

SCVURPPP

EVALUATING THE EFFECTIVENESS OF OUTREACH TO RESIDENTS

FY 12-13

1.0 INTRODUCTION

Municipal Regional Permit (MRP) Provision C.9.H.iii *Pest Control Contracting Outreach* requires Permittees to conduct outreach to residents who use or contract for structural or landscape pest control and implement the following tasks:

- 1) Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control, including IPM;
- 2) Incorporate IPM messages into general outreach;
- 3) Provide information to residents about “Our Water, Our World” or functionally equivalent program;
- 4) Provide information to residents about EcoWise Certified IPM certification in Structural Pest Management, or functionally equivalent certification program; and
- 5) Coordinate with household hazardous-waste programs to facilitate appropriate pesticide waste disposal, conduct education and outreach, and promote appropriate disposal

The MRP also requires Permittees to summarize these activities and evaluate the effectiveness of outreach in their 2013 Annual Reports.

This report summarizes the outreach conducted by the Santa Clara Valley Runoff Pollution Program (SCVURPPP or Program) from FY 09-10 to FY 12-13, and evaluates the effectiveness using effectiveness evaluation outcomes described in the CASQA Program Effectiveness Assessment Guidance Manual. Additionally, Co-permittee specific evaluation data (e.g., outreach events conducted, local media placement) is included in Co-permittee FY 12-13 Annual Reports.

2.0 DESCRIPTION OF SCVURPPP'S OUTREACH PROGRAM

The Program's outreach is conducted through the Watershed Watch Campaign (Campaign). The Watershed Watch Campaign is a multi-year, multi-media outreach effort that promotes watershed stewardship by educating the public about watersheds, urban runoff issues and pollution prevention. Launched in 2000, the Campaign is a multi-year, multi-media outreach effort that promotes watershed stewardship by educating the public about watersheds, urban runoff issues and pollution prevention. The Campaign conducts outreach through media advertising, outreach events, school presentations, website, social networking sites, and partnerships with local businesses and community organizations.

As part of the Watershed Watch Campaign, SCVURPPP began implementing a Pesticide User Outreach (PUO) project in FY 02-03 to educate “pesticide users”, i.e., residents, commercial businesses, and pest control operators about the impact of pesticides on water quality, and steps they can take to prevent pesticide pollution. As required by the MRP, this report will only evaluate the effectiveness of outreach to residents.

The Campaign conducts significant general and targeted outreach on IPM. Messages include the following: impact of pesticides on water quality, choosing less-toxic pest control products, properly disposing of left-over pesticides, hiring IPM certified pest control operators, and hiring trained Santa Clara Valley Green Gardeners.

The following outreach avenues are used to conduct outreach to residents:

- Media advertising
- Outreach at community events

- Information on the Watershed Watch website
- Point-of-purchase outreach at nurseries and retail stores participating in the Our Water Our World Program.

In FY 08-09, the Program received the “IPM Innovator Award” from the California Department of Pesticide Regulations for its Pesticide User Outreach activities. The Santa Clara Valley Green Gardener Training Program received the CASQA 2008 Outstanding Regional Stormwater News, Information, Outreach, and Media Award.

3.0 EFFECTIVENESS EVALUATION METHODOLOGY

This report evaluates the outreach implemented by the Campaign using “Outcome Levels” described in the CASQA Program Effectiveness Assessment Guidance Manual (Guidance Manual). According to the Guidance Manual, **Outcomes** are the results of implementing a stormwater control measure, program activity or element, or overall program. Each control measure or activity can lead to one or more Outcome Levels. The six Outcome Levels described in the Guidance Manual are below:

Outcome Level 1: Documenting Activities - Many specific activities are either prescribed by or established under stormwater NPDES permits. The most basic means of assessing effectiveness is to determine compliance with activity-based permit requirements. Level 1 Outcomes may take the form of a simple yes/no answer.

Outcome Level 2: Raising Awareness - The aim of most stormwater programs is to increase the level of knowledge and awareness among target audiences. Measuring Level 2 Outcomes is a useful way of gauging whether educational efforts are progressing toward these changes. Various methods and tools, both quantitative and qualitative, are currently utilized to measure changes in knowledge and awareness. These generally take the form of surveys and quizzes.

Level 3: Changing Behavior - Building on increases in knowledge and awareness, a key focus of management programs is to effect changes in behavior. Level 3 Outcomes measure the effectiveness of programs in motivating target audiences to change their behaviors and implement appropriate BMPs. Methods used to measure behavioral changes include those described above for Level 2 Outcomes, as well as direct observation via site visits and reporting by dischargers or third parties.

Level 4: Reducing Loads from Sources - Most activities implemented through stormwater programs are intended to reduce the loading of pollutants from targeted sources. Load reductions should in turn result in improvements to discharge and receiving water quality. Load reductions quantify changes in the amounts of pollutants associated with specific sources before and after a BMP or other control strategy is employed.

