or disallow those uses proactively so that water quality impacts are avoided. Such a system would be far more cost-effective than the current system in which mitigation of pesticide impacts is reactively attempted through Clean Water Act (CWA) mechanisms, such as TMDLs, that impose requirements on urban stormwater agencies and wastewater facilities.

CASQA's objective in engaging in pesticide-related regulatory activities is to ultimately protect water quality by eliminating problems stemming from urban pesticide use. The CASQA Pesticides Subcommittee envisions a future when the following goals have been attained:

- **Goal 1: EPA and DPR will conduct effective, proactive evaluations of pesticide risks.** EPA and DPR registration and registration reviews will include effective evaluations for the potential of all pesticide active ingredients and formulated products to impact urban waterways. Staff will understand all urban use patterns, and models will accurately reflect urban use patterns, the impervious nature of the urban environment, drainage systems and pathways to receiving waters. Data required of manufacturers will support proactive evaluations. Cumulative risk assessments will be conducted, especially for pesticides with similar modes of action.

Figure 4. CASQA envisions an effective regulatory system to identify whether urban uses of a pesticide pose a threat to water quality and then restrict or disallow those uses proactively so that water quality impacts are avoided.



- 💧 ***Goal 2: Pesticide regulators and water quality regulators will work in coordination to protect water quality.*** The Water Boards, DPR, EPA’s Office of Water (OW) and OPP will have a consistent definition of what comprises a water quality problem. EPA’s OW and OPP will complete “harmonization” of methodologies and approaches to protect aquatic life.
- 💧 ***Goal 3: Pesticide regulations and statutes will be used to solve pesticide-related water quality impairments resulting*** from the registered uses of pesticides. Rather than look to the Clean Water Act, the EPA and Water Boards will work with DPR and the EPA’s Office of Pesticide Programs to manage problem pesticides without the use of the costly, slow and burdensome TMDL process.
- 💧 ***Goal 4: Pesticide monitoring will be coordinated at the state level to support rapid response to emerging pesticide problems in urban waterways.*** DPR and the Water Boards will coordinate statewide monitoring to identify emerging pesticide problems in urban waterways before they become widespread and severe. Urban-specific, use-specific mitigation measures will be used to address water quality problems.

CASQA looks forward to working with our Partners to continue to forge a path towards this vision.

Appendix

Table 6. Highlights of Recent Regulatory Achievements by CASQA as part of the UP3 Partnership

Achievements Impacting High-Priority Urban Pesticides	Significance
<p>In 2014, DPR initiated an effort to address fipronil water pollution in California urban areas <i>in direct response to a joint CASQA and Water Board request</i> based on CASQA's 2013 compilation of fipronil monitoring data.¹⁹</p>	<p><i>DPR's timely action to reduce fipronil concentrations in urban runoff could avoid many future urban TMDLs.</i> Fipronil is a highly toxic pyrethroid alternative that is used only in urban areas. Fipronil monitoring data is likely to provide the basis for multiple fipronil 303(d) listings in future cycles.</p>
<p>In 2014, EPA modified its work plan for review of the indoxacarb to include urban uses <i>in direct response to CASQA and Water Board comments.</i> CASQA and Partners called these uses to EPA's attention and made a strong and well-documented case for detailed review of water quality impacts.</p>	<p><i>Ensured that EPA's upcoming review will not omit urban uses of a highly toxic pyrethroid alternative.</i> The modified work plan will also substantially expand data requirements to obtain environmental fate and aquatic toxicity data for indoxacarb and its stable, toxic degradates; and require development and validation of chemical analysis methods.</p>
<p>In 2014, DPR initiated development of procedure improvements to address scientific gaps in DPR's scientific reviews of new pesticide registration applications.</p>	<p><i>When completed, will provide more thorough reviews of pesticides that may impact urban water quality and better prevent water pollution.</i> Scientific gaps in DPR's procedures (related to building perimeter sprays and toxic degradates) caused DPR in 2014 to propose approval of CASQA priority, cyantraniliprole (see Table 2).</p>
<p>In July 2012, DPR issued new Surface Water Protection Regulations for 17 pyrethroids limiting how and where pyrethroids can be used by pesticide control operators.</p>	<p><i>Estimated to reduce pyrethroid toxicity in surface water by 80-90%.</i> Effective pest management has not been adversely impacted by this change.</p>
<p>In 2011, DPR agreed with manufacturers to phase in new labels for bifenthrin to prohibit broadcast applications to horizontal impervious surfaces and certain building walls (see Figure 4).</p>	<p><i>Estimated to reduce outdoor bifenthrin use >90% in combination with new Surface Water Protection Regulations (see above).</i></p>
<p>Between 2010 and 2012, in response to CASQA and Water Board comments, EPA developed new conceptual models and scientific approaches to address pesticides in urban runoff and included these in workplans for upcoming Registration Reviews of the pyrethroids and fipronil. Will include impervious surface applications and urban drainage systems in modeling and will require additional aquatic toxicity data (e.g., data for <i>Hyalella azteca</i> were required for pyrethroids)</p>	<p><i>EPA's upcoming reviews will not omit urban uses of pyrethroids and fipronil.</i> Including urban uses provides the ability for EPA to implement appropriate mitigation measures to protect water quality. While the new approaches are available for other pesticides, EPA does not consistently apply them (see discussion above on EPA review of indoxacarb).</p>

¹⁹ Ruby, Armand. 2013. Review of Pyrethroid, Fipronil and Toxicity Monitoring from California Urban Watersheds. Available at <https://www.casqa.org/LinkClick.aspx?fileticket=%02btwBGMxunc%3d&tabid=194&mid=995>.

Achievements in Procedures, Modeling, and Monitoring	Significance
<p>In recent years, DPR has institutionalized an urban monitoring program initiated as a pilot in the late 2000s <i>at the urging of CASQA and UP3</i>. In 2013-2014, DPR and the Water Boards' Surface Water Ambient Monitoring Program expanded their partnership to monitor sediment toxicity and high priority urban pesticides (currently pyrethroids and fipronil) in representative California urban watersheds and began exploring collaboration on other high priority pesticides.</p>	<p><i>The Water Board/DPR partnership coordinates the state's toxicity and pesticides monitoring for the first time and expands it across all California regions. DPR's monitoring program provides the specific types of data it needs to evaluate water quality and provide the basis for its management decisions.</i></p>
<p>In April 2013, EPA formally updated data requirements for certain antimicrobials in response to requests by CASQA and other water quality agencies to ensure data availability for urban runoff evaluations.</p>	<p><i>EPA acknowledged that wood preservatives and antifoulants have pathways to stormwater and is now requiring additional environmental toxicity and fate data from manufacturers. While it did not address other categories of pesticides in urban runoff, EPA has progressively improved its data requirements on a case-by-case basis since CASQA's initial engagement in the early 2000s.</i></p>
<p><i>As a result of requests by CASQA</i> and other water quality agencies for better urban runoff modeling, DPR has devoted significant resources toward urban runoff model development and provided research funding to U.C. Davis and UC Riverside. (See Section 2.4 for additional details.)</p>	<p><i>DPR's leadership is expected to lead to improved understanding of fate and transport of outdoor urban pesticide treatments on impervious surfaces. Environmental fate and transport models have not adequately represented urban runoff. An improved model can help identify risk of pesticide pollution so it may be mitigated before registration.</i></p>