Level 5: Improving Runoff Quality - As discussed above, a primary focus of stormwater management programs is to reduce pollutants in stormwater and non-stormwater discharges to the maximum extent practicable, and to ensure that these discharges do not cause or contribute to violations of water quality standards in receiving waters. In many respects, Level 5 Outcomes are the most direct expression of successful program implementation. They may be measured as reductions in one or more specific pollutants, and may reflect effectiveness at a variety of scales ranging from site-specific to programmatic.

Level 6: Protecting Receiving Water Quality - The ultimate objective of stormwater management programs is the protection of water bodies receiving discharges from MS4s. Changes to receiving water and environmental quality may be expressed through a variety of outcomes such as compliance with regulatory benchmarks, protection of biological integrity, and beneficial use attainment.

Once the desired Outcomes of program implementation have been defined, specific assessment measures are used to determine whether or how successfully a programmatic or water quality outcome has been achieved. They may be qualitative (e.g., yes / no) or quantitative (% of targeted audience reached, %

reduction in a constituent level, etc.). All priority outcomes have at least one assessment measure associated with them, but some may have multiple measures.

4.0 IPM OUTREACH ACTIVITIES AND EFFECTIVENESS EVALUATION

Outreach programs can be evaluated at Outcome Levels 1, 2 and 3. The section below describes the effectiveness evaluation of the Program's IPM related outreach activities:

4.1 Outcome Level 1 Documentation of Activities

The outreach activities conducted to promote IPM are documented below

Media Advertising

The Campaign uses media advertising to conduct general outreach on IPM. The Campaign has used radio, print, transit, television and online advertising to promote IPM. Below is a summary of advertising messages used from FY 09-10 to FY 12-13:

- “Watch out for Pesticide Pollution” advertisements – These were used in print, radio and online media. These print and online advertisements inform residents about pesticide pollution, and provide simple tips for controlling garden pests such as snails, aphids, and yellow jackets, using less-toxic pest control methods.
- “Choose less-toxic pest control” advertisement – This advertisement was used in transit advertising (bus back posters). The advertisement showed the impact of pesticides on children and pets and encouraged residents to visit the Watershed Watch website to find less-toxic pest control options
- “IPM Tips” radio advertisements – These 15-second tips provided short specific seasonal messages adjacent to sponsorship of a green initiative for the radio station. For example, when rain was in the forecast, the message conveyed the importance of not using fertilizers or pesticides in the yard.
- “HHW Tips” radio advertisements - These 15-second tips provided the importance of proper disposal of toxic pesticides and other household hazardous waste. Emphasizing personal health and safety in the message, it directed listeners to www.hhw.org to find nearby drop-off locations. One of the stations provided corresponding information on their website with a direct link to online tips
- “Hire a Green Gardener” – This radio advertisement encouraged residents to hire a certified Santa Clara Valley Green Gardener to maintain their lawns and gardens without using toxic pesticides.
- Video segments on IPM – The Campaign developed two-minute video segments on hiring an environmentally-friendly pest control company and the benefits of working with a Santa Clara Valley Green Gardener. These ran on KNTV, which is the local NBC affiliate.
- Television interviews and editorials - The Campaign included information on IPM and proper disposal of HHW in interviews segments on Spanish television (Univision KDTV). Ricardo Barajas from the City of San Jose was the Campaign spokesperson for these interviews. These segments covered the following topics:
 - Fall Cleanup – This segment featured information about fall clean up around the house and yard, focusing on prevention of organic material into storm drains, and proper disposal of common household hazardous waste, such as leftover paints and pesticides.

- Green Gardener – This segment featured the Green Gardener program and why it is important for residents to hire a Green Gardener.
- Our Water Our World Program – This segment featured the Our Water Our World program and encouraged residents to look for the OWOW shelf-talkers to identify less-toxic products in stores.
- Certified Pest Control Operators – This segment educated residents on why it is important to hire a pest control professional trained and certified in integrated pest management.
- Radio interviews - The Campaign included information about IPM in a recorded 2-minute Spanish interview with Ricardo Barajas from the City of San Jose as the Campaign spokesperson. The interview aired repeatedly on KTRB Spanish ESPN Desportes.
- Chinook Book Mobile Application – Chinook Book Mobile is an incentive-oriented local sustainability opt-in program provided with the purchase of the Chinook Book (a coupon book for eco-friendly products and services). For one year beginning February 2012, the Watershed Watch Campaign sponsored the Gardening pages. The Campaign logo appeared on the menu seen with every use of the program, and on the Gardening pages, which were developed featuring information from our website.
- KNTV E-blast – The Campaign delivered an advertisement indicating the importance of proper disposal of toxic pesticides and other household hazardous waste to e-news subscribers of KNTV / nbcbayarea.com. Emphasizing personal health and safety in the message, it provided a direct link to www.hhw.org to find nearby drop-off locations.

The table below provides a summary of media advertising conducted on IPM topics:

Table 1: Summary of IPM related advertisements from FY 09-10 to FY 12-13

Year	Number of advertisements (includes paid advertisements, interviews, and free PSAs) on radio, TV, print, transit and online media			
	Less-toxic Pest Control/Pesticide Pollution	Hiring Green Gardeners	Hiring IPM Certified PCOs	Pesticide Disposal
FY 09-10	306	56	-	-
FY 10-11	185	1,026	-	1
FY 11-12	2,730	80	90	-
FY 12-13	773	137	2	19
TOTAL	3,994	1,299	92	20

Community Outreach Events

The Campaign conducts targeted outreach by attending community outreach events and interacting with the public to inform them about less-toxic pest control methods, and proper disposal of leftover

pesticides. Annually, the Campaign participates in five or six events where information on IPM and proper disposal of pesticides is provided to residents. The events that attract a large number of families with children and/or gardeners are chosen to conduct IPM related outreach.

The Campaign's IPM display is used at these events. The display provides information on the general stormwater pollution prevention, proper disposal of pesticides, and less-toxic pest control methods.

Materials distributed at the events included the following: Less Toxic Pest Management fact sheets, "10 Most Wanted Backyard Bugs" brochures, "Don't Plant a Pest" brochure, "You are the Solution to Water Pollution" brochures, and giveaways (e.g. flyswatters, OWOW magnets, notepads, and temporary tattoos). The flyswatters have the Watershed Watch website and hotline number and the words "The Original Earth-Friendly Pest Control" printed on them. The Campaign also uses QR ("Quick Response") codes in printed materials. These codes have URLs embedded in them and when scanned with smart phones direct users to specific webpages. The QR code is targeted at people that are reluctant to collect paper materials and only want to look up information online.

The beanbag game for children is used at most of the events. Children learn about the proper disposal of wastes by tossing bean bags that represent different wastes (e.g., soap, paint, fluorescent light bulbs, candy wrappers, pesticides etc.) into appropriate holes (sanitary sewer, storm drain, household hazardous waste collection center, recycle, or garbage). The bean bag labeled "rain" is the only one that is tossed into the hole marked "storm drain". The bean bag game is particularly useful in teaching children and accompanying adults about proper disposal of pesticides at a Household Hazardous Waste disposal location.

In addition to attending community events, the Program conducts the following activities to provide targeted information to residents interested in gardening:

- The Program provides funding to support the Going Native Garden Tour. The tour features gardens that demonstrated environmentally friendly gardening practices with an emphasis of reduced water use, reduced chemical and pesticide use and improved habitat using California native plants. The Program also provides IPM related outreach materials for distribution at the event
- The Program funds a Watershed Watchers Program at the Don Edwards San Francisco Bay Wildlife Refuge (Refuge) in Alviso. The programs conducted at the Refuge educate children and adults about preventing stormwater pollution and watershed stewardship. A number of residents work at the Refuge gardens each year planting native plants, pulling non-native plants, and mulching.

Watershed Watch Website

The Watershed Watch website includes a significant amount of information on IPM. Messages about less-toxic pest management information, including the list of Green Gardeners, IPM Certification Programs, OWOW Fact Sheets and the list of stores selling less-toxic products are posted on the website. The website also promotes proper disposal of pesticides and refers users to the www.hhw.org website.

Point-of-Purchase Outreach at Nurseries and Retail Stores

The Program implements BASMAA's IPM Store Partnership Program (also known as the Our Water Our World Program or the OWOW Program) in Santa Clara Valley stores. The aim of the OWOW Program is to partner with retail stores and nurseries to provide less-toxic pest control information to residents at the point of purchase. This involves visiting participating stores regularly to stock literature racks with "Less-Toxic Pest Management" fact sheets and updating "shelf-talkers". Shelf-talkers are product identification tags that are placed on store shelves to help customers identify less-toxic products.

The Program currently implements the OWOW Program in 38 local stores. Program staff typically visits participating stores 3-4 times per year for restocking literature racks and updating shelf-talkers.

The Program began implementing the OWOW Program locally in FY 98–99 with 18 stores in the Santa Clara Valley participating. At present, 38 local stores are participating in the OWOW Program. A number of small nurseries have closed down since the OWOW program started. However, larger retail stores such as Home Depot and OSH now participate in the program.

4.2 Outcome Level 2 Raising Awareness

Outreach activities conducted by the Program were evaluated to understand whether messages were reaching the target audience and increasing their awareness of pesticide pollution issues. The following indicate the success of the Campaign's outreach in raising awareness:

- Impressions from Media Advertising - Media buyers strive to reach a designated target audience with a campaign message at least three times, which is the minimum estimated to make an impact and stimulate a response. The primary target audience for the Campaign is college educated adult homeowners in Santa Clara County, aged 35-54. There are approximately 725,000 adults aged 35-54 in Santa Clara County, so in any campaign year, the Campaign strived for a minimum of 2,175,000 advertising impressions (3 x 725,000) of our messages. Advertising impressions achieved for IPM messages in recent campaign years were well above the minimum recommended impressions, as indicated below:
 - FY 11-12 – 5,590,664 targeted impressions
 - FY 12-13 – 5,430,508 targeted impressions
- Visits to Watershed Watch website's IPM pages increase following distribution of materials at events or after specific advertising campaigns. This indicates that residents find the material useful and visit the website for more information. For example, during the month of August 2012 with radio advertising promoting Green Gardener class registration and hiring a Green Gardener, Green Gardener web pages were 4 of the 10 most frequently visited pages on the site.
- Santa Clara Valley residents continue to visit the Watershed Watch website to obtain information on IPM techniques. The OWOW Fact Sheets have been the top downloads on the Watershed Watch website for a number of years. The "Beautiful Roses" Fact Sheet, the "Good Bug Tub" Fact Sheet, the "Green Gardener" list, the "Less-Toxic Products list", and the list of stores selling less-toxic products were the top downloaded pages on the website. All of these topics are promoted in the Campaign's outreach materials (advertisements, flyers, brochures, etc.), which direct residents to the Watershed Watch website for more information, so the popularity of these web pages indicates the success of outreach. In FY 12-13, the "Find a Green Gardener" and "Green Gardener Classes" web pages were continually among the top 10 most frequently visited web pages out of 150 pages of content viewed on the Watershed Watch website.
- The Campaign's outreach booth is generally popular at events and many event visitors visit the booth to ask gardening related questions and pick up outreach materials. More than 3,000 outreach materials related to less-toxic pest control methods are distributed to the public at outreach events each year.
- Approximately, 1,200 children played the bean bag toss game in FY 12-13 alone and learned about proper disposal of pesticides as a household hazardous waste.
- In FY 12-13 alone, 3,209 residents registered for the Going Native Garden Tour and learned about sustainable gardening techniques.

- In FY 12-13 alone, approximately 145 people worked in the native garden at the Don Edwards San Francisco Bay Wildlife Refuge and learned about sustainable gardening and IPM.
- Approximately every five years, the Program conducts a public opinion survey to track awareness of Santa Clara Valley residents about stormwater issues. The last survey was conducted in February 2009. The survey included telephone interviews of 565 residents ages 15 and older living in the 13 cities encompassed by the Program. Respondents were selected using random digit dial methodology. The survey included some questions about residents' awareness of pesticide pollution. The survey results showed that the number of residents that believe that pesticides enter the bay and affect its water quality increased from 1991 to 2003, and then declined slightly in 2009 (1991 – 7%, 2003 – 19%, 2009 – 18%). The decline from 2003 to 2009 could be due to the question being phrased somewhat differently in 2003, compared to 1991 and 2009. The Program is planning to conduct a public opinion survey in 2014, and will track whether there is any change in the public's awareness that pesticides can flow into storm drains and impact water quality, due to the last 5 years of increased outreach efforts.

Outcome Level 3 Changing Behavior

It is generally difficult to relate outreach activities to behavior change. Behavior change can be a result of outreach; however, other factors may also lead to particular behaviors. For example, more and more residents are bringing their own reusable bags to stores because cities have placed bans on single-use plastic grocery bags.

The following data support that Santa Clara Valley residents are changing their pesticide use and disposal patterns. However, it is not possible to state whether this change can be attributed to the Program's outreach or other factors.

- Approximately 120,614 residents disposed of leftover pesticides at the County HHW Program disposal locations from FY 09-10 to FY 12-13. This indicates that Santa Clara Valley residents are aware of proper disposal of leftover pesticides.
- The public opinion surveys conducted by the Program indicate the following behavior changes:
 - The number of residents saying that they take leftover household hazardous waste (including pesticides) to household hazardous waste collection centers has increased over the years (1996 – 21%, 1999 – 25%, 2003 – 25%, 2009 – 30%)
 - The number of residents saying that they use non-toxic products rather than pesticides and herbicides has also increased over the years (1996 – 18%, 1999 – 20%, 2003 – 20%, 2009 – 22%)

5.0 Conclusions

The Program is conducting significant outreach to residents on pesticide control issues. The effectiveness evaluation indicates that the information is reaching residents, their awareness about pesticide pollution is increasing, and some positive behavior change is occurring (which may or may not be attributed to the Program's efforts